VERMONT

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Vermont Regulations for Control of Pesticides: Public Comment Response Summary

September 15, 2022

On April 7, 2022, the Vermont Agency of Agriculture, Food and Markets (Agency) submitted a proposed rule titled "Vermont Regulations for Control of Pesticides" to the Vermont Secretary of State. The public comment period began on April 13, 2022 when the Secretary of State's Office published the proposed rule. In accordance with the requirements of 6 V.S.A. §840(a), the Agency held a public hearing on June 15, 2022.

Pursuant to 6 V.S.A. §840(c), the Agency is required to afford all persons reasonable opportunity to submit data, views or arguments, orally or in writing, at least through the seventh day following the last public hearing. Since submitting the proposed rule, the Agency has utilized multiple social media platforms, created a new email address and webpage, and held a public hearing all for the purpose of engaging the public to submit comments. Further, the Agency afforded the public this opportunity to submit comments through the seventh day following its public hearing by concluding the public comment period on June 23, 2022 and therefore has met its obligations under §840(c).

In addition to affording the public a reasonable opportunity to submit public comment, 6 V.S.A. §840(d) requires that the Agency consider fully all written and oral submissions concerning its proposed rule. Comments received, whether orally or in writing, during the public comment period were compiled and evaluated by Agency staff.

The public comment response summary provides responses from the Public Health and Agricultural Resource Management Division to the questions and comments that were received during the public comment period on the proposed "Vermont Regulations for Control of Pesticides."

Summary of Comments / Questions

This response summary groups the comments/questions received by individual/organization and provides the Division's responses. Comments and questions have been quantified, summarized,

and combined into common themes. The summarized comments are in bold below, with the Division's response in the plain text following. In order to create a more clear and concise summary response, all footnotes that were included in individual comments have been removed.

Catherine Cooke

Mr. Huber, I am writing to ask that you consider the strongest possible rulings on pesticides possible. It appears that most, if not all water ways in Vermont end either in the Connecticut River or Lake Champlain. Thousands of persons are using this water in many various ways and pollution of the water is certainly a danger to people's health. Some pesticides are known to cause physical medical issues at various levels which varies between adults and children. The longer Vermont waits to clean up our water the closer we are to being in a similar situation to flint, Michigan. I look forward to hearing about the changes. Catherine Cooke, 500 South Union street, Burlington, Vermont 05401.

> Thank you for your comment, Catherine. We believe that our regulations on pesticides are among the strongest in the nation. The Agency also conducts a pesticide monitoring program which analyzes surface and groundwater for pesticides and their degredates which the Agency makes available online.

Deven Morrill

Good Morning David,

I have not participated in rules change in Vermont yet and I had some questions on the upcoming hearing as well as the material that is being reviewed. I was hoping for some clarification on a few of the rule changes prior to the public comment. I have summarized them below:

Direct Supervision: Page 3: "direct supervision is not permitted for use of a federally restricted use pesticide" This sentence would prohibit the application of a restricted use pesticide by a non-certified applicator. Has Vermont considered a rule change similar to Maine where Non-Certified applicators may apply restricted use pesticides once they have received the Non-Certified pesticide applicator training presented by a certified applicator? (this is also further defined on page 21, subsection e as well as page 31, section 5.03 subsection a).

> Thank you for your comment, Deven. You are correct in the analysis regarding the assumption that a non-certified applicator would be prohibited from applying a restricted use pesticide. No, the Agency prefers that only certified applicators, trained by the Agency, may use a federally restricted use pesticide to ensure proper and safe application of these pesticides. Additionally, direct supervision has become harder to define with advancements in digital technologies over time.

Page 130 section 11.01: Pesticide and Container Storage: Section r: exempts "mini-bulk" containers greater than 55 gallons and less than 300 gallons from much of the requirements. Many of our pesticide products come in 15 gallon "kegs" Where the product is dispensed directly out of the containers. As this revision is currently written these containers would be regulated by sections E-H, J-P of this section but "mini-Kegs"

would be exempt. I would argue that we are talking about the same containers just different volume sizes. Would Vermont consider changing the wording to allow containers 15 gallons to 300 gallons to be exempt from these requirements?

Yes. The Agency will consider this change.

Page 132 section 11.01 subsection r (3): Within 90 days of receipt of the pesticide in the mini bulk container, the container is A:returned to the dealer ; B: emptied; C Disposed; D triple rinsed. We would recommend adding OR to the end of each section. Most mini bulk containers are returnable and refillable and rinsing is not feasible as they are a sealed unit.

Yes. The Agency will consider adding an "or" between "emptied" and "disposed".

Additionally, we would recommend changing the 90 day requirement to "at the conclusion of the annual spray season". Spray season lasts longer than 90 days and on occasion products are purchased in advance depending on market conditions. This change would allow some flexibility at the applicator level. Would Vermont consider flexibility on this?

No. This is a federal requirement the Agency is unable to change.

Migrant Justice / Justicia Migrante and Sylvia Knight, Earth Community Advocate

Introduction: Migrant Justice / Justicia Migrante is a 12-year-old Burlington VT based human rights group organized by and for immigrants primarily from Mexico and Central America working in Vermont's dairy industry. Farmworkers of Migrant Justice have experienced serious human rights abuses in the course of their lives and work here in Vermont, including exposure to pesticides without personal protection or adequate instruction.

In the face of many obstacles, farmworkers developed the Milk with Dignity Program, a unique program which brings dignity, justice and farmworkers' voices to bear on working and living conditions on participating farms, including exposure to pesticides.

Through these comments, farmworkers will be recognized as stakeholders in the process of revising these regulations. During the worst phase of the COVID pandemic they were considered "essential workers" but have not had voice in the conditions of their employment, except when they are employed on farms sourcing milk to Ben & Jerry's Ice Cream, which joined Milk with Dignity in October 2017.

Comments:

Section 1. Definitions:

1.48 (d) Person: include "migrant farmworker" as one type of person.

Migrant farmworkers need an entry in the Definitions to be recognized as essential laborers in Vermont's agriculture industry and stakeholders in the pesticide regulations revision process. VAAFM cannot continue to deny the existence and the importance of farmworkers to the dairy industry in Vermont and their vulnerability to pesticide-related illness.

We will add “migrant farmworker” to 1.48(d).

Section 3. Licenses, certifications.

Migrant farmworkers with limited English comprehension have been told to “Just use it”, as they are told to use pesticides on animals. This exposes them to toxins, and may pose a danger to the livestock, as the farmworkers are not told how much to use or how it may affect them personally.

The establishment of multiple categories of certified pesticide applicators indicates a concern that pesticide applications require training. VAAFM must clarify to farm owners who is licensed to apply pesticides on their farms. Farmers may be harming workers and their livestock by delegating pesticide applications to farmworkers without adequate training or protective gear. At the same time, some farmworkers have developed enough English language skills to be trained in some pesticide use.

Question: What oversight will VAAFM exercise over farmers employing migrant workers to see that pesticides will be used by applicators with training? This is an area of farm work in which a farm’s membership in the Milk with Dignity Program can help with communication and negotiation between farm owner and farmworkers.

The Regulations already specify who is authorized to use pesticides on a farm and who is not. The Agency would gladly help provide joint outreach between Migrant Justice and the Agency. The Agency is involved in training workers under the Worker Protection Standard, and if the worker is working in treated areas, then training is required.

Section 5. Standards of Operations

This section requires buffer areas between treated areas and private water sources. Migrant workers have sometimes lacked access to clean water at farms. Farm wells have occasionally become contaminated with pesticides and nitrates.

This is managed jointly with the Agency’s Pesticide Monitoring Program and the Vermont Department of Labor.

Section 9. Certification Standards for Commercial Applicators and Non-commercial Applicators Using other than Class C Pesticides. 9.02 (a) (2) Category 1B Animal:

Migrant workers have been told to use pesticides on livestock, often without training or personal protection. Pesticide regulations must address this use of farmworker labor.

The Agency has responded to similar complaints in the past and taken appropriate action.

9.03 Core standards for all Categories and concurrent categories:

These standards are well expressed on paper. How will they protect farmworkers using adjacent spaces? Farmworkers must be alerted to any fumigation of a barn with insecticides, warned to leave before any treatment, and allowed time to remain out of the space until the required reentry interval. It is unconscionable that farmers have told workers to reenter treated spaces before it was safe to do so.

Not only does the Agency enforce the Pesticide Regulations, but the Agency also enforces the Worker Protection Standard. All of these commented activities are illegal and are covered under either the pesticide Regulations or the Worker Protection Standard. When the Agency learns of such activity, the Agency opens an investigation. In the future, please submit these to the Agency as a complaint so that the Agency can investigate.

9.05 Agricultural Pest Control.

(a) (3) Restricted entry intervals must be enforced in order to prevent egregious exposures of farmworkers to toxins. (See comments above for 9.03.)

Correct, re-entry is outlined in the Worker Protection Standard which is enforced by the Agency.

(6) Awareness of non-target effects from field crop treatment on farmworkers through drift, contamination of farmworkers' kitchen gardens, laundry hanging outside must be part of the applicator's awareness and his job to see that farmworkers are notified.

Prohibitions against off-target movement are outlined in the pesticide Regulations and in the label. Off-target movement may result in an actionable offense.

9.08 Category 4: Seed Treatment.

Applicators in this category require training in the 5 listed ways, including proper disposal of unused treated seeds. What IS the proper disposal of unused treated seeds? Migrant workers have been exposed to neonicotinoid insecticides in the loading of these seeds to trucks, without personal protection.

The category covers a use that happens on the farm, not the handling of a treated article.

<u>Sylvia Knight, Earth Community Advocate</u>

Memo on Pesticide Regulations Revision
TO: David Huber, VT Agency of Agriculture, Food & Markets
FROM: Sylvia Knight, Earth Community Advocate
Burlington, VT 05408
sknightinvt73@gmail.com
RE: Comments on Revised Regulations for the Control of Pesticides in VT
DATE: June 15, 2022

Preface: Let us be mindful that we are living on and deciding the fate of land and waters unceded by Abenaki people who lived here for thousands of years without pesticides.

We are at an environmental moment of reckoning as we review Revised Pesticide Regulations, Water Quality Standards/Rules, NPDES Pesticide General Permit and the Anti-degradation Policy, all up for review and comment during the same period of time. They are all related but also indicate silos in our systems of government that are failing to protect life or waters or all people for all time.

COMMENTS

Section 1. Definitions

a. "Integrated vegetative, pest or nutrient management" should have a strong definition in this section. IPM is mentioned only in Section 6.05 on golf courses. I suggest the following definition from EPA:

"Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment."

Thank you for your comment. The Agency will be adding the following definition of "IPM" to the final proposed rule: "Integrated Pest Management (IPM) is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and nontarget organisms, and the environment."

1b. "Unidentified ingredients" or "inert ingredients" both need an entrance in Definitions. While not identified, such ingredients do add to the toxicity of the pesticide product and make its actual toxicity profile impossible to ascertain. This concept is basic to understanding pesticides today.

Per the EPA, the name inert does not mean non-toxic. All inert ingredients must be approved by EPA before they can be included in a pesticide. The EPA reviews safety information about each inert ingredient before approval. If the pesticide will be applied to food or animal feed, a food tolerance is required for each inert ingredient in the product, and they may limit the amount of each inert ingredient in the product. Inert ingredients play key roles in pesticide effectiveness and product performance.

Under federal law, the identity of inert ingredients is confidential business information. The law does not require manufacturers to identify inert ingredients by name or percentage on product labels. In general, only the total percentage of all inert ingredients is required to be on the pesticide product label.

2c. 1.48 (d) Person: include "migrant farmworker" as one type of person. Migrant farmworkers need an entry in the Definitions to be recognized as essential laborers in Vermont's agriculture industry and stakeholders in the pesticide regulations revision process. VAAFM cannot continue to deny the existence and the importance of farmworkers to the dairy industry in Vermont and their vulnerability to pesticide-related illnesses.

Thank you for your comment. The Agency will add “migrant farmworker” to 1.48(d).

d. “Noncertified Applicator”: please explain why this category is necessary.

Not every pesticide use requires certification. This category helps distinguish between those that do require certification and those that do not.

Section 2. Powers of the Secretary (a) or (b) Please clarify possible application of this section to include appeal of a ROW permit due to violation of permit conditions, Water Quality Standards or other regulations.

The Secretary may deny, amend, suspend, or revoke any license, certificate, or permit for the reasons provided in Section 2.02 including a violation of permit conditions or other State regulations where the violation presented an emergency to public health, safety, or welfare.

2.04 (a) Pesticide Cease and Desist Order. The sequence of actions described here is confusing. Please clarify this rule.

The Secretary may issue a cease and desist order for failure to comply with 6 V.S.A. Chapter 87 or any rule adopted under its authority. The recipient of a cease and desist order will have an opportunity for a hearing but must file a written request with the Secretary within 5 days of receiving the cease and desist order.

Section 3. Licenses, Certificates, and Permits Issued by the Secretary 3.01 Company license: Please remove the exemptions under (b) 3 and 4. Why allow untrained applicators to use pesticides?

A company license is required to operate a for-profit pesticide application business. Private and non-commercial applicators, by definition, are not engaged in the application of pesticides for profit.

Both Section 3 and Section 9 deal with classes of applicators and create confusion. Is there a way that these sections could be integrated?

Section 3 provides for basic requirements relating to licenses, certificates, and permits issued by the Secretary whereas Sections 6, 9, and 10 provide the details.

Categories of pesticide applicators need to be reduced, not increased. Integrated Pest Management must be prioritized over pesticide use, especially in schools and in health facilities where exposed children are particularly sensitive to toxins in their midst. Contrary to VAAFM’s assertions in its filing to ICAR (p.6, #5), the rule will have adverse impacts on children and staff in schools if alternatives to pesticides are not employed to solve pest issues. Insecticides and fungicides are nerve toxins and have no place in schools. “EPA's mandate for integrated pest management (IPM) ...comes from U.S. Code at Title 5, Section 136r-1E . …..we cannot rely on pesticide regulatory protections alone for realizing

the aspirations of pollution prevention. Regulation by itself is not enough to protect our children."

Thank you for your comment.

3 3.07 (a) Why would certification of private applicators be valid for 5 years, whereas certification for commercial and noncommercial applicators be valid for 1 year? If they have the same training, equalize their certifications to the same length of time.

EPA establishes a maximum recertification interval of five years for commercial and private applicators. The Agency wants to ensure that applicators who apply pesticides to the lands and homes of other (commercial/non-commercial applicators) are recertified every year to reduce risk.

Section 4. Classification of Pesticides … 4.03. Please list diquat bromide as a hazardous substance to be prohibited for use or sale in VT. Diquat dibromide is on the Hazardous Substance List, cited by ACGIH, DOT, NIOSH, HHAG and EPA and listed in Title 40 §116.4 as a hazardous substance according to section 311(b)(2)(A) of the Clean Water Act. According to EPA's Reregistration Eligibility Decision, diquat bromide:
is moderately toxic to cold and warm water fish species;
is toxic to aquatic invertebrates and estuarine species;
the level of concern for Endangered Species is exceeded;
reproductive success of invertebrates is adversely affected;
drift can adversely affect non-target plants.
3"Diquat dibromide is ... highly soluble in water, has a low risk of leaching to groundwater and is volatile. It is very persistent in soil but rapidly degrades in aquatic systems. It is moderately toxic to mammals... a known [eye] irritant... moderately toxic to birds, most aquatic organisms, honeybees and earthworms".
4 NIOSH Pocket Guide to Hazardous Chemicals indicates that diquat contains the contaminant ethylene dibromide. Exposure can occur through inhalation, skin and /or eye contact. The target organs are the eyes, skin, respiratory system, liver, kidneys, reproductive system.

The Agency will review the Registration Eligibility Decision for Diquat Dibromide but at this time does not see the need to further restrict uses of Diquat Dibromide in the State.

5 I request a clear response as to why this pesticide should be allowed in Vermont.
Per-and polyfluoroalkyl substances (PFAS) are known now to be used as surfactants in pesticides, 6 and to contaminate malathion and permanone. Conservation Law Foundation and Public Employees for Environmental Responsibility wrote in May 2021 to Secretary Anson Tebbetts and ANR Secretary Julie Moore urging identification of all pesticides containing these compounds.7 Unfortunately, Secretary Tebbetts has not responded to this letter. I formally request that VAAFM respond to this letter.

The Agency responded on August 17, 2021. Please see Attachment 1.

In addition, the use of both Malathion and Permanone must be prohibited until VAAFM can confirm that they are not contaminated with PFAS compounds.

EPA will respond to any additional PFAS supply-chain contamination issues on a case-by-case basis. For example, EPA worked with the mosquito product manufacturer to remove contaminated product from the supply chain. See Attachment 2.

Section 5. General Standards for Pesticide Use. 5.02 Standards of Operations
These standards, especially (I), using "consistent with product label," will not protect human or ecological health if the pesticide is toxic itself or if it contains toxic contaminants, such as PFAS in malathion, or ethylene dibromide in diquat or tetrachloroazobenzene in diuron, for example. Unidentified ingredients in pesticides make the true risk profile of a pesticide unidentifiable for applicators or the public.

This information is considered confidential business information both in VT and nationally. The Agency does have access to it and shares it with the Vermont Department of Health when a risk assessment is necessary.

(k) How is an applicator to know what the Maximum Contaminant Level for the pesticide(s) in use is, if indeed an MCL has been established, or how to prevent exceedance of the MCL for any pesticide in its use?

Maximum Contaminant Levels are specific to direct discharges into water under the Federal Clean Water Act. When an application to water is made, the confidential statement of formula is reviewed by the Vermont Health Department.

(n) Revise: maintain a 200 foot buffer when applying a pesticide to soil or vegetation around a public well, or public water intake. ADD: or delineated Source Protection Area...
Add: (o) Use of pesticides (including herbicides) is not allowed within a Source Protection Area delineated for the protection of a town water drinking supply.

The Agency of Natural Resources' Groundwater Protection Rule and Strategy covers source protection issues and is referenced in sections 5.02(k) and (l) among other places in the regulation. The Agency does not have the ability to take property without cause and this amounts to government taking.

5.04 Protection of Bees: please change to "Protection of Pollinators".
"Bees" is too narrow a category for this section. Pesticides are toxic via several exposure routes to many pollinators, including wild bees, bats and humming birds, and other wildlife. All pollinators need protection.

Section 5.04 applies to managed pollinators which are primarily honeybees. This section is specific to protecting the interest of beekeepers. Individual products will have enforceable environmental statements that are protective of all pollinators which the Agency remains committed to enforcing.

4 Remove neonicotinoid-treated seeds from use in Vermont.
Remove neonicotinoid insecticides from use in landscaping or golf courses.

The Pesticide Regulation provides a framework for the legal use of pesticides in Vermont. The Pesticide Regulation is designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations. Products containing neonicotinoids have been made restricted use in Vermont and are only available to certified applicators. The Agricultural Innovation Board has been tasked with creating best management practices surrounding the use of treated seeds and those deliberations are ongoing.

Forbid aerial spraying of pesticides over orchards or crop fields during blossom time. Integrated pest management is crucial here! Learn from orchards that employ IPM to protect both pollinators and fruit trees.

The Agency has adopted the "Changes to the State pesticide regulations" recommendations in the 2017 Vermont Pollinator Protection Report. The Agency has not permitted an aerial application to an ag crop in over 30 years. The Agency reserves the right to this tool when necessary.

Section 6. Permitting Requirements
6.01 Right-of-Way Clearing and Maintenance Permit
Recommendations:
Forbid the use of diquat, a federally labeled "hazardous substance" (contains ethylene dibromide as a contaminant) from being used in Vermont.
Rationale: regardless of what surfactant is used, diquat is still contaminated with ethylene dibromide. See comments in Section 4.03 above.

The Agency will review the Registration Eligibility Decision for Diquat Dibromide but at this time does not see the need to further restrict uses of Diquat Dibromide in the State.

2. Establish by rule a process for creating a "sensitive area" in a right-of-way, as discussed in regard to railroad herbicides used in the middle of Montpelier in 2015. See Appendix 1.
3. Narrow spray patterns on railroads, and use alternatives to control taller vegetation in rights- of- way, such as Lalcide Chondro®.8

The Agency will consider establishing a "sensitive area" in right-of-way procedures.

4. (g) Require railroads to describe in yearly report how the long-term vegetative management plan claimed by VT Railway and New England Central Railroad reduces pesticide use on ROWs.

The Agency will consider adding an annual narrative reporting requirement to the existing weekly reporting requirement.

Please add (j): when a given section of railroad ballast is replaced, no herbicides will be used in that section in that same season.

Restrictions on the use of pesticides in the ballast area are included in Right-of-Way permits issued by the Agency. For example, paragraph 4 of all railroad Right-of-Way Permits issued in 2022 contain the following language: "Ballast maintenance activities, defined as the mechanical plowing, brooming, tamping or regulating of treated stone ballast, will not occur for thirty (30) days or until one (1) inch of rain has fallen following application, unless the application is a glyphosate-application. These same activities are prohibited for five days following a glyphosate-only application."

6.02 Aerial Permitting. Aerial permitting must be severely limited! Integrated pest management can solve many problems for which aerial spraying is employed. As EPA says: "... we cannot rely on pesticide regulatory protections alone for realizing the aspirations of pollution prevention. Regulation by itself is not enough ..."3 Add (e): no aerial permit for pesticides shall be granted within 2 miles of an organic farm or orchard. Drift of sulfonylurea herbicides is largely uncontrollable. Rationale: Golden Russet Farm in Shoreham was severely damaged by an aerial spray over an adjacent farm with sulfonylurea herbicides. They were unable to sell their crops that year and restricted in subsequent years.

Aerial applications are severely restricted. Certified applicators are trained to minimize risk associated with drift. Pesticide drift onto neighboring properties is illegal and can be handled through a civil action. The Pesticide Regulation provides a framework for the legal use of pesticides in Vermont. The Pesticide Regulation are designed to regulate pesticide use and help individuals make informed decisions. Furthermore, certified organic farms, in order to stay in the marketing program, are required to maintain specific buffers on their own properties.

6.03 Experimental Use Permit.
Alternative products for managing vegetation or agricultural pests are available, effective, and their use must be encouraged. Why not require the same reporting requirements for pesticides as you require for experimental permits?

The primary purpose of an Experimental Use Permit is to add a use to a registered pesticide under FIFRA. Accordingly, additional information is needed to determine whether or not the new use is permissible under the law. Reporting requirements for experimental use permits allow the Agency to manage unknown risks. Registered pesticide risks are managed with label restrictions.

Please add under (c) the following type of experimental use: (4) A state-issued authorization for an alternative product for non-toxic control of vegetation in utility or railroad rights-of-way, at substations, in parks or similar areas.

The Agency will consider adding the proposed language.

5 (g) Application of a non-toxic alternative plant or pest management product shall be made by an applicator who is certified either in VT or in Canada or be licensed to use the product.

The Agency is unable to offer reciprocal licenses to a foreign country.

6.04 Bird /Vertebrate Pest Control
(f) Notification of all permitted pesticide applications shall be submitted to …. area local watershed organization.

This comment is not germane to the proposed regulation.

(g) (1) Permits for animal or bird repellents should be approved by Fish & Wildlife in consult with Endangered Species Committee.

These permits are generally created in conjunction with the U.S. Fish and Wildlife, Wildlife Services.

6.05 Golf Courses
(e) (1) Golf course permit holder shall sample and test areas receiving fertilizer applications at a minimum once every year, not once in 3 years.
(e) (3) buffers increased to 50 ft for (C) flowing surface waters;
buffers increased to 25 ft for (D) impounded waters;
buffers increased to 50 ft for (E) impounded waters not wholly on golf course property.
Rationale: pesticides have entered waters of the State from golf courses in Vermont. Impounded waters may have hydrological connection with groundwaters.
6.05 Golf (f) Record keeping:
Add to (1): A copy of the pesticide permit shall be posted where it is available to customers at least 48 hours in advance of treatment.

The golf course permitting requirements were negotiated in the Senate Natural Resources Committee as part of Act 64 of 2015 and are reflected in the proposed regulation.

6.06 Mosquito Larvicide Permit
This larvacide program should be prioritized and incentivized over the adulticide program, especially while mosquito adulticides are known to be contaminated with PFAS.

The Agency does prioritize and incentivize the larvicide program by providing grant money to the districts for larvicide activities.

6.07 Mosquito Adulticide Permit
Spraying insecticides for adult mosquito control is largely ineffective.9
The adulticide permit program should be suspended until VAAFM ascertains that absolutely NO per-and polyfluoroalkyl substances are contaminating the insecticides

available for use – including malathion (Anvil 10-10), permethrine (Permanone), taufluvalinate (Mavrik Perimeter).

The proposed regulation seeks to regulate this activity under a new permit program as currently there is none. Furthermore, the Agency cannot suspend a program that is not yet in effect.

PFAS are associated with liver damage, thyroid disease, developmental issues, reduced fertility, high cholesterol, obesity, hormone suppression and cancer.7 PFAS do not break down in the environment, and there is no known way to dispose of these chemicals safely. It is irresponsible and dangerous to deliberately spray millions of acres with PFAS-contaminated pesticides while Vermont and EPA are developing regulatory limits for PFAS and cleaning up contaminated drinking water.

6.08 Terrestrial Invasive Plant Control Permits
6(d) Add language after "shall be conducted": "in consult with those trained in Integrated Pest Management or with recommendations provided by the Secretary's Invasive…."

IPM strategies and philosophies are designed for implementation on agricultural land whereas terrestrial invasive control can occur anywhere.

Section 7. Notification and Posting of Pesticide Applications
Section 7.02: Apartment buildings and condominiums:
(b) 24 hours is not sufficient notice time. 48 hours needed at least. This section represents one real improvement over 1991 rules. Question: Is there any recourse for a resident who does not want their apartment treated?

The recourse in this situation would be a civil matter which is not built into the proposed regulation. The Agency encourages residents who do not want their apartment treated to communicate with their landlord.

Section 8. Maintenance of Records
8.01 Requirements for Certified Private Applicators
Add (d) Refusal to make records available upon request shall be regarded as a violation of civil procedure and subject to censure and fine.

All applicators must furnish records to the Agency upon request. Failure to do so may, and has, result in enforcement.

8.02 (7) add "and any drift retardant or other adjuvants used."
Rationale: Drift retardants and adjuvants contribute to pesticide product toxicity and can adversely affect wildlife.

8.02 add (e) The Secretary shall compile a report on all the pesticides and adjuvants used in one year.

Collecting data on adjuvants is a policy change not contemplated by the rule.

8.05 (a) add after "pesticide": "and/or adjuvant".

Collecting data on adjuvants is a policy change not contemplated by the rule.

Section 9. Certification Standards for Commercial Applicators & Noncommercial Applicators using other than Class C pesticides.
9.02. Description of Certification Categories
This section is mind-boggling in its detail and number of categories. More categories will mean more pesticide use. Many of these uses could be managed by Integrative Pest Management.

Sections 9 and 10 do not place restrictions on what an applicator does but rather detail the knowledge required to become certified at core and category levels and either meet or exceed EPA standards.

Create a category of IPM practitioners designated for treating schools.
(a) (3) Category 1C: Apiculture. While having a designated category may be helpful, the general use of pesticides in agriculture has multiple effects on pollinator populations. Protection of bees means there must be general pesticide use reduction. Question: What in these regulations encourages pesticide reduction in agriculture? Category 4 Seed Treatment should be canceled or severely restricted to exclude any neonicotinoid insecticide treatments.

The categories provided in the proposed regulation cover IPM control on school property.

9.03 Core standards for all. Details on labels are overwhelming. But they do not identify all ingredients. Furthermore, the labels do not prevent damage from the use of pesticides. These core standards point to the greater need for pesticide reduction as called for in VT Statutes, and use of bio-intensive IPM. With the complex list of applicators, it is not clear where to put this comment.

Thank you for your comment.

7 Applicators using fumigant insecticides in barns against insect pests must work with farm-owners to ascertain that farmworkers are not present in spaces open to and adjacent to the space to be treated. Also, the applicator must inform the farmer of the required reentry interval for the insecticide used to protect the farmworkers from the insecticides, which are toxic to the nervous system of humans as well as insects. See notes below from interviews of farmworkers exposed to insecticides in 2015.

Thank you for your comment. The Agency will continue to work with Migrant Justice in resolving issues regarding migrant farm workers.

9.03 (b) (1) In 2015 I worked with a Spanish-speaking student from Middlebury to interview four farmworkers in Addison County. Here are notes from an interview with "Jose" (not his real name) in 2015 at one farm in Addison County: "There are two barns: milkers in one barn are treated with an insecticide powder by the boss; in another barn the young cows are treated with "sprayfly". The farmer closes the barn while spraying for 30 minutes, twice a week, starting in April. They treat more in spring and summer than in winter. The boss does not tell them anything about the pesticides; he just says "Use it." The insecticides feel bad on the tongue; when back at home, their eyes hurt and are red, and they have a bad headache."
Also, here are notes from an interview with "Emilio" (not his real name) at a different farm Addison County in 2015: "Contractors were hired to treat barns at that farm with insecticides. There was no ventilation, so fumes entered the kitchen where food was prepared, and entered the bathroom as well. They were not allowed to wait until fumes went away, but had to work right away. The cows came back to the barn an hour later. All necessities for living were affected by the fumes except the trailer for sleeping. They were given no protection from the fumes. The insecticides sometimes made them dizzy, and caused trouble breathing through the nose. In summer, insecticides are used every 20 days, but only twice in the whole winter."
Do you want farmworkers made dizzy by insecticides (nerve toxins) or to be injured by equipment or by cows in the line of duty? How do you propose to communicate the new regulations to farmers in rural areas? Regulations on the books don't always make it to the "field". Does the VT Farm Bureau have a role here?
This is an area in which the Milk with Dignity Program would help if the farm was participating in the Program.
Just how do the regulations protect farmworkers and their families?

The Vermont Farm Bureau is not a regulatory entity. The Agency has a large regulatory presence. The Worker Protection Standard is the pertinent regulation here.

9.15 Aerial Pest Control
With the complex list of applicators, it is not clear where to put this comment. Applicators using fumigant insecticides in barns against insect pests must work with farm-owners to ascertain that farmworkers are not present in spaces open to and adjacent to the space to be treated. Also, the applicator must inform the farmer of the required reentry interval for the insecticide used to protect the farmworkers from the insecticides, which are toxic to the nervous system of humans as well as insects. See notes above from interviews of farmworkers who were exposed to insecticides (used 8 by an applicator without a VT pesticide license) while using adjacent spaces, and told to work in the space before it was safe to do so. The only way to minimize the dangers of pesticides is to stop using them and use biointensive integrated pest management.
"EPA's mandate for integrated pest management (IPM) ...comes from U.S. Code at Title 5, Section 136r-1E …..we cannot rely on pesticide regulatory protections alone for realizing the aspirations of pollution prevention. Regulation by itself is not enough ..."

This should have been referred to the Agency at the time of application for appropriate investigation. Furthermore, Migrant Justice is now aware of the incident referral process to the Agency.

Section 10. Certification Standards for Private Applicators
Core standards: If an applicator understood the risks listed here he/she would probably not go into this business!

10.02. (b) (2) "Understanding that a pesticide's risk is a function of exposure and the pesticide's toxicity."
This sentence is deeply problematic. It implies that the amount of pesticide makes the poison, or that the more pesticide there is, the more toxic it is. It also ignores the toxicity of unidentified ingredients in the pesticide product. Learning that low doses of pesticides can cause endocrine disruption10 and disruption of gut microbiomes11 informs us that the risk is no longer a function of the amount of chemical exposure. The prevention of these adverse effects requires reduction of pesticides and use of non-toxic alternatives whenever possible.
Please consider this as a replacement:
"Understanding a pesticide's risk is a function of the combined toxicity of all its ingredients (most of which are not identified), and its mode of action on the body, not explained on the label and difficult to ascertain."

Section 10.02 meets or exceeds the current federal standards regarding the competency required to become a certified private applicator. To become certified, applicators must pass a written examination based on these standards.

10.02 (c). This section needs to designate minimum buffers to waters of the state for pesticide use.

Sections 9 and 10 do not place restrictions on what an applicator may do but rather detail the knowledge required to become certified at core and category levels and either meet or exceed EPA standards.

(g) (4) Preventing drift is technically challenging, even with anti-drift adjuvants. I see very little discussion of preventing damage to non-target organisms or non-target areas. Drift and run-off are environmental realities.

Methods to prevent drift, along with the other enumerated items in Section 10.02, are outlined in the core manual which an applicator must read and comprehend if they are to pass the certification exam.

Sections 11-13
Recommendations:
Waters into which pesticide rinsate is discharged must be monitored for pesticide levels.

If a direct discharge into waters of the State is occurring it would be regulated by the Agency of Natural Resources not the Agency of Agriculture, Food and Markets.

2. Establish NPDES pesticide general permit system for this activity.

The proposed rule regulates the use of pesticides while DEC through the PGP regulates pesticide waste in waters of the State. This rule is designed to manage pesticide "use" and not "discharge." Absent an MOU with DEC, the Agency will continue to regulate "use" while DEC regulates "discharge."

MAJOR GAPS

These regulations do not address over-the-counter purchase or use of pesticides, or the data collection on these purchases.

2. Pesticide reduction is not addressed.

The proposed rule regulates the use of pesticides not the reduction of pesticide use.

3. Integrated Pest Management is neither defined nor recommended nor required for sensitive populations or areas.

The Agency will add a definition of "IPM" in the final proposed rule.

4. Global warming is not addressed in regulations that do not call for pesticide reduction.

Global warming is outside the purview of the proposed rule.

CONCLUSION: Acceptance of these regulations must be contingent upon addition of strong IPM definitions and their integration into the regulations. Even EPA is calling for IPM. What we do to the Earth we do to ourselves.

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See Appendix p. 10.
10
APPENDIX 1
Process for a municipality to engage a Railroad to use alternative weed control.
a) Defining "sensitive area"
i) High Pedestrian Traffic
ii) Proximity to Schools
iii) Proximity to Hospitals
iv) Defined Town centers
b) Identify alternative control
i) Based on Toxicity
(1) Balancing more toxic organic options
ii) Mechanical
(1) Weed Whack
(2) Hand Pull
(3) Ballast Regulation
(4) Ballast washing
(5) Other Barriers
(a) Concrete Ballast
(b) Rubber Mats
(c) Other
iii) Alternative Chemical
(1) Vinegar-Acetic Acid
(2) Matron-ORMI Clove Oil
iv) Alternative Non-Chemical

v) Flame
vi) Steam
vii) Infra-red
viii) Freezing
c) Develop cost-share agreement
i) Municipality covers cost
ii) State develops incentives (AOT)
d) Delineate Right of Way and identify encroachments
i) Agreements reached about abutting property structures that encroach on the railroad
ii) Gardens in the ROW
iii) Other
e) Notification
i) Of Treatment outside of Sensitive Area
ii) Of Alternative Treatment
(source: VAAFM, ca 2015)

Mark Nelson

I am submitting the following comments concerning the proposed changes to Vermont Regulations for Control of Pesticides, Chapter 12, Document: CVR 20-031-012

Any changes and improvements to Vermont Regulations for Control of Pesticides should include the following:

Make reduction of pesticide use a priority and provide clear guidance on alternatives to the use of pesticides.

> The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making.

Prohibit the use of toxic pesticides on State land, so that pollinators and other wildlife can thrive on our public lands. Our public lands should be free from the use of toxic pesticides.

> Pesticide use on public lands is managed through a Pesticide Use Impact Assessment, compiled by the Agency of Natural Resources' Lands Management team. Decisions about restricting pesticide use on land managed by the Agency of Natural Resources lie in that Agency's hands. This Rule provides a legal way to use pesticides if that Agency decides to do so.

Recommendations from the legislatively appointed Pollinator Protection Committee should be addressed in the proposed changes. The 2017 report said that pesticides in Vermont should not be used prophylactically. The prophylactic use of pesticides is currently happening on a large scale in Vermont.

> The Pollinator Protection Committee's specific recommendations for changes to the Pesticide Regulations have all been adopted.

Provide clear regulations that allow citizens in local communities to decide whether or how to use pesticides within their own boundaries.

> The Agency has primacy to regulate the use of pesticides as delegated by FIFRA. Additionally, Vermont is a Dillon Rule State. Towns can only exercise the authority granted to them in their town charter.

Emily Lanxner

To the Agency of Agriculture:

I understand the rules for pesticide use in Vermont are being revised for the first time since 1991. My comments are as follows:

Make reduction of pesticide use a priority.

> The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations.

Prohibit the use of toxic pesticides on State land, so that there are some areas where pollinators and other wildlife can thrive. The State should set an example of how to manage lands without pesticides.

> Pesticide use on public lands is managed through a Pesticide Use Impact Assessment, compiled by the Agency of Natural Resources' Lands Management team. Decisions about restricting pesticide use on land managed by the Agency of Natural Resources lie in that Agency's hands. This Rule provides a legal way to use pesticides if that Agency decides to do so.

Protect pollinators by including recommendations from the legislatively-appointed Pollinator Protection Committee. The 2017 report of the Committee said that pesticides in Vermont should NOT be used prophylactically (that is before it is even known whether a pest problem exists). The prophylactic use of pesticides is currently happening on a large scale in Vermont.

> The Pollinator Protection Committee's specific recommendations for changes to the Pesticide Regulations have all been adopted.

Make it clear that citizens in local communities can decide whether or how to use pesticides within their own boundaries.

> The Agency has primacy to regulate the use of pesticides as delegated by FIFRA. Additionally, Vermont is a Dillon Rule State. Towns can only exercise authority granted to them in their town charter.

Patrick Sullivan

It is paramount that we humans fulfill our role as caretaker of the land & ultimately, the planet. How can we do that? Start locally by caretaking the land around us:

Prohibit the use of toxic pesticides on State land, so that there are some areas where pollinators and other wildlife can thrive. The State should set an example of how to manage lands without pesticides.

> Pesticide use on public lands is managed through a Pesticide Use Impact Assessment, compiled by the Agency of Natural Resources' Lands Management team. Decisions about restricting pesticide use on land managed by the Agency of Natural Resources lie in that Agency's hands. This Rule provides a legal way to use pesticides if that Agency decides to do so.

Protect pollinators by including recommendations from the legislatively-appointed Pollinator Protection Committee. The 2017 report of the Committee said that pesticides in Vermont should NOT be used prophylactically (that is before it is even known whether a pest problem exists). The prophylactic use of pesticides is currently happening on a large scale in Vermont.

> The Pollinator Protection Committee's specific recommendations for changes to the Pesticide Regulations have all been adopted.

Allow citizens in local communities to decide whether or how to use pesticides within their own boundaries.

> The Agency has primacy to regulate the use of pesticides as delegated by FIFRA. Additionally, Vermont is a Dillon Rule State. Towns can only exercise authority granted to them in their town charter.

Finally, ban the use of cancer-causing chemicals from use anywhere on Vermont's landscape because they are hazardous to all life, not just the pollinators.

> The Pesticide Regulations are designed to address avenues of legal use and ensure that applicators are trained in proper handling to mitigate the risks associated with pesticides. The Pesticide Regulations are not designed to eliminate their use. The Agency does not have the authority to wholesale ban pesticides. In certain instances, the Agency can deny registration, but the Agency is also tasked with providing appropriate controls.

<u>Sierra Klotz</u>

I greatly appreciate you updating the pesticide rules in Vermont. As I have grown up in Vermont and have come to deeply love this state for all the nature that it holds, I hope that you will take careful consideration on this process. Please make reducing pesticide use a priority. Bees and other pollinators are in danger and our health, our farmers and the food we eat relies on them. Please prohibit the use of toxic pesticides on state land so that wildlife can thrive. Please include recommendations from the legislatively-appointed pollinator protection committee.

Why am I concerned? Almost 1 million pounds of pesticides are used in Vermont every year. Also, the prophylactic use of pesticides is currently happening on a large scale in Vermont and this is against the pollinator protection committee's recommendations.

The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations.

Pesticide use on public lands is managed through a Pesticide Use Impact Assessment, compiled by the Agency of Natural Resources' Lands Management team. Decisions about restricting pesticide use on land managed by the Agency of Natural Resources lie in that Agency's hands. This Rule provides a legal way to use pesticides if that Agency decides to do so.

The Pollinator Protection Committee's specific recommendations for changes to the Pesticide Regulations have all been adopted.

Rachel Kane

Dear Mr Huber, and to whom it may concern,

I have become aware that the Agency of Agriculture is updating its pesticide policy, and am writing to urge the agency to take a much stronger stand on reducing pesticide use. It should be paramount that the tons, yes tons (nearly 1 million lbs so I understand) of pesticides being added to our environment be substantially reduced. Neonicotinoids in particular are being shown to have drastic harmful effects in the entire ecosystem, and are a big contributor to the collapse of pollinators, and indeed all sorts of innocent insects, as a sort of monstrous bycatch. With fewer and fewer insects overall, the insect-eating birds are suffering dramatic population falls. One thing leads to another. Our own state bird, the Hermit Thrush, largely subsists on insects. We have got to move in the direction of minimizing the spread of these poisons on the land. And I could say who knows, but it seems to be almost always the case that a few years down the road it is found that these concoctions are hurting people, and the children especially. The stuff does not all just disappear...

The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations. The Agricultural Innovation Board is a group of concerned Vermont citizens tasked with aiding in making these types of decisions. The Agency suggests that you follow their activity.

One thing in particular, it should not be allowed that people and agriculturalists can use neonicotiniods without showing that there is a real problem in their fields/gardens. I think they should have to submit evidence to the Agency of Ag, or whatever group would be deemed responsible, and get permission to buy and use the stuff. The state could surely develop some system for a quick response, you've a lot of very bright people there. Noone should be allowed to just buy a bag, at any garden center or farm supply.

The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help

individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations. Products containing neonicotinoids have been made restricted use in Vermont and are only available to certified applicators. The Agricultural Innovation Board has been tasked with creating best management practices surrounding the use of treated seeds and those deliberations are ongoing.

Finally, it seems immensely prudent to preserve our protected lands from chemical pesticides, and to safeguard a complete functioning ecosystem in these protected places. We should not allow pesticides to be sprayed in wildlands, but most especially, the state should never allow the use of neonics on any state property.

Pesticide use on public lands is managed through a Pesticide Use Impact Assessment, compiled by the Agency of Natural Resources' Lands Management team. Decisions about restricting pesticide use on land managed by the Agency of Natural Resources lie in that Agency's hands. This Rule provides a legal way to use pesticides if that Agency decides to do so.

The Agency has to consider the farmers, of course, that is your focus, but it is also the Agency for Food and Markets, and that means everyone else. I ask that the Agency adopt some modern policies that will really work to reduce overall pesticide use, and make people prove the need before flinging it around.

The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations.

Mike Bald

Greetings,

Thank you for the opportunity to comment.

I am sure I could come up with many meaningful comments, but I find your document to be largely unreadable. To put such a poorly crafted proposal draft out for public comment is either intentional or a sad reflection on the agency's professionalism. You need to do better; this is serious stuff that will make an impact for decades. I could find nothing in the document that addressed climate (global warming) effects of pesticides, nor was there any real talk of reduction. You may see this as a conflict between policy and regulation, but there is overlap. Clearly, reduction and concern over cumulative effects are not part of the agency's purpose and mission. That is simply abysmal. The Draft Rule simply does not address Per-and polyfluoroalkyl substances (PFAS) as a component of pesticide formulations.

PFAS/PFOA are not a component of pesticide formulations, either in the active ingredient or adjuvant. Any PFOA/PFAS contamination has come from the container. These contaminants are not part of the confidential statement of formula.

There is no excuse for this avoidance of the PFAS issue; as a minimum landowners and land managers need a robust testing program to ensure that the existing PFAS problem is not exacerbated by the annual addition of pesticides. That program should be funded by those who produce and sell the products. Why does the agency ignore inquiries into this subject and shrug it off when members of the public comment on pesticide permits? You have the information, but you choose not to share it.

The Agency responded to all comments. The Agency was responsive to the CLF/PEER letter regarding PFAS/PFOA.

Where is the concern over cancer connections, gut microbes, and interaction with known contaminants already present in the soil? I have asked about herbicides in the presence of creosote on railroad ties, and I get only a flimsy response outlining the basic data on creosote. My question was about how the compounds interact, and again you avoided the question. Your Draft does not acknowledge that the Vermont landscape has seen several years of drought over the past decade.

This is correct, and the Pesticide Regulations outline tools available to land managers.

You clearly do not comprehend cumulative impacts, or you would better understand that addition of toxins to a drought-stressed landscape is a formula for disaster, altering chemical behavior and likely extending product half-lives. Additionally, the term Integrated Pest Management is now dead and meaningless in Vermont; it is simply a smokescreen. It is clear to me that the Agency of Agriculture is not qualified to manage pesticide programs as we enter a new climate regime and an accelerating pace of change. So be it.

Judy Jarvis

HI, I am an organic farmer who has chosen not to use conventional pesticides due to the harm to the earth, people, insects and all the critters that inhabit this world we live in. When we use omni approved pesticides for certified organic production, we only use them when plants are not flowering so as not to kill pollinators. We depend on pollinators for the apple and other fruits and vegetables in this state. AS a state we need to decrease the amount of pesticides being sprayed on our fields and state land to encourage pollinators to flourish. Include recommendation from the Pollinator Protection Committee, especially the recommendation to not spray prophylactically. Insects get immune to pesticides and need stronger and more toxic ones to kill or knock them back. They need to be used on a need only. Antibiotics are a lesson we need to heed. Use only when absolutely necessary so they are effective when we truly need them. There are many IPM practices that are proven effective and all farmers need to be including them in their farm plans. As a state we need to be cutting down on practises that harm the environment, pesticides use is a huge one. Thank you, Judy Jarvis from Riverside Farm in East Hardwick

The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help

individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations.

Pesticide use on public lands is managed through a Pesticide Use Impact Assessment, compiled by the Agency of Natural Resources' Lands Management team. Decisions about restricting pesticide use on land managed by the Agency of Natural Resources lie in that Agency's hands. This Rule provides a legal way to use pesticides if that Agency decides to do so.

The Pollinator Protection Committee's specific recommendations for changes to the Pesticide Regulations have all been adopted.

Peter Young

Re: Comment to Proposed Revision to Regulations for Control of Pesticides

Dear Mr. Huber:

On behalf of Vermont Rail System, please accept the following comment on the proposed revision to the Regulation for Control of Pesticides, in particular the process associated with the review and approval of herbicide applications necessary to the safety of railroad operations

Vermont Rail System's affiliate railroads are common carrier railroads governed by federal rules and regulations. The Federal Railroad Administration (FRA) is the government body tasked with overseeing the safety of the rail system in the United States. As such, Vermont Rail System must inspect and maintain the tracks it operates to ensure safe operations and compliance with all applicable regulations. Administering an effective vegetation management program - both pre-emergent and post-emergent herbicides - is a necessary component of our track maintenance and safety obligations because timely use of herbicides prevents root structures from fouling the ballast and contributing to increased retention of moisture in the ballast and ties. Increased moisture accelerates rotting and degradation of railroad ties, to the point they are less capable of holding track gauge (the distance between the rails) under load.

Additionally, vegetative materials on the tracks degrades locomotive performance. It has been our experience that delays or limitations on the railroad's application of herbicides as part of its regular maintenance program would be a significant contributor to deteriorating track conditions and increased risk of derailment.

We appreciate the work and effort that has gone into these proposed revisions. In particular, as to the proposed revisions to Section 6.01 Right-of-Way Clearing and Maintenance Permit:

(l) We remain supportive of the requirement that permit applicants provide advance "notice of intent to use" herbicides through newspaper publications and spot radio. We believe that the clarity of Section 6.0l(e) would be improved by stating that the timing of publication and airing of radio spots should be determined by reference to

the date the permit applicant proposes to first use the herbicide, and not the date a permit application is initiated or submitted for review or application of herbicide.

We suggest that proposed Section 6.01(e) therefore be revised to read as follows:

"(e) The notice of intent to use an herbicide shall: (1) be published not less than 25 days nor more than 60 days ~~before the commencement of~~ prior to the anticipated first application of herbicide."

The Agency thanks you for your suggestion and will make the suggested change.

(2) The timely application of herbicides to protect the structural integrity of the railroad is not merely a matter of aesthetics and appearance, it is essential to safety and compliance with federal regulation and reduces risk of train derailments as noted above. Moreover, the timing of permit approval is critical as application of pre-emergent herbicides is becoming necessary earlier and earlier in the growing season in order to protect track and track structure. The proposed regulation sets a submission deadline of March l and requires a 30-day comment period prior to any issuance of a permit. See proposed Section 6.0 I (i). We support these requirements. Because application of pre-emergent herbicides before the growing season is so critical, however, we strongly believe that the regulation should acknowledge the importance of timing and require that such safety- critical permit approvals be decided promptly and take no longer than 60 days. A 60-day period would be consistent with the time periods set out in the notice provisions and allow more than enough time for comment and Agency review.

We ask that the Agency include a second sentence at Section 6.0l(i) to acknowledge the importance of such prompt review, as follows:

"(i) Permit applications shall be published by the Secretary for a 30-day comment period prior to any issuance of a permit. The Secretary shall issue, condition or deny a permit within 60 days of receipt of permit application."

The Agency thanks you for your suggestion and will make the suggested change.

*** * * * ***

Please let me know if you have any questions or would like to discuss anything in particular. Effectively controlling vegetation allows for thorough track inspections and helps maintains the integrity and safety of the railroad sub-grade, balast and track components. We believe this is especially important with the renewal of Amtrak passenger service to Burlington and the critical role of vegetation management to safe operations, and hope that you will make these requested revisions prior to adoption of the final rule.

Regards,

Peter F. Young General Counsel

Elishalam Adamah

Regarding pesticides in Vermont.

I am deeply concerned with the current amount of poison thats used in Vermont and it is very worring that more may be allowed.

**I ask to PLEASE, for the sake of our precious planet and future generations,
Prohibit the use of toxic pesticides on State land, so that there are some areas where pollinators and other wildlife can thrive. The State should set an example of how to manage lands without pesticides.**

Protect pollinators by including recommendations from the legislatively-appointed Pollinator Protection Committee. The 2017 report of the Committee said that pesticides in Vermont should NOT be used prophylactically. The prophylactic use of pesticides is currently happening on a large scale in Vermont.

citizens in local communities should be the only ones to decide whether or how to use pesticides within their own boundaries

It is shocking to me that we still use these poisons.

Please, please

Take a sensible stand on this most important topic

> The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations.
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> Pesticide use on public lands is managed through a Pesticide Use Impact Assessment, compiled by the Agency of Natural Resources' Lands Management team. Decisions about restricting pesticide use on land managed by the Agency of Natural Resources lie in that Agency's hands. This Rule provides a legal way to use pesticides if that Agency decides to do so.
>
> The Pollinator Protection Committee's specific recommendations for changes to the Pesticide Regulations have all been adopted.
>
> The Agency has primacy to regulate the use of pesticides as delegated by FIFRA. Additionally, Vermont is a Dillon Rule State. Towns can only exercise authority granted to them in their town charter.

Chip Troiano

Hi: It is my understanding the Agency is about to draft an update of your pesticide rules. As the lead sponsor of two successful pollinator protection in the Vermont House I would like to urge the agency to consider the following rules to protect the health and wellbeing of all Vermonters. What I have learned working on those two bills is that Vermonters overwhelmingly are opposed to the use and application of these toxic substances. Now is the time to act.

Make reduction of pesticide use a priority.

Prohibit the use of toxic pesticides on State land, so that there are some areas where pollinators and other wildlife can thrive. The State should set an example of how to manage lands without pesticides.

Protect pollinators by including recommendations from the legislatively-appointed Pollinator Protection Committee. The 2017 report of the Committee said that pesticides in Vermont should NOT be used prophylactically (that is before it is even known whether a pest problem exists). The prophylactic use of pesticides is currently happening on a large scale in Vermont.

Make it clear that citizens in local communities can decide whether or how to use pesticides within their own boundaries.

Thank you for your consideration,

Rep Chip Troiano Caledonia 2

Vice chair: General Housing & Military Affairs committee

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<u>Zapata Courage</u>

Make reduction of pesticide/herbicides use a priority. Approval of pesticide use should be target specific and not a widespread practice.

Protect pollinators by including recommendations from the legislatively-appointed Pollinator Protection Committee. The 2017 report of the Committee said that pesticides in Vermont should NOT be used prophylactically local communities can be more restrictive regarding use of pesticides within their own boundaries.

Pesticide/Herbicides containing neoniicotinoids shall be prohibited from application in any form-reference "a spring without bees by Michael schacker".

Seeds and plant stock containing neoniicotinoids shall be prohibited from planting. reference "a spring without bees by Michael schacker".

Use of pesticide/herbicides in some areas need to be reviewed and approved by other ANR programs.

Pesticides/herbicide use shall be reviewed for potential impact to RTE species with RTE protection the priority.

Pesticides/herbicides shall be reviewed for common good with individual right to comment or opt out preserved.

Thank you

Zapata Courage

Ripton

> The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations.
>
> Pesticide use on public lands is managed through a Pesticide Use Impact Assessment, compiled by the Agency of Natural Resources' Lands Management team. Decisions about restricting pesticide use on land managed by the Agency of Natural Resources lie in that Agency's hands. This Rule provides a legal way to use pesticides if that Agency decides to do so.
>
> The Pollinator Protection Committee's specific recommendations for changes to the Pesticide Regulations have all been adopted.
>
> The Agency has primacy to regulate the use of pesticides as delegated by FIFRA. Additionally, Vermont is a Dillon Rule State. Towns can only exercise authority granted to them in their town charter.
>
> The Agency regulates the use of neonicotinoids, which are currently the most regulated class of insecticide in the state.
>
> The Agency has primacy over pesticide use in Vermont, as delegated by FIFRA. The Agency reaches out to the Agency of Natural Resources when appropriate.
>
> For more information, please refer to EPA's Bulletins Live website for how pesticide use and the Endangered Species Act interact.

Bill Patterson

Hi,

A friend of mine informed me that the regulations on pesticides etc will be updated for the first time since 1991 and I wanted to chime in on the more obvious issues we all know are front and center these days. Any regulation that ignores the dangers of ongoing decimation

of pollinators is short-sighted and anti-science in nature. We need to protect and enhance the biosphere for any and all pollinators as they are the basic building blocks or any agricultural plan. Our lives actually depend on their preservation.

So please be the leaders we need you to be and enact increased protections for any and all pollinators. If there are economic pressures from existing farms that threaten the front-line protectors of our soils, blossoms, fruits and other products that depend on a healthy ecosystem, those farms that encourage toxic chemical products such as RoundUp etc are obviously unwilling to plan responsibly for our future...resist their lobbying efforts and be smart about our future.

thank you, Bill Patterson

wimeli@hotmail.com

The Pollinator Protection Committee's specific recommendations for changes to the Pesticide Regulations have all been adopted.

Evie Marcolini

Prohibit the use of toxic pesticides on State land, so that there are some areas where pollinators and other wildlife can thrive. The State should set an example of how to manage lands without pesticides.
Protect pollinators by including recommendations from the legislatively-appointed Pollinator Protection Committee. The 2017 report of the Committee said that pesticides in Vermont should NOT be used prophylactically (that is before it is even known whether a pest problem exists). The prophylactic use of pesticides is currently happening on a large scale in Vermont.
Make it clear that citizens in local communities can decide whether or how to use pesticides within their own boundaries."

Evie Marcolini, MD, FACEP, FCCM

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The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations.

Pesticide use on public lands is managed through a Pesticide Use Impact Assessment, compiled by the Agency of Natural Resources' Lands Management team. Decisions about restricting pesticide use on land managed by the Agency of Natural Resources lie in that Agency's hands. This Rule provides a legal way to use pesticides if that Agency decides to do so.

The Pollinator Protection Committee's specific recommendations for changes to the Pesticide Regulations have all been adopted.

The Agency has primacy to regulate the use of pesticides as delegated by FIFRA. Additionally, Vermont is a Dillon Rule State. Towns can only exercise authority granted to them in their town charter.

Mason Overstreet / Lake Champlain Committee, Rural Vermont, Northeast Organic Farming Association of Vermont, Audubon Vermont, Conservation Law Foundation, Moosalamoo Woods & Waters, Beyond Pesticides, Vermont Public Interest Research Group, Vermont Natural Resources Council, and the Vermont Chapter of the Sierra Club

Cary Giguere, Director June 23, 2022

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Re: Comments on the Draft Rule for Vermont's Regulations for Control of Pesticides

Dear Cary and David:

Lake Champlain Committee, Rural Vermont, Northeast Organic Farming Association of Vermont, Audubon Vermont, Conservation Law Foundation, Moosalamoo Woods & Waters, Beyond Pesticides, Vermont Public Interest Research Group, Vermont Natural Resources Council, and the Vermont Chapter of the Sierra Club appreciate the opportunity to submit the following comments regarding the draft rule (hereinafter Draft Rule) of Vermont's Regulations for Control of Pesticides. Collectively, the memberships and supporters of our organizations comprise over 80,000 constituent-members across Vermont.

It is no secret that we are living in unprecedented times. Vermont can serve as a leader and beacon of hope, but we must decide whether and how best we will carry on that role. With the onslaught of climate change, there is an urgent need for visionary-proactive regulatory efforts that result in deep long-lasting change and increase the State's resiliency abilities. For Vermont to successfully confront the multitude of challenges on the horizon, it must be

able to seamlessly access, navigate, and deploy all of its available tools. One of those bedrock tools—which the State will need to utilize and lean on in the future—is the Draft Rule that is the subject of these comments.

At the outset of revising the State's three-decade-old regulations is the challenge of filling the sizeable gaps left from the existing regime governing pesticide regulation at the federal level. Not unlike Vermont's current 1991 regulations, the federal system is notably outdated, inadequate, and porous—allowing the use and application of pesticides before thoughtfully deploying the full range of alternative management measures and weighing public health and ecological impacts. For this reason, the Draft Rule and revision process represent a timely opportunity to populate holes left by the federal system and simultaneously provide resilient measures to protect human health, non-target organisms, and the environment at-large in the face of climate change. It is also fitting that we submit these comments during National Pollinator Week, especially given that pollinators, and all insects, are a foundation of ecosystems; and toxic pesticides put them at grave peril.

It is reassuring that the Agency is prioritizing this long-overdue effort. To that end, from our perspective, active and collaborative engagement from interested citizens and stakeholders is the key ingredient to the development of thoughtful and effective management regulations for substances, which have the potential to seriously impact our treasured landscape and its many inhabitants. As discussed below, our organizations broadly support many of the overarching intentions and modifications in the Draft Rule, including, but not limited to, updated definitions, new permitting regimes, attention to environmental impacts, and increased notification requirements for the public. However, despite the Draft Rule's changes compared to the 1991 regulations, generally, many of these improvements still lack impactful substance, accountability, and effective protective measures. Put another way, the Draft Rule as written maintains the status quo regarding pesticide regulation and management instead of evolving to a system where pesticides are used as a method of last resort after evaluating alternative pest management measures. For these reasons, it is our fervent hope that the Agency will take the necessary time to consider these comments and sincerely work to accommodate the suggested changes and additions.

BACKGROUND

The Relationship Between State and Federal Regulation of Pesticides in Vermont

After learning about the widespread use and toxicity levels of conventional pesticides, as well as the multitude of unintended adverse environmental and health effects resulting from this use, Congress enacted comprehensive federal laws regulating the use, sale, manufacture, and registration of pesticides in the 1970s. Interestingly however, the first federal law to regulate pesticides was the Insecticide Act of 1910. Several decades later, Congress passed its first comprehensive law regulating pesticides, the Federal Insecticide Fungicide and Rodenticide Act (FIFRA).[2] This initial version of FIFRA required pesticide manufacturers to display warnings on highly toxic pesticides, provide warning statements to prevent injury to people and non-target organisms, and to register pesticides. In response to a public outcry over the risks of pesticides and ensuring consistency in regards to U.S. food supply safety, Congress passed significant amendments to FIFRA in 1972, 1978, and 1996.

We mention this history here as a backdrop because of the important relationship between federal and state regulation of pesticides. Notably, in relation to our comments and suggestions on the Draft Rule, while FIFRA certainly confines a state's ability to regulate the sale or use of pesticides, it does allow states to implement and administer stricter pesticide laws and regulations. Federal preemption law outlines when state and federal laws conflict.[6] Importantly here, the relevance of the origin of federal law regulating pesticides and the evolution of FIFRA is that Vermont has the legal authority to implement stricter pesticide laws if it elects to do so. Upon a review of these comments, we hope the Agency will consider further tightening of the Draft Rule for a host of reasons mentioned including, but not limited to, the need for increased resiliency capabilities, and public health and environmental protections.

The Importance of Affirming the Right of Local Communities to Restrict Pesticides

Vermont pesticide regulations should affirm the ability of localities to adopt local standards that exceed, or are more stringent than, state and federal standards as a matter of protecting public health, the environment, or quality of life. Currently, it appears that the Agency has interpreted the State's pesticide regulations as preemptive of local authority to restrict pesticides under the so- called "implied preemption" theory, which runs contrary to the interpretation of similar state law language in other states that allow local regulation. This issue was litigated in Maryland, where courts plainly rejected the implied preemption theory and affirmed the rights of local jurisdictions.[7]

Relatedly, in 1991, the U.S. Supreme Court, in *Wisconsin Public Intervenor v. Mortier*, held that FIFRA does not preempt local jurisdictions from restricting the use of pesticides more stringently than the federal government.[8] The Court specified that "FIFRA nowhere seeks to establish an affirmative permit scheme for the actual use of pesticides," and the law "does not equate registration and labeling requirements with a general approval to apply pesticides throughout the Nation without regard to regional and local factors, like climate, population, geography and water supply."[9] In effect, the Court recognized the value of local authority in addressing pesticide use in the context of local conditions and concerns.

In *Mortier*, the applicant, who was denied a permit to use a pesticide that resulted in non-target exposure to the Town of Casey's residents, argued that the Town's permitting ordinance, "stands as an obstacle to the statute's [FIFRA] goals of promoting pesticide regulation that is coordinated solely on the federal and state levels, that rests upon some degree of technical expertise, and that does not unduly burden interstate commerce."[10] The Court flatly rejected this argument.[11]

Unfortunately, the fallout of the *Mortier* decision resulted in the pesticide industry lobby immediately forming a coalition, called the "Coalition for Sensible Pesticide Policy" (Coalition), and developing boilerplate legislative language restricting local municipalities from passing ordinances involving the use of pesticides on private property.[12] The Coalition's lobbyists descended on states across the country, seeking and passing, in most cases, preemption legislation

that was often identical to the Coalition's initial suggested verbiage.[13] In states where the Coalition was successful, localities can only legally address pesticide use on public property and cannot restrict toxic pesticides on private property.

The ability of local authority to regulate pesticides is essential to sound democratic governance, especially in an age of political gridlock at the federal level, and in some instances, the state level. For these reasons, we strongly urge the Agency to ensure protections for local communities to adopt pesticide restrictions that can protect unique local resources and incentivize the adoption of land management practices that support healthy ecosystems and people. Detailed comments and suggested language are included below under section E(b)(i).

PROPOSED RULE FOR VERMONT'S REGULATIONS FOR CONTROL OF PESTICIDES

Environmental Impact Analysis

We agree with the Agency's initial discussion about how the life-cycle of pesticides, ranging from manufacturing processes to application, and how those contribute to green-house gas (GHG) emissions. However, we disagree with the broad and vague assertion that the "[a]mended rule will reduce greenhouse gas emissions related to pesticide uses by imposing more stringent requirements on their use."[15] What is this assertion based on? What analysis did the Agency perform to arrive at this general conclusion? Since the passage of Act 153, Vermont's Global Warming Solutions Act of 2020, and the subsequent December 2021 publication of its implementing Climate Action Plan, it is critical that we are careful about the use of subjective conclusions related to climate change and GHG inventories, versus assertions supported by detailed analyses and/or peer-reviewed data. Here, we encourage the Agency to revisit this conclusion and at a minimum provide a detailed explanation of its reasoning and analysis- performed.

> The rule encourages precision agriculture which will result in more targeted applications and which will ultimately result in fewer vehicle trips to applications sites and fields. This will result in less Co2 emissions. Additionally, the new permit programs will further increase the use of IPM and result in more targeted applications. The nature of the proposed regulation encourages and/or imposes the use of IPM which has an economic analysis and provides farmers a tool to make appropriate decisions about when to use a pesticide. The imposition of IPM does reduce overall pesticide use and thus the Agency extends this reduction to count towards a reduction in green-house-gas emissions. Ultimately, it is the Agency's belief that no further analysis is required.

Public Input Maximization Plan

Our organizations appreciate the opportunity to comment on the Draft Rule here, but express concern that the opportunity for public input was not maximized. Rather, from our perspective, the public input and outreach on the Draft Rule to-date represent the bare minimum of what is required by statute under 3 V.S.A. § 840(a). We intend to also direct our concerns to the Interagency Committee on Administrative Rules (ICAR), given their statutory directive to "work with the agency and prescribe a strategy for maximizing public input on the proposed rule."

A thirty-day written comment period and a single (virtual) public hearing for such a complex and multi-faceted 68-page rule that has not been updated since 1991 does not lend itself to the maximization of public input. Instead, it guarantees that the input from the

majority of Vermonters and the public will be quite limited on a topic of vital importance to many. We cannot underscore the importance of this Draft Rule enough given the daunting pressures Vermont is facing now and into the future. As a result, the Agency should have conducted multiple hearings at different times of the day, and, with proper safety measures, provided the opportunity for in-person attendances at various geographic locations across the State. This would have provided more opportunities for those working on farms, with inadequate broadband technologies, or with limited ability to take time off from family obligations, or from the office, to attend a public hearing and offer comments and suggestions.

> Outreach to the regulated community began in 2009. Additionally, the Agency has continually informed the regulated community about the upcoming amendments in training events.

Incorporation by Reference

As mentioned below, we urge the Agency to incorporate Vermont's National Pollutant Discharge Elimination System (NPDES) Pesticide General Permit (PGP) by reference, which is administered by the Agency of Natural Resources–Department of Environmental Conservation. The PGP is equally as relevant and important as the other materials listed in the Incorporation by Reference section of the Draft Rule.

> The proposed rule regulates the use of pesticides while DEC through the PGP regulates pesticide waste in waters of the State. This rule is designed to manage pesticide "use" and not "discharge." Absent an MOU with DEC, the Agency will continue to regulate "use" while DEC regulates "discharge."

Preamble

A Preamble is noticeably absent from the Draft Rule. The current 1991 regulations feature a Preamble prior to the Table of Contents that sets both a standard and a tone for how Agency policy directs and administers the use and regulation of pesticides in Vermont. That version states the following:

The goal of these pesticide regulations is to encourage the use of the most environmentally responsible approach to effective pest management. The Department of Agriculture, Food, and Markets believes that with the knowledge and use of integrated pest management (IPM) skills and soil/water conservation techniques currently available this goal will be achieved.[17]

We believe it is imperative for the current Draft Rule to include a Preamble to both set a policy goal, but also one that is updated for what we now know about pesticide use, management, and impacts on the environment and non-target organisms. To this end, we propose the following draft language, which incorporates some of the previous Preamble:

"The goal of these pesticide regulations is to ~~encourage~~ reduce the use of pesticides and require the use of the most environmentally responsible approach to effective pest management in order to minimize human impacts, reduce harm to non-target species, and protect biodiversity. The ~~Department~~ Agency of Agriculture, Food and Markets believes that this goal will be achieved with the continuous advancement, knowledge, and use of

Integrated Pest Management (IPM) skills and of Best Management Practices for soil/water conservation techniques currently that are currently scientifically available ~~this goal will be achieved~~."

> While the preamble may provide context, it is non-enforceable. The Agency is under the belief that additional non-enforceable language would only create more confusion among the regulated community.

Subchapter 1

Our comments for this section of the Draft Rule include both narrative explanations and specific in-text recommended edits. Should the Agency experience any confusion regarding these comments or their organization, we remain available to discuss and clarify at any time.

Section 1. Definitions

The formatting in the Draft Rule appears to be off for sections 1.30 and 1.31.

> The Agency appreciates your suggestion and will make the requested change.

The definition of "use" under 1.66 should be expanded to include the use of treated article seeds, particularly those treated with neonicotinoid pesticides. Inclusion of this will more accurately reflect the use of pesticides in Vermont.

We suggest adding the following: "(e) the planting of seeds treated with pesticides."

> The Agency thanks you for the suggestion. However, the exemption exists in federal law and until such time as the classification is changed federally, the Agency will continue to regulate treated article seed not as a use.

Although "Integrated Pest Management (IPM)" is discussed throughout the Draft Rule and generally in the use and practice of pesticide application, Vermont statutes and regulations do not specifically define IPM. The lack of a definition results in different interpretations and applications of the term, which results in confusion.

We propose that the Agency incorporate the following definition, which California uses and is known to be the most comprehensive: "Integrated Pest Management (IPM) is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and nontarget organisms, and the environment."

> The Agency thanks the Coalition for the suggestion and will look to add this definition to the rule.

It is encouraging that the Agency included references in the Draft Rule to threatened and endangered species and Vermont's Protection of Endangered Species Act, 10 V.S.A. Ch.

123. However, for clarity, we strongly recommend that the Draft Rule incorporate and explicitly define "take" as defined under 10 V.S.A. § 5401(18).

The Agency thanks the Coalition for the suggestion and are happy to reference the endangered species rule although, ultimately, the Agency has not been given explicit authority to interpret Title 10. The Agency intends to leave the interpretation of the rule to Fish and Wildlife.

We urge that "Undue Hazard" be defined and propose the following definition: "A substance that harms human health and the environment based on studies prepared for pesticide registration, independent peer- reviewed studies, and other data as may be requested by the Secretary."

Based on this proposed definition for "undue hazard," we encourage the establishment of regular, ongoing reviews of pesticide products that may be ineffective, or pose an undue hazard to the public or state resources. To review pesticide products for undue hazards, we urge the Agency to conduct a review of existing pesticide registrations in the State. In conducting this review, the Secretary of the Agency of Agriculture, Food and Markets has the power under Section 2 of the Draft Rule to make actionable findings for any pesticide that poses undue hazards to (i) human health, including but not limited to those who are vulnerable to pesticide exposure, are disproportionately affected, and have pre-existing health conditions, including but not limited to cancer and other degenerative diseases; (ii) wildlife and ecosystems, including but not limited to effects to soil biology, pollinators, biodiversity and species decline; (iii) environmental health, including but not limited to air, water, and land; or (iv) climate, including but not limited to effects on carbon sequestration in soil.

The Agency thanks the coalition for the suggestion and will add this definition to the rule.

We recommend that the Draft Rule define "Ineffective Pesticide Product" and propose the following language for a definition: "A product for which alternative practices and nontoxic products that are available to achieve pest management goals for which the pesticide under evaluation is being used."

In reviewing whether a pesticide product is "ineffective," we also propose a process where the Secretary must consider the range of alternatives to existing uses of a pesticide, including: (i) A determination of the necessity of a pesticide to achieve stated outcomes in light of the availability of alternative pesticides and management practices; (ii) A full assessment of less hazardous alternative pesticides and management practices available for all current or proposed specific uses of a pesticide; (iii) An assessment of the commercial availability of less hazardous alternative pesticides and management practices for each specific use of a pesticide; (iv) Any information or data which pesticide registrants must produce in order to determine whether less hazardous alternative pesticides and management practices are commercially available; and (v) An assessment of the adverse human health and environmental effects of alternative pesticides and management practices.

The establishment of such a process would position the state of Vermont as a national leader in protecting resident and environmental health from the unnecessary use of toxic

pesticides. It is incumbent, given the power and responsibility provided to the Secretary in this chapter, that a process be initiated to evaluate, and create actionable findings regarding pesticides that are ineffective or pose an undue hazard.

The Agency thanks the Coalition for their suggestion. However, it is the Agency's understanding that the ineffectiveness of a pesticide is a consumer protection issue and not a product selection criteria.

We recommend including "Natural" or "non-synthetic" in the definitions section and propose the following definition: "A substance that is derived from mineral, plant, or animal matter and does not undergo a 'synthetic' process as defined in the Organic Foods Production Act, 7 U.S.C. § 6502(21), as the same may be amended from time to time."

The Agency thanks the Coalition for their suggestion but finds the inclusion of such a definition to be unnecessary because the rule applies to all registered pesticides regardless of a standard that doesn't take toxicology into account.

We recommend including "allowed substances" in the definitions section and propose the following draft language: "(1) a pesticide the active ingredients of which are either natural and not published as the National List at 7 C.F.R §§ 205.602 or recommended by the National Organic Standards Board (NOSB) pursuant to 7 U.S.C §6518, as amended, and published as the National List at 7 C.F.R §§ 205.601 and 205.605; or (2) a pesticide designated as 'minimum risk pesticide' under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) §25(b) and listed in 40 C.F.R. §152.25(f)."

The Agency thanks the Coalition for their suggestion. However, the NOSB is a marketing program and a marketing program has no place in regulation.

Section 2 – Powers of the Secretary

While Vermont law has not adopted language explicitly prohibiting local regulation of pesticides, local authority regarding the affirmation of local rights is needed and recommended. Under 6 V.S.A. § 1103, the authority over pesticide sale, use storage, treatment, and disposal of pesticides is granted to the Secretary of the Agency of Agriculture, Food and Markets (AAFM). Importantly however, the statutory language in § 1103(a) does not specifically grant sole authority over such responsibilities to the Secretary, therefore permitting residual authority. Moreover, under section 3(6) of the current 1991 regulations, the Commissioner [of Agriculture, Food and Markets] is granted "all statutory authority . . . to enforce state pesticide laws and regulations." This specific phrasing does not explicitly prohibit local pesticide restrictions, which we believe provides an opportunity in the Draft Rule to affirm and clarify local authority's ability to restrict pesticides.

To this point, we propose and recommend the following language, in a new section, 2.07: "These regulations are minimum standards and do not preempt any local ordinances which may be more stringent. Nothing in these regulations shall prohibit any municipality from further restricting, by resolution or ordinance, the distribution, sale, use, and transportation of a pesticide."

Restrictions in Burlington, Vermont, initiated to protect the unique local ecology around Lake Champlain, illuminate that there is a desire for local authority to address pesticide

use in a way that best reflects the values of a community's residents and a locality's unique environment and ecosystems. In addition to Burlington, over 170 local pesticide reform policies have been passed across the country. Disappointingly, in response to these actions, the pesticide industry attempted in the recent 2018 Farm Bill to insert language that would overturn the *Mortier* decision and institute federal pesticide preemption. Fortunately however, there was a broad outpouring of opposition from Congressional representatives, local decision makers, and national municipal organizations. This robust pushback resulted in the amendment's defeat, stopping its inclusion in the final Farm Bill agreement.

Historically, Congress has long affirmed and supported the rights and powers of localities. In 1972, the Senate Commerce Committee—which during that time had joint FIFRA jurisdiction with the Agriculture Committee—found that "[m]any local governments now regulate pesticides to meet their own specific needs which they are often better able to perceive than are State and Federal regulators."

Indeed, there are countless analogous examples to regulating pesticides at the local level, including but not limited to local ordinances governing zoning, building codes, protection of water supplies, recycling, dog waste, etc. Local communities have long adopted ordinances to respond to nuisance and matters of public health and welfare in the exercise of local police powers. In the context of pesticides, communities should be given the ability, authority, and choice to further restrict pesticide use if they so choose.

> The Agency has primacy to regulate the use of pesticides as delegated by FIFRA. Additionally, Vermont is a Dillon Rule state. Towns can only exercise authority granted to them in their town charter.

We recommend adding "Duties and . . ." to the Draft Rule's Section 2 title.

> The Agency thanks the Coalition for the suggestion. However, the rule is meant to regulate the use of pesticides by certified applicators not expound upon the duties of the Secretary which are outlined in Statute.

Before 2.01, we recommend adding 2.00 "Responsible Pest Management" with the following language: "In order to promote environmentally- responsible pest management, the Secretary shall facilitate and implement Integrated Pest Management on lands within the State."

> The Agency thanks the Coalition for their suggestion. However, IPM is an economic tool which is encouraged but not mandated.

Under section 2.03, we first suggest changing "may" in 2.03(a) to "shall." In addition, section 2.03 affirms the authority of the Secretary to regulate any pesticide product "deemed to be ineffective, or which constitutes an undue hazard to the public or the environment." To properly exercise this authority, we encourage the inclusion of definitions and the establishment of processes where the Secretary has the authority to evaluate whether a pesticide product or device is "ineffective" or "constitutes and undue hazard." Such determinations should include ongoing evaluation that result in actionable findings that promote healthy, efficient agricultural systems and environmental and public health.

The Agency thanks the Coalition for the suggestion. However, the Agency prefers to maintain prosecutorial discretion in this instance.

Section 3 – Licenses, Certificates, and Permits Issued by the Secretary

3.04 – Applicator Certificates: Amend 3.04(e) to read: "Any applicator who uses a federally restricted use pesticide under the provisions of FIFRA, or a state restricted-use pesticide, shall be certified under this regulation. A noncertified applicator shall not use a federally or state restricted-use pesticide unless under direct supervision."

The Agency thanks the Coalition for the suggestion. The Agency will add language to require certification for applications of State Restricted Use pesticides in addition to Federal Restricted Use pesticides.

We encourage the Agency to include language under 3.10 (likely requiring a new subsection "(d)"), which would mimic ANR's public participation decision-making processes, allowing for "aggrieved" persons to appeal decisions made by the Secretary to the Environmental Division of Vermont's Superior Court. Including such a section here provides a critical "check" on Agency decisions under the Rule. See also comments below under F(b)(i).

The Agency thanks the Coalition for the suggestion. However, the Agency has a public participation decision-making process that is outlined in the rule and we encourage the public to utilize that process.

Section 4 – Classification of Pesticides and Limitations on Sale

The Draft Rule should include reference to an Appendix with a list of Class "A" federal and state restricted-use pesticides mentioned in Section 4.02 of the Draft Rule. Under the State's 1991 pesticide regulations, a list of Class "A" pesticides was included and listed in Appendix A(2), but does not appear to be part of the existing document found online for this Draft Rule.

The Agency thanks the Coalition for the suggestion. However, it is the Agency's belief that the Appendix is no longer necessary as all registered pesticides are now located in an online database which is available to the public.

We recommend adding a new subsection section, 4.03(e), to include the prohibition of pesticides, containing or contaminated with per- and polyfluoroalkyl substances ("PFAS"), toxic "forever chemicals."

The Agency thanks the Coalition for the suggestion. However, the Agency already has this authority under Section 2.03(a), if deemed necessary.

Related to the previous comment, we urge the Agency to add a subsection under section 4 which requires manufacturers to prove that pesticide products do not contain PFAS. Recent tests by the U.S. Environmental Protection Agency ("EPA") and Public Employees for Environmental Responsibility ("PEER") showed alarmingly high concentrations of PFAS in pesticide products registered and used in every New England state— Vermont included. PFAS contamination of pesticides is a widespread issue, affecting an unknown, but likely very large, number of pesticide products. In response, we encourage and recommend that the Agency screen pesticides for PFAS contamination and prohibit the usage of

pesticides which contain PFAS, as cited above. See also comments related to PFAS and storage containers under G(a)(i) below.

The Agency thanks the Coalition for the suggestion. This rule regulates pesticide use and registration of pesticides is done under a different rule. Additionally, the Agency already has the authority to do this under Section 2.03(a).

Subchapter 2 – General Standards for Pesticide Use; Permitting Requirements; Notification and Posting of Pesticide Applications; Maintenance of Records by Certified Applicators, Licensed Companies, Licensed Pesticide Dealers, and Pesticide Producing

Section 5. General Standards for Pesticide Use.

Protection of pollinators, particularly but not exclusively managed and unmanaged bees, needs to become a priority of the Agency. As written, the Draft Rule is vague and does not go far enough to offer substantive protections for pollinators. Instead, the Draft Rule should reflect the recommendation of the 2017 Report by the Vermont Pollinator Protection Committee. This Committee was created by the Legislature to provide recommendations on how to protect pollinators from the use and overuse of pesticides. Although a few of the recommendations have been adopted, some others that received unanimous or majority support have not. While we understand that the newly created Agriculture Innovation Board may examine pollinator protection as well, the Pollinator Protection Committee's 2017 Report was compiled by a group of experts and any additional examination will likely be redundant and result in similar recommendations. Our recommended changes to the Draft Rule on this topic below are in line with the recommendations made in the 2017 Report.

The specific changes proposed by the Pollinator Protection Committee and published in the 2017 Report are included in the proposed rule.

The Draft Rule should include an appendix listing the pesticides that are highly toxic to bees. To our knowledge, the Agency already has such a list.

The Agency thanks the Coalition for the suggestion. The Agency would be happy to publish the list of highly toxic insecticides online but, will not be including this list in the rule as these lists are subject to change.

Under 5.03(a), add "or state" after "federally."

The Agency thanks the Coalition for the suggestion and has made the proposed change.

Under section 5.04, we recommend adding "Pollinators" to the section title to read "Protection of Pollinators."

The Agency thanks the Coalition for the suggestion. However, this section only applies to managed pollinators.

Further, we recommend deleting 5.04(c)(1)–(3) and replacing it with the following:

"(c) All pesticides with active ingredients that are highly toxic to bees shall be classified as restricted-use products. (See attached Appendix XX.) A person applying these pesticides shall:

All insecticides fall into the category of "highly toxic to bees" and such a change in classification would incur dramatic economic impacts in the state.

apply the pesticide during periods and conditions of least exposure, such as early morning, late evening and when winds are less than nine mph. include a 50-foot buffer from pollinator foraging sites, such as natural and semi-natural areas or intentional pollinator plantings or a 20-foot-wide non-pollinator-attractive vegetative barrier higher than the spray release height with an established 60% plant density; and avoid application of a fungicide to pollinator-attractive plants when in bloom.

Except for research, management and treatment of invasive species, applications to ornamental plants accessible to pollinators with neonicotinoid products applied by drench, trunk injection, or foliar and basal bark sprays, are prohibited for 3 years or until such time research can demonstrate rates at which treatment can be safe for pollinators.

While voted on with approval by the Committee this was not specifically recommended as a proposed change the Vermont Regulations for the Control of Pesticides.

The application of systemic pesticides that are highly toxic to bees shall be prohibited until after accessible pollinator-attractive plants have flowered."

While voted on, there was significant disagreement among the committee regarding this provision and it is the Agency's belief they are not obligated to include it.

Section 6. Permitting Requirements

<u>The Public's Ability to Appeal Permit Decisions</u>. For each of the specific permits under Section 6 of the Draft Rule, unlike permits under the Agency of Natural Resources' (ANR) jurisdiction, there is no explicit ability for affected and/or interested parties to appeal a permit decision. Akin to many of ANR's permits, we encourage the Agency to insert sections—both lodged in Section 6 and Sections 2 and 3—which provide members of the public who qualify as "aggrieved" to appeal permit approvals to Vermont's Environmental Court. Allowing the ability of aggrieved persons under this Draft Rule to appeal permit decisions provides a critically necessary "check" on the Agency and more opportunity for public involvement and engagement.

Each Agency has a different appeal process. Aggrieved individuals have every right to appeal to the Secretary.

<u>Coordination and Communication with the Agency of Natural Resources</u> <u>Staff and Incorporation of Vermont's NPDES Pesticide General Permit into</u> <u>the Draft Rule</u>. Despite the countless pesticide application practices under Section 6's permit programs adjacent to, and or nearby waters of the State, we were surprised that there is no mention, cross-reference, incorporation by reference, or note generally, in regards to Vermont's National Pollutant Discharge Elimination System (NPDES) Pesticide General Permit (PGP). Each permit program under Section 6 should explicitly reference the PGP and detail a process whereby Agency staff notify, communicate, and coordinate with ANR staff about any pesticide application under a permit authorized under the Draft Rule where pesticides are applied near waters of the State. To this point, while we appreciate some of the "baked-in" best management practices for pesticide applications near waters in the Draft Rule, the

Agency should still take all possible precautions by coordinating with ANR to ensure and clarify that PGP jurisdiction is not triggered.

> The only permits issued by the Secretary that may trigger notices of intent to comply with the PGP are the mosquito control permits and those entities are already aware of the requirements of the PGP. Further, coordination between Agencies does already occur and does not need to be enumerated in regulation.

Ensuring Notification, Coordination, and Review of Permits by Vermont Fish and Wildlife Department Staff. Upon a review of each of the eight individual permits under Section 6 and the inconsistent and vague references per-permit regarding coordination with Vermont Fish and Wildlife Department staff and threatened and endangered species, we recommend the following. First, under each of Section 6's permits, there should be explicit language ensuring that permit approvals comply with Vermont's Protection of Endangered Species Act, 10 V.S.A. Ch. 123. Second, each of the eight permits under Section 6 should require Vermont Fish and Wildlife Department staff to review permit decisions prior to approval and issuance. Applicants for permits under Section 6 should have the burden of demonstrating that their pesticide application practices will not violate any provision under 10 V.S.A. Ch. 123. Third, in addition to notifying and coordinating with Fish and Wildlife Department Staff, the Agency should also notify Vermont's Endangered Species Committee.

> In drafting the proposed rule the Agency coordinated with Fish and Wildlife and the rule, as proposed, is consistent with their recommendations.

Creating a New State Lands Permit. Finally, we urge the creation of a new state permit regarding the application of pesticides on state lands. By establishing a process to protect state lands from the unnecessary use of toxic pesticides, these regulations will set a strong example for private land managers, local jurisdictions, and other public lands. State lands represent the most prized and sensitive environments in Vermont—home to myriad endemic wildlife and unique ecosystems that demand further protective measures.

By limiting the application of pesticides on state land to only a defined set of "allowed substances," the State will ensure that only least-toxic, yet still effective, pest management products on the market are used, providing protection for children, pregnant mothers, and other vulnerable populations, as well as safeguarding birds, pollinators, other wildlife and local water quality. Minimum risk pesticides are of a characteristic having such low toxicity that products containing these substances can make pesticidal claims without going through the formal Environmental Protection Agency (EPA) registration process. Organic products are required to undergo another level of review as part of the organic certification process by an independent board of experts at the National Organic Standards Board, further considering health and safety. These additional safeguards are necessary in light of the availability of alternatives, and documented shortcomings by EPA to adequately review registered pesticides for their public health and environmental impacts, particularly in its consideration of vulnerable populations.

To ensure pesticide use on state lands are limited to the defined set of "allowed substances," we propose adding the following language to Section 6:

"Section 6.09 – State Public Lands Permit

No person or state agency shall use a pesticide for land management on state public lands without a permit.

The permit shall limit pesticides and soil amendments to the following allowed and prohibited substances.[29]

The following shall apply:

Synthetic substances are prohibited unless specifically listed as "allowed" on the U.S. Department of Agriculture's National List of Allowed and Prohibited Substances (the "National List") 7

U.S.C §6518, as amended, and published as the National List at 7 C.F.R §§ 205.601;

Non-synthetic substances are allowed unless specifically listed as "prohibited" on the National List at 7 C.F.R §§ 205.602;

Pesticides determined to be "minimum risk pesticides" pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)and listed in 40 C.F.R. § 152.25(f)(1) or (2), as may be amended from time to time, are allowed; and

The use or application of pesticides (whether natural, "non- synthetic," synthetic, or otherwise) within 75 feet of a water body or wetland is prohibited."

These criteria will incentivize an integrated pest management approach that embraces working with natural systems as the primary means to address pest and weed problems on state lands. This approach has precedent from nearby states. In July 2020, New York passed legislation prohibiting the use of glyphosate-based herbicides on all state property.[30] However, while it is possible for the elimination of one chemical to prompt a change toward natural, organic practices, a more comprehensive approach can remove the guess-work. Establishing strong protections on state land is a step that will put land managers on a path toward a truly sustainable future for pest management. Importantly, we remain available to discuss the language provided above in more detail. Moreover, if this measure is too far reaching for the Agency, we are happy to examine measures that allow for the use of toxic pesticides under a defined waiver system, too.

> State lands are still subject to PUIA prior to making pesticide applications. State lands are also managed under a state management plan that go through the public process.

General Comments Regarding 6.06 and 6.07 (Mosquito larvicide and adulticide treatment).

Both the larvicide and adulticide permit requirements specify that the applicant will use a form supplied by the Secretary. The ability of the public to evaluate the Draft Rule also requires that the public should have the opportunity to evaluate those forms. If the forms are more explicit about many details of the pesticide monitoring, treatment, and reporting processes, then the Draft Rule could be less explicit (as written in the current draft). However, the logic does not match up because as written, the coinciding form for the permit is an integral part of the regulation and must be evaluated but the public doesn't have the ability to comment on it. Ideally, the Draft Rule should include explicit detail about the

pesticide monitoring, treatment, and reporting processes. Post-approved Rule reliance on the application forms is the wrong way to regulate pesticide use.

The Agency prefers to maintain flexibility so that it can modify permit conditions as situations evolve. This is consistent with standard Agency policies.

Larval monitoring thresholds (scientific action triggers for treatment, e.g., dip cup counts) are not mentioned in the draft. These are not specific for each permit, so should be a universal requirement. How many mosquito larvae per dip cup (average of x dips) are required to trigger treatment? What developmental stage of larvae trigger treatment? What species of mosquito trigger treatment? What potential treatment area is suggested for each larval sampling site?

This is spelled out in the Larvicide procedures and grant. The Agency will post this online.

Larval monitoring results should be posted online within 3 to 5 days of each sample. These results should be available in a digital numerical format (csv or spreadsheet).

The Agency will make this a grant provision.

Scientific action thresholds for triggering roadside spraying and manual yard spraying of adulticides are not mentioned in the Draft Rule. These thresholds must reflect nuisance mosquito density – Insect Control Districts do not have a mission to control arbovirus vectors (which might justify very low thresholds of mosquito density). Spraying of chemical pesticides is a last resort and is not to occur unless mosquito density is unusually high. Spraying of adulticides is ineffective, and a perceived need for them generally reflects ineffective management. Traps for monitoring mosquito density must be placed along every designated spray route, or within three miles of a spray route. Threshold mosquito density along one route should not trigger spraying on other routes. Complaints from residents about nuisance mosquitoes should not constitute scientific action thresholds and should not be used to trigger spraying along roads, driveways, or in yards (resident complaints are commonly used to monitor mosquito density when controlling for arbovirus vectors, but Vermont's Insect Control Districts have a mission to control nuisance mosquitoes, not vector mosquitoes).

The Agency intends to address these details through the permitting process and prefers not to have thresholds or other triggers enumerated in rule in order to adapt as science evolves.

Larvicide treatments, either aerial (e.g., helicopter) or land-based (either BTi or Methoprene) should be posted online within 3 to 5 days of each treatment, including: stage of larvae at treatment date; what product was applied; how much product was used; location (GPS coordinates); area treated; area assumed to be affected by the treatment, and; these results should be available online in a digital numerical format (csv or spreadsheet).

The Agency is happy to include these provisions as part of a permit or grant requirement.

An online record of larval monitoring and treatment is a requirement for later adulticide treatment per compliance with integrated pest management rules. If no attempt to monitor

and treat with larvicides has been made, no adulticide application should be allowed. If a special exemption is made to apply adulticide without prior larvicide treatment, then it is not IPM. Such exemptions should be allowed only a few times each year.

The Agency agrees with the Coalition's assertion.

Post-treatment larval monitoring should be done for each treatment. This allows evaluation of larvicide application efficacy. Post- treatment larval monitoring results should be posted online within 3 to 5 days of sampling and in a manner that allows easy comparison to pre-treatment monitoring results. These results should be available online in a digital numerical format (csv or spreadsheet).

The specified triggers mentioned are spelled out in the larvicide procedures and are currently available online.

The Draft Rule needs to explicitly specify the trigger for the use of Methoprene instead of BTi.

Methoprene is a growth regulator, which prevents larvae from becoming adults. Unlike BTi, which is highly targeted to mosquitoes and other flies, Methoprene is harmful to many invertebrate and vertebrate animals.[31]

The Draft Rule should detail what types of habitat can be safely treated with Methoprene.

Methoprene treatment in, or around vernal pools should be prohibited.

The larval monitoring thresholds for Methoprene treatment should be detailed in the permit.

The draft rule fails to detail what other criteria must be met before Methoprene application is deployed.

The Draft Rule fails to detail how the dose of Methoprene is calculated and determined. Related, the Draft Rule does not determine how the volume of water treated with Methoprene is derived.

The Draft Rule does not distinguish whether post-treatment monitoring requirements differ for Methoprene.

The specified triggers mentioned are spelled out in the larvicide procedures and are currently available online.

Unlike most other pesticide spraying in Vermont, which is designed to minimize drift (lateral aerial movement of pesticide away from the sprayer), roadside ULV adulticide spraying is designed and engineered to depend on drift. This should be acknowledged, and the regulations modified to account for this difference. For example, the required 50-foot buffers in 5.02 (m) and 5.04 (c) (2) seem to ignore or discount the nominal drift of 150 feet for all ULV adulticide spraying. When residents opt out of roadside adulticide spraying, a default buffer of 150 feet at either end of the road frontage is a minimum requirement.

Buffers are required for the application of all pesticides. Section 5.02 (m) requires that a minimum buffer of 50 feet from any private well is required when any pesticide is applied

to soil or vegetation. (The owner of the well can offer a written waiver of the buffer.) Section 5.04 (c) (2) requires a buffer of 50 feet from pollinator foraging sites. These required buffers make it burdensome if not impossible to do roadside spraying of adulticides. To overcome this burden, the draft adulticide permit [6.07 (h)] includes a blatant loophole allowing the Secretary to override the buffer requirements in 5.02 and 5.04. Instead, the Rule should be explicit that chemical adulticides sprayed along roads are subject to different buffer distances, establish what those distances are, and justify those distances.

Related, 6.07(g)(5) of the Draft Rule lacks substance and is completely vague. What does the "establishment of standards and practices" actually mean and translate to regarding application practices under the permit? Regarding pollinators, historically Agency staff have argued that pollinators are not at risk from ULV spray because it is performed at night or because the pollinators are not flying. However, roadside ULV spraying of pyrethroid adulticides kills or harms monarch butterfly larvae and adults resting up to 23 meters from the sprayed road. Similarly, roadside ULV spraying of malathion killed 22% to 100% of caged honeybees up to 61 meters from the sprayed road.

The Agency's intention is to provide fair and equitable mitigation between neighbors for individuals who want the application and those who don't. The Agency will address this issue on a per permit basis during the public comment period.

Reporting requirements are covered in Section 8 of the regulations. No mention is made in Section 8 of reporting (each time a pesticide is applied) for mosquito larvicide or adulticide applications. No mention is made in Section 6.06 (larvicide) or 6.07 (adulticide) of reporting requirements. All mosquito monitoring results (larval counts, adult trap counts) should be available online in a digital numerical format (csv or spreadsheet) within 3 to 5 days of the sampling. All mosquito control treatment reports (larvicide and adulticide) should be available online in a digital numerical format (csv or spreadsheet) within 3 to 5 days of the treatment.

The Agency will make this part of the permit or grant requirements.

In Vermont's Insect Control Districts, roadside spraying of ULV adulticides is to occur along public or private (shared) roads. The Draft Rule should specify that individual private driveways will not be sprayed without the owner's written permission and notification of all abutting neighbors. Spraying driveways creates areas of double spray which can exceed the per acre application rate and violate the permit by exceeding the pesticide label limits, see 5.01 (a), 5.02 (i). Spraying driveways can also expose neighbors to pesticides above the level expected from spraying only the public roads.

The Agency likes the idea of requiring written permission from private land owners and will consider adding it as a permit requirement.

In Vermont's Insect Control Districts, the objective of roadside spraying of chemical adulticides is to reduce the nuisance of mosquito-human encounters. Therefore, spraying along sparsely inhabited rural roads should not be allowed. Road segments should not be sprayed if they have fewer than 15 occupied dwellings per mile within 150 feet of the spray route. Such spraying does little to reduce mosquito-human encounters (because few

humans are present). Such spraying impacts rural and wildland environments including pollinator foraging areas, agricultural and wild habitats, wetlands, and bat foraging areas. Bats forage for flying insects at the exact seasons and times (after dark) that roadside spraying occurs and most of Vermont's bats are now threatened or endangered species.

This issue will be addressed in consultation with VT Fish and Wildlife.

Insect Control Districts may use backpack sprayers to apply mosquito adulticide mists to private property (lawns, yards, gardens). The Draft Rule should specify that backpack spraying of private property can be done only at the property owner's request. Such spraying can be done only if scientific action thresholds have been met in the area (within three miles) of the residence, and a request to spray does not constitute an action threshold. Neighbors must be notified at least 24 hours in advance of the spraying if their property boundary is less than 150 feet from the sprayed area. All spraying of private properties must be publicly reported (online) within 24 hours after the spraying. This report must include: time of spraying, location of spraying, product used, approximate area treated, and the action threshold that was exceeded.

The decision to treat on private property is ultimately the decision of the landowner and whether that is done by an insect control district or another commercial applicator is the homeowners decision. While an individual has the right to treat their own property, it is also the right of the abutting property owner to be free of trespass and this may or may not be an activity that occurs under a permit. In this situation, the Agency would respond with its normal enforcement process.

Specific Line-by-Line Comments Regarding 6.06 (Mosquito Larvicide Permit).

Section 6.06(a) states that "[a]ny person who makes a mosquito larvicide application must first obtain a permit from the Secretary . . . ." Section 6.06(j) exempts from this permit requirement any "private, certified commercial, or noncommercial applicator" using BTi larvicide products on their own private property. These two sections produce confusion about permit requirements for any person purchasing BTi larvicide products at a local hardware store for use on their own private property.

No permit is required. This is addressed in 6 V.S.A. §1083(b) and 10 V.S.A. 1455(l).

As mentioned above, the "form" referenced under 6.06(b) should be available to the public for comments prior to the issuance and approval of this Draft Rule.

The forms will be established by procedure pursuant to The Administrative Rule Act.

The requirements of the map that the applicant must produce under 6.06(c) is vague. In regards to mapping threatened and endangered species habitat, the map should be verified and approved by Vermont Fish and Wildlife Department staff. Moreover, the map requirements should specify whether the reference to threatened and endangered species includes state listed species, federally listed species, both, plants and animals, aquatic and terrestrial, etc. As of right now, it is unclear what the applicant is required to produce.

Mapping requirements will be established through permit procedures. RTE maps will represent shape files provided by Fish and Wildlife.

Section 6.06(d)(4) requires that the dates and area to be treated with larvicides be described. For state designated Insect Control Districts, these probably always equate to "April through September" and "the towns of the District" and therefore have little usefulness.

The State provides money for these larvicide activities and the Agency needs a detailed accounting of these expenses.

Section 6.06(d)(5) requires that applicants "set forth a provision for an opportunity for individuals to refuse treatment of their property." Instead, the process by which individuals can opt out of treatment should be specified by this Rule.

The Agency will consider specifying a process of opting out as the permit is developed.

Section 6.06(g) requires that permittees follow the "Vermont Mosquito Control Permitting Procedures." Limits should be placed on the manner in which the "Permitting Procedures" can override sections of this Rule. These "Procedures" must be made available to the public for the comment period on the Draft Rule.

Any procedure made must be compatible with the rule. There are no provisions for a procedure to override a rule.

Specific Line-by-Line Comments Regarding 6.07 (Mosquito Adulticide Permit).

Section 6.07(a) requires a permit for "truck-mounted sprayers" but not backpack or other types of sprayers. Backpack sprayers are commonly used to apply mosquito adulticides and should be included here.

It is not the Agency's intention to capture every commercial adulticide application that occurs on private property. Truck-mounted adulticide application is generally done through public right of ways and it is the Agency's belief that this specific activity ought to be regulated under a permit.

Section 6.07(b) requires a permit application by February 1 of the year of treatment. This might not provide sufficient time for the Vermont Department of Fish and Wildlife to evaluate the risk to threatened and endangered species before spraying begins in May. This section also refers to an application form. This form should be made available to the public during the public comment period for the Draft Rule, otherwise the complete permitting process cannot be properly evaluated.

The Agency has worked in consultation with Fish and Wildlife and the resultant language was approved.

Section 6.07(c) requires a map of the proposed treatment area. For Insect Control Districts, this map should include all designated routes for truck-mounted spraying. There should be a prohibition on applying pesticides along routes not included on the map (so residents who wish to opt out can know if they live along a spray route). Roads not included on the map should not be sprayed without prior notification and ample time to opt out. The required map is to include "threatened or endangered species habitat" but this information is not available to Insect Control Districts. Therefore, this map must be made by the Vermont Department of Fish and Wildlife, not the applicant.

The Agency agrees that the permitted activity should only occur within the permitted areas. Fish and Wildlife is currently working closely with the district to provide the necessary information.

Section 6.07(d)(5) requests that the applicant "set forth the provision for an opportunity for individuals to request a no-treatment area on or abutting their property." Instead, this provision should be specified by this Draft Rule. For example, a valid 911 street address is sufficient information for an Insect Control District to determine the road frontage for that address (using the Vermont Parcel Viewer website). Opting out of roadside spraying must be interpreted as opting out of having pesticides applied to a property. Therefore, spraying must not occur within 150 feet from the property corners to prevent drift from reaching the opted-out property (150 feet is the nominal distance from the spray truck at which ULV pesticide mist is still sufficiently concentrated to kill adult mosquitoes). This 150 foot buffer should be applied by default for each opted-out property. Extended buffers can be arranged with written permission of abutting landowners.

The Agency intends to buffer those properties. The information suggests that those are lateral distances and the Agency will have to establish appropriate parallel buffer distances and is uncertain whether 150 feet is adequate or appropriate.

Section 6.07(f) outlines provisions for notification of residents about adulticide application. In addition to once-a-year notifications, Insect Control Districts should notify residents at least several hours in advance of roadside spraying and specify which designated routes will be sprayed with which pesticide product. This allows residents to follow EPA's recommendations for mosquito adulticide spraying (e.g. closing windows, covering toys and cooking equipment, etc.). These notifications could be easily posted at a public website.

The Agency already does this and will look to require it in permits.

Section 6.07(g) states that "applicants shall submit a long-term integrated pest management plan." This section should also state that permittees are required to *follow* that plan. If the regulations do not provide for enforcement of the IPM plan, the plan is meaningless. The Draft Rule should define the minimal IPM plan that all Insect Control Districts using adulticides must follow (IPM will not vary much among Vermont's Insect Control Districts).

The Agency will add language to ensure the IPM plan is followed. Minimal IPM plan standards will be outlined through the permit process.

Section 6.07(g)(2) calls for "a commitment to larvicide control options prior to the use of an adulticide" which is vague and confusing. If prior use of larvicides is required, then the Draft Rule should prohibit the use of an adulticide without prior use of a larvicide. If prior use of larvicides is not required, then the applicant should not be asked to make a "commitment." This section also calls for "an evaluation of non-chemical options" which is vague and confusing. If non-chemical options are a goal, then the Draft Rule should call for the use of specific non-chemical options under specified circumstances.

The Agency will amend this section (6.07(g)(2)) by removing the word "commitment" and inserting the word "include"

Section 6.07(g)(5) calls for the applicant's IPM plan to include "establishment of standards and practices for: (A) endangered species protection; (B) water protection; (C) wildlife protection, including pollinators; and (D) buffer establishment and maintenance." These four modes of environmental and health protection should be central tenets of these rules and not relegated to a condition in an integrated pest management plan that has no provision for enforcement. An IPM plan for mosquito adulticide application should be stipulated by the Agency and strictly enforced for all permittees.

Provisions established in a Permit are enforceable.

Section 6.07(h) states that adulticide permits "shall establish buffer distances." This suggests that the reasonable buffer distances established in Sections 502 and 504 will not apply to mosquito adulticide application. If different buffer distances are appropriate for adulticide application, then this Rule should include those distances (they are not specific to different adulticide treatment situations so can be universally applied). These buffer distances must reflect that the widely accepted drift of ULV mosquito adulticides is 150 feet from the sprayer (in concentrations sufficient to kill adult mosquitoes) and that many non-target insects will also be impacted that far from the sprayer.

The buffer distances established in 5.02 and 5.04 are for applications of pesticides to land whereas the buffer distances relevant here need to be assessed in relation to a wider area on a per permit basis. The appropriate distance may also vary pending the number of people who opt out.

Subchapter 3

Sec. 11. Transportation and Storage of Pesticides

<u>Prohibiting Storage of Pesticides in Containers Known to Have PFAS</u>.

PFAS are a public health crisis "perfect storm" because PFAS compounds are extremely persistent in the environment, highly mobile in water, bioaccumulative, toxic in very small quantities, and found in hundreds of products. PFAS compounds

are man-made substances that do not occur naturally, and they have been used in non-stick cookware, water-repellent clothing, stain resistant fabrics and carpets, cosmetics, firefighting foams, and other products that resist grease, water, and oil. These chemicals are extremely strong and highly resistant to degradation.

PFAS are toxic to humans in very small concentrations—in the *parts per trillion*. PFAS are suspected carcinogens and have been linked to growth, learning and behavioral problems in infants and children; fertility and pregnancy problems, including pre-eclampsia; interference with natural human hormones; increased cholesterol; immune system problems; and interference with liver, thyroid, and pancreatic function. PFAS have been linked to increases in testicular and kidney cancer in human adults. The developing fetus and newborn babies are particularly sensitive to some PFAS.

Alarmingly, epidemiological studies identify the immune system as a target of PFAS toxicity. Some studies have found decreased antibody response to vaccines, and associations between blood serum PFAS levels and immune system hypersensitivity (asthma) and

autoimmune disorders (ulcerative colitis). There are no medical interventions that will remove PFAS from the body.

PFAS are very resistant to breakdown, bioaccumulate, and easily migrate. PFAS are persistent in the environment and have been shown to bioaccumulate in wildlife. A study by the U.S. Centers for Disease Control and Prevention (CDC) found four PFAS (PFOS, PFOA, perfluorohexane (PFHxS), and perfluorononanoic acid (PFNA)) in the serum of nearly all of the people tested, indicating widespread exposure in the U.S. population. PFOA and PFOS were found in up to 99 percent of the U.S. general population between 1999 and 2012. PFAS are found in human breast milk and umbilical cord blood.

While a great deal of public attention has recently been paid to PFOA and PFOS, EPA and other scientists have raised concerns that other chemicals in the PFAS class of compounds are similar in chemical structure and are likely to pose similar health risks. For example, all PFAS share a strong carbon-flourine bond and "degrade very slowly, if at all, under environmental conditions."[48] Although some of the long-chain PFASs are being regulated or phased out, the most common replacements are short-chain PFASs with similar structures, or compounds with fluorinated segments joined by ether linkages. While some shorter-chain fluorinated alternatives seem to be less bioaccumulative, they are still as environmentally persistent as long-chain substances or have persistent degradation products. In addition, because some of the shorter-chain PFASs are less effective, larger quantities may be needed to provide the same performance.

More recently and relevant to the Draft Rule, the EPA notified industries about fluorinated high-density polyethylene (HDPE) products—including pesticide storage containers—and the linkage for PFAS to form and migrate from HDPE items. Prior to EPA's notification to these industries, in response to Public Employees for Environmental Responsibility (PEER) daylighting the issue of PFAS found in pesticides aerially sprayed for mosquito control in southeastern Massachusetts, the EPA published testing results showing that PFAS likely formed from chemical reactions during the container fluorination process and subsequently leached into pesticide products stored in HDPE containers.[51] In response to what is known about PFAS, pesticides, and pesticide storage containers, we urge the Agency to: (1) explicitly prohibit the storage of pesticides in containers known to have PFAS and/or leach PFAS, and; (2) require active sampling of pesticide products for PFAS that are stored in HDPE containers, which are suspected for PFAS to form and migrate.

The Agency is currently working collectively with EPA and the industry to address PFAS generation or contamination issues in pesticide products as it presents a national issue.

CONCLUSION

Since its founding, Vermont has always stood on the forefront of pressing issues with proactive consideration of effective solutions and necessary responses. As we enter the era of climate change and shifting demands, it is vital that Vermont secure and implement forward thinking protective management regulations for pesticides to ensure the safety and health of our communities, natural resources, and environment at-large. Because of this, we cannot emphasize enough the importance and timing of getting this rule correct—especially given the antiquated character of the 1991 regulations and duration of their use.

As we mentioned at the outset, while we support the intention of some of the changes in the Draft Rule, as compared to the 1991 regulations, broadly, the Draft Rule lacks impactful substance, accountability measures, and effective-protective management measures. Our organizations offer these suggestions and conclusions not to delay or prohibit approval and implementation of the rule, but instead to build the requisite foundation of analysis and public participation so that the pesticide regulations are consistent with the resilient-strong tools that the State will need moving forward.

Thank you again for the opportunity to submit these comments, and for your thoughtful attention to this matter. Our organizations remain available to discuss the issues in the comments at any time.

Respectfully submitted, Dated: June 23, 2022

/s/ Lori Fisher Executive Director

Lake Champlain Committee

/s/ Paul Burns Executive Director

Vermont Public Interest Research Group

/s/ David Mears

Executive Director, Audubon Vermont Vice President, National Audubon Society

/s/ Jon Groveman

Policy and Water Program Director Vermont Natural Resources Council

/s/ Robb Kidd

Conservation Program Manager Vermont Chapter of the Sierra Club

/s/ Graham Unangst-Rufenacht Policy Director

Rural Vermont

/s/ Chris Fastie

Co-Founder & Representative Moosalamoo Woods & Waters

/s/ Jay Feldman Executive Director Beyond Pesticides

/s/ Maddie Kempner Policy Director

Northeast Organic Farming Association of Vermont

/s/ Mason Overstreet Staff Attorney

Conservation Law Foundation Vermont

Alison Coffinbarger
No more toxic pesticides

Thank you for your comment.

Marsha Kameron
It is imperative that the new rulings on pesticides:

*** Make reduction of pesticide use a priority.**

*** Prohibit the use of toxic pesticides on State land, so that there are some areas where pollinators and other wildlife can thrive. The State should set an example of how to manage lands without pesticides.**

*** Protect pollinators by including recommendations from the legislatively-appointed Pollinator Protection Committee. The 2017 report of the Committee said that pesticides in Vermont should NOT be used prophylactically (that is before it is even known whether a pest problem exists). The prophylactic use of pesticides is currently happening on a large scale in Vermont.**

*** Make it clear that citizens in local communities can decide whether or how to use pesticides within their own boundaries.**

Sincerely,
Marsha Kameron
1367 Rock Rd. Hardwick, VT 05843
802-424-6088

The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations.
Pesticide use on public lands is managed through a Pesticide Use Impact Assessment, compiled by the Agency of Natural Resources' Lands Management team. Decisions about restricting pesticide use on land managed by the Agency of Natural Resources lie in that Agency's hands. This Rule provides a legal way to use pesticides if that Agency decides to do so.
The Pollinator Protection Committee's specific recommendations for changes to the Pesticide Regulations have all been adopted.
The Agency has primacy to regulate the use of pesticides as delegated by FIFRA.
Additionally, Vermont is a Dillon Rule State. Towns can only exercise authority granted to them in their town charter.

Ellen Langtree
Make reduction of pesticide use a priority.

Prohibit the use of toxic pesticides on State land, so that there are some areas where pollinators and other wildlife can thrive.

The State should set an example of how to manage lands without pesticides.

Protect pollinators by including recommendations from the legislatively-appointed Pollinator Protection Committee.

The 2017 report of the Committee said that pesticides in Vermont should NOT be used prophylactically (that is before it is even known whether a pest problem exists). The prophylactic use of pesticides is currently happening on a large scale in Vermont.

Make it clear that citizens in local communities can decide whether or how to use pesticides within their own boundaries.

Ellen Langtree

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> Pesticide use on public lands is managed through a Pesticide Use Impact Assessment, compiled by the Agency of Natural Resources' Lands Management team. Decisions about restricting pesticide use on land managed by the Agency of Natural Resources lie in that Agency's hands. This Rule provides a legal way to use pesticides if that Agency decides to do so.
> The Pollinator Protection Committee's specific recommendations for changes to the Pesticide Regulations have all been adopted.
> The Agency has primacy to regulate the use of pesticides as delegated by FIFRA. Additionally, Vermont is a Dillon Rule State. Towns can only exercise authority granted to them in their town charter.

Judith Raskin
Thank you for reading this and acting in behalf of Vermont's citizens and beautiful land. We must stop the use of toxic pesticides and give Vermonters a voice in being guardians of P our land.

Please join in saving the pollinators from these toxic chemicals and every other living things as well. It's time to wake up to how we are killing our beautiful planet.

Judith Ruskin
Hardwick, Vt

> Thank you for your comment.

Carol Schminke
To whom it may concern - (and it should be of concern to all Vermonters)

I writing to make an official comment to help guide your decision making regarding the new draft rules that will set the guidelines for the use of pesticides in Vermont for the future. As one who was once a Certified Pesticide Applicator, I was educated to the many choices and uses of pesticides, and which were allowed to be used by who and in what situations. I also learned of the health dangers, such as cancers, that accompanied the use of many that were lawful, but at the same time, toxic to people and other mammals, fish and other aquatic life, bees and other pollinators, etc. It would be my hope, now that we're nearly a quarter of the way through the 21 century, that the powers that be would be working for the health and well-being of life in our State, and Planet, and greatly reduce the use of pesticides, especially those used prophylactically, and completely eliminate their use whenever possible. Better management practices should be put in place as the first line of defense, and perhaps, thoughts of the interconnectedness of all life forms in our delicately balanced ecosystem should be considered before the economic impacts should these life forms be indiscriminately be killed.

Please work toward the reduction of all uses of pesticides in the state of Vermont.

Thanks for your consideration.

Sincerely,

Carol Schminke
219 Main Street
East Hardwick, VT 05836

> The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations.

Keith Bellairs
A couple of days ago I drove from Hardwick to St J. Not a single bug hit my windshield. It is time for the state's rules to recognize that pollinators are in crisis. Rules that continue to support business as usual do not serve the public good.

The rule should have a clear statement that its purpose is to reduce pesticide use. This must be done by immediate reduction of pesticide applications and careful implementation of integrated pest management, a policy that has only gotten faint lip service so far. Prophylactic use of any pesticide without a proven need is inexcusable and should never be allowed.

The State should be a leader and simply stop using pesticides that harm pollinators. Chemical controls have seemed like a cheap, cost-effective solution, but we are seeing the true costs now.

Keith Bellairs
Walden Vermont

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Laurie Larson
To Whom It May Concern:

In the drafting of the re-write of Vermont's pesticide policy, please make reduction of pesticide use a priority.

Prohibit the use of toxic pesticides on State land, so that there are some areas where pollinators and other wildlife can thrive. The State should set an example of how to manage lands without pesticides. As a certified high school teacher in Vermont, I know there are many evidence-based land and agricultural practices that do not rely on poisonous chemicals.

Protect pollinators by including recommendations from the legislatively-appointed Pollinator Protection Committee. The 2017 report of the Committee said that pesticides in Vermont should not be used prophylactically as is currently happening on a large scale in Vermont.

Thank you for your time regarding this important issue.

Laurie Larson
93 Lafountain St.
Burlington VT 05401

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> Pesticide use on public lands is managed through a Pesticide Use Impact Assessment, compiled by the Agency of Natural Resources' Lands Management team. Decisions about restricting pesticide use on land managed by the Agency of Natural Resources lie in that Agency's hands. This Rule provides a legal way to use pesticides if that Agency decides to do so.

The Pollinator Protection Committee's specific recommendations for changes to the Pesticide Regulations have all been adopted.
The Agency has primacy to regulate the use of pesticides as delegated by FIFRA. Additionally, Vermont is a Dillon Rule State. Towns can only exercise authority granted to them in their town charter.

Judy Kowalczyk

To Whom it may concern,

I was informed that you will be updating your pesticide rules.
There are so many more educated ways of inhibiting pests in the present day. Let's use the least invasive practice (a business called Natures Way Pest Control might be a good place to seek information - they use natural sources to help with all kinds of pest control around homes, and I know that it works).
Please, for the health of Vermonters, the land, and pollinators, make the REDUCTION of pesticide use a priority.
We should be banning Neonicotinoids, but if you will not do so, at least do not use them prophylactically.
Manage state lands to the greatest extent without using pesticides.
If poisons are not needed, let's not use them: It's better for everyone and everything.

Thank you for your time,
Judy Kowalczyk
Middlebury, VT

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Terri Mitchell

To Whom it may concern,
I strongly support an update to the laws of Vermont to reflect the most up to date research about the safest practices regarding pesticide use including banning the use of the most harmful chemicals. In the past few years I have seen a serious decline of precious pollinators. Honey bees are struggling. The once prolific Monarch Butterflies are noticeably scarce. The lesser known pollinators are also in serious decline. If those tiny signs are so apparent then the effects upon all of the other species, including ourselves, are also dangerous.
Please legislate and update safer practices for a safer environment for all!
Thank you for your challenging work!
Terri L Mitchell
Dummerston, Vermont

The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations.

Carol Davis

I am completely opposed to the use of pesticides. When will we begin to see that poisons are BAD for everything and everyone?

Thank you.
Carol Davis
Brattleboro. VT

The Pesticide Regulations provide a framework for the legal use of pesticides in Vermont. The Pesticide Regulations are designed to regulate pesticide use and help individuals make informed decisions – not direct individuals to product choice or limit decision making. Regardless, reduction of use is a key component of all the permitting programs outlined in the Pesticide Regulations.

VERMONT

Agency of Agriculture, Food & Markets
116 State Street
Montpelier, VT 05620-2901
(Phone) 802.828.5667

Agency of Natural Resources
1 National Life Drive, Davis 2
Montpelier, VT 05620-3901
(Phone) 802.828.1294

August 17, 2021

Via electronic mail to:

Conservation Law Foundation
Elena Mihaly, Interim Vice President & Senior Attorney –emihaly@clf.org
Sara Dewey, Director of Farm & Food Initiative – sdewey@clf.org
Colin Antaya, Legal Fellow – cantaya@clf.org

Public Employees for Environmental Responsibility
Tim Whitehouse, Executive Director – twhitehouse@peer.org

Greetings,

The Region 1 States of Connecticut, Rhode Island, Massachusetts, New Hampshire, Maine, and Vermont (States) appreciate that you contacted us to share your concerns about the presence of per- and polyfluoroalkyl substances (PFAS) in certain pesticide products. We received your May 2021 letter and collectively provide this response.

We share your principal concern related to potential PFAS contamination and are actively collaborating with and supporting our co-regulatory partner, the United States Environmental Protection Agency's Office of Pesticide Programs (USEPA-OPP). Collectively, we are exploring this national issue and will evaluate appropriate next steps specific to pesticide products. In addition, USEPA Administrator Regan formed a Council that will be working to address PFAS challenges and USEPA-OPP has a representative on the Council. *See* https://www.epa.gov/pfas/memo-epa-council-pfas. We will pay close attention to the Council's work and expect to rely on its guidance to develop informed and constructive approaches and policies.

The States share a co-regulatory relationship with USEPA regarding pesticide products. The Federal Insecticide, Fungicide, and Rodenticide Act requires the USEPA-OPP's review and approval of pesticide products before they can be distributed, sold, and/or used in the United States. The USEPA-OPP is also primarily responsible for the federal registration of pesticide products.

As noted in your letters to the States, an individual state may further restrict or prohibit pesticide product registration in its jurisdiction. While we acknowledge potential individual regulatory authority, we believe there is substantial value in a consistent and informed shared approach. The implications of adopting consistent or disparate practices are broad, and the

need for risk assessment, hazard identification, and potential solutions are uniform and best addressed federally. A national approach foments regulatory consistency, permits evaluation and mitigation measures at the source, helps to protect all states, and provides a clear framework and standards for industry. Accordingly, the States recommended that this issue be addressed federally with support from individual states.

To that end, the States are committed to collaborating with USEPA-OPP and others to evaluate and address this issue in pesticide products and to continue collaborating with the federal government.

The following federal actions and steps meet many of your requested action items.

Steps currently in progress:

- USEPA-OPP is notifying pesticide registrants of this issue and highlighting the requirements in FIFRA Section 6 (a)(2) to disclose any PFAS identified in products. *See* https://www.epa.gov/pesticides/pfas-packaging .
- USEPA-OPP is discussing this issue with pesticide industry representatives to understand the potential sources of PFAS, to identify processes and conditions that may result in PFAS contamination, and to work toward removing and/or mitigating any contamination at the source.
- A National level workgroup between USEPA-OPP and the American Association of Pesticide Control Officials (AAPCO) is being formed to identify state and federal resources and share information.
- Individual states have been actively disseminating information about this concern to industries in their respective states.
- USEPA-OPP is developing and validating analytical methodologies specific to pesticide formulations for use by industry, states, and others. Validated laboratory methods will provide verifiable and comparable data that should bolster stakeholders' understanding and confidence in results. This will also allow for additional sharing of meaningful data.
- States are assessing laboratory capacity to assist in any investigations of specific products.
- USEPA-OPP notified other federal agencies that may regulate products in HDPE-fluorinated containers about this issue and shared its analyses of containers and pesticide products.
- USEPA-OPP is encouraging the pesticide industry to explore alternative packaging options, such as steel drums or non-fluorinated HDPE, that will satisfy USEPA-OPP and other federal packaging criteria.
- At the USEPA level, there are significant ongoing efforts to identify the information needed to properly assess the risks. This involves identifying pertinent data, evaluating

what additional data may be required, and ultimately determining consensus inputs for such analyses.

Thank you again for raising your important concerns. We look forward to meeting you, as a Region, to discuss ways to collaborate and constructively address this issue.

Sincerely,

Anson Tebbetts
Secretary
Vermont Agency of Agriculture, Food & Markets

Julie Moore
Secretary
Vermont Agency of Natural Resources

Cc:
Bryan Hurlburt, Commissioner, Connecticut Department of Agriculture
Amanda Beale, Commissioner, Maine Department of Agriculture, Conservation & Forestry
John Lebeaux, Commissioner, Massachusetts Department of Agricultural Resources
Shawn Jasper, Commissioner, New Hampshire Department of Agriculture, Markets & Food
Ken Ayars, Chief, Rhode Island Division of Agriculture

AGENCY OF NATURAL RESOURCES

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Memorandum

TO: **Patricia Coppolino, Section Chief, Sites Management Section**
FROM: **Richard Spiese, PM, SMS**
DATE: **June 18, 2021**
RE: **PFAS in Pesticides/Potential Environmental Risk (Spill file#2021WMD238)**

I recommend **no further actions/sampling** of environmental media in Leicester, Brandon, and Salisbury in response to PFAS in pesticides being sprayed in these towns to control mosquitos. My recommendation is based on a review of sampling results from public water supplies in these towns, on empirical calculations of PFAS loading rates onto soils and the potential risk, or lack thereof, posed to groundwater, surface water, and drinking water supplies, and on a similar determination made by Massachusetts Department of Environmental Protection given similar pesticide spraying conditions.

Background

The towns of Brandon, Leicester, and Salisbury have been spraying the pesticide Permanone in wet areas of their towns to attempt to keep mosquito populations in check. Based on reporting of similar spraying in Massachusetts, a citizen called the State of Vermont to express their concern that PFAS may pose a risk to environmental media from this spraying. I was told that there was 2 oz. per acre of Permanone sprayed and that it could contain concentrations of 35,000 ppt PFOA and 630 ppt HFPO-DA. The PFAS mostly likely came from hardening of the pesticide containers which most likely started in 2019.

Based on reports from PEER, EPA sampled container rinsate for the State of Massachusetts by rinsing both used and unused containers with methanol and analyzing the rinsate for PFAS. The outcome of this evaluation was that the most likely source of the PFAS found was from the containers; which were fluorinated to harden the HPDE. The average levels of PFAS found ranged from 20-50 ppb, with 8 PFAS detected (PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFNA, PFDA, PFUdA (C4-C11)), with the shorter chain carboxylates having the highest concentrations and levels decreasing as chain length increased.

Water Supply Sampling Results

I reviewed the sampling data currently maintained by VTDEC on public and private water supplies in these towns. The PFAS sampling results for public water systems showed:

	2019 Sampling Results	2020 Sampling Results
Brandon FD#1	ND (11/20/19)	ND (12/16/20)
Brandon FD#2	ND (10/01/19)	ND (10/16/20)
Brandon Motor Lodge	TNC, no sampling required	

Leicester Central School PFAS in this well, includes sulfonates, investigation indicates from school septic system

3 private wells east and north of Leicester Central School-all ND for PFAS

Empirical Calculations of PFAS loading rates onto soils

Spreading rate - 2 oz. Permanone/acre
PFAS concentrations – 35,000 ppt PFOA, 630 ppt HFPO-DA (I ignored this PFAS as almost 2 orders magnitude lower concentration and no standard)

1 L = oz/33.814 2 oz/33.814=0.05915 L/acre
1 acre = 4000 m2
Application Rate – 0.05915 L/acre x 1 acre/4000 m2 = 0.05915L/4000 m2 = 0.00001479 L/m2
Concentration – 35,000 ppt or ng/L
Mass per unit area – 35,000 ng/L x 0.00001479 L/m2 = 0.51756 ng/m2
Concentration PFOA top 3' (1 meter) soils
1 meter cubed (m3) soils mass, 1364 kg/m3 (average mass soil)
Concentration mass/mass – 0.51756 ng/m3 / 1364 kg/m3 = 0.00038 ng/kg (less than 1/1000th of a ppt)
3 years of applications brings concentration in soils from pesticide spraying to about 1/1000th of a ppt)
Average current background concentration PFOA in Vermont soils 500 ng/kg
Pesticide spraying added about 1/500,000 PFOA to soils

Similar Determination Made by Massachusetts Department of Environmental Protection

Here is what Mark Smith of MADEP said about their evaluation of this problem:
We did a similar calculation -- really worst case scenario re potential impact to surface drinking water supply and the estimated concentrations were way below detection limits and our DW standard (5000X lower). Hence we really haven't focused on doing any environmental sampling to date but we did look at some limited surface water data collected for other purposes, in and outside, of an aerial spray zone and there was no difference (actually the levels outside were a bit higher).

Conclusion

Based on my evaluation of the PFAS in pesticide spraying issue, I do not recommend any additional environmental sampling be performed. This recommendation is based on an evaluation of sampling results from public water supplies in these towns, on empirical calculations of PFAS loading rates onto soils and the potential risk, or lack thereof, posed to groundwater, surface water, and drinking water supplies, and on a similar determination made by Massachusetts Department of Environmental Protection given similar pesticide spraying conditions.