



Environmental Mediation Center

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Consensus Building Institute

Agricultural Working Group Interim Recommendations

Please find below interim recommendations as of 1 May 2013 from the Agricultural Working Group of the Lake Champlain Phosphorus Pollution Initiative.

The non-partisan Environmental Mediation Center (EMC) and the Consensus Building Institute (CBI) facilitated the initiative. The Vermont Agency of Agriculture, the Department of Environmental Conservation (DEC), and the USDA Natural Resources Conservation Service (NRCS) are the conveners of the project. The project is designed to seek input and build consensus among water quality stakeholders on ways to reduce phosphorous pollution *and* maintain a viable and sustainable agricultural sector that provides additional benefits to the Vermont landscape. Funding for EMC's and CBI's efforts comes from the NRCS, Green Mountain Coffee Roasters, the U.S. EPA via the Conflict Prevention and Resolution Center's national contract, and the High Meadows Fund.

EMC and CBI are independent, non-partisan facilitation and mediation organizations with no substantive stake nor position on the issues. Rather, our role is to help a range of sectors and parties explore concerns, issues, and opportunities in a constructive and collaborative fashion.

The Initiative is on-going and the Agricultural Working Group (AWG) will continue its work. The Initiative also included dozens of focus group meetings with farmers throughout the State, but mostly in the Lake Champlain Basin to provide an opportunity for a broad cross-section of farmers and others in the agricultural community to provide feedback on effective methods to reduce phosphorus pollution from the agricultural sector.

The AWG was formed to review, evaluate, and refine the ideas raised during the focus group meetings. The AWG is comprised of twenty-four (24) members from a diversity of farm sizes and types, landowners, and agricultural service providers. The AWG met six times during the winter and spring of 2013. These meetings focused predominantly on drafting a series of recommendations of near and longer-term steps that could be undertaken within the agricultural community to reduce phosphorus pollution from this sector.

Below are the interim recommendations from the AWG. The AWG will continue to meet to work on additional topics including floodplain regulations, increased use of nutrient management plans, and long-term strategies to improve the economic and environmental sustainability of dairy farms. The AWG will submit a follow-up report after this work has been completed. The Initiative will also involve other stakeholders in the coming months to consider longer-term incentives and actions that would further help improve Lake Champlain's water quality.

In the AWG meetings, three key broad recommendations emerged.

First, the AWG requests additional resources for the Agency of Agriculture in order for the Agency to adequately undertake education, technical assistance, and enforcement necessary for improved water quality. This is critical to the implementation and success of any of the following recommendations. The Agency of Agriculture does not currently have adequate resources to cover education, technical assistance and enforcement and reducing phosphorus pollution by implementing the interim recommendations will require stricter and more comprehensive regulations and a more robust enforcement program.

Second, the AWG recommends that the Agency of Agriculture require all farms subject to the Accepted Agricultural Practices (AAP) to certify that they are in compliance with the AAPs. This should enable the Agency of Agriculture to increase education, technical assistance, and compliance for all farms. Up to now, there has been uncertain compliance and resource-constrained enforcement of the Accepted Agricultural Practices (AAPs), particularly on smaller farms that do not fall within the medium and large farm operation programs.

Third, the AWG recommends a strategy that creates a more robust baseline of requirements and that also allows farmers the option to develop "smart" tailored plans that allow for deviation from the mandatory across-the-board requirement in order to improve on-the-ground benefits for both water quality and agricultural operations. When a farmer develops a robust, approved Nutrient Management Plan (NMP) tailored to their farm and its landscape, in some cases, they may be granted some flexibility from certain standard requirements as long as that flexibility provides the same or greater environmental benefit. The NMP would have to be approved by the Agency of Agriculture or a certified agricultural service provider.

In addition, the AWG has developed a series of detailed recommendations in the following areas that reflect the general consensus of the group: Farm Compliance with Regulations; Farm Certification; Livestock Exclusion from Surface Waters; Buffers, Erosion to "T" and

Winter Spreading Ban. *Please note that individual members may have varying views on the recommendations. This document should not be seen as an endorsement by each and every AWG member on each recommendation.*

1. Farm Compliance with Regulations

Key Points

- a. Increased resources for education and technical assistance are essential to improving compliance with AAPs and other regulatory programs.
- b. Many farmers are not aware of the requirements of the AAPs or are only aware of a few high profile requirements such as the winter spreading ban.
- c. The Agency has insufficient resources to inspect and enforce the current regulatory framework. Some farms do not comply with the AAPs because there is little chance that they will be inspected.

Recommendations

- a. The Agency of Agriculture (Agency) should undertake a broad outreach effort on AAPs including web-based material, reader friendly brochures, and posters of the most important requirements.
- b. In order to maximize the effectiveness of available resources, the Agency shall prioritize inspections on impaired watersheds and critical source areas.
- c. In order to increase compliance, the Agency needs additional resources, especially if the regulations become stricter or there is an expectation that the Agency inspect more than MFOs, LFOs, and farms that are the subject of citizen complaints.
- d. Custom applicators shall have mandatory training to ensure compliance with AAPs and NMPs.
- e. Mandatory education for farmers on AAPs shall be required.

2. Farm Certification

- a. Farms that are subject to the Accepted Agricultural Practices (AAPs) shall be required to provide an annual certification to the Agency of Agriculture that they understand and are in compliance with the AAPs. For farms already submitting annual plans, reports, or other documentation (permitted medium and large farm operations), such submittals will be considered the annual certification.
- b. The certification will enable the Agency of Agriculture to identify and prioritize the need for and location of water quality initiatives and increase compliance with AAPs as well as provide targeted educational and technical assistance.

- c. Unless the Agency of Agriculture and other entities have additional funding for education, technical assistance, and inspections, efforts directed at improving water quality will not produce positive results.

3. Livestock Exclusion from Surface Water

Key Points

- a. Livestock exclusion from water channels is an effective BMP to reduce nutrient inputs to surface water where a water quality impact exists from trampling of stream banks within a stream corridor.
- b. Other BMPs on a farm may be far more effective in reducing nutrient inputs to waterways than livestock exclusion. It depends on, but not limited to, the livestock stocking rate, the frequency, seasonality, condition of the waterways, and the waterways connectivity to larger water bodies of concerns (i.e. lakes and rivers).
- c. Appropriate and well managed or intensive grazing in some riparian areas can actually restore, not degrade, stream banks and waterways.
- d. Livestock in waterways is visibly detectable and of public concern, however the actual environmental impact of such conditions may vary significantly.
- e. The estimated expense of permanently fencing off livestock from all of Vermont's waterways ranges from \$33 million for temporary fencing to \$72 million for high tensile fencing with trees planted in the buffer zone.
- f. The annual and periodic maintenance, repair, and replacement of fencing across the state over time has not been estimated nor is it adequately covered in current incentive program opportunities. In areas of flooding, heavy snows, and other more extreme weather conditions, fencing could have to be replaced as often as annually.
- g. Livestock exclusion fencing will affect recreation access and use (hunting, hiking, fishing, and snowmobiling), and wildlife. Some recreationalists may cut or damage fencing in an effort to gain access.

Purpose

The primary purpose of fencing to exclude livestock from waterways is to maintain riparian habitat and reduce stream bank erosion. This in turn reduces sedimentation and contributions of soil phosphorus to waterways. Secondly, fencing can prevent livestock from excreting directly into the water.

Definition of Livestock

The AAP Definition is likely sufficient with one change noted in “strikeout” below: Livestock, for purposes of this regulation means: cattle, sheep, goats, equines, fallow deer, red deer, American bison, swine, water buffalo, poultry, pheasant, Chukar partridge, Coturnix quail, camelids, ratites (ostriches, rheas, and emus), and ~~cultured trout propagated by commercial trout farms.~~

Waterways of Concern

The waterways of concern for livestock exclusion need to be perennial (refer to 10VSA s. 1251 (13)), meaningfully connected to water bodies of concerns (lakes, ponds and rivers) and their banks pose some kind of sedimentation/nutrient contribution. Impaired waters should be of primary concern though the AWG recognizes that one must seek to avoid degradation of non-impaired or recovered waters as well.

Scope

The exclusion shall apply to all livestock with access to waterways of concern.

Application

a. Livestock exclusion from waterways of concern as defined above, shall be required and apply if any of the following conditions exists on a livestock operation of any size, unless a waiver is provided:

- i. Where an eroding bank exists on waterways of concern; and
- ii. Where adequate vegetative cover is not maintained, except at defined crossings.

b. Livestock exclusion shall be required in all production areas from all surface waters.

- a. Reinforced stream crossings shall be required where appropriate.
- b. Provide education to livestock owners about the resource concerns, program opportunities and technical assistance.

Exceptions and Waivers

There needs to be a process to receive a waiver where appropriate and each application for a waiver will be reviewed on a case-by-case basis by the Agency.

Program Funding

- a. BMPs for this action should not be prioritized over other BMPs because livestock exclusion may not be the most significant or important contributor to nutrient water impact.
- b. Livestock owners should be encouraged to apply for EQIP or CREP prior to being considered eligible for state funding in order to maximize use of federal dollars for the state.

4. Buffers

Key Points

- a. Vegetated buffers between exposed soil used for annual cropland and adjacent waterways help reduce sedimentation and therefore decrease inputs of phosphorus into water.
- b. Vegetated buffers take up land that would otherwise be farmable for row and other annual crops, potentially reducing yield and production value on that land.
- c. Buffers play an important role in management of nutrients moving off farms and are important regardless of size of farm or operation. Buffers should take into account soil type, slope, and distance to surface water.

Recommendations

All farms regardless of size where nutrients are applied shall maintain a perennial buffer of a minimum of 25 feet unless they have an approved NMP based on NRCS standards and their requirements for buffers (but no less than 10 feet).

5. Erosion to T

Key Points

- a. T is the maximum amount of soil loss in tons per acre per year that can be tolerated and still permit a high level of crop productivity to be sustained economically for the long-term.
- b. T was designed to create a metric for a tolerable amount of soil loss. Although managing erosion is essential part of improving water quality, the RUSLE calculation that determines T was not designed specifically as a water quality tool.

Recommendations

- a. The regulation should be reduced to T. Current regulations require limiting soil loss to 2T. The regulation should be reduced to T.
- b. The AWG recommends the above change to T but also to explore over the longer-term alternative metrics other than T that could be better suited to directly addressing water quality,

6. Winter Spreading Ban

Key Points

- a. The current winter spreading ban should be modified. Current weather patterns have resulted in stronger rainfall events and less predictable weather that require greater flexibility for farmers to spread manure in a manner that minimizes impacts to water quality.
- b. Under the current ban, farmers need to spread manure just before the winter ban begins to ensure storage room for winter manure, and as soon as possible afterwards to empty storage. Unpredictable weather conditions during these times of the year can result in increased run-off.
- c. There are environmentally sound strategies for site-specific winter spreading that could allow for safe spreading during the winter, and alleviate the impacts of fall and spring spreading.
- d. Nutrient management plans (NMP) should serve as a tool to develop environmentally sound strategies for winter spreading tailored to the specific conditions of an individual farm.

Recommendations

- a. The existing dates of the winter spreading ban should remain unchanged for farmers who are following the current regulatory program. Please note that AAPs should be aligned with NRCS nutrient management standards for winter spreading.
- b. A farmer who has no history of violations of AAPs, MFO or LFO regulations, and has a NMP that was developed by a certified planner, and includes environmentally sound strategies for winter spreading tailored to the specific conditions of the farm, as approved by VAAFAM may have the option of site-specific winter spreading.
 - i. The NMP shall identify the fields, if any, that are suitable for winter spreading. These fields may require additional mitigation practices such as buffers, cross slope plowing, manure injection or other practices. The factors to be considered include the distance from surface water, the slope of the field and other relevant factors. Under no circumstances shall the manure be applied within 150 feet of

- surface water and the slope of the fields must be 3% or less. The manure must be applied at winter rates as determined through the NMP.
- ii. A NMP with winter spreading would be approved by the Agency of Agriculture or a Certified Nutrient Management Planner. Annual reporting and certification documents should include if winter spreading was part of the NMP and if it was exercised in the previous year.
 - c. Custom Applicators including all employees and sub-contractors shall be certified by attending a class on the current regulatory programs concerning water quality.