The Road to RAPs

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This document tracks the Required Agricultural Practices (RAPs) as they were being proposed, revised and finalized into law through December 2016. . It provides an overview of the new standards impacting farms in Vermont. Farm and related business owners should be sure to access the most current regulatory information from the Vermont Agency of Agriculture, Food and Markets (VAAFM). Resources continue to be added to the VAAFM Water Quality website: http://agriculture.vermont.gov/water-quality

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History

Regulation of water quality in Vermont presents a sometimes confusing overlap of state and federal law. The federal Clean Water Act (CWA) passed in 1972 required a National Pollutant Discharge Permit (NPDES Permit) for any direct discharge into the waters of the United States. Permit holders must adopt certain "technology based effluent limitations" determined on an industry by industry basis. Technological controls and best management practices for limiting direct discharges of pollutants are the first line of defense for protecting water quality and regulators in most instances assume that the adoption of these technological controls will adequately protect water quality.

The federal CWA largely limits its focus to point source or direct discharges of pollution or polluted effluent. Non-point sources, such as storm water runoff or farm field runoff are largely left to the states to regulate although the CWA promises federal resources for the states in addressing non-point source pollution through the use of Best Management Practices.

Many states, including Vermont, have sought authority to assume permitting authority under the CWA. States submit plans which must be approved by the Environmental Protection Agency. In Vermont, the Agency of Natural Resources (ANR) is primarily responsible for enforcement of the CWA, although there is a Memorandum of Understanding between ANR and the Vermont Agency of Agriculture Food and Markets (VAAFM) regarding non-point source pollution coming from farms and in practice they work closely together in particular when there has been a discharge from a farm.

Vermont either as part of its authority under the CWA or its responsibility to address non-point source pollution has adopted several permitting systems. First, Vermont has adopted a point source permitting system as authorized by the EPA which is designed to protect or maintain water quality standards based on how the waters are used. The classifications include public water supplies, swimming, fishing, agricultural irrigation, commercial uses of water, fish and wildlife habitat and other uses. The goal of the permitting system is to prevent the degradation of water quality and to protect existing uses.

Vermont has also adopted a storm water runoff permitting process, which historically only applied to new construction of at least one acre of surfaces impermeable by rainwater. Act 64 extends the permitting process to existing developments of 3 acres or more in size.

Vermont also adopted a set of Accepted Agricultural practices and a permitting system for large and medium sized farms in order to address agricultural non-point source pollution. Under Act 64, AAPs are to be replaced with Required Agricultural Practices (RAPs).

When water quality standards and existing uses are threatened, regulators are supposed to limit discharges of pollution to an amount that can be safely assimilated by the receiving waters without degrading water quality. The amount of pollutant regulators believe can be assimilated without degrading water quality is called the Total Maximum Daily Load (TMDL).

In 2002, Vermont developed a TMDL plan for several segments of Lake Champlain to address phosphorus and other pollutants impacting the use of the lake for public water supplies, recreation, fishing and other uses. The plan was approved by the EPA.

In 2008, the Conservation Law Foundation (CLF) challenged the plan as being ineffective to bring the lake back within water quality standards. Two of their arguments hit their mark. First, the EPA agreed with CLF that the plan underestimated the impacts of the waste water treatment plant discharges on the phosphorus load in the lake.

The second argument involved the plan's assumptions that there would be a reduction in non-point source pollution. The EPA guidance on TMDLs allows states to allocate load reductions among pollution sources. The 2002 plan for Lake Champlain included a less stringent treatment for waste water treatment plants and justified this by projecting a greater reduction in non-point source pollution. The law, however, requires that a TMDL provide "reasonable assurances" that a reduction in non-point source pollution will in fact occur. Vermont was unable to provide these assurances to the satisfaction of the EPA.

In January of 2011, EPA withdrew its approval of the state's plan for reducing phosphorus levels in Lake Champlain and the state and the EPA began working on a new plan.

In May of 2014 CLF petitioned the VAAFM to impose Best Management Practices (BMPs) upon farms in the Missisquoi Bay watershed. Best Management Practices are site specific practices to reduce pollution runoff. After a public hearing, VAAFM denied the CLF petition. While an appeal was pending, in July of 2015, the Vermont legislature passed Act 64 which among things called for significant new regulation of agricultural runoff from farms and imposing Required Agricultural Practices (RAPs). The CLF petition has been held in abeyance pending the

development of rules by the VAAFM for the implementation of RAPs.

On June 17, 2016, the EPA issued a new plan for the Vermont portion of the lake establishing new and more stringent phosphorus TMDLs. The state issued a draft Phase 1 implementation plan for the EPA TMDL that was open for comment through September 7, 2016.

Rulemaking Process

Rulemaking for the new RAPS is governed by the Vermont Administrative Procedures Act (APA). VAAFM has conducted several rounds of public comment during the proposed rulemaking phase. They have solicited public comments and held informational sessions for farmers and other stakeholders throughout the state this spring and summer. A second draft of a proposed rule was issued on May 15, 2016 and comments were invited through July.

The Vermont APA requires VAAFM to submit a summary of the May 15, 2016 rule to the Secretary of State. The APA also requires the VAAFM to develop and submit an economic impact statement analyzing the anticipated costs and benefits to be expected from the adoption of the rule.

Economic Impact

The summary of the economic impact statement provides: We expect that the land management changes required by this rule will cost the average medium farm operations (MFO) and large farm operations (LFO) $28,094.91, and the average small farm operation (SFO) $13,691.90. Farms will benefit from increased soil health and fertility, reduced risk of crop loss due to climatic extremes, and reduced costs associated with improved nutrient management. Other stakeholders, including the general public, will benefit from improved water quality and aquatic habitat as a result of this rule. The estimated reduction in greenhouse gas emissions associated with these land management changes are, at a minimum, 80,750 tonnes of C02 equivalent per year. This rule balances the actions required to meet the State's water quality goals while considering and minimizing the economic burden on farms.

The full economic impact statement can be found here:
http://agriculture.vermont.gov/sites/ag/files/pdf/water_quality/RAP/Pages%20from%20RAP-ProposedFilingSet-05-12-16-Econmic-Impact-Statement.pdf

And estimates the following specific costs associated with compliance:

Vegetated buffers, MFOs $9,872 on average, to vegetate 10 foot buffers along farm ditches.

For annual cropland, greater than 10% slope, MFOs and LFOs increasing buffer strips from 25 to 100 feet, average MFO will cost $10,580

Cover crops on frequently flooded fields (estimate roughly 16% of the farm fields in VT, average MFO t $7,641 per year.

Small farms (SFO) and Certified Small Farm Operations (SFOs)

CSFOs, Nutrient Management Plan (NMP) – cost of developing the plan on average $2,938 and implementation of the plan, on average $2,675.

All small farms, vegetated buffers from 10 to 25 feet, on average, $2,479.

For annual cropland with slope greater than 10% SFO will need to increase vegetated buffer from 25 to 100 feet, average SFO $2,113.82

Cover crops on frequently flooded areas, SFOs average $1,510 per year.

Vermont's Administrative Procedures Act requires that the submission include a flexibility statement that "shall compare the burden imposed on small businesses by compliance with the rule to the burden which would be imposed by alternatives considered vs other creative, flexible, or innovative methods of compliance where effective and consistent with the language or purpose of the statute being implemented."

The comment period on this proposed rule closed in July. The Agency indicates that a final proposed rule will be submitted to the Vermont Secretary of State and the Legislative Committee on Administrative Rules in September.

VAAFM must submit the final proposed rule to the SOS and to the Legislative Committee on Rules (LCAR). The Agency may hold a public hearing on the final proposed rule but it is not required. The agency is, however, required to hold a public hearing if requested by 25 persons, by a governmental subdivision or agency or by an association having 25 or more members. The hearing must be held within 30 days of SOS posting of the proposed rule. VAAFM has indicated that it does not intend to hold another public hearing but that the meeting of LCAR will be open to the public.

The Agency issued a final proposed rule on September 14, 2016 and announced that it had been submitted to LCAR.

LCAR

The Committee is composed of eight members, 4 from the House of Representative and four members of the Vermont Senate. Current Committee members (Fall 2016) include:

Rep. Patsy French, Chair (Orange-Washington-Addison)
Sen. Mark A. MacDonald, Vice Chair (Orange)
Sen. Joe Benning (Caledonia)
Rep. Sarah E. Buxton (Windsor-Orange 1)
Sen. Peg Flory (Rutland)
Sen. Virginia "Ginny" Lyons (Chittenden)
Rep. Linda K. Myers (Chittenden 8-1)
Rep. Amy Sheldon (Addison 1)

Once submitted, LCAR has 45 days to convene a meeting and consider the rule unless the Agency consents to an extension of the review period. Any person may request to be placed on the agenda of the meeting and be allowed to testify if the request is made within at least 48 hours of the meeting. Any person may also submit written testimony if presented within 2 days of the meeting. By a majority vote of the Committee, the Committee can object to the final proposed rule on the following grounds:

- The rule is arbitrary
- The rule is beyond the authority delegated to the agency
- The rule is contrary to the intent of the legislature
- The Agency did not adhere to the strategy for maximizing public input prescribed by the interagency committee on administrative rules
- The rule is not written in a satisfactory style, OR
- The economic impact statement fails to recognize a substantial economic impact of the proposed rule that the Committee describes in its notice of objection.

The Agency must then respond to the Committee objection in writing within 14 days. After receiving the Agency response, the Committee may withdraw or modify its objection.
If the objection involves an inadequate economic impact statement, the Committee may object just once. The Agency may cure the defect and adopt the rule or it may adopt the rule without change. The powers of the LCAR are pretty limited in terms of modifying the rule.

There will be another round of comments invited on RAPs once the proposed rule on tile drainage are issued early in 2017.

Current Use Valuation

The consequences for not complying with RAPs can be pretty severe. Act 64 provided that Farms – an entire farm as well as the farm buildings - out of compliance with RAPs can be removed from the use value appraisal (current use) program. Removal requires an administrative hearing or judicial hearing if the farm is in violation of any rule adopted or permit or certification issued by the Secretary of Ag. If removed, the law says that it is considered development, or a land use change subject to a land use change tax. That tax is currently 10% of the full market value of the land.

An Ag Water Quality Fund is established, funded through fees imposed on MFOs, LFOs, distributors of non-agricultural fertilizer and .2% increase in the property transfer tax which is expected to generate $5.3 million annually.

Enforcement

See "Enforcement, Due Process and Administrative" available from UVM Extension

Inspection

Act 64 authorizes the Secretary of VAAFM to inspect a small farm at any time to evaluate compliance with RAPs. The proposed rule provides that small farms will be inspected at least every 7 years. Act 64 also directs the Agency to "prioritize inspections of small farms in the State based on identified water quality issues posed by a small farm." The Agency is directed to: "annually shall establish a priority ranking system for small farms according to the water quality benefit associated with the capital, structural, or technical improvements identified as needed by the Secretary during an inspection of the farm."

Farms must also maintain records of manure application and other practices for a period of 5 years and provide these records to the Secretary upon request.

VAAFM has statutory authorization to inspect and copy records but they also need to comply with the 4th Amendment to the US Constitution as well as the Constitution of the State of Vermont, both of which put certain limits on warrantless searches. There are a number of circumstances where courts have allowed a search without a warrant:

1. Exigent circumstances – emergency situations.
2. Open fields - visible from the road or from an airplane or otherwise open to public view – but not the "curtilage" or area around the home.
3. Closely regulated industries.

Generally, the 4th amendment only provides protection from "unreasonable" searches and only in circumstances where there is a reasonable expectation of privacy. There is no expectation of

privacy where farm practices are visible from the road. In addition, commercial enterprises are generally accorded less protection under the 4th amendment than someone's home. Standards are also somewhat more relaxed where crime control is not a factor. These are called administrative searches.

The closely regulated industry exception to the need for a warrant has been used where the regulatory presence over an industry is sufficiently comprehensive and defined that the owner cannot help but be aware that his property will be subject to periodic inspection.

Even if the closely regulated industry exception applies and a warrant is not required, Courts have still required that:

1. There is a substantial government interest.
2. The inspection is necessary to further a regulatory scheme.
3. The owner is advised that a search is being made pursuant to the law.
4. The search has a properly defined scope – limited to the specific concerns in the regulatory scheme.
5. And the discretion of the inspecting officer is limited – inspections must follow a comprehensive and predictable scheme. Guided by the legislative purpose rather than the whim of the inspector.

These are factors that provide comparable protection to requiring a warrant – limited scope, limited discretion and notice.

Only a few industries have been determined to be closely regulated by the Supreme Court – mines, firearms, and alcohol - industries where there is long history of close supervision and regulation. The Supreme Court has never held that agriculture is a closely regulated industry. Small farms are both business and homes and rather than being highly regulated they have historically enjoyed broad exemptions from significant labor, environmental and other regulatory schemes.

In a June 2015 case decided by the Supreme Court, in a 5 / 4 decision, Justice Sotomayor considers the constitutionality of a regulatory scheme that authorizes warrantless administrative searches. City of Los Angeles v. Naranjibhai Patel, et al 135 S.Ct. 2443 (June 22, 2015). The City of Los Angeles required hotel operators to record and keep specific information about their guests and to provide the information to any officer of the Los Angeles police force upon request.

The Court said that in the absence of consent to the search, or some other exception such as exigent circumstances, the subject of the search must be afforded an opportunity to obtain precompliance review before a neutral decision maker. The purpose of a precompliance review

is to ensure that the search is in fact reasonable. The review is an opportunity for the subject of the search to question the reasonableness of the search; to question whether the search exceeds statutory limits, or whether the search is simply a pretext to harass the inspected party. This does not mean that the Agency must have probable cause in order to inspect, only that the search is limited in scope, is within the scope of the regulatory scheme and is not undertaken for the purpose of harassing the business owner.

Required Agricultural Practices (RAPs)

RAPs are management standards to be applied state wide. Farms complying with RAPs are presumed to not be discharging. The Secretary of Agriculture may also require individual farms to implement Best Management Practices which are site specific when necessary to address water quality concerns. The Agency provides technical and financial assistance to farmers implementing BMPs. The law requires that the Secretary inform farmers of financial resources available when BMPs are required.

RAPs applicable to small farms, CSFs, MFOs and LFOs.

Most of the RAPs apply to all farms that meet a minimum threshold described below. Others, most notably the requirement for a field by field Nutrient Management Plan only apply to farms that meet the definition of a Certified Small Farm or a Medium Farming Operation or a Large Farming Operation. The minimum threshold sets a very low bar and the RAPs applicable (A- K below) to these operations are extensive.

Small (non-certified) Farms – Minimum Threshold

- Has produced an annual gross income from the sale of agricultural products of $2,000.00 or more in an average year (no time period specified.) An agricultural product includes any raw agricultural commodity or any product prepared from agricultural commodities produced principally on the farm; or

- Anyone who is planting, tilling, fertilizing, and harvesting any crop for sale on a farm that is no less than 4.0 contiguous acres in size; or

- Is raising, feeding, or managing at least the following number of adult livestock on a farm that is no less than 4.0 contiguous acres in size:
  (1) four equines;
  (2) five cattle, cows, or American bison;
  (3) 15 swine;
  (4) 15 goats;

(5) 15 sheep;
(6) 15 cervids;
(7) 50 turkeys;
(8) 50 geese;
(9) 100 laying hens;
(10) 250 broilers, pheasant, Chukar partridge, or Coturnix quail; (11) three camelids;
(12) four ratites;
(13) 30 rabbits;
(14) 100 ducks;
(15) 1,000 pounds of cultured trout; or
(16) other livestock types, combinations, or numbers as designated by the Secretary based upon or resulting from the impacts upon water quality consistent with this rule; or

- Is raising, feeding, or managing other livestock types, combinations, and numbers, or managing crops or engaging in other agricultural practices on less than 4.0 contiguous acres in size that the Secretary has determined, after the opportunity for a hearing, to be causing adverse water quality impacts and in a municipality where no ordinances are in place to manage the activities causing the water quality impacts; or

- Is managed by a farmer filing with the Internal Revenue Service a 1040(F) income tax statement in at least one of the past two years; or

- Has as a prospective business or farm management plan, approved by the Secretary, describing how the farm will comply with RAPs.

The agricultural practices covered by RAPs on farms meeting the minimum threshold criteria include:

(a) the confinement, feeding, fencing, and watering of livestock;
(b) the storage and handling of agricultural wastes principally produced on the farm;
(c) the collection of maple sap principally produced from trees on the farm and/or production of maple syrup from sap principally produced on the farm;
(d) the preparation, tilling, fertilization, planting, protection, irrigation, and harvesting of crops;
(e) the ditching and subsurface drainage of farm fields and the construction of farm ponds;
(f) the stabilization of farm fields adjacent to banks of surface water;
(g) the construction and maintenance of farm structures, farm roads, and associated infrastructure;
(h) the on-site storage, preparation, production, and sale of fuel or power from agricultural products or wastes principally produced on the farm;

(i) the on-site storage, preparation, and sale of agricultural products principally produced on the farm from raw agricultural commodities principally produced on the farm;
(j) the on-site storage of agricultural inputs for use on the farm including, but not limited to, lime, fertilizer, pesticides, compost and other soil amendments, and the equipment necessary for operation of the farm; and
(k) the management of livestock mortalities produced on the farm.

Anyone who is engaged in the activities listed above and who meets at least the minimum threshold requirements must comply with the following RAPs:

A: Discharges

Farms must not discharge any agricultural waste to surface waters of the State through a point source such as a pipe, ditch, or conduit without a permit from ANR. Production areas, barnyards, animal holding and feedlot areas, manure storage areas, and feed storage areas must use runoff and leachate collection systems, and other strategies to prevent discharge.

B: Storage of Agricultural Wastes and Ag Inputs

All agricultural wastes must be managed to prevent runoff or leaching of wastes to waters of the State or across property boundaries.

Waste management systems must be managed and maintained to prevent structural or mechanical failures. Vegetation around waste management systems must be managed to ensure structural integrity and leak and overflow prevention. The facilities must provide adequate volume to prevent overflow.

All waste storage facilities constructed, expanded or modified after July 1, 2006 must be designed and constructed according to NRCS or equivalent standards.

Field stacking of manure or other agricultural wastes is permitted only on sites consistent with NRCS standards or otherwise approved by the Secretary.

Field stacking

(1) shall consist of a stackable material that is no less than 20% solids and be able to stack four feet high; and
(2) shall be prohibited on lands in a floodway or subject to annual flooding; and
(3) shall be prohibited on exposed bedrock; and
(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; or
(E) areas subject to concentrated runoff.

The Secretary may authorize site specific standards other than those listed where such a standard will not have an adverse impact on water quality but in no case less than 100 feet from a private water supply or the top of the bank of surface water.

"Over a three-year period" field stacked waste must be applied consistent with a nutrient management plan, actively composted or be moved to a suitable alternative location."
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C: Soil Health Management; Cover Crop Requirements

Farmers must consider and implement as practicable, activities to increase organic matter, reduce compaction, promote biological activity, reduce erosion and maintain appropriate nutrient levels. These practices include 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.

Cropland must be cultivated in a manner that retains soil in the field and promotes soil health and avoids erosion. The performance management standard for the soil must result in an average soil loss less than or equal to the soil loss tolerance (T) for the prevalent soil type as calculated through application of the Revised Universal Soil Loss Equation 2 or through the application of similarly accepted models.

Cropland must be managed to prevent gully erosion through the use of grassed waterways, filter strips, or other methods deemed appropriate by the Secretary.

Effective April 15, 2017, Annual Croplands subject to frequent flooding as described in the USDA Soil Survey Flooding Frequency Class, must be planted to cover crops. Annual Cropland is land devoted to the production of annual row crops, including sweet corn and pumpkins. It does not include vegetable, fruit, or berry crops grown for human consumption or small grains. Broadcast seeding on these lands must be completed by October 1 of each year or drilled by October 15th (check any date changes in the final RAPs rule put into law). The Secretary may approve alternative dates due to unusual soil or weather conditions upon request by a landowner. If a crop cannot be harvested prior to October 15, then a 30% crop residue must remain.

D: Manure and Waste Application Standards

Effective upon adoption, manure or other agricultural waste may not be spread between December 15 and April 1. The Secretary may also ban spreading between December 1 and December 15 and between April 1 and April 30 due to weather conditions, soil conditions or other situations where the application of manure would pose a significant potential of runoff.

Manure or other agricultural wastes shall not be applied to cropland, perennial grass land, small grain cropland, or hay land subject to frequent flooding from adjacent surface waters, as described in the USDA Soil Survey Flooding Frequency Class, after October 16 or before April 14.

Manure application on Annual Cropland subject to frequent flooding must be by injection or otherwise incorporated within 48 hours of application unless under no till management.

Manure or other agricultural wastes shall not be applied to annual croplands, cropland, vegetable cropland, or small grain cropland where the average field slope exceeds 10%, unless a permanently vegetated buffer zone of 100 feet adjacent to downslope surface water has been established. Manure shall not be applied within the buffer zone.

Manure or other agricultural wastes may not be spread when field conditions are conducive to flooding, runoff, ponding, other off-site movement, or can be reasonably anticipated to result in flooding, runoff, ponding, or other off-site movement.

Manure or other agricultural wastes may not be applied in areas to croplands, perennial grass lands, or hay lands that:

(1) are saturated with water with the potential to runoff to surface water;
(2) are frozen or snow covered, unless the Secretary has approved an exemption consistent with the seasonal spreading ban; or
(3) have exposed bedrock.

Manure or other agricultural wastes may not be mechanically applied within 100 feet of a private water supply or 200 feet of a public water supply provided the private water supplies have been established consistent with the Department of Environmental Conservation Water Supply Rules existing at the time that the well was established.

The Secretary may grant an emergency exemption to the spreading ban or other waste application standards because of an emergency. The exemption will include requirements to ensure that the manure will be spread on fields in a manner with the least likelihood of generating runoff to surface waters. A request for an exemption as well as the terms of the

exemption must be in writing.

Manure or other agricultural wastes shall not be applied in exceedance of nutrient recommendations such that it ceases to be useful or beneficial for plant uptake.

E: Buffer Zones: Manure and Ag Waste Application Setbacks

A vegetative buffer zone of perennial vegetation must be maintained between croplands and the top of the bank of adjoining surface waters consistent with all the criteria listed below. Top of bank is the point along the bank of a stream where an abrupt change in slope is evident, and where the stream is generally able to overflow the banks and enter the adjacent floodplain during an annual flood event

- Adjacent surface waters must be buffered from croplands by 25 feet of perennial vegetation.
- Ditches must be buffered from croplands by 10 feet of perennial vegetation.
- Surface inlets or open drains must be buffered from croplands by 25 feet of perennial vegetation.
- Mechanical application of manure or other agricultural wastes is prohibited within perennially vegetated buffer zones. Grazing of livestock is permitted.
- The use of fertilizer or compost for the establishment and maintenance of a required vegetative buffer zone is allowed consistent with nutrient management plan requirements, soil analysis, and agronomic recommendations for the buffer zone.
- Tillage within the perennially vegetated buffer zone is prohibited other than for the establishment of the buffer zone.
- Harvesting a vegetative buffer zone as a perennial crop is allowed.
- Spoils from agricultural ditch maintenance shall not be stored in the buffer zone or in such a manner as to discharge to surface water.

The Secretary may approve exceptions to the required buffers zone widths on a site by site basis upon request but in no case may the buffer be less than 10 feet.

F: Animal Mortality Management Requirements

Animal mortalities disposed of on the farm must be buried or composted within 48 hours according to the following standards:

Burial:

- a minimum of 150 feet from property lines and the top of the bank of surface waters;

- a minimum of three feet above the seasonal high water table and bedrock;
- covered with a minimum of 24 inches of soil;
- a minimum of 200 feet from public or private drinking water supplies; and
- not located on lands in a floodway or subject to annual flooding.

Composting:

- a minimum of 200 feet from property lines;
- a minimum of 200 feet from the top of the bank of surface waters;
- a minimum of 200 feet from public or private drinking water wells not owned by the farm;
- a minimum of 300 feet from neighboring residences or public buildings;
- 100 feet from a ditch or conveyance to surface water; and
- not upon areas of exposed bedrock.

G. On-Farm Composting of Imported Food Processing Residuals

All on-farm composting facilities importing less than 1,000 cubic yards per year of food processing residuals shall be sited so as to be:

- 200 feet of the top of bank of surface water;
- 200 feet from a public or private water supply;
- 300 feet from a neighboring residence or public building;
- 200 feet from a property line;
- 100 feet from a ditch or conveyance to surface water;
- not within floodways, areas subject to annual flooding or concentrated runoff; and
- not upon areas of exposed bedrock.

H. Stabilization of Banks of Surface Waters

The areas between the top of a bank of surface water to the edge of the surface water must be left in its natural state except as allowed under the RAP standards established for the pasturing of livestock consistent.

Stream bank stabilization when allowed must be constructed in accordance with the USDA NRCS standards and specifications or other standards approved by the ANR and the Agency that are consistent with policies adopted by the Secretary of Natural Resources to reduce fluvial erosion hazards.

I. Exclusion of Livestock from the Waters of the State

Adequate vegetative cover must be maintained on banks of surface waters by limiting livestock

trampling and equipment damage to protect the banks from excessive erosion.

In production areas or immediately adjacent to production areas livestock shall not have access to surface water except:

- at livestock crossings or watering areas;
- in areas prescribed by a rotational grazing plan consistent with NRCS standards and approved by the Secretary. Approved grazing plan areas shall maintain no less than three inches of vegetative growth in the 25 feet between the top of bank and surface water, and 10 feet between the top of bank and ditches; or
- in areas approved by the Secretary based on site specific characteristics and management requirements.

Outside of production areas livestock shall not have access to surface water in areas that:

- contain unstable banks or where erosion is present; or
- are areas designated by the Secretary as having actual or potential threat to water quality as a result of livestock access.

Livestock may not be pastured within 50 feet of a private water supply without the permission of the water supply owner. This prohibition shall not apply to private water supplies that have been established inconsistent with the Department of Environmental Conservation Water Supply Rules existing at the time that the well was established.

J. Groundwater Quality

Farm operations must be conducted so that the concentration of wastes in groundwater originating from agricultural operations do not reach or exceed the primary or secondary groundwater quality enforcement standards identified by the Agency of Natural Resources included in Appendix One of the Groundwater Protection Rule and Strategy (Page 39).

Farm operations must be conducted with the goal of reducing the concentration of wastes in groundwater to the preventive action levels (PALs) of the primary or secondary groundwater quality standards identified by Appendix One of the Groundwater Protection Rule and Strategy when monitoring indicates the presence of these wastes in groundwater that exceed the enforcement standard.

The Secretary may conduct groundwater quality monitoring to assess the impact of agricultural practices and farm operations on the quality of drinking water and groundwater.

The Secretary may conduct groundwater sampling at sites:

- selected by the Secretary where well owners or tenants have volunteered or agreed to participate in the sampling program;
- upon the request of a water supply owner or tenant;
- selected by the Secretary based on the results of other sampling data or the existence of vulnerable site characteristics; or
- with activities or operations permitted, certified, or regulated by the Secretary.

The Secretary must conduct a groundwater investigation where the Secretary has received a complaint from a water supply owner in the vicinity of a farm that the farm or its agricultural practices have contaminated the drinking water or groundwater of the water supply owner.

The Secretary must conduct a groundwater investigation where sampling indicates that drinking water or groundwater contains detectable concentrations of agricultural contaminants and provide:

- written notification of testing results to each individual water supply owner and tenant, if known, that participates in the sampling program.
- property owners in the vicinity of farm operations and agricultural lands with the test results for each water supply owned by them that is sampled by the Secretary.
- farm operations with the test results for water supplies owned by the farm operation and, upon request, for water supplies adjacent to or impacted by the crop land or facilities managed by the farm operation.

After sampling, site visits, and further investigation the Secretary may require corrective actions such as changes in activities, management practices, cropping patterns, or structural revisions designed to reduce the contamination from current activities and prevent contamination from future activities. The Secretary may also require the owner or operator of a waste storage facility to modify the facility to meet the USDA NRCS or an equivalent standard for the facility or to implement additional management measures if the facility poses a threat to human health or the environment as established by an exceedance of the State's Groundwater Quality Standards. For the purpose of assessing whether a waste storage facility is violating the State's Groundwater Quality Standards, the Secretary shall pay for the initial costs to conduct groundwater monitoring. When the Secretary has made a determination that a waste storage facility is violating the State's Groundwater Quality Standards, the Secretary shall provide notification to the Department of Health and the Agency of Natural Resources. This notification shall occur within 21 days and include the location of the facility and the name of the owner or operator.

K. Construction of Farm Structures

Construction of a farm structures in Flood Hazard Areas and River Corridors require a permit from the ANR. Farm structures do not include fences through which floodwater may flow.

Local setbacks established through local zoning must be observed unless the Secretary has approved a farmer's written request for other reasonable setbacks for the specific farm structure being constructed or maintained. New structures, other than a replacement structure built within the existing structural foot print, must maintain a minimum distance of 50 feet between the top of the bank the structure. This does not include structures constructed solely for irrigation, drainage, fencing or livestock watering.

Prior to construction of farm structures, the farmer must notify the zoning administrator or the town clerk of the town in which the farm structure is proposed, in writing, of the proposed construction activity. The notification must contain a sketch of the proposed structure including the setback distances from adjoining property lines, road rights-of-way, and adjacent surface water.

In deciding whether to approve setbacks inconsistent with local setback requirements for no build areas for wetlands, river corridors or other setbacks applicable to all development established by local zoning law, the Secretary may consider the following:

- unique existing physical conditions or exceptional topographical or other physical constraints peculiar to the particular property that would prevent development in accordance with this rule;
- because of such physical conditions or constraints, there is no possibility that the property can be developed in conformity with the provisions of this rule and that the approval of an alternative setback is therefore necessary to enable the reasonable operation of the farm;
- the alternative setback, if approved by the Secretary, will not substantially or permanently impair the appropriate use or development of adjoining property, nor be detrimental to public health, safety, welfare, and the environment; and
- the setback, if approved by the Secretary, will represent the minimum alternative setback necessary to allow for reasonable operation of the farm.

All new waste storage facilities proposed where no facility or production area previously existed must use the following minimum setbacks:

- 100 feet from the centerline of a public road;
- 100 feet from any abutting property line;
- 100 feet from the top of the bank of any surface water; and
- 200 feet from public or private wells.

Nutrient Management Planning

Farms that meet the minimum threshold but are smaller than Certified Small Farms, MFOs or LFOs do not have to have a field by field Nutrient Management Plan but they do have to "account for all sources of nutrients" when determining application rates and the rates must be consistent with current university recommendations. All fields receiving mechanical application of manure, agricultural waste or fertilizer must be soil sampled every five years. Records of soil tests and nutrient applications must be kept for a period of five years and be provided to the Secretary upon request. The records must include the date of application, field location, application rate, source of nutrient applied and weather and field conditions when applied. These farms also do not have to obtain water quality training.

All Certified Small Farms (CSFs are described below), and all permitted Medium and Large Farming Operations (MFOs and LFOs) managing manure, agricultural waste or fertilizer must implement a field by field Nutrient Management Plan consistent with NRCS standards.

CSFs, MFOs, and LFOs with annual cropland, perennial grass land, or hay land with a soil analysis demonstrating a greater than 20 parts per million phosphorous must implement practices to reduce phosphorous levels including eliminating or reducing manure applications. The farm NMP must balance excessive phosphorous levels with management strategies to reduce those levels.

CSFs, MFOs and LFOs must also maintain records as described above.

Certified Small Farms

Generally, CSFs are larger than small farms but smaller than MFOs and LFOs. CSFs must comply with the RAPs A – K listed above as well as several additional requirements. A CSF is:

- A farm on a parcel or parcels of land greater than 50 acres used for the preparation, tilling, fertilization, planting of annual cropland where fertilizer, manure or agricultural wastes are mechanically applied to the farm.

  Annual Cropland is land devoted to the production of annual row crops including sweet corn and pumpkins. Annual Cropland does not include (a) vegetable, fruit, or berry crops grown for human consumption; and (b) small grains; or

- A parcel or parcels of land on which 10 or more acres are used for the raising, feeding, or management of livestock and that house at least the following numbers and types of livestock:

(A) 50 mature dairy cows;
(B) 75 young stock or heifers;
(C) 75 veal calves;
(D) 75 cattle or cow/calf pairs;
(E) 188 swine weighing over 55 pounds;
(F) 750 swine weighing less than 55 pounds;
(G) 40 equines;
(H) 750 sheep or goats;
(I) 4,125 turkeys;
(J) 2,250 laying hens or broilers with a liquid manure handling system;
(K) 6,250 laying hens or broilers without a liquid manure handling system;
(L) 375 ducks with a liquid manure handling system;
(M) 2,500 ducks without a liquid manure handling system;
(N) any other animal type, number, or combination of animals as designated by the Secretary that is having an adverse impact on water quality; or
(O) any combination of more than one animal type exceeding 90,000 pounds of total live animal weight (animal units); or

- Farms on a parcel or parcels of land greater than 50 acres used for the preparation, tilling, fertilization, planting, protection, irrigation, and harvesting of vegetable production where fertilizer, manure, or agricultural wastes are mechanically applied to said parcel or parcels.

The Secretary may also designate on a case by case basis after an opportunity for a hearing that a farm is required to comply with the certification requirements based on the farm's management, agricultural inputs used by the farm, tillage practices used by the farm, agricultural wastes generated by the farm, and the associated actual or potential water quality impacts.

The Secretary may also on a case by case basis and after an opportunity for a hearing designate a farm as not being required to comply with the certification requirements upon a determination that the farm does not pose a threat of discharge to a water of the State or does not pose a threat of contamination to groundwater.

In addition to RAPs A- K, applicable to all farms, CSFs must:

- Annually certify compliance with RAPs, submit to an inspection at any time but no less frequently than every 7 years.
- Notify the Secretary of any change in ownership of the farm within 30 days of the change.

- Farms managing manure, fertilizer or ag wastes, must implement a field by field Nutrient Management Plan under NRCS standards (590.)
- Obtain water quality training at least once every 5 years.

Certified Custom Applicators

(g) Certified custom applicators shall maintain records of the amount of manure or agricultural waste applied by farm and field for a period of five years and provide those records to the Agency upon reasonable request.

Questions? Contact Us:
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