



Agency of Agriculture, Food & Markets

116 State Street

Montpelier, VT 05620-2901

www.Agriculture.Vermont.gov

Written and Electronic Public Comments Received Regarding Second Draft RAPs
2/23/2016 - 4/15/2016

For more information, please visit <http://agriculture.vermont.gov/water-quality/regulations/rap> or contact the Vermont Agency of Agriculture, Food and Markets at (802) 272-0323.

Additional public comment on this RAPs draft should be submitted to AGR.RAP@vermont.gov

From: [Champlain Valley Farmer Coalition](#)
To: [AGR - RAP](#)
Subject: comments on Draft 2 RAPs
Date: Wednesday, March 16, 2016 4:50:06 PM
Attachments: [CVFC Response RAP Draft2 Mar2016.pdf](#)

Secretary Ross and VAAFAM Staff,

Please find attached our formal comments on Draft 2 of the Required Agricultural Practices Rule for the Agricultural Nonpoint Source Pollution Control Program.

We appreciate the opportunity to give feedback as you create this very important rule for agricultural water quality in Vermont.

Sincerely,

Brian Kemp
President, CVFC



Champlain Valley Farmer Coalition Inc.

Farmers Working Together for a Clean Lake Champlain & Thriving Agriculture in Vermont

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FARMER COALITION INC.

Champlain Valley Farmer Coalition, Inc.

*Farmers working together for a clean Lake Champlain
and thriving agriculture in Vermont.*

Secretary Chuck Ross
Vermont Agency of Agriculture, Food & Markets
116 State Street
Montpelier, VT 05620-2901

March 15, 2016

RE: Draft 2 of the RAP Rule for the Agricultural Nonpoint Source Pollution Control Program

Secretary Ross,

We appreciate the effort of the VAAF and its staff, particularly Laura DiPietro and Ryan Patch, to provide farmers another opportunity to have input as you draft these new rules for Vermont farmers to protect water quality. The Champlain Valley Farmer Coalition devoted most of its last monthly meeting to reviewing Draft 2 of the RAPs and then met with Laura and Ryan the next week to clarify some questions and get a better handle on the significant changes in this draft. We appreciate them taking the time to meet with us.

Below you will find our comments on Draft 2 of the Required Agricultural Practices Rule.

Overall comments:

We would like to reiterate the importance of an 'all in' approach to this complex issue. Consistent standards across all types and sizes of farming operations are crucial if we are to make any strides towards a solution for Lake Champlain and for water quality across Vermont. We feel there was some loss of this 'all in' approach. We also still feel that to make these standards reachable, we need to use common sense approaches that allow farmers to make the best risk management decisions on a farm by farm (and field by field) basis, while still allowing the agency to ensure farms are meeting these standards.

Section 2 - DEFINITIONS:

Many terms and issues have been clarified in this draft and many questions were answered regarding definitions.

Annual Cropland vs. Cropland

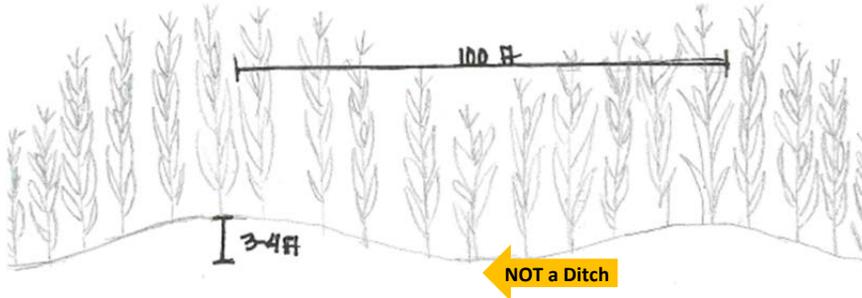
We understand that any 'annual' forage or field crop is included in the Annual Cropland definition, while vegetables are included in the Cropland definition along with hay, pasture and perennial crops. Since vegetables and berries are specifically *excluded* from the annual cropland definition, they should be specifically *included* in the definition for cropland to make it more clear. We have more thoughts about vegetables, berries, etc (produce) being excluded from many of the standards in this draft, but they are covered in their corresponding sections below.

Custom Applicator

We wonder if the word ‘fertilizer’, as defined in this same section, should be included in the definition of Custom Applicator. From our conversations with VAAFM staff, it seems that this would be the intent of the definition and for the requirements under Section 10.

Ditch

Upon our discussion with VAAFM staff, it seems that the definition of ditch would *not* include a bedded field that has crops growing in low spots spaced across a field (*see below*). This definition seems clearer than the previous draft’s definition for Intermittent Waters that included swales and other non-descript conveyances.



Section 4 - Small Farm Certification

This section is definitely clearer than it was before. We understand the reasoning of the new threshold (being 25% of MFO requirements for livestock) and using thresholds from FSMA regulations for vegetables. As a group, we feel like this is a step back from the ‘all in’ approach as it requires fewer farms to meet the higher standard. We understand the reality of capturing all of those farms in a short timeframe and it will be a large task to get all the farms that meet this threshold to develop a 590 standard Nutrient Management Plan by the 2017 growing season. It is our suggestion that you leave this definition as it is now in Draft 2, and then revise it to include farms with 25 mature dairy cows or 30,000 pounds of total live animal weight (animal units) in 2018 when the RAPs are reviewed again.

Section 5 - Agricultural Water Quality Training

CVFC is fully supportive of providing training and education to all farm operators. While we understand the Agency’s approach to allow farmers to ‘phase in’ some of these requirements by only requiring 4 hours of training every 5 years, annual education training would be better. The farmer training of 4-hour minimum should be done within this first year. If allowed to drag out over the next 5, some people may not do it until the 5th year.

Section 6 - RAPs; Conditions, Restrictions & Operating Standards

6.03 Nutrient Management Planning

c) We are disappointed that soil testing for non-certified operations was moved back to once every 5 years. We suggest using the requirements in the first draft of this document so that all farms soil test once every 3 years. We have many small farms in our organization, and every three years does not constitute an unfair burden to them, as they have fewer fields to sample, so there is less time and expense than a larger farm and is scale appropriate.

d) We believe that all cropland should be subject to this section. It seems that vegetable fields have been exempted from this particular standard unnecessarily. Also, if you are to utilize 20 ppm Phosphorus as the criteria

for a field soil test, you should include the associated soil testing parameters to be clear. For example, it should read, “who have Modified Morgan soil analyses for available phosphorus demonstrating greater than 20 ppm”. Otherwise, if you intend to allow other soil analyses be used, it should read, “who have soil analyses demonstrating an excessive phosphorus categorization based on the method being used”.

6.04 - Soil Health & Cover Crop Requirements

c) We support the agency on the required use of cover crops in floodplain fields. Again, we feel that vegetable cropland was left out of this requirement unnecessarily. All fields subject to erosion should be included in this requirement. All fields with any annual crop should be included.

6.05 - Manure and Waste Application Standards and Restrictions

b) We have members whose farms have significant acreages that would be covered under this restriction and they would be unable to spread manure for an additional 75 days. This paragraph could be removed or altered to allow for individual farms to make common sense, risk management decisions to avoid manure losses. Requiring additional practices like manure incorporation, cover crops and increased buffers could be an alternative. This section also unnecessarily exempts vegetables, while specifically including all other types of cropland.

c) This section again unnecessarily exempts vegetable acres from needing to incorporate manure/agricultural wastes on these frequently flooded fields.

f) We understand this requirement only applies to fields that have a 10% slope adjacent to surface water. While the rule states the field average must be 10% or greater, in our conversations with agency staff it seemed that any field that had a slope of 10% adjacent to surface water would be subject to this increased buffer. More Clarification here would be helpful.

6.07 - Buffer Zones and Setbacks

d) It seems like a consistent restriction of manure should apply in buffer zones. If mechanical manure is not allowed, why would grazing livestock be allowed? The same pathogens and potential nutrient losses would exist.

Section 7 – Livestock Exclusion Requirements

See our comments in 6.07(b) above

Section 10.0 – Custom Applicator Certification

Please see our comments regarding the definition of ‘custom applicator’ in Section 2 above. We feel that custom applicators of all plant nutrients should have the same training and certification. By adding the word ‘fertilizer’ to this definition, it would cover all applicators of Waste or Agricultural Waste (sec. 2.33)

h) We understand that Certified Custom Applicators will be liable for applying manure, agricultural wastes and fertilizers in a manner that is in accordance with the RAPs and in a way that those nutrients do not leave the field. However, we are concerned about bottlenecks that could be created by requiring the Custom Applicator to ensure that the application is in accordance with every farm’s individual Nutrient Management Plan. That could have some unintended consequences including:

- Custom Applicators not being able to remove manure from a pit to avoid a direct discharge or in order to make adequate capacity for winter storage.
- Not being able to apply manure or fertilizer on farms that do not require an NMP as set out in Section 4 of this rule
- If this is required in spring 2017, there will likely be many farms that do not have a completed NMP and this will restrict their ability to hire someone to spread manure or fertilizer on their farms.

Our suggestion would be to have an affidavit signed by the farm customer that outlines their requested application rates and whether they are in accordance with a Nutrient Management Plan along with the requirement in subsection i) of this Section that requires record keeping of amount of materials applied, when and on what fields. A simple document or documents with field information, rates of manure/fertilizer to be applied and where buffers/setbacks are located could suffice. This could be in the form of a list and/or a map with this information, but not necessarily the entire Nutrient Management Plan.

Again, we appreciate the opportunity to have input in this process and appreciate your consideration. We look forward to staying actively engaged.

Sincerely,



Brian Kemp, President
Champlain Valley Farmer Coalition, Inc.

From: [Don Meals](#)
To: [AGR - RAP](#)
Subject: Comments on second draft of RAPs
Date: Friday, March 18, 2016 11:18:45 AM

For the most part, I am impressed and pleased with the RAPs. A few comments on the second draft:

1. With regard to frequency of soil testing, I strongly believe the RAPs should go back to a minimum 3 year cycle (Section 6.03, part (c)). I think that a 5-year cycle is too long and conflicts with the requirements of NRCS 590, which defines "current soil tests" (upon which the NM plan is to be based) as those no more than 3 years old and also requires new NM plans to use soil test data no older than 1 year old. Three years is a widely applied standard across the U.S. The responsiveness summary from the first round suggested that soil testing on a 3 year cycle is financially burdensome to farmers. I think this is hard to believe and could easily be checked for LFOs and MFOs that have been on a 3-yr cycle for many years. If in fact the cost is a real impediment to farmers soil testing, then perhaps the AAFM and/or ANR could subsidize or fund a soil testing program for farms, as is done in other jurisdictions around the country. It would be a small investment to support an important component of nutrient management.

2. Again re: soil testing, 6.03 (c) states that records of soil tests, manure applications, etc. are to be maintained for 5 years. This is inadequate for a number of reasons. On a 5-year cycle, this means that at any given time there could be only one soil test result on file for a given field. This is clearly inadequate for a farmer or inspector to observe a trend or change in soil test P, especially given the requirement in 6.03 (d) that farmers in certain cases shall implement practices to reduce phosphorus levels in soils. With only a single soil test value available, how will the farmer or anyone know if such practices (or the entire NM plan itself) are working? It does not seem burdensome to require farmers to maintain longer records, at the very least 2 sequential soil test reports, preferably more. If it is a burden, then perhaps the RAPs could require reporting to AAFM and AAFM maintains the data?

3. With regard to Section 7 livestock exclusion, I would argue for more required livestock exclusion outside of the production area, given the strong documentation of the impacts of livestock access on water quality and the effectiveness of simple exclusion practices to reduce those impacts. However, I suspect that this is a lost cause at this point. I would ask that under Section 7 (c)(2) "areas designated by the Secretary as having actual or potential threat to water quality as a result of livestock access," the process and principles of such designation be more clearly defined - would it be complaint driven? Data driven? Please specify how such an area would be identified and this section enforced.

Thanks.

Don Meals
Burlington VT

From: whitetailacres@myfairpoint.net
To: [AGR - RAP](#)
Subject: Comments on the RAP"s
Date: Saturday, April 9, 2016 11:36:10 AM
Attachments: [NRCS standards letter!.docx](#)

Thank you for taking your time to look at all the public comments! Attached is our comments. Thanks,

Janice Covey

Benjamin and

My parents have farmed for over 50 years and I've been on the farm all my life. Now my wife and kids are working the farm with us. We have always worked 7 days a week 365 days a year and strongly believe that the land we own shouldn't be controlled by people who don't know about farming or understand how much time goes into it. Now our farm is an organic farm. We have to be Nofa inspected every year and the Dairy operation is State inspected twice a year and sometimes federally inspected to. We feel like you are trying to change our way of life and force us to do things that might not work for our farm situation, without substantial proof that the plan will be effective in reducing any phosphorus runoff we might have. Especially when there is State sewage systems that are going into water every time it rains hard.

The State has pushed for large farms and now they are the ones doing the most damage. We milk around 60 cows counting the dry ones. Your new rules are going to make a lot more expense and work on top of all the other things we have to do every day. We feel at least you should change the rules to go by a farm-to-farm basis and assess each farmer's problems and help them look for the most economical and less time consuming ways to address any issue they might have. We are also concerned about the 10% slope. Due to the fact that we live in Vermont and most of the land that we farm is on more than 10% slope and we can't afford to loose it. We feel that the State should take into consideration that if they push this to far they will loose even more small farms and not many tourists come to look at 500 cow free stalls and manure pits. They come to look at cows grazing in the field. The picturesque setting that Vermont is known for in so many magazines and postcards.

It is our hope that our kids can keep this farm going, and hope that too many rules and regulations don't discourage them from wanting to farm. We have already lost so many small farms; if too many more are forced out it will change Vermont's landscape forever! We desire to have healthy land and water to pass down to our kids and we believe we can do that without all the rules and regulations.

From: [Eaton, Tom](#)
To: [AGR - RAP](#)
Subject: Comments Specific to 2nd Draft RAP 6.05(b)
Date: Monday, April 4, 2016 8:51:36 PM
Attachments: [Comments on RAP Section 6.05\(b\).pdf](#)

See attached for specific comments on RAP Section 6.05(b), provided by the following farmers and myself. Don't hesitate to call or email with questions. Thanks!

Conant's Riverside Farm – Richmond, VT
Farr Farms – Richmond, VT
Newmont Farms – Bradford, VT
Goodrich Farm – Cornwall, VT
North Williston Cattle Co., Inc. – Williston, VT

Tom Eaton

Agricultural Consulting Services, Inc.
Senior Service Manager/Agronomy Consultant
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802-488-4172

April 4, 2016

Comments and Suggestions for Required Agricultural Practices Rule for The Agricultural Nonpoint Source Pollution Control Program: Section 6.05 (b)

On Thursday, March 24, 2016 the following farmers and Ag. Professionals met with Jim Leland and Ryan Patch from Vermont Agency of Agriculture, Food, and Markets to discuss the second draft of the Required Agricultural Practices (RAPs); specifically Section 6.05 (b)

In Attendance:

David, Deb and Ransom Conant – Conant’s Riverside Farm, Richmond, VT

Ryan Carabeau – Conant’s Riverside Farm, Richmond, VT

Chuck and Ashley Farr – Farr Farm, Richmond, VT

Walt Gladstone – Newmont Farms, Bradford, VT

Ernie and Chace Goodrich – Goodrich Farm, Cornwall, VT

Lorenzo Whitcomb – North Williston Cattle Co. Inc., Williston, VT

Abigail Pajak – VAAFM

Jim Leland – VAAFM

Ryan Patch – VAAFM

The purpose of this meeting was to discuss the language in section 6.05 (b) of the second draft of the RAPs; “Manure or other agricultural wastes shall not be spread on annual cropland, perennial grass land, or hay land subject to frequent flooding from adjacent surface waters, as described in the USDA Soil Survey Flooding Frequency Class, after October 15 or before April 15.”

The group of people who attended this meeting acknowledge that there are various regional watersheds and that we all recognize the differences between those watersheds and the differences between farmers' abilities to manage fields and applied nutrients within these regions. Because of these differences, an inflexible deadline may not be the best means to responsible risk management and water quality for both the farms involved and the state as a whole. Thus, supporting the group's sentiment, this proposal would not result in meeting the goals of achieving improved water quality for the agricultural community, environmental community and the State of Vermont.

The group also acknowledges, that by putting in place a deadline of this sort, it removes an integral element to a farm's overall balanced, strategic operating plan.

The group further acknowledges that there is a potentially lower risk of flooding on 'frequently flooded lands' than the October 15th deadline may imply. These proposed rules would potentially cause farms to focus more manure on other lands, thus increasing the phosphorous load on those acres and increasing the risk of runoff from manure or other agricultural waste reaching surface waters.

It is the strong belief of the group that if the policy of an October 15th deadline is put into place, farmers operating at the highest level of management should be able to receive a variance to apply manure or other agricultural wastes to “land subject to frequent flooding” after the October 15th deadline and up to the winter spreading ban of December 15th. The variance would essentially be a specific field by field nutrient management plan (NMP), within a farm’s NRCS 590 standard NMP for the “land subject to frequent flooding”. The variance is to be developed by the farm operator and a Certified Nutrient Management Planner.

The following is a list of recommended Best Management Practices (BMPs) that could be used to develop and implement a plan for applying manure, or other agricultural wastes to “land subject to frequent flooding”.

The following BMPs or strategies would need to be completed and documented for the Secretary of Agriculture to grant a farm the “Variance” to spread on “Land Subject to Frequent Flooding”.

Best Management Practices for Land Subject to Frequent Flooding:

- The farm must have a complete and up to date 590 standard NMP
- The farm must document that the long term, fourteen day forecast is in favor of the nutrient application for that farm's specific Watershed.
- Fields must have an established cover crop or perennial crop for spreading before April 15.
- Fields must have a perennial crop, established cover crop, or plan to plant a cover crop by October 15, in order to spread after October 15.
- The farm must direct inject the manure or other Agricultural wastes. If the farm does not have the ability to direct inject, manure or other agricultural wastes will be applied at a rate of 4,000 gallons per acre or less.
- No “Primary” Tillage in “Land Subject to Frequent Flooding” after October 15th.

In addition to the potential unforeseen negative water quality impacts the October 15 and April 15 spreading ban may have, there is also a major negative economic impact to farms. If farms are not able to utilize BMPs, and/ or their knowledge and experience farming “Land Subject to Frequent Flooding”, they will then have to adjust their cropping practices to fit the shorter season. Production of high quality forages and nutrient management will be directly affected. The aforementioned adjustments will result in lower yields and decreased feed quality. Not only would this be an economic impact, but these changes would also have a negative effect to the farm’s NMP due to decreased Crop Nutrient Uptake, as well as an increase in imported feed purchases, which tend to be higher in Phosphorus than the forages produced on the farm’s land.

The following is an illustration of how the proposed rule change would affect the economics of crop production and overall feed efficiency, when shortening the season in which the farm can utilize the highly productive “Land Subject to Frequent Flooding”.

Economic Impacts and Nutrient Uptake Impacts

- Shorter Day length corn does not Yield as high as longer day length corn. %P2O5/lb of DM in Corn Silage is 0.62 lbs. A Typical 110 day Corn Silage variety yield goal on soil types that tend to be found in “Land Subject to Frequent Flooding” is 25-30 tons/acre.

27.5 tons of 35%DM corn = 9.625 DM Tons/acre

9.625 DM Tons/acre x 2000 = 19,250 lbs DM/acre

19,250 x 0.62/100 = 119.35 lbs of P2O5/acre

To comply with the proposed changes to the RAPs on “Land Subject to Frequent Flooding”, farms would have to change the varieties of corn they grow to day lengths of around 90 days to maturity (DM). The yield potential of 90 DM corn silage on typical soil types found in “Land Subject to Frequent Flooding” is approximately 18 Tons/acre.

18 Tons of 35% DM corn = 6.3 DM Tons/acre

6.3 DM Tons/acre x 2000 = 12,600 lbs DM/acre

12,600 x 0.62/100 = 78.12 lbs of P2O5/acre

***Therefore the decrease in crop P removal would be approximately 41.23 lbs of P2O5/acre**

If farms are losing feed inventory due to having to grow shorter Relative Maturity corn, they will have to supplement the decrease in farm grown forages, by adding imported feed stocks, that tend to be high in Phosphorus. This imported phosphorus will show up in the cow’s manure and eventually in the field, even though the crop uptake will still be at a lower level. Thus, resulting in increased soil test P across the state.

- Reduced Profitability from planting Long Season BMR to Short season conventional corn varieties. [See attached profitability calculations by Kurt Ruppel of Cargill](#)
- Reduced Profitability from planting Long Season Conventional Corn to Short Season Conventional Corn. [See attached profitability calculations by Kurt Ruppel of Cargill](#)

From: [Kent Henderson](#)
To: [AGR - RAP](#)
Cc: [Ross, Chuck](#); [DiPietro, Laura](#); [Patch, Ryan](#); [Rupe, Marli](#); [LaClair, Jolinda](#); [Markowitz, Deb](#)
Subject: FNLC response to RAP's reformatted.docx
Date: Friday, April 8, 2016 9:27:52 AM
Attachments: [FNLC response to RAP's reformatted.docx](#)

Hello Sec Ross,

Please accept FNLC's written comment on the 2nd draft of RAP's. The comment represents considerable input from a special subcommittee of the advisory board, largely based on last Monday's excellent presentation to the entire advisory board by Ryan Patch.

Thanks,
Kent Henderson, FNLC chair



April 8, 2016

Secretary of Agriculture Chuck Ross
VAAFMM
116 State Street, Montpelier, Vermont 05620

Dear Secretary Ross,

Thank you for considering written comment on the 2nd Draft of Required Agricultural Practices Regulations for the Agricultural Non-Point Source Pollution Control Program associated with Act 64 of the Vermont General Assembly (2015 session). The following comment is derived from extensive input from the Friends of Northern Lake Champlain Advisory Board.

Improving water quality on all state waters is essential to Vermont's overall ethic of providing its citizens with an environmentally superior place to exist and raise a family. There is a shared importance of working in partnership with all members of society to make improvements. Agriculture producers, as well as society as a whole, have an important role and responsibility to achieving clean water; and adhering to these carefully defined RAP's gives responsible agricultural producers an opportunity to participate in lake clean up.

Vermont Agriculture needs to be sustainable and viable. In order to accomplish this, agriculture needs to meet these four elements: production efficiency, profitability, socially acceptable, and be environmentally sound. The RAP's are being issued to insure that the environmental element is being supported. Agriculture and society must meet all four elements and the rules must be supportive of each other to insure that water quality improvement desired by society is achieved. All technology improvement needs to be encouraged and adopted to address all four elements of insuring that agriculture is sustainable. The RAP's need to encourage new and improved ideas and not just rely on current practices. As new technology comes on the market, these new ideas need to be allowed within the rule process.

Recognizing that there is an urgent need to foster the cooperation and understanding of all Vermont farmers and land owners to reduce non-point source Phosphorus runoff, regulation must provide the specific boundaries and guidelines for behavior change. The RAP's need to establish and define a set of standards and expectations to be met by all VT agricultural producers, large or small; and then actual practices and procedures need to be stated to meet those standards. If someone does not meet those standards, the enforcement process needs to be described and applied in a timely, fair manner.

FNLC and the state of Vermont recognize that many individuals are doing a great job. The RAP's are being written to address those individuals who are not able or willing to meet these standards. Well-written practices alone, do not control or prevent pollution; responsible, caring people using technology, knowledge, and skills do. Labor and management training need to be the focus and not the written rules by themselves. Training for farmers and applicators needs to be more often than once every five years. Annual education is a standard to strive for and is available in many convenient forms, such as UVM Extension conferences and webinars, watershed group (CVFC, FWA, FNLC, and others) meetings, and national minimum tillage and manure management meetings.

It is extremely unfortunate, that the VAAFm had to extend the timeline for completing the RAP's. There have been huge success stories in agriculture and a strong movement is under way for improvement on many farms in anticipation of the July release of the RAP's. FNLC is hopeful that the delay will not harm this momentum during the 2016 growing season. Producers are searching for the limits and guidelines and there can be no further delays.

To make the regulations work with the educational process, it is very important to stress the "site-specific" valuations that expert agency personnel can apply to complex individual field conditions. Not all farmland is identical, so nutrient management plans for each farm should be formulated at the earliest possible time so that differences in farm land and potential P loss can be determined and addressed in the most effective manner.

Overall, it appears that vegetable, fruit, berry crops, and a large segment of small dairy farms (<50 cows) and beef cow (<75 cow/calf pairs) farms are being left out. As VAAFm personnel resources grow in the next two years, these minimum head count for all species needs to be reduced so that more operations come under certification during the 2018 growing season. In the meantime, since all agriculture producers are to be complying with the RAP's; it would be advisable to conduct a limited number of random spot investigations on the above-mentioned farm sizes that are not actually being certified this year.

Buffer width required for 10 degree sloped fields should be adjustable downward on a field by field basis from 100' based on the field observations of elimination of rill erosion by expert VAAFm employees. Examples of improved agronomic practices that could be employed to reduce the 100' buffer width include, applied minimum tillage methods, adequate use of grassed water ways, counter-slope plowing, extended hay/grain crop rotation strips, and effective cover crop.

Further specific suggestions:

Sec. 2.02 – Definitions

Annual row crops of berries, vegetables, and fruits should be included with animal feed grains so that all agriculture producers are included.

Sec. 4.1 – Small Farm Certification and Training Requirements

Minimum mature head count on dairy farms should be reduced from 50 to 25 to be sure to include a significant segment of the farms. If there are not enough VAAFMM personnel to carry on these inspections in 2016-17, then bring these farms on board in 2018. And in the meantime, some random spot checks at various farms of any species under the minimum head count should be conducted to serve notice that all agriculture producers are required to use these improved practices.

Sec. 5 - Agricultural Water Quality Training - Required annual education training would be much more effective, especially for the new certified small farms which are just coming on board. By allowing for training every five years, there will be several small farms that procrastinate and ignore or are ignorant of the RAP's until 2021.

Sec. 6.03 Nutrient Management Planning

c) Soil testing for non-certified farms should remain at 3 years and not raised to 5 years just in order to save money for the small producer. In particular, farm fields with high P tests need to be tested every three years so see if they are responding to improved agronomic practices.

Sec. 6.04 Soil health Management: Cover Crop Requirements

c) - to be inclusive, vegetable cropland and all fields subject to erosion, including flood plain fields should be included on the required use of cover crops.

d) - to be inclusive of all agricultural producers, vegetable fields should be included

Sec. 6.05 – to be inclusive, vegetable acres should not be exempted.

b) - Instead of operating strictly by the calendar, consider working with thoughtful, innovative operations that use progressive practices like manure injection or Sedgeway cultivation, cover crops, grass waterways, permanent floodplain grass way escape chutes, and increased buffers. Vegetable crop land should not be exempted.

c) - Vegetable acres also need to incorporate manure on river bottom lands.

Sec. 6.07 - Buffer Zones and Setbacks

d) - to be consistent, grazing animals that defecate should not be allowed in buffers if mechanical manure spreading is not allowed.

Sec. 10. Custom Applicator Certification

g) Certified custom applicators should complete four hours training every year after receiving eight hours training for the initial certification year. Five years is too long to wait for new technology information and to keep up on the state's progress in reducing P loss.

In closing, FNLC recognizes the hard work of the VAAF water division in compiling the RAP's and the desire to develop an "All In" approach to improve water quality in all the state's waters. This comment is meant in the spirit of constructive criticism and FNLC looks forward to further collaboration with the agency, agricultural producers, and the citizens of VT.

Sincerely yours,

Kent E Henderson, DVM, FNLC chair

Denise B Smith, FNLC Executive Director

From: [Patch, Ryan](#)
To: [AGR - RAP](#)
Subject: FW: 2nd Draft RAP Comments
Date: Friday, March 25, 2016 3:13:23 PM
Attachments: [Scan0217.pdf](#)

From: Lewis, Trevor
Sent: Friday, March 25, 2016 3:08 PM
To: Patch, Ryan <Ryan.Patch@vermont.gov>; Ross, Chuck <Chuck.Ross@vermont.gov>; Leland, Jim <Jim.Leland@vermont.gov>
Cc: DiPietro, Laura <Laura.DiPietro@vermont.gov>
Subject: FW: 2nd Draft RAP Comments

Good afternoon Amanda,

Thank you for your submission of comment. I am forwarding this to our point person Ryan Patch who is inventorying and incorporating public comment.

Thank you,
Trevor

From: Amanda St Pierre [<mailto:dfwt06@yahoo.com>]
Sent: Friday, March 25, 2016 1:29 PM
To: DiPietro, Laura <Laura.DiPietro@vermont.gov>; Lewis, Trevor <Trevor.Lewis@vermont.gov>; Ross, Chuck <Chuck.Ross@vermont.gov>
Subject: 2nd Draft RAP Comments

We are including our 2nd Draft RAP Comments.

Amanda St Pierre
Pleasant Valley Farms
Vermont Pleasant Valley Maples
www.vermontpleasantvalleymaples.com
Cell 802-777-4794

March 25, 2016

To: Vermont Agency of Agriculture

RE: 2nd Draft RAP

From: Amanda and Mark St Pierre



Please find our questions and concerns on the second draft of the proposed RAP's. We hope that input from the farming community will not be lost in this process and that for each new requirement there has been substantial scientific research that the proposed practice will result in the results desired. We hope that the economic cost of not just the implementation but the long term cost of this practice has been adequately questioned and studied before it was added to the proposed RAP's. We hope that the Vermont Agency of Agriculture would advocate on behalf of our farming community for sustainable practices both in the environment and economic side of the equation and that the Vermont Agency of Agriculture, with the additional resources available to them, would work proactively to achieve those two standards. We hope that the efforts our industry has demonstrated and the active participation we have continued in this process shows our willingness to implement standards which can reduce the phosphorus loads. We hope that the Vermont Agency of Agriculture will demonstrate solidarity in those efforts and the above statements by carefully considering comments from our industry during this very difficult and economically challenging time. We hope that the Vermont Agency of Agriculture will work through education and realistic time lines to implement the infrastructure that will be required by RAP's. There has never been a greater risk to our industry than we are currently are at and the future of our industry and our Vermont landscape will be forever "improved" with better water quality or 'destroyed" by lack of working farms keeping the landscape open and viable.

Section 1.4-Enforcement measures need to be clarified and listed. We cannot leave everything up to the option of the Vermont Agency of Agriculture. Laws defined in other parts of our state government have definitive requirements. The Agency of Agriculture cannot expect to be the exception. It is too vague and in it's vagueness it is threatening.

Section 2.02- Concerned that annual cropland should be all annual cropland.. no matter what type of farmer. We feel this is targeted to one segment of agriculture. The RAP was sold to us as a universal policy across all agriculture, however, each time we see a draft we realize that animal based agriculture is truly the direct target. Vermont Agency of Agriculture needs to continue in the path they have been selling to us and that is we are all in....

Section 2.04 -Buffer Zones-clarity is needed for this definition as it has been defined as different under the Federal law. Now is the time to figure this out.

Section 4.1-Size to be used 50 mature dairy cows.. This was a surprise. All the stakeholder meetings and discussions I went to on this and the number goes to 50. What was the defining information that changed this?

Section 6.01-Discharges. "Farms shall not create any discharge.". We must be clearer when we are establishing rules with punishment and the burden of such clarity needs to be on the Vermont Agency of Agriculture. In this system you have set out that the VAAF is the educator, law enforcement, judge, and jury. Clear language is needed so we can all understand the rules and penalties. Weather

patterns we cannot control, mal functions in equipment, failed practice as engineered by state engineers? We have been in all of those situations... we are not capable of preventing any of those things happening. We work hard to establish practices, protocols and back up plans but again cannot comply with that ambiguous statement. The question then remains what are the consequences.. For example; were the owners of the camps who flooded in Hurricane Irene held responsible for the sewage that went into the lake? "Shore land owners shall not create any discharge.."

Section 6.03-e-More clarification needed.. what is significant? Let's be clear on what and why the Vermont Agriculture Agency is requiring this section.

Section 6.05-d- We question the word "ponding". What is this word being used to demonstrate.
e- Needs more specificity in the definitions of the terms frozen saturated, new bedrock requirement. If these are enforceable and possible future violations the burden of clarity is on the Vermont Agency of Agriculture

Section 6.07-c- Descriptive definition is needed for surface outlet. Where is the research of proof that surface drains contribute to phosphorus run off.

4

I-PLEASE ALLOW FOR EXCEPTIONS.. We had so many discussions on only putting buffers where it made sense. Where did all those discussions go when this was written? We are really puzzled about having to put buffers everywhere when it was always talked about by the Ag Agency about not having to put them where not needed.

Section 11-trying to satisfy any potential problems is not practical on any front. Where the money to address every potential problem? No business can afford to do that. The Agency of Agriculture is reaching way beyond the practicability of implementation and affordability. Who determines that? This leaves the requests of the state wide open so basically if the Agency determines that despite complying with the entire standard; the farm still has a *potential* for discharge; therefore, we are going to request a complete new system never required before. Where are the boundaries that are required in all other rules of the state government?

In closing, we have been committed to moving new regulations forward and the understanding that we need to increase our efforts on behalf of water quality. However, with the changes set forth, our farm alone will lose over 350,000 dollars a year on loss of crops for over 350 acres. One farm. The percentage of impact on all farms could be truly devastating. Please take the time to do the work necessary to create regulations that can make a difference but not totally tear down the industry. We can achieve this by working together. Currently as the RAPs are written we will not be able to engage a united working effort towards what we all ultimately want to see and that is measurable water quality.

From: [Tony Lehouillier](#)
To: [AGR - RAP](#)
Subject: Phosphorus levels for growing vegetables
Date: Wednesday, March 30, 2016 6:44:11 PM

Hi

I'm Tony lehouillier

From footebrook farm in Johnson

It is important to change the exceptable level of phosphorus in your soil
The knots handbook gives growing guidelines for each vegetable
The recommended amounts change in a soil due to accumulated levels
I was told by the farm service agency years ago that the knots handbook
Was the best way to calculate the amount of N-P-K required for each vegetable
There are very few cases that 20 ppm will be capable of growing vegetables
Joe Tisbert was also going to raise this concern
The next time he visits the capital
My number is 802-730-3487
I can send the book with joe if it is helpful

Sent from my iPhone

From: [Mary Childs](#)
To: [AGR - RAP](#)
Cc: [Paul Doton](#); [Tom Beaudry](#); [Peggy Ainsworth](#); [Alvina Harvey](#)
Subject: RAP Comments from CT River Focus Groups
Date: Friday, March 18, 2016 1:32:06 PM
Attachments: [CT Watershed Focus Group Comments-Draft 2.pdf](#)

Greetings,

The White River NRCD and CT River Watershed Farmers Alliance recently organized 2 focus groups, one in Randolph and one in White River Junction, to review the second draft of the RAPs. On behalf of the farmers attending, the White River NRCD is submitting a summary of comments, attached as a PDF.

Thank you for carefully considering these comments. The Agency's time in collecting feedback, engaging the public, and making revisions is greatly appreciated.

Thank you,
Mary

--

Mary Childs, District Manager
White River Natural Resources Conservation District
28 Farmvu Drive
White River Junction VT, 05001
O: [802.295.7942 ext. 112](tel:802.295.7942)
C: [802.249.9523](tel:802.249.9523)
whiterivernrcd.org



VAAFM
Montpelier, VT
March 9th & March 14th RAP Focus Group Comments
Submitted 3/18/16

The White River NRC and Connecticut River Watershed Farmers Alliance (CRWFA) are submitting a summary of comments on the 2nd Draft Required Agricultural Practices (RAPs) on behalf of participants in recent focus groups. The White River NRC and CRWFA collaborated with Ryan Patch, VAAFM, to host two small focus groups on March 9th in Randolph, VT and on March 14th in White River Junction, VT. Between the two meetings, 26 farmers and landowners participated in discussion. A diverse group of technical assistant providers and farmers were represented between both meetings including; diversified small farms (chickens, beef, veggie, maple), boarding stables, beef, dairy, organic, crop farming, custom applicators. Below is a summary of comments collected from participants.

Section 2: Definitions

2.15 Fertilizer

- In the definition of fertilizer, vegetable manure is called out as an exemption from fertilizer. What is vegetable manure? Some clarity may be asked here due to the confusion between vegetable manure and compost.
 - Alternative: If vegetable manure is pre-compost use “unprocessed vegetable byproducts”

Section 4: Small farm Certification and Training Requirements

4.1 Certified Small Farm Definition

- The largest concern here continues to be around the animal numbers. The addition of (xv) combination of animals is welcomed, however the 60,000 pound of total animal live weight is not consistent with the animal types and numbers. For example) 75 cattle or cow/calf pairs will be more than 60,000 pounds of live weight.
 - Alternative: Change the language in (xv) to “any combination of 2 or more animal types or numbers exceeding x pounds of total live animal weight”
 - Alternative: Use animal units instead of pounds and animal numbers

4.2 (c) Change of ownership or change of lessee

- As a certified small farm, the requirement to notify the Secretary of change of ownership or change of lessee within 30 days seems impractical.
 - Alternative: Update the land ownership and management annually with the Nutrient Management Plan.
- Further discussion questioned if the land transfer information provided to the State could be shared with VAAFM. There is understanding that this is further down the road, but if the State is already collecting property transfer information, a mechanism could be installed to share that information in Small Farm Certification databases.

Section 6: Required Agricultural Practices; Conditions, Restrictions, and Operating Standards

6.03 Nutrient Management Planning

- Local farmers recognize the importance and benefits of Nutrient Management Planning and record keeping. Several landowners suggest VAAFM use some of their funds to ensure programs and strategies for record keeping are functional and efficient.

6.04 Soil Health Management; Cover Crop Requirements

(d) Cover Cropping

- Management practices in the Connecticut River Watershed are considerably different than Lake Champlain. Many farms in the Connecticut manage crops on silty soils and use minimal tillage in the fall if any. This discussion is based off the cover cropping dates and the no till practice being acceptable until October 15th. Management practices with minimal tillage, not just no till, can be as effective, provide soil seed contact, and establish cover. Is no till drilling a cover crop the only avenue to cover crop after October 1st?
 - Alternative: Change language of “Broadcast seeding must be completed by October 1 of each year” to “Broadcast seeding with no incorporation must be completed by October 1 of each year.” An additional change in language could be “seed planted with a drill seeder or otherwise incorporated shall be completed by October 15th of each year” to “seed planted with minimal tillage practices or otherwise incorporated shall be completed by October 15th of each year”.
- How would a farmer accomplish 30% crop residue? Most small farms, especially if it is a bad year, are trying to get as much as they can out of their stand. Leaving 30% crop residue on corn for silage may not be realistic or economical.
- Detailed conversation continued around the October 15th cover cropping date (in conjunction with the October 15th manure spreading ban, comments below). Although Vermont is a small state, growing seasons differ geographically. Instead of allowing numerous variances to be submitted, allow the farms to make informed, knowledgeable decisions about the land they manage.

6.05 Manure and Waste Application Standards and Restrictions

(b) Manure application restrictions on land subject to frequent flooding

- The October 15th manure or other agricultural waste spreading ban on frequently floodable soil will be a limitation to farms with fields adjacent to surface waters. It is understood that this date coincides with cover cropping, but for farms in the Connecticut River watershed, it becomes a limitation to manage crops and agricultural land. Some frequently flooded soils are not actually frequently flooded. The question is, does the environmental risk of a flood occurring out-weigh the economic value established through proper nutrient management of cropland? It is understood that a farm may investigate flooding histories and apply for an exemption from the Secretary. As stated above, instead of anticipating variance, allow farms to make decisions about the land they manage.
 - Alternative: For the period of October 15- December 15th, manure and agricultural wastes may be injected into frequently flooded soils. This would allow at least one

mechanism for manure application in these areas. Injection would mitigate concerns for fall and spring flooding.

- Alternative: Eliminate October 15th- December 15th spreading ban on frequently flooded land. 6.05 (d) already captures spreading restrictions when field conditions are conducive to flooding. A farmer should be aware of the common, average trends on their fields adjacent to surface waters and make management decisions based on observed occurrences.

(f) Manure Application restrictions on 10% slopes adjacent to surface waters

- The 10% slope on annual cropland adjacent to surface waters is still a gray area. The VAAFM presentation was clear, but the rule as written still needs clarity.
 - Alternative: Add a second “adjacent to downslope surface waters” prior to 10 % slope threshold. “...where average field slope adjacent to downslope surface waters exceeds 10% slope, unless a permanently vegetated buffer zone of 100 feet adjacent to the downslope surface water has been established...”

Section 10: Custom Applicator Certification

- The Custom Applicator Certification needs more clarity on how the Custom Applicator is defined. For example) If a horse farm hires their neighbor to come and spread the horse manure on their fields, is that a custom job and does that applicator need to certify?
 - Alternative: Include a definition or scale of custom manure application. It is not uncommon for a neighboring farm to provide equipment, assistance, or export manure to other farmers. An example might be if a farmer custom applies manure on 3 or more farms (other than their own) certification is required.

Appendix A. Process for obtaining variances and exemptions

Interpretation of the Rules

- There is some concern that the interpretation of the rules could change according to political perspective. In the draft RAPs there are issues of subjectivity vs. objectivity, which could change the interpretation of the rules by audience. Currently, the presentations and position VAAFM is expressing, is that if farms are working towards improving water quality on their farm and working towards the clean water horizon, they will not be penalized. However, this perspective is not part of the rule.

Variances

- Related to interpretation of the rules, there is some concern over the variances. Because of the limitations and timelines of some of the RAPs, it can be predicted that many variances will be sought by many farms. How will VAAFM process and administer these variances? A policy based on continuous exemptions will not be workable or effective.

Additional Comments

Small Farm Certification Fee

- What does the farmer get in return for paying an annual fee? Will the Connecticut River Watershed farmers have access to the same resources as Lake Champlain Watershed farmers
- Consider starting the fee lower and as services and resources become more available, raise the fee.

Local & Town Zoning

- What level of authority will towns have over agricultural regulations? Is the Regional Planning Commission the best group to help towns write agricultural regulations? How will actual farm input be solicited?

Summary:

Overall, farmers in Orange and Windsor County are engaged and participating in RAP discussions. Changes from the 1st draft are recognized and accepted, however areas of concern continue to exist. As commented during the first round, farmers have the best compass to manage their lands. Many agree that improving water quality is important, but allowing a landowner, a farmer, to make their own judgements can be a critical tool in improving all parts of the landscape.

Connecticut River Watershed farmers and landowners engaged in the input and comment period appreciate VAAFMs attention to collecting farmer feedback. Thank you for carefully considering these comments and those collected throughout the state.

From: [Reith, Dirk - FSA, St. Albans, VT](#)
To: [AGR - RAP](#)
Subject: RAP
Date: Thursday, February 25, 2016 9:20:13 AM

Hi,

Should the term mechanically applied be defined? How about hydrolically applied?

Thanks,

Dirk

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From: [Jennifer Alexander](#)
To: [AGR - RAP](#)
Subject: RAPv2 Public Comments
Date: Friday, April 15, 2016 3:12:45 PM
Attachments: [RAPv2_Mar29.pdf](#)

To whom it may concern,

Attached in PDF format is a summary of comments received as a result of the informal public meeting that was hosted by PMNRCD on March 29th at the Castleton Fire House on Rt 30 in Poultney.

Respectfully,

Jennifer

--

Jennifer Alexander- CCA
Poultney Mettowee Conservation District
Agronomy and Conservation Assistance Program
802-558-6470
acap.Jennifer@gmail.com

*"Farming looks mighty easy when your plow is a pencil,
and you're a thousand miles from the corn field"
Dwight D Eisenhower*

April 15, 2016

On March 29th the Poultney Mettowee Natural Resource Conservation District sponsored a RAPv2 meeting for people in agriculture. The presenter was Ryan Patch from the Agency of Agriculture who also answered questions and comments from the public.

Over 70 people, with diverse interests, attended this public meeting.

Below is a brief summary of the comments, both during the meeting and after the meeting, in no particular order:

- Will there be, or can there be, regional point people to be able to act on the behalf of the VAAFm for winter spreading exemptions and variances rather than the system that currently exists? People felt that there was a need for local people/organizations that could process exemptions and variances in a timely manner, that know the environmental conditions that exist in the area, and be readily available to do site visits.
- There was general concern as to the farming knowledge of the proposed inspectors. Farmers felt that inspectors needed to have a good understanding of farming.
- 30 days to notify VAAFm of land change of use- VAAFm looks at it as change of whole farm, not parcels. Since Act 64 says parcels, what are the ramifications of this discrepancy?
- Annual CSFO Permit fee of \$250- Farmers are very upset at this proposed small farm permit fee. They felt that this fee, on top of the additional taxes that they would be, or are, paying for (fertilizer tax, property taxes, diesel fuel tax, etcetera) was an undue burden on them. Many pointed out that there is an annual fee that you pay if you are an organic farm. There is also the annual fee that the farms will have to pay for the GoCrop membership (\$249.99) so that they can write and maintain a nutrient management plan. Many farmers do not have the ability to pass on these expenses the way other businesses do. Some present felt that these regulations will drive small farms out of business as the regulations, and NRCS policies and practices, are designed for farms that want to grow beyond the 50-75 cow dairies. Rutland Co had 5 dairies that went out of business in 2015.

“That certification fee adds an additional \$3.80 per head of cattle which will result in me having to raise my beef prices almost 40 cents a pound to cover that cost. How am I supposed to keep the food I produce affordable while covering costs?”

On the flip side of that, the MFO's that were present commented that medium and large farms should not be discriminate against when it comes to permit fees.

- Are there plans for VT-NRCS to include language in the VT-590 Standard that will allow for winter spreading based on the criteria set forth in this draft? The current VT-590 says that there will be no spreading on snow covered, frozen or saturated ground regardless of the date and local NRCS employees said that unless the standard is changed that farms will not be allowed to spread regardless of what the State says.

- It needs to be recognized that NMP's are a very fluid document and can change each year depending on weather, soil conditions, seed prices, fuel costs, markets, employees, etcetera.
- NMP's should be required for farms with 50% of the MFO levels. Many of the small farms that are milking fewer than 80 animals do not have the manure required to meet crop needs and often cannot afford to purchase fertilizer. There is not the staff or technical service providers required to write 1500 NMP's, the land treatment plan, or LTP Lites.
- There was concern stated by those present about the additional requirements that are often tied to funding through NRCS. There was also concern mentioned that the NRCS requirement of the "Whole Farm Fix" was detrimental to the farm staying in business. Many felt that NRCS's only solution to a farmstead problem was to build a manure pit and that the additional cost associated with a manure pit, such as additional spreading equipment, electric costs with running the pumps, the cost to hire a custom applicator, was not taken into account. Many small farms believe that installation of so many liquid manure handling systems has contributed to additional nutrient runoff due to the fluidity of the manure.
- The 20ppm for soil test phosphorous should not apply to just annual crop land. This should apply to all crop fields. As written it could lead to the over application of manure to hay land if the corn ground is high in soil P
- Some believed that farmers are going to lose access to farm land because of the certification process and declaring all land that is used. Some land owners do not want their land "enrolled" in a "governmental program" or reported to "the government". Not all farms report acreage to the Farm Service Agency. Farmers felt that they not only have to complete for farmland only against other farmers, but also realtors, contractors (builders) and now solar panels.
- Farmers have stated that fencing eroding streams makes no sense. Requiring a farm to build a fence on an actively eroding stream will place an undue burden on the farm. Fencing a stream where the livestock are the cause of the erosion and where the stream bank is degraded due to livestock made more sense. Tropical Storm Irene, and past road, bridge and rail construction and under sized culverts, has destabilized many streams in the state. There is not the staffing capacity to write NRCS590 standard NMP's or the LTP's that are needed, in a timely manner.
- Farmers believe that the 20% DM requirement verbiage for stacking manure needs to be removed and that a more appropriate verbiage would be to say that manure stacks must be able to hold a vertical height of at least 4ft. As written, some folks are interpreting this as meaning every manure spreader must have 20% DM.

From: [Patch, Ryan](#)
To: [Unknown Unknown](#)
Cc: [AGR - RAP](#)
Subject: RE: Agency of Ag Releases Second Draft of Required Agricultural Practices for Public Review
Date: Monday, March 21, 2016 8:04:38 AM

Hi Justin,

Thanks for the comment, am passing in to AGR.RAP@vermont.gov

Thanks again,

-Ryan

From: Unknown Unknown [mailto:justin@gmavt.net]
Sent: Monday, March 21, 2016 7:25 AM
To: Patch, Ryan <Ryan.Patch@vermont.gov>
Subject: Re: Agency of Ag Releases Second Draft of Required Agricultural Practices for Public Review

Ryan

In response to the 2nd draft to the RAPs, I am in hope the agency is reconsidering increasing the combined total weight from 60,000lbs to a more reflective weight that represents actual animal weights, for example if I have 50 beef cow calf pairs and 10 pigs, I am well under the threshold of animal numbers, but with the cows alone easily exceed the 60,000 lb trigger number.

Thanks

Justin Poulin

----- Original Message -----

From: Patch, Ryan <Ryan.Patch@vermont.gov>

Cc: Patch, Ryan <Ryan.Patch@vermont.gov>

Sent: Tue, 23 Feb 2016 15:33:22 -0500 (EST)

Subject: Agency of Ag Releases Second Draft of Required Agricultural Practices for Public Review

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div.WordSection1
{page:WordSection1;}
-->
Contact:
Ryan Patch
Sr. Ag Development Coordinator
Vermont Agency of Agriculture, Food & Markets
802-272-0323
Ryan.Patch@vermont.gov

Agency of Ag Releases Second Draft of Required Agricultural Practices for Public Review

Today, the Vermont Agency of Agriculture, Food and Markets (VAAFMM) has released a second draft of the Required Agricultural Practices (RAPs) for public review. This draft, to be presented to the legislature and the public over the coming weeks, has been substantially revised to incorporate public input. The second draft is available today on the Agency website:

<http://agriculture.vermont.gov/water-quality/regulations/rap>

As a result of Act 64—the Vermont Clean Water Act—signed into law in June 2015, the Agency of Agriculture was tasked with updating the Accepted Agricultural Practices (AAPs) to further reduce the impact of agriculture on water quality across the state. The RAPs are an updated version of the AAPs, the rules which regulate farms in order to protect water quality, re-written to a higher level of performance. The Agency sought public input on its first draft of the new regulations, to ensure the RAPs reflected the realities of farming and the legislative intent of Act 64.

The public meetings and public comment period held in 2015 are not required by law, however this informal process was conducted by the VAAFMM to ensure rule development which will provide a realistic, workable framework for agricultural management in our state that effectively protects Vermont's lakes and rivers. The first draft public comment period opened on October 20, 2015, and ended on December 18, 2015. During this period, 10 public meetings were held throughout Vermont – the first on November 12, 2015, at the St. Albans Historical Society and the last on December 10, 2016, at the Chandler Music Hall in Randolph. Twenty-one small focus group meetings were also held throughout the state with various stakeholders. Since the close of the first public comment period, the Agency has spent nine weeks to thoroughly review and consider all public comment—over 800 people attended more than 30 meetings throughout the state to voice their opinions and 169 Vermonters submitted written comments.

“VAAFMM wishes to thank all members of the community who took the time to provide comments or otherwise participate in this public process,” said Vermont's Ag Secretary, Chuck Ross. “This is a clear indication that Vermonters, particularly farmers, care very deeply about water quality and getting this right. When the RAPs are eventually finalized, I know they will be stronger and more effective, as a result of all the input we received.”

Act 64 specifies that the RAP rules will be finalized before July 1, 2016. In March, the Agency intends to begin formal rulemaking to meet this deadline. The public will again have the opportunity to attend public hearings and provide written comment on the RAPs during the formal public hearing and comment period, tentatively scheduled to begin in May. VAAFMM will continue to encourage public feedback and engage with stakeholders throughout the late winter prior to the formal comment period.

Jim Leland, Director of the Ag Resource Management Division at VAAFMM explains, “Significant changes have been made throughout the second draft of the RAPs. We began by revising and reformatting the RAPs, in an effort to provide clarity.” Leland continues, “In addition, three areas which received the most extensive public comment and have been revised from the first draft include: the small farm certification threshold, proposed standards around manure stacking sites, and proposed manure spreading restrictions on steep slopes and high phosphorus fields.” Leland continues, “Be sure to read the responsiveness summary we've provided which highlights 30 major changes in the second draft of the RAPs which resulted from public input.”

The Agency's response to comment, as well as a summary of written public comments received before Jan 1, 2016, are both available on the Agency RAP website.

For more information about the RAPs, and the Agency's efforts to implement Act 64, please visit

<http://agriculture.vermont.gov/water-quality/regulations/rap> or contact the Vermont Agency of Agriculture, Food and Markets at (802) 828-3478.

Questions and comment about the RAPs can be directed to AGR.RAP@Vermont.gov

###

About the Vermont Agency of Agriculture, Food & Markets: VAAFM facilitates, supports and encourages the growth and viability of agriculture in Vermont while protecting the working landscape, human health, animal health, plant health, consumers and the environment.
www.Agriculture.Vermont.Gov

If you would like to be removed from our email distribution list, please reply with "unsubscribe" in the subject line

From: [Tony Lehouillier](#)
To: [AGR - RAP](#)
Subject: Re: Automatic reply: Phosphorus levels for growing vegetables
Date: Thursday, March 31, 2016 9:53:37 AM

I can send more info on the subject if you need it.
Vegetable farms won't be able to comply
Potatoes need upto 125 ppm of phosphorus to grow a crop
Parts per million is related to pounds per acre by a factor of 2
Or potato could need upto 250 lbs of phosphorus per acre

Sent from my iPhone

On Mar 30, 2016, at 6:44 PM, AGR - RAP <AGR.RAP@vermont.gov> wrote:

Thank you for your public comment.

The Agency will seriously consider all comments received during this pre-filing period, though there may be no formal response to comments received.

For additional information, please visit our water quality webpage:
<http://agriculture.vermont.gov/water-quality/regulations/rap>

From: [Patch, Ryan](#)
To: [Tom Beaudry](#)
Cc: [AGR - RAP](#)
Subject: RE: NM Planning
Date: Friday, April 8, 2016 2:47:01 PM

Hi Tom,

Thanks for the comment, have forwarded to AGR.RAP@vermont to ensure this information is considered for the revision of the 2nd draft RAPs.

Thanks,
-Ryan

From: Tom Beaudry [mailto:tombemf@gmail.com]
Sent: Thursday, March 3, 2016 11:29 AM
To: Patch, Ryan <Ryan.Patch@vermont.gov>
Subject: NM Planning

Good Morning,

I foresee a problem coming with the new RAP's as I'm sure you do as well. A lot of people are going to need nutrient management plans and there are few planners around the state. I know there are plans to have some NMP workshops but the sticker can be with the RUSLE2's and P-Index.

PA has a program that I learned about at the Manure Expo last summer in Chambersburg. It's call PAOneStop and is built to meet regulatory requirements. You can check it out at PAOneStop.org I also have some contact names and numbers of the people who built the program. I asked if the program could be expanded to other states and they said yes without much difficulty.

If you want more info let me know.

Tom Beaudry

From: [Patch, Ryan](#)
To: [Comstock, Jeff](#); [Leland, Jim](#)
Cc: [AGR - RAP](#)
Subject: RE: RAPs - draft 2 comments
Date: Wednesday, April 20, 2016 11:44:37 AM

Thanks, Jeff—will forward to public comment inbox and we'll be sure to consider and respond in a responsiveness summary for the 2nd draft revision process.

From: Comstock, Jeff
Sent: Tuesday, April 19, 2016 2:33 PM
To: Patch, Ryan <Ryan.Patch@vermont.gov>; Leland, Jim <Jim.Leland@vermont.gov>
Subject: FW: RAPs - draft 2 comments

Hello Jim & Ryan – Please see comments and questions from Liz Royer with the VT Rural Water Assoc. She, Gail Center (Health), Linda and I have/had met twice during the early drafting/revision phases and worked on the issues related to well locations and setbacks. I have not had time to do a detailed comparison of the current draft and our conversations.

VT Rural Water Assoc. is the technical service and regulatory consultant for many of the small scale public water systems throughout Vermont.

Jeff

Jeff Comstock
Agency of Agriculture
116 State St.
Montpelier, VT 05620



(802) 828-3473
(802) 828-1410 Fax
jeff.comstock@vermont.gov

(Please Note: Official Email Address Change)

From: Liz Royer [<mailto:lroyer@vtruralwater.org>]
Sent: Tuesday, April 19, 2016 1:27 PM
To: Comstock, Jeff <Jeff.Comstock@vermont.gov>
Subject: FW: RAPs - draft 2 comments

Hi Jeff,

Just following up to make sure you saw this email. Let me know if you have any questions or want to discuss. Thanks!

Liz Royer
Source Protection Specialist

Vermont Rural Water Association
(802) 660-4988 x336
lroyer@vtruralwater.org

Rural Water...supporting water and wastewater systems in Vermont since 1982.

From: Liz Royer [<mailto:lroyer@vtruralwater.org>]
Sent: Monday, February 29, 2016 1:09 PM
To: 'Center, Gail'; 'Comstock, Jeff'; 'Boccuzzo, Linda'
Subject: RAPs - draft 2 comments

Hi All,

I was just looking at the Draft 2 (2/23/16) of the RAPs and have a few comments:

- There are references to private water supplies, public water supplies, potable water supplies, public/private drinking water wells, and public/private wells – I think these terms need to be reduced to two categories and defined. At least we got rid of “domestic”!
- Section 7. Exclusion of Livestock Exclusion Requirements from the Waters of the State, (d) Livestock shall not be pastured within 50 feet of a private water supply without the permission of the water supply owner.

I had commented below and thought we had decided during our meeting to add:

(e) Livestock shall not be pastured within 200 feet of a public water supply

Jeff, if this purposely wasn't added, can you let me know why? I think this was the one where you said it wasn't happening but I can think of a few places where it is or easily could since the water system does not have control of the land within 200 feet of their well or spring.

- Under 6.02 (4)(F) Storage of Agricultural Wastes and Agricultural Inputs (and also under 6.09 (b) On-Farm Composting of Imported Food Processing Residuals) there is still more protection given to private water supplies. I know we talked about this before and I commented in my email below but again, Jeff, can you let me know if there is a reason that the language wasn't changed? It says that sites should not be within 200 feet of a public or private water supply but then says that in no case shall sites be located less than 100 feet from a private water supply. That gives the impression that the Secretary could authorize a site within 100 feet of a public water supply. I don't know the best way to correct this language, but could we add “less than 200 feet of a public water supply” under 6.02 (4)(F) and 6.09 (b)?

(4) shall not be sited within:

- (A) 200 feet of the top of bank of surface water;*
- (B) 200 feet of a public or private water supply;*

(C) 100 feet from a property line;
(D) 100 feet from a ditch or conveyance to surface water;
(E) areas subject to concentrated runoff; or
(F) other site specific standards may be authorized by the Secretary when the Secretary determines that a manure stacking or piling site, fertilizer storage, or other nutrient storage will not have an adverse impact on groundwater quality or surface water quality but in no case shall unimproved manure stacking sites be located less than 100 feet from a private water supply or the top of the bank of surface water.

Thanks,
Liz

Liz Royer
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From: Liz Royer [<mailto:lroyer@vtruralwater.org>]
Sent: Thursday, November 12, 2015 12:17 PM
To: 'Center, Gail'; 'Comstock, Jeff'; 'Boccuzzo, Linda'
Subject: RE: changed meeting place

I thought we already made the change to livestock pasturing? It wasn't on my list but here is what I wrote during the meeting:

5.7 Buffer Zones and Setbacks

- (c) Livestock shall not be pastured within 50 feet of a private water supply without the permission of the water supply owner
- (d) Livestock shall not be pastured within 200 feet of a public water supply

And here is the updated suggested language on manure stacking:

5.2 Nutrient, Agricultural Inputs and Waste Storage

- (e) Field stacking of manure on unimproved sites:
 - vi) Other site specific standards may be approved upon petition to the Secretary;
 - vii) In no case shall unimproved manure stacking sites be located less than 200 feet from a public water supply;
 - viii) In no case shall unimproved manure stacking sites be located less than 100 feet from a private water supplies or surface water;

And I will let Jeff make the changes to the terminology for private/public/domestic/potable – whatever the final agreement with DWPGD is!

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From: Center, Gail [<mailto:Gail.Center@vermont.gov>]
Sent: Thursday, November 12, 2015 10:32 AM
To: Liz Royer; Comstock, Jeff; Boccuzzo, Linda
Subject: RE: changed meeting place

That's what I thought it meant....that the farmer should try to get 200 feet from a private well with the "stack" but due to circumstances of the site, you gotta get at least 100 feet.

Other setback waiver questions go to Jeff/Linda for response..

Didn't you want public setbacks for livestock pasturing too? The RAP draft has 50 feet to private water supply and I have handwritten in that there isn't a distance for public well setback....

From: Liz Royer [<mailto:lroyer@vtruralwater.org>]
Sent: Thursday, November 12, 2015 9:56 AM
To: Center, Gail; Comstock, Jeff; Boccuzzo, Linda
Subject: RE: changed meeting place

I had a note that said "waivers may be considered for the following: private wells, surface water" so I wasn't sure what that meant...

Does that mean private wells and surface waters can get a waiver but only from 200 feet to 100 feet? What about waivers for the other setbacks?

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From: Center, Gail [<mailto:Gail.Center@vermont.gov>]
Sent: Thursday, November 12, 2015 8:44 AM
To: Liz Royer; Comstock, Jeff; Boccuzzo, Linda
Subject: RE: changed meeting place

Hi Liz,

Your new improved suggested language would also include the current “in no case shall unimproved manure stacking sites be located less than 100 feet from a private water supply or surface water”, is that correct?

From: Liz Royer [<mailto:lroyer@vtruralwater.org>]
Sent: Monday, November 09, 2015 4:13 PM
To: Comstock, Jeff; Center, Gail; Boccuzzo, Linda
Subject: RE: changed meeting place

Not sure I am remembering this all correctly but here is my attempt at edits under 5.2 Nutrient, Agricultural Inputs and Waste Storage:

Current language:

(e) Field stacking of manure on unimproved sites:

“vi) Other site specific standards may be approved upon petition to the Secretary but in no case shall unimproved manure stacking sites be located less than 100 feet from a private water supplies or surface water:”

New suggested language:

(e) Field stacking of manure on unimproved sites:

vi) Other site specific standards may be approved upon petition to the Secretary;
vii) In no case shall unimproved manure stacking sites be located less than 200 feet from a public water supply;

Liz Royer
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Rural Water...supporting water and wastewater systems in Vermont since 1982.

From: Comstock, Jeff [<mailto:Jeff.Comstock@vermont.gov>]
Sent: Thursday, October 29, 2015 10:30 AM
To: Center, Gail; Boccuzzo, Linda; Liz Royer (Lroyer@vtruralwater.org)
Subject: RE: changed meeting place

OK

Jeff Comstock
Agency of Agriculture
116 State St.

Montpelier, VT 05620



(802) 828-3473

(802) 828-1410 Fax

jeff.comstock@vermont.gov

(Please Note: Official Email Address Change)

From: Center, Gail

Sent: Thursday, October 29, 2015 9:13 AM

To: Boccuzzo, Linda; Comstock, Jeff; Liz Royer (Lroyer@vruralwater.org)

Subject: changed meeting place

Hi. Instead of the room 201 EMS meeting space, we will meet today in conference room 3B (third floor). Starting at 1:30. See you up there. Gail

Senior Drinking Water Engineer

Division of Environmental Health

Vermont Department of Health

(802) 863-7233

1-800-439-8550

<http://www.healthvermont.gov>

New email starting July 27th, 2015 gail.center@vermont.gov

From: [FWA](#)
To: [AGR - RAP](#); [Jeff Sanders](#); [Heather Darby](#); [Darlene Reynolds](#)
Subject: Response to Draft 2 of the RAPs
Date: Friday, March 18, 2016 9:07:50 AM
Attachments: [FWAResponseRAPs_2ndDraft.docx](#)

Please find attached the Farmer's Watershed Alliance response to Draft 2 of the RAPs.

Thank you,
Susan Brouillette for the FWA



P.O. Box 298, St. Albans, VT 05478
802-752-5156
farmerswatershedalliancenw@gmail.com

Secretary Chuck Ross
Vermont Agency of Agriculture, Food & Markets
116 State Street
Montpelier, VT 05620-2901

March 15, 2016

RE: Required Agricultural Practices Regulations for the Agricultural Non-point Source Pollution Control Program Draft 2

Secretary Ross,

On behalf of the Farmer's Watershed Alliance (FWA), we want to thank you for the opportunity to review and comment on the proposed Required Agricultural Practices (RAPs). The FWA is committed to working with the Vermont Agency of Agriculture Foods and Markets (VAAFMM) to develop and implement water quality regulations and programs that work towards improving the quality of our water while protecting the viability of our farms. Our membership has met to review, discuss and comment on the rules and the following document outlines our collective discussion. We are happy to provide further details or information on the document if needed.

Farmer's Watershed Alliance comments on the proposed RAPS.

Section

1.1 In the introduction to the document it states that:

“persons engaged in farming who are in compliance with these practices shall be presumed to not have a discharge of agricultural pollutants to the waters of the state”

What exactly does this mean? Does the state know if any of these practices actually “prevent” wastes from reaching the waters? What protection does the farmer have from recourse if he is following the practices and they do not actually prevent pollutants from reaching the waters? Is the state liable at that point?

1.4 Enforcement section. We would like the actual enforcement measures spelled out so that agricultural producers and see what the penalties are under the law from not following the RAPs. What are the “additional remedies” that are available to the State?

2.02 Annual Cropland. Why isn't the growing of vegetables included in the definition of annual cropland? It would seem that vegetable farmers would meet the same requirements

as any other crop producer growing annual crops. To add financial and temporal constraints to one segment of the agricultural economy but not to another is biased and probably not based on scientific findings.

- 2.04 Buffer Zone. Please provide a clear explanation of what the differences are between “a ditch that is not a surface water under State law and that is not a water of the US under federal law”. Farmers are not lawyers and this seems like a good time to offer clarification to an issue which has been debated over the last 15 years. Farmers who do not understand exactly what is being asked of them are likely to do nothing which will not help the water quality issues in the lake.
- 2.07 Cover Crop. Cover crops do enhance soil health but not primarily by adding organic matter in annual cropland. University studies do not support increased levels of soil organic matter by the growing of cover crops.
- 2.16 Flood Hazard Area. Definition should include where these maps could be obtained.
- 4.1 (a)(3)(i) 50 mature dairy cows. Please provide the scientific evidence of why farms smaller than this are not significant enough contributors to the water quality issues in Vermont to warrant being certified and trained.
- 6.01 Discharges. (a) “Farms shall not create any discharge...” Does this mean intentionally? If it happens through a weather event is it considered a discharge? Who is liable if it occurs and the farm operator is following the rules as he/she understands them?
- 6.02 (e) (4) Siting section. It would seem that if all other precautions are taken that these setbacks are excessive and may not be correct. It seems these numbers are subjective and probably more than what is needed.
- 6.03 (d) “20 ppm phosphorus” which type of soil test is being used to determine the 20 ppm? If the farm is not required to have a 590 compliant plan, will they know to use a Modified Morgan soil test?
- (e) “document significant changes”. This seems vague. Significant can mean a lot of different things. It would probably be better to spell out exactly what the VAAFMM is looking for with respect to when to make changes to the plan.
- 6.04 (a) “shall be considered and implemented as practicable.” The FWA suggests striking the word implemented. Should it be a matter of law that a particular practices that manages the soil but may have little to do with water quality depending on situation be required as determined by whether it is “practicable” or not? Who determines if it is “practicable”?
- (b) Not clear what this section statement means. The model is not very robust and doesn’t address all forms of erosion. Since the 590 standard already addresses RUSLE2 and erosion and T values in the NMP which operators are required to follow, this statement should be removed from this section.
- (c) The use of the words minimize and reduce in this section suggests that sediment discharges are allowable which seems inconsistent with the rest of the document. This is an important source of phosphorus in the waters of the state and it seems the language in this section should be stronger.
- (d) This entire section should be re-written.

“As soil, weather conditions, and generally accepted agronomic practices allow... shall be required to be planted to cover crops”. How does this get enforced? Who determines what are generally accepted agronomic practices? Under most circumstances as written this “requirement” is optional unless farmers significantly change their field practices, which is not being suggested here.

The entire next section starting with “Broadcast seeding must be completed by October 1...” about dates should be changed to reflect NRCS standards. Any benefit to planting cover crops in flood plains is extremely contingent on good establishment and significant crop growth to hold the soil in place. The later in the season cover crops are planted, the less likely they are to establish well. Broadcasting seed after the 15th of September will produce questionable results most years especially for holding soil in place under flooding conditions. The VAAFMM doesn’t define how the cover crop should be applied, rates, or varieties. As written, this requirement will likely have little to no effect on water quality. Could the VAAFMM please demonstrate through a scientific journal that having 30% residue lying on a crop field will reduce soil loss caused by flooding. The FWA questions the ability for the agency to be able to regulate this requirement. Furthermore, if a farmer is growing cabbage or some other market crop (not corn) they do not need to meet the requirement. Could the agency demonstrate how water quality is effected in one case but not the other?

6.05 (d) Ponding? The use of liquid manure on side slopes is always conducive of ponding to some degree. This doesn’t mean it would or could have an impact on water quality. The FWA suggest taking the term ponding out.

(e) The manure restrictions in this section are still too vague to be of any regulatory usefulness. What is saturated soil to a farmer? How frozen is frozen? What is the new bedrock requirement? Does that mean anywhere on the field or just on the bedrock? It seems the Agency would more clearly define these conditions so farmers could be cognitive of what exactly is being expected of them. If someone calls in a complaint at 8 AM when the ground is frozen but the inspector shows up at 2PM when it is thawed, was there a violation? How do you verify it?

(f) With regard to the 100 set back on annual cropland unless a 100 buffer is in place and then no manure be applied within the buffer, the FWA would suggest changing this to 50 feet. Depending on the shape of the loss of 100 feet of cropland seems excessive unless there is sound scientific evidence to support it. How will a farmer determine what the average slope on his/her field to know how to interpret this rule?

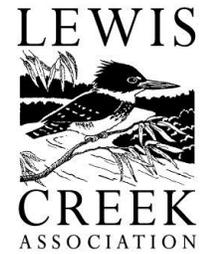
6.07 (c) Define what a surface inlet is or an open drain. Does it need to be piped to the surface? What if the pipe is three feet under the ground and there is stone on it to allow for the water to easily reach the drain, is that a surface drain? It would seem a better and more coherent definition would help farmers understand what the agency is trying to accomplish with this rule. Because surface drains are part of a subsurface tile systems which are not going to be addressed until 2018, the FWA suggests taking this section out of this document and putting it in in 2018 if future research findings find reasonable evidence that these requirements would be properly addressed the situation caused by standpipes.

- 6.07 (i) Exceptions to the required buffers. This section should include language about not needing buffers where water never runs, like near a ditch on the upslope of a field. This would help farmers utilize their land while posing no threat to the environment. Should strike the never being less than 10 feet. Water cannot run uphill and therefore no buffer is needed. Having buffers where they are not needed is a waste of time and resources and a stumbling block to why farmers do not put in any buffers.
- 9 (e)(2) Setbacks for all new waste storage facilities. These setbacks are arduous given the fact that any new facility is designed and installed to new standards all but eliminate all risk of failure. It should be determined on a case by case basis depending on the situation.
- 11 The statement “that a person engaged in farming is complying with the Required Agricultural Practices Rule but there still exists the potential from agricultural pollutants to enter the waters of the state...”, leaves the farmer at risk of incurring business crippling expenses to meet requirements that are not even in the standard (if funding is not available) to address a potential problem. The FWA questions how the VAAFMM determines what is potential. This could be used as a mechanism to inflict undo economic hardship on farm operations. The wording should be changed to reflect actual vs. potential threats to water quality. It leaves too much open to interpretation.

We greatly appreciate the opportunity to provide input on the RAPs. We look forward to working with the VTAAFMM on this process.

Darlene Reynolds, President

Farmers Watershed Alliance



March 21, 2016

Secretary Chuck Ross
VT Agency of Agriculture, Food, and Markets
116 State Street
Montpelier, Vermont 05620

Sent via electronic mail

Re: Comments on the Second Draft Required Agricultural Practices

Dear Secretary Ross:

Conservation Law Foundation, Connecticut River Watershed Council, Lewis Creek Association, Vermont Council of Trout Unlimited, Lintilhac Foundation, Vermont Conservation Voters, Vermont Natural Resources Council, Vermont Chapter of the Sierra Club, Lake Champlain International, and Lake Champlain Committee submit the following comments to the Vermont Agency of Agriculture, Food and Markets (AAFM) on the second draft Required Agricultural Practices (2nd Draft RAPs).

Promulgating forward-thinking agricultural regulations is imperative to meeting state and federal legal mandates as well as promoting economic stability and environmental health. Vermont's agricultural regulators are tasked with preventing and controlling activities on all farms harmful to water, improving water quality, and attaining unprecedented phosphorus reductions within the Lake Champlain watershed, which accounts for half of Vermont's land area. Vermont Act No. 64 (2015) § 1(b)(1), (5), and (6). Reducing phosphorus runoff from farmland is particularly important considering agriculture – at 41 percent of the aggregate pollutant load – represents the single largest contributor of phosphorous pollution to Lake Champlain.¹

The RAPs play a crucial role in protecting Vermont's substantial investment in clean water, including its tourism and real estate industries, and strengthening Vermont's resilience to the mounting challenges of climate change. Restoring our water resources is as much a legal and ecological mandate as it is about economic vitality, public health, and buttressing our natural defenses to extreme weather events.

Though we encourage AAFM to incorporate provisions into the RAPs to account for farms that engage in practices that protect water quality, such as regenerative, integrated, and organic agriculture, the 2nd Draft RAPs do not reflect this nuanced approach. Instead, they exempt large numbers of farms and relax requirements for all farms. Again, we encourage AAFM to include provisions in the RAPs that truly foster practices leading to long-term sustainability and clean water. We also reiterate our support for outreach and incentive systems that will help farms be good stewards of the environment. Vermont is fortunate to have many diversified farms leading the way with environmentally friendly and economically profitable models, and AAFM should encourage and promote these models through the RAPs not only for the health of Vermont's waters, but for the long term vitality of agriculture in the State.

Unfortunately, the 2nd Draft RAPs fail on several counts. They conflict with the legislative intent of Act 64 – Vermont's clean water law; they are in several respects unenforceable; and they are inadequate to meet Vermont's water quality standards.

¹ Phosphorus TMDLs for Vermont Segments of Lake Champlain ("Draft 2015 TMDL") (August 14, 2015), pg. 47 fig. 7.

The 2nd Draft RAPs conflict with the legislative intent of Act 64 by exempting a category of farmers from the RAPs.

The 2nd Draft RAPs section 3.1, which defines the applicability of the Required Agricultural Practices, violates the plain language of Act 64 because it fails to include all farms under the purview of the RAPs. Under the Act, “Required Agricultural Practices (RAPs) shall be management standards to be followed by *all persons engaged in farming* in this State.” 6 V.S.A. § 4810(b) (emphasis added). The Act further mandates that “the Secretary shall amend by rule the required agricultural practices in order to improve water quality in the State [and] assure practices on *all farms* eliminate adverse impacts to water quality.” 6 V.S.A. § 4810a(a) (emphasis added). Under Act 64, “farming” means cultivating the land for food or fiber, raising animals or bees, producing maple syrup, operating greenhouses, and managing agricultural or fuel products from the farm. 6 V.S.A. §4802(2) (incorporating farming definition from 10 V.S.A. § 6001(22)). The *only* size limitation in the statutory definition of farming relates to horses (four or more equines).

The Act does not authorize AAFM to exempt categories of farms from the RAPs, whether for concerns about agency resources or for other reasons. AAFM may distinguish between farms that are subject to the small farm certification and those that are only subject to the RAPs (which are all remaining farms). 6 V.S.A. § 4810(a)(1). This would not bring every backyard chicken coop under the realm of the RAPs because a parcel of land is not a “farm” unless it is “devoted primarily to farming.” 2nd Draft RAPs at 2 § 2.12; *see also* 10 V.S.A § 6001(22) (designating multiple activities that qualify as farming), and would lawfully address AAFM’s concerns about having sufficient resources to administer the RAPs.

AAFM has committed to regulating all farming operations under the RAPs within the Vermont Lake Champlain Phosphorus TMDL Phase I Implementation Plan (Phase I Plan) and in the Revised Secretary’s Decision from Conservation Law Foundation’s petition to require mandatory pollution controls in Missisquoi Bay basin. “The Phase I Plan commits to ... increasing the base regulatory standards in the RAPs (formerly called Accepted Agricultural Practices (AAPs prior to Act 64 of 2015), which are applicable to all farming operations regardless of size or type.”²

Further, as some farmers in the State have pointed out, leaving regulation of smaller farms to municipal bodies is an invitation for inconsistent regulation and unfairness across the State, where some small farms may be subject to meaningful water quality requirements and others remain exempt. This would also be an abdication of authority by AAFM, the agency charged with implementing the RAPs under Act 64, and could impose substantial burdens on municipal governments that may lack the resources and expertise to develop agricultural regulatory systems where AAFM has failed to.

We are extremely concerned that despite the continued decline of Lake Champlain, the 2nd Draft RAPs limit AAFM’s authority to regulate farms. Currently, the “Accepted Agricultural

² Revised Secretary’s Decision, In re: CLF Petition to Require Mandatory Pollution Control Best Management Practices for Agricultural Non-Point Sources Identified in the Missisquoi Bay Basin, AAFM Docket #: 2014-6-04 ARM, pg. 10.

Practices are basic practices that *all farm operators* must follow as a part of their normal operations.” AAPs at 2 § i. General (emphasis added). Relaxing agricultural regulations beyond the current standards causes us to question AAFM’s commitment to improving water quality and implementing the mandates of Act 64.

The 2nd Draft RAPs conflict with the legislative intent of Act 64 by authorizing livestock access to waters of the State.

Act 64 compels AAFM to establish livestock exclusion standards that *prevent* erosion and adverse water quality impacts. 6 V.S.A. § 4810a(a)(9). The use of the word “prevent” rather than “reduce” or “minimize” is significant because it sets a zero tolerance standard for additional erosion and adverse water quality impacts from livestock. Studies have shown that livestock with access to streams cause phosphorus, sediment, and pathogen pollution by depositing manure in the water and by trampling and destabilizing stream banks.³ Therefore, any regulation that grants livestock access to waters of the State violates the plain language and intent of Act 64.

The 2nd Draft RAPs allow livestock to access streams outside of production areas that do not contain unstable banks or where erosion is present. 2nd Draft RAPs at 20 § 7(c)(1). This provision is inconsistent with Act 64 and will result in the degradation of stable stream banks by directing livestock toward areas that are not currently eroded. In addition, the 2nd Draft RAPs permit livestock in water crossings and watering areas, neither of which is limited in size or clearly defined in the regulation, causing any intended restriction to be meaningless.

The approach of section 7(c)(2), which provides the Secretary the authority to revoke livestock access to areas that have “actual or potential threat to water quality as a result of livestock access,” is illogical. It is well recognized that livestock *always* have the potential to threaten water quality. Moreover, placing the burden on AAFM to hear complaints and determine restricted areas is an inefficient use of limited state resources and fiscally unsound. Preventing erosion is cost effective compared to mitigating its effects. Instead, livestock should be restricted from all waters of the State except in areas designated by the Secretary. Off-stream water sources must be established and, where absolutely necessary, livestock should only have access to streams with access ramps.

Key provisions of the 2nd Draft RAPs are practically unenforceable.

AAFM includes language in the 2nd Draft RAPs that is ambiguous, rendering much of the rules unenforceable. In several provisions, AAFM unnecessarily concedes authority to regulate the farming community. Please find a list below of the specific sections that should be revised to ensure enforceability.

- Under 6.03(d), AAFM allows a drawdown approach to manure application when soils are saturated with phosphorus. The phrase “implement practices to reduce

³ Water Quality Remediation, Implementation and Funding Report (“Act 38 Report”) (January 14, 2013) pg. 14 § 1.5.

phosphorus levels over time” should be changed to “immediately implement practices to reduce phosphorus.” To allow farmers to continue to apply manure despite soil analyses demonstrating 20 ppm phosphorus levels will directly lead to increased phosphorus loading into Vermont’s waterways. In addition, the wording “eliminating or reducing” is in conflict. AAFM should require farmers to eliminate manure application once soils are saturated with phosphorus, as indicated by a 20 ppm soil test.

- Section 6.03(f) should require a standard form for record keeping on all farms. These records should be provided to the Secretary on an annual basis – not just “upon request” – so that records are incorporated into the public domain. For Medium and Large Farm Operations, AAFM should establish and implement an IT system designed to track the transport and application of manure and other agricultural wastes, similar to the electronic manifest system developed for hazardous waste. Once developed, users of the system would be able to create manifests electronically and transmit them through the system.
- Under 6.04(a), AAFM should establish specific standards for each of the mentioned conservation practices, as mandated by Act 64. *See* 6 V.S.A. § 4810a(10) (stating that AAFM shall “[e]stablish standards for soil conservation practices”). The wording “considered and implemented as practicable” should be changed to “implemented as practicable.” That is, the sentence should read: Conservation practices, including reduced tillage, conservation tillage, avoiding mechanical activities on saturated soils, addition of organic matter using manure, green manures and compost, sod and legume rotations, and the use of cover crops shall be implemented as practicable). The inclusion of the word “considered” unnecessarily weakens AAFM’s position; qualifying implementation with “as practicable” ensures AAFM’s ability to require actual action where practicable, as opposed to mere consideration.
- Under 6.04(c), the word “minimize” should be changed to “prevent” and the wording “reduce or eliminate” should be changed to “eliminate.” Gully erosion is a severe form of soil erosion caused by water moving in rills, which concentrate to form larger and more persistent erosion channels.⁴ Gully erosion is, by definition, problematic for healthy soils and waterways – regardless of whether discharges to waters are apparent. Grassed waterways should be strongly encouraged to mitigate gully erosion.
- Under 6.04(d), the first sentence should be revised to read: “annual croplands shall be required to be planted to cover crops.” Extreme weather conditions should be the only reason for allowing an exemption. Qualifying the cover crop requirement by including the phrase, “as soil, weather conditions, and generally accepted agronomic practices allow” puts too much discretion in the hands of the regulated community to determine whether conditions may or may not allow for cover cropping. In

⁴ Environmental Protection Agency, *National Management Measures to Control Nonpoint Pollution from Agriculture* (July 2003), <http://www.epa.gov/sites/production/files/2015-10/documents/chap4c.pdf>.

addition, cover crops are an important practice for maintaining soil health and should be encouraged throughout the state, and not only on land subject to frequent flooding.

Furthermore, cover crops should not be sprayed with harsh pesticides, such as glyphosate and atrazine, in order to remove them each year. This would only add to Vermont's ever-increasing use of chemical pesticides and associated environmental and public health concerns. Rather, cover crops should be killed through non-chemical practices such as mow-down and rolling, slicing, and crimping techniques.

The 2nd Draft RAPs are inadequate to meet water quality standards.

Under the federal Clean Water Act, Vermont must ensure that Lake Champlain meets water quality standards. 33 U.S.C. § 1313(d)(1)(C). The lake is currently impaired by phosphorus, which regularly causes toxic algal blooms, impaired aquatic life, and reduced recreational use.⁵ The amount of phosphorus currently discharging into Lake Champlain is 33.7 percent above the legally compliant level,⁶ and to achieve attainment, the agriculture sector must reduce phosphorus loading by 51.5 percent.⁷ The 2nd Draft RAPs are inadequate to sufficiently reduce phosphorus discharges and reach water quality standards.

Certification Applicability for Small Farm Operations is Unreasonably High

The 2nd Draft RAPs raise the threshold for small farm certification by 150 percent compared to the first draft RAPs. This represents a significant increase that exempts many more farmers from needing to certify as a Small Farm Operation and comply with the associated requirements. We are troubled that AAFM is continuing to relax regulations despite strict water quality mandates.

The Soil Loss Tolerance Tool is Inappropriate to Manage Water Quality

The 2nd Draft RAPs require cropland to be cultivated in a manner that results in an average soil loss less than or equal to the soil loss tolerance (T). 2nd Draft RAPs at 14 § 6.04(b). This means that managing to T, which is not tied to water quality protection, would equate to some accepted annual loss of soil and associated nutrients at the farm. However, loss of soil through erosion is a major contributor to nutrient loading. Moreover, the average annual acre of cropland in the United States is already eroding at an alarming rate of seven tons per year.⁸

AAFM should develop and implement alternatives to management based on soil loss tolerance such as management based on a Phosphorus Index. In the meantime, the 2nd Draft RAPs should require management to half T, considering that seven tons of annual

⁵ Draft 2015 TMDL pg. 12.

⁶ Draft 2015 TMDL pg. 18 tbl. 3; pg. 43 tbl. 7.

⁷ Draft 2015 TMDL pg. 44 tbl. 8.

⁸ Act 38 Report pg. 15.

erosion (or soil loss at T) is equivalent to 1.3 large dump trucks per acre per year.⁹ Agricultural regulations should not defend such obvious and significant phosphorus discharges into Lake Champlain.

Buffers Zones are Inappropriately Defined

Under Vermont statute, a buffer is defined as an “undisturbed area consisting of trees, shrubs, ground cover plants, duff layer, and generally uneven ground surface....” 10 V.S.A. § 1422(10). Undisturbed, vegetated buffers are critical for providing wildlife habitat, infiltrating pollutants, mitigating flood and erosion hazards, and serving as water temperature controls. The 2nd Draft RAPs’ list of authorized activities in buffer zones, including grazing, fertilizer application, and harvesting completely warps the definition and purpose of a buffer. *See* 2nd Draft RAPs at 17 § 6.07(d), (e), and (g). The result is that agricultural buffers will serve as phosphorus sources rather than sinks and lead to water quality degradation.

In addition, adjacent surface waters, including tributaries and intermittent streams should be buffered from croplands and other agricultural land uses by a minimum of 50 feet and from ditches by 20 feet to reflect best available science. The Vermont Department of Environmental Conservation river corridor procedures must inform land use guidance, similar to all other land use sectors in Vermont. The guidelines provided in Act 64 are *minimum* distances with the further requirement that buffers must “adequately address water quality needs” on a site-specific basis. 6 V.S.A. § 4810a(a)(6)(B). We are not aware of any data or studies showing that the proposed buffers in the 2nd draft RAPs are sufficient to protect water quality and reduce sediment loss. Moreover, stream buffers should be comprised of woody vegetation with deep roots, whenever possible, and then grasses or other perennial vegetation demonstrated to aid sediment filtering and erosion reduction.

AAFM Should Take Action Now to Address Tile Drains

The State lacks much-needed information on tile drains specific to Vermont. We do not know the extent of existing tile drainage systems, but estimates range upwards of 50 percent of agricultural fields in some watersheds. In addition, tile drains are being installed at an extremely high rate in the Lake Champlain Basin, particularly Franklin County, yet there are not practices in place to ensure that the systems do not result in the discharge of more phosphorus into the lake. Existing research demonstrates there is significant cause for concern.^{10,11}

Until research is completed that demonstrates tile drains can be utilized in Vermont without causing unacceptable contributions of phosphorus pollution, continuing to allow

⁹ Sullivan, P., *Appropriate Technology Transfer for Rural Areas, Sustainable Soil Management*,

<http://soilandhealth.org/wp-content/uploads/01aglibrary/010117atrasoilmanual/010117attra.html>

¹⁰ King, K.W., Williams, M.R., and N.R. Fausey. 2015. Contributions of Systematic Tile Drainage to Watershed-Scale Phosphorus Transport. *J. of Environ. Qual.* 44: 486-494.

¹¹ Kleinman, P.J., Smith, D.R., Bolster, C.H., and Z.M. Easton. 2015. Phosphorus Fate, Management, and Modeling in Artificially Drained Systems. *J. of Environ. Qual.* 44: 460-466.

tile drains to be installed is in conflict with water quality standards and our State's legal obligations to clean up Lake Champlain. While the Vermont General Assembly extended AAFM's deadline for rulemaking on tile drains to 2018, we strongly urge AAFM to address the issue now.

Accordingly, we recommend that until AAFM promulgates rules governing the use of tile drains, AAFM impose a moratorium on the installation of any new tile drainage systems using its existing authority to protect water quality.

AAFM should include in this version of the proposed RAPs requirements for mapping and monitoring of existing tile drains, including the locations of all existing drainage systems and outfalls, and regular monitoring data from the outfalls. Longer-term actions to regulate tile drains should, at a minimum, include a baseline of practices for reducing phosphorus pollution from tile drains.

Conclusion

We believe the 2nd Draft RAPs conflict with the legislative intent of Act 64, lack enforceability, and are not adequate to meet water quality standards. We urge AAFM to incorporate and address our comments before engaging in the formal rulemaking process.

Thank you for your consideration.

Sincerely,



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Conservation Law Foundation



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Upper Valley River Steward
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Lori Fisher
Executive Director
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cc: House Committee on Fish, Wildlife and Water Resources, House Committee on Agriculture and Forest Products, Senate Committee on Natural Resources and Energy, and Senate Committee on Agriculture