

ACCEPTED AGRICULTURAL PRACTICE REGULATIONS

Effective Date: ~~April 24, 2006~~

INTRODUCTION

This introduction is intended to provide a general explanation of the Accepted Agricultural Practice Rules and is not part of the rules.

i. General

Agriculture has been identified as a contributor to surface and ground water pollution in Vermont. In 1986, the St. Albans Bay Rural Clean Water Program Annual Report estimated that agriculture is responsible for 48 percent of the total phosphorus load entering the St. Albans Bay. Of this, they estimated 41.6 percent comes from cropland erosion, 16.9 percent from barnyards, 3.4 percent from stacked manure, 7.6 percent from milkhouse wastes, 27.1 percent from spread manure and 3.5 percent from other sources. The study also estimated that biologically available phosphorus or the phosphorus that directly contributes to eutrophication comes from the following agricultural sources: barnyards, 26.4 percent; milkhouses, 11.9 percent; crop erosion, 13 percent; manure spreading, 42.3 percent; stacked manure, 5.3 percent; other practices, 1.1 percent. According to the Lake Champlain Phosphorous TMDL published in 2002, agriculture accounts for 56% of the phosphorous loading to Lake Champlain.

While significant strides have been made to reduce agricultural nonpoint source pollution through the voluntary implementation of soil, manure, and fertilizer management practices, agriculture remains one of the most significant potential sources of nonpoint source pollution. Inadequate animal waste, soil and nutrient management results in nutrient loading to surface waters and ground waters and is the major source of agricultural nonpoint source pollution in the State. For example, manure applied to frozen or snow covered ground creates the potential for nutrients and organic matter to run off during snowmelt, floods or other runoff producing events. A large fraction of non point source pollution is a result of cropland erosion. Soil erosion is often the result of poor soil quality. Efforts to improve soil quality reduce soil loss from farm fields, protect water quality and improve farm productivity. Organic matter is a critical component of soil quality effecting soil structure, biological activity and soil chemistry. Efforts to build soil organic matter and otherwise enhance soil health are important components in improving agricultural soils and protecting water quality.

Recognizing the need to protect and improve water quality through improved agricultural practices, the Vermont legislature charged the Agency of Agriculture, Food and Markets with creating a comprehensive Agricultural Nonpoint Source Pollution Reduction Program including Accepted Agricultural Practices and Best Management Practices. The legislature also recognized the need to balance water quality improvements with the need to sustain a healthy, economically viable agricultural industry. To achieve this, the

Legislature has directed the Agency to promulgate regulations governing Accepted Agricultural Practices and Best Management Practices.

Accepted Agricultural Practices and Best Management Practices are two different levels of practices to reduce agricultural nonpoint source pollution. Accepted Agricultural Practices are statewide restrictions designed to reduce nonpoint pollutant discharges through implementation of improved farming techniques rather than investments in structures and equipment. The law requires that these practices must be technically feasible as well as cost effective for farmers to implement without governmental financial assistance. Best management practices are more restrictive than Accepted Agricultural Practices and will be site specific practices prescribed to correct a problem on a specific farm. Best Management Practices typically require installation of structures, such as manure storage systems, to reduce agricultural nonpoint source pollution. While farmers may realize an economic benefit from Best Management Practices, it is unlikely that they will be affordable without governmental cost sharing.

Accepted Agricultural Practices are intended to reduce, not eliminate, pollutants associated with nonpoint sources such as sediments, nutrients and agricultural chemicals that can enter surface water, groundwater and State Significant Wetlands that would degrade water quality. Accepted Agricultural Practices are a group of farmland management activities which will conserve and protect natural resources. These practices will maintain the health and long-term productivity of the soils, water, and related plant and animal resources and reduce the potential for water pollution from agricultural nonpoint sources. Accepted Agricultural Practices include these practices among others: erosion and sediment control, animal waste management, fertilizer management, and pesticide management. Accepted Agricultural Practices are basic practices that all farm operators must follow as a part of their normal operations.

Implementation of Accepted Agricultural Practices by Vermont agricultural operators creates a rebuttable presumption of compliance with Vermont Water Quality Standards and the Vermont Wetland Rules. The presumption that the use of Accepted Agricultural Practices complies with Vermont Water Quality Standards may be overcome by water quality data or results from a water quality study deemed conclusive by the Secretary of ANR. These rules, however, do not exempt farmers from the obligation to comply fully with the Vermont Surface and Ground Water Quality Standards, the Vermont Wetland Rules and the applicable provisions of the Federal Clean Water Act.

ii. Vegetative buffer strips

Vegetative buffer strips shall be maintained between annual cropland and adjoining surface waters. Buffer strips help to filter out sediments, agricultural chemicals, and nutrients such as phosphorus from surface runoff. Nutrients and sediments contained in runoff adversely affect fish, natural plant growth, water turbidity, as well as other water quality values, and promote nuisance aquatic plant growth. Buffer strips also help to stabilize stream banks reducing the amount of cropland lost to natural stream bank erosion as well as land lost due to excessive tillage. Vegetative buffer strips also help to

prevent activities on or over the tops of stream and river banks that can negatively affect water quality.

~~iii. Roles of the State agencies~~

~~The Agency of Agriculture is authorized by statute to manage the State's Agricultural Nonpoint Source Pollution Reduction Program planning, implementation and regulation. The Vermont Agency of Natural Resources, which is the designated lead State water quality agency, is responsible for the management and enforcement of all other water quality/ water pollution control and wetland protection statutes and rules of the State. The Agriculture Agency is required to cooperate with the Agency of Natural Resources in developing and implementing the Agricultural Nonpoint Source Pollution Reduction Program. The two agencies have entered into a Memorandum of Understanding describing the procedures to be used while coordinating their respective efforts.~~

~~There is a need for continued cooperation and communication between the Secretary of Agriculture, Food and Markets and the Secretary of the Agency of Natural Resources in implementing and enforcing the Accepted Agricultural Practice Rules and determining their effectiveness in reducing nonpoint source pollution.~~

~~Public Drinking Water Supplies: Nutrients, sediment, organic matter and microorganisms may also impact drinking water supplies derived from surface waters. Agricultural operations should be aware of the locations of surface drinking water source intakes and appropriately manage agricultural activities to reduce potential negative impacts.~~

~~Wetlands: Although wetlands are not mentioned in the AAPs, landowners need to be aware of existing rules pertaining to wetlands under state and federal jurisdiction. The Natural Resources Conservation Service, U.S. Army Corps of Engineers, and the Vermont Department of Environmental Conservation coordinate all agriculture/wetland issues in Vermont. It is strongly suggested that landowners contact the U.S. Army Corps of Engineers at 802-872-2893 and the Vermont Department of Environmental Conservation at 802-241-3760 before initiating farm related projects in or near wetlands.~~

~~Construction of New Farm Structures: Construction of new farm structures, specifically buildings and other farm related structures that disturb one or more acres of land must obtain authorization from the ANR before commencing with land disturbance or construction activities. Approval will be issued by ANR upon receipt of a Notice of Intent (NOI) which certifies that adequate measures for the control of erosion and sedimentation will be used during land disturbance and construction efforts. Persons needing additional information about the Construction General Permit/NOI concerning one or more acres of land disturbance are advised to contact the Water Quality Division of the Department of Environmental Conservation at 802-241-3770 or visit the web site at www.vtwaterquality.org/stormwater. Authorization by ANR is not needed for construction or land disturbance related to cultivation, irrigation, drainage and fencing.~~

~~Solid and Hazardous Waste Management: Agricultural operations are advised to manage all wastes generated on the farm consistent with all applicable solid waste rules and hazardous waste rules. Information regarding the proper storage and disposal of waste oil, petroleum products and empty containers can be obtained from the Vermont Waste Management Division at 802-241-3888.~~

iv. Enforcement

~~Accepted Agricultural Practices are considered a fundamental part of agricultural nonpoint source pollution management and shall be followed by all farm operators. When the Secretary determines that a farmer is using practices inconsistent with the Accepted Agricultural Practice Rules, the Secretary may issue a written warning which includes a brief description of the alleged violation, recommendations for corrective actions, and a summary of federal and state assistance programs available to assist the farmer in remedying the violation, and a proposed abatement schedule. The farmer has 30 days to respond to the warning.~~

~~If the farmer either fails to respond to the warning or take the indicated corrective action(s), the Secretary must hold a hearing on the violation. The Secretary may issue cease and desist orders and begin appropriate actions including seeking a temporary or permanent injunction of the violation. The Secretary may also assess administrative penalties against a farmer who violates a cease and desist order or other order issued. Administrative penalties of \$1,000 per day per continuing violation up to a total of \$25,000 may be assessed. At that time, the Secretary may reassess the administrative penalties.~~

~~An enforcement order or administrative penalty may be appealed to the superior court within 30 days of the decision.~~

~~In circumstances where the Secretary wishes to terminate an enforcement action, short of having achieved compliance, the Secretary must notify the Secretary of ANR. The Secretary of ANR may then initiate a separate enforcement action, but only after it has been determined that the violation has or will cause water quality to fail to meet Vermont water quality criteria or Vermont Water Quality Standards.~~

v. Information

~~Questions regarding these regulations should be directed to the Vermont Agency of Agriculture, Food and Markets, 116 State Street, Drawer 20, Montpelier, Vermont 05620-2901, (802) 828-2431.~~

SECTION 1: GENERAL

1.1 Purpose

~~It is a policy of the State of Vermont to protect and maintain water quality by reducing agricultural nonpoint source pollution through implementation of Accepted Agricultural Practices.~~

~~1.2 Authority: 6 V.S.A. §4810, 10 V.S.A. §1021(f), and 10 V.S.A. §1259(f) and (i).~~

~~SECTION 2: DEFINITIONS~~

~~2.00 Agency means the Vermont Agency of Agriculture, Food and Markets the Secretary of the Vermont Agency of Agriculture, Food and Markets and his or her designees.~~

~~2.01 ANR means the Vermont Agency of Natural Resources, the Secretary of the Vermont Agency of Natural Resources and his or her designees.~~

~~2.02 Buffer Zone means an area of perennial vegetation between the edge of annual cropland and the top of the bank of the adjoining surface water.~~

~~2.03 Cropland means land devoted to row crop, perennial production, or pasture production.~~

~~2.04 Discharge means the placing, depositing, or emission of any wastes directly or indirectly, into an injection well or into waters of the state.~~

~~2.05 Farming means:~~

~~(a) the cultivation or other use of land for growing food, fiber, Christmas trees, maple sap, or horticultural and orchard crops; or~~

~~(b) the raising, feeding or management of livestock, poultry, fish or bees; or~~

~~(c) the operation of greenhouses; or~~

~~(d) the production of maple syrup; or~~

~~(e) the on-site storage, preparation and sale of agricultural products principally produced on the farm; or~~

~~(f) the on-site production of fuel or power from agricultural products or wastes produced on the farm.~~

~~(g) the raising, feeding, or management of four or more equines owned or boarded by the farmer, including training, showing, and providing instruction and lessons in riding, training, and the management of equines.~~

~~2.06 Farm Structure means a structure or structures as defined herein that is used by a person for agricultural production that meets one or more of the following:~~

~~(a) is used in connection with the sale of \$1000 or more of agricultural products in a normal year; or~~

~~(b) is used in connection with the raising, feeding, and management of at least the following number of adult animals: four equines; five cattle or American bison; fifteen swine; fifteen goats; fifteen sheep; fifteen fallow deer; fifteen red deer; fifty turkeys; fifty geese; one hundred laying hens; two hundred and fifty broilers, pheasant, Chukar partridge, or Coturnix quail; three camelids; four ratites (ostriches, rheas, and emus); thirty rabbits; one hundred ducks; or one thousand pounds of cultured trout; or~~

~~(c) is used 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~~

~~(d) is on a farm with a business and farm management plan approved by the Secretary.~~

~~2.07 Floodplain means the land in the community subject to a one percent or greater chance of flooding in any given year. The area may be designated as Zone A on the National Flood Insurance Program maps.~~

~~2.08 Floodway means the channel of a watercourse and adjacent land areas which are required to carry and discharge a one hundred year flood within a regulated flood hazard area without substantially increasing the flood heights. Floodways are depicted on the National Flood Insurance Maps on file with the Town Clerk.~~

~~2.09 Fluvial Erosion Hazard (FEH) Zone means a corridor within which structures and investments are most likely to be at a high to extreme risk of loss due to the erosion associated with channel slope adjustments. FEH Zones are derived by the Agency of Natural Resources through stream geomorphic assessments, mapped as part of the FEMA flood hazard program, and adopted through municipal plans and zoning ordinances pursuant to 24 V.S.A. §4424.~~

~~2.10 Groundwater means water below the land surface in a zone of saturation but does not include surface waters.~~

~~2.11 Groundwater Quality Standards means the primary and secondary groundwater quality standards listed in Appendix One of the Groundwater Protection Rule and Strategy in accordance with 10 V.S.A. Chapter 48.~~

~~2.12 Intermittent Waters means waters of the state where the presence of water is not continuous and may occur periodically and infrequently such as during and immediately following a rain or snowmelt event.~~

~~2.13 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.~~

~~2.14 Nonpoint Source Pollution means wastes that reach surface water or groundwater indirectly or in a diffuse manner as a result of agricultural practices.~~

~~2.15 Person means:~~

~~(a) an individual, partnership, corporation, association, unincorporated organization, trust or other legal or commercial entity, including a joint venture or affiliated ownership; or~~

~~(b) a municipality or state agency; or~~

~~(c) individuals and entities affiliated with each other for profit, consideration or any other beneficial interest derived from agricultural land management.~~

~~2.16 Pesticides are any substance produced, distributed or used for preventing, destroying, or repelling any insects, rodents, nematodes, fungi, weeds, or other forms of plant or animal life or viruses, except viruses on or in living humans or other animals, which the Secretary shall declare to be a pest or any substance produced, distributed or used as a plant regulator, defoliant or desiccant.~~

~~2.17 Production Area means the part of a farm that includes the animal confinement area, the manure storage area, the feed storage area, the waste containment areas, washing or processing areas, the fertilizer and pesticide storage areas and areas used for the storage, handling, treatment or disposal of mortalities.~~

~~2.18 Structure means a silo, a building for housing livestock, raising horticultural or agronomic plants, or for carrying out other accepted agricultural practices as defined in Section 3.2 of these rules. It also means a barnyard or waste management system, either of which is created from an assembly of materials, but excludes a dwelling for human habitation.~~

~~2.19 Surface water means all rivers, streams, brooks, reservoirs, ponds, lakes, springs and all bodies of surface waters, artificial or natural, which are contained within, flow through or border the state or any portion of it.~~

~~2.20 Wastes includes but is not limited to sediments, minerals (including heavy metals), plant nutrients, pesticides, organic wastes (including livestock waste, mortalities, compost, feed and crop debris), waste oils, pathogenic bacteria and viruses, thermal pollution, silage runoff, untreated milkhouse waste and any other waste compound or material which is determined by the Secretary or the Secretary of ANR to be harmful to the waters of the State, or other wastes as defined in 10 V.S.A. Section 1251 (12).~~

~~2.21 Waters of the State, for the purposes of this rule, include surface waters and groundwater as applied.~~

~~2.22 Well means a drinking water source that intersects the water table and provides water through pipes or other conveyances and includes drilled wells, dug wells, driven point wells and natural springs.~~

SECTION 3: ACCEPTED AGRICULTURAL PRACTICES

~~3.1 Persons engaged in agricultural operations who follow the agricultural practices as defined in Section 3.2 of these rules and who comply with the conditions and restrictions contained in Section 4 shall be presumed to be pursuing Accepted Agricultural Practices.~~

~~3.2 Agricultural practices that are governed by these regulations include, but are not limited to, the following:~~

- ~~(a) The confinement, feeding, fencing, and watering of livestock.~~
- ~~(b) The storage and handling of livestock wastes and by products.~~
- ~~(c) The collection of maple sap and production of maple syrup.~~
- ~~(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 field streambanks.~~
- ~~(g) The construction and maintenance of farm structures and farm roads.~~
- ~~(h) The on-site production of fuel or power from agricultural products or wastes produced on the farm.~~
- ~~(i) The on-site storage, preparation and sale of agricultural products principally produced on the farm.~~
- ~~(j) The on-site storage of agricultural inputs including, but not limited to, lime, fertilizer and pesticides.~~
- ~~(k) The handling of livestock mortalities.~~

SECTION 4: ACCEPTED AGRICULTURAL PRACTICE CONDITIONS AND RESTRICTIONS

4.01 Discharges

~~(a) Agricultural operations shall not create any direct discharge of wastes into the surface waters of the State from a discrete conveyance such as, but not limited to, a pipe, ditch, or conduit without a permit from the Secretary of ANR.~~

~~(b) Barnyards, manure storage areas, animal holding areas and production areas shall be managed or controlled to prevent runoff of wastes to adjoining waters, groundwater or across property boundaries.~~

~~(c) Adequate vegetative cover shall be maintained on streambanks by limiting livestock trampling and equipment damage (except at defined crossings) to protect streambanks from excessive erosion.~~

~~(d) The areas from the top of a bank of surface water to the edge of the surface water shall be left in their natural state except as provided for by State statute including but not limited to 10 V.S.A. Chapter 41 §1021; and for the pasturing of livestock consistent with section 4.01(e).~~

4.02 Nutrient and Pesticide Storage

~~(a) Manure stacking sites, fertilizer storage and other nutrient source storage shall not be located within 100 feet of private wells unless it can be demonstrated to the Secretary that there is no suitable alternative site or if the private well is in a location that is inconsistent with state law or regulation. Fertilizer may be stored within 100 feet of private wells provided it is stored in a structure that minimizes leaching and runoff potential. Manure shall not be stored within 100 feet of property boundaries unless it can be demonstrated to the Secretary that there is no suitable alternative site.~~

~~(b) Stacking or storage of manure shall not occur on lands subject to annual overflow from adjacent waters unless it can be demonstrated to the Secretary that no suitable alternative sites exist.~~

~~(c) Manure shall not be field stacked on unimproved sites within 100 feet of surface water unless it can be demonstrated to the Secretary that there is no suitable alternative site.~~

~~(d) Waste management systems shall be managed and maintained so as to prevent discharges or structural failures.~~

4.03 Nutrient and Pesticide Application

~~(a) All sources of nutrients shall be accounted for when determining recommended application rates for crops. Nutrient applications shall be based on soil testing by field. All fields receiving mechanical application of manure shall be soil tested at least once every five years. Records of soil tests shall be maintained for five years. Recommendations and applications may be adjusted based on manure testing and/or leaf analysis. Nutrient applications shall be consistent with university recommendations, standard agricultural practices or a nutrient management plan for the farm approved by the Secretary.~~

~~(b) Manure spread on annual crop land that is subject to annual overflow from adjacent surface waters shall be incorporated within 48 hours. This regulation shall not apply to no-till land and land planted to cover crop.~~

~~(c) Manure shall not be spread between December 15 and April 1 unless the Secretary grants an exemption because of an emergency situation, such as, but not limited to, the structural failure of a manure storage system or for other specific management needs. In granting an exemption, the Secretary shall determine that the manure will be spread on fields with the least likelihood of generating runoff to the adjoining surface waters. Being granted an exemption does not relieve persons from complying with the Vermont Water Quality Standards.~~

~~(d) Manure shall not be applied within 10 feet of adjoining surface water or within 25 feet of adjoining surface water at points of runoff, or applied in such a manner as to enter surface water.~~

~~(e) Pesticides shall be used in accordance with Title 6 V.S.A. Chapter 87 Control of Pesticides and all regulations promulgated there under.~~

~~(f) Fertigation and chemigation equipment shall be operated only with an adequate anti-siphon device between the system and the water source.~~

~~(g) Livestock shall not be pastured within 50 feet of a private well without the permission of the well owner nor shall application of manure occur within 50 feet of a private well unless there is a legal document which provides for a different isolation distance or when a private well is in a location that is inconsistent with state law or regulation.~~

4.04 Soil Cultivation

~~Cropland shall be cultivated in such a manner that results in an average soil loss less than or equal to two times the soil loss tolerance for the prevalent soil as calculated through application of the Revised Universal Soil Loss Equation, or through the application of similarly accepted models.~~

4.05 Agricultural Waste Management

~~(a) All agricultural wastes including, but not limited to, chemicals, petroleum products, containers, and carcasses shall be properly stored, handled and disposed of, so as to minimize adverse water quality impacts.~~

~~(b) Animal mortalities buried on farm property shall be sited so as to be:~~

~~—— (i) at least 150 feet from property lines, wells and surface waters.~~

~~—— (ii) at least 3 feet above the seasonal high water table.~~

~~—— (iii) covered with a minimum of 24 inches of soil~~

~~(c) Animal mortalities composted on farm property shall be sited so as to be:~~

~~—— (i) at least 100 feet from property lines, wells and surface waters.~~

~~—— (ii) not on land subject to annual overflow from adjoining surface waters.~~

~~—— (iii) at least 300 feet from neighboring domiciles.~~

4.06 Buffer Zones

~~A vegetative buffer zone of perennial vegetation shall be maintained between annual croplands and the top of the bank of adjoining surface waters consistent with (a) through (f) below, in order to filter out sediments, nutrients, and agricultural chemicals and to protect the surface waters from erosion of streambanks due to excessive tillage. Vegetative buffer zones are not required along intermittent stream channels such as those occurring in annual croplands or along drainage ditches.~~

~~(a) adjoining surface waters shall be buffered from annual crop lands by at least 10 feet of perennial vegetation.~~

~~(b) an additional 15 feet of perennial vegetation shall be established at points of runoff to adjoining surface waters.~~

~~(c) no manure shall be applied within vegetative buffers.~~

~~(d) use of fertilizer for the establishment and maintenance of the vegetative buffer is allowed.~~

~~(e) tillage shall not occur in a vegetative buffer except for the establishment or maintenance of the vegetative buffer.~~

~~(f) harvesting the vegetative buffer as a perennial crop is allowed.~~

4.07 Construction of Farm Structures

~~(a) In addition to the requirements of Section 4.02(a), manure, fertilizer, pesticide storage structures, and farm structures shall not be constructed within a floodway area as presented on National Flood Insurance Maps on file with Town Clerks or within a Fluvial Erosion Hazard Zone as designated by municipal ordinance. Such structures may be constructed outside this area yet within the 100-year floodplain when adequately protected from inundation and floodwater damage. Fences through which floodwater may flow are not structures which represent an encroachment in a floodway area.~~

~~(b) All manure, fertilizer, and pesticide storage structures constructed within a floodplain must conform to National Flood Insurance Program Standards.~~

~~(c) Prior to construction of farm structures, the farmer must notify the zoning administrator or the town clerk in writing of the proposed construction activity. The notification must contain a sketch of the proposed structure including the setbacks from adjoining property lines and road rights-of-way.~~

~~(d) Local setbacks or no build areas within Fluvial Erosion Hazard Zones established by the municipality shall be maintained unless upon written petition of the farmer the Secretary has approved other reasonable setbacks for the specific farm structure being constructed or maintained.~~

~~(e) In addition to the provisions of 4.07 (a) and (b); new structures that are not additions to existing farm structures associated with farm operations shall be constructed so that a minimum distance of 50 feet is maintained between the top of the bank of the adjoining waters and the farm structure. Such structures do not include those for irrigation, drainage or fencing.~~

~~(f) All waste storage facilities constructed or expanded after July 1, 2006 shall be designed and constructed according to USDA Natural Resource Conservation Service standards and specifications or an equivalent standard certified by a professional engineer licensed in the State of Vermont.~~

4.08 Ground Water Quality:

~~(a) Farm operations shall be conducted so that the concentration of wastes in groundwater caused by agricultural operations do not reach or exceed the primary or secondary groundwater quality enforcement standards identified by Appendix One of the Groundwater Protection Rule and Strategy in accordance with 10 V.S.A. Chapter 48.~~

~~(b) Farm operations shall be conducted with the goal to reduce 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.~~

~~(c) 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.~~

~~(d) The Secretary may conduct groundwater sampling:~~

- ~~i) at sites selected by the Secretary where well owners have volunteered or agreed to participate in the sampling program;~~
- ~~ii) at sites upon the request of a well owner;~~

iii) at sites selected by the Secretary based on the results of other sampling data or the existence of vulnerable site characteristics;

iv) at sites with activities or operations permitted or regulated by the Secretary; and

v) at sites where the Secretary has received a complaint from a well owner in the vicinity of an agricultural operation that the operation has contaminated the drinking water or groundwater of the well owner.

e) The Secretary shall conduct a groundwater investigation where the Secretary has received a complaint from a well owner in the vicinity of an agricultural operation that the operation or its agricultural practices has contaminated the drinking water or groundwater of the well owner.

f) The Secretary shall investigate the occurrence of contamination where sampling indicates that drinking water or groundwater contain detectable concentrations of agricultural contaminants.

The approaches the Secretary may utilize to identify and remediate sources of drinking water and groundwater contamination include, but are not limited to:

i) Conduct site visits to interview property owners and farm operators, gain an understanding of the physical characteristics of the landscape and locate additional sites for water quality sampling;

ii) Communicate with farm operators and adjacent property owners to identify practices and activities that are potential sources of contamination;

iii) Conduct additional sampling to confirm the detection of contaminants and to determine the extent and scope of contamination at the site;

iv) Make recommendations for changes in activities, management practices, cropping patterns or structural revisions designed to reduce the contamination from current activities and prevent contamination from future activities;

v) Conduct follow up water quality sampling to determine the effectiveness of changes made or corrective actions taken;

vi) Seek additional investigative or consultation resources to evaluate and characterize the site to determine vulnerability to drinking water and groundwater contamination; and

vii) Review testing results and site evaluations to determine if changes in water quality data are the result of changes in activities or natural site conditions.

(g) The Secretary shall provide written notification of testing results to each individual well owner that participates in the sampling program.

i) Property owners in the vicinity of farm operations and agricultural lands shall receive the test results for each well owned by them that is sampled by the Secretary.

ii) Farm operations shall receive the test results for wells owned by the farm operation and for wells adjacent to or impacted by the crop land or facilities managed by the farm operation.

~~(h) The Secretary may require the owner or operator of a waste storage facility to modify the facility to meet the 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 a violation of the Groundwater Quality Standards.~~

~~(i) For the purpose of making a determination that a waste storage facility poses a threat to human health or the environment the Secretary shall pay for the initial costs to conduct groundwater monitoring. When the Secretary has made a determination that a waste storage facility poses a threat to human health or the environment, the Secretary shall provide notification to the Department of Health and the Agency of Natural Resources. This notification shall occur within twenty one (21) days and include the location of the facility and the name of the owner or operator. When the Secretary makes a determination that a waste storage facility no longer poses a threat to human health or the environment, the Secretary shall provide notification of the revised determination to the Department of Health and the Agency of Natural Resources.~~

~~(j) The owner or operator of a farm operation required by the Secretary to design, construct or modify a waste storage facility may apply for cost share assistance. If the Secretary lacks adequate cost share assistance funds, the requirement to design, construct or modify a waste storage facility shall be suspended until adequate funding is available.~~

~~Suspension of the requirements to design, construct or modify a waste storage facility does not relieve an owner or operator of a farm subject to the Medium Farm Operations Permitting Program from the remaining requirements of the MFO Program.~~

~~Suspension of the requirements to design, construct or modify a waste storage facility does not apply to the owner or operator of a farm subject to the Large Farm Operations Permitting Program.~~

4.09 Streambank Stabilization

~~(a) Stabilization of farm field streambanks shall be constructed in accordance with the United States Department of Agriculture Natural Resources Conservation Service standards and specifications or other standards approved by the Natural Resources and Agriculture secretaries. Wherever feasible, stabilization of farm field streambanks shall recognize the need to reduce fluvial erosion hazards as defined by the Secretary of the Agency of Natural Resources.~~

SECTION 5: ENFORCEMENT

5.1 Authority

Violations of these rules are subject to enforcement under applicable Vermont law including, but not necessarily limited to, the provisions of 6 V.S.A. Section 4812. These rules do not in any way prevent the secretary from taking appropriate enforcement action for verifiable violations of the state's Water Pollution Control statutes and regulations.

5.2 Enforcement Procedure

(a)When the Secretary determines that a person engaged in farming is managing a farm using practices which are inconsistent with practices defined by rules under 6 V.S.A., Chapter 215, the Secretary may issue a written warning which shall be served in person or by certified mail, return receipt requested. The warning shall include a brief description of the alleged violation, identification of Title 6 and applicable rules, a recommendation for corrective actions that may be taken by the person, along with a summary of federal and state assistance programs which may be utilized by the person to remedy the violation and a request for an abatement schedule from the person according to which the practice shall be altered. The person shall have 30 days to respond to the written warning. If the person fails to respond to the written warning within this period or to take corrective action to change the practices in order to protect water quality, the Secretary may act pursuant to subsection (b) of this section in order to protect water quality.

(b)After an opportunity for a hearing, the Secretary may issue cease and desist orders and institute appropriate proceedings on behalf of the Agency to enforce this chapter. Whenever the Secretary believes that any person engaged in farming is in violation of these rules, an action may be brought by the Agency in a court of competent jurisdiction to restrain by temporary or permanent injunction the continuation or repetition of the violation. The court may issue temporary or permanent injunctions, and other relief as may be necessary and appropriate to curtail any violations.

(c)The Secretary may assess administrative penalties in accordance with sections 15, 16, and 17 of Title 6 against any farmer who violates a cease and desist order or other order issued under subsection (b) of this section.

(d)Any person subject to an enforcement order or an administrative penalty who is aggrieved by the final decision of the Secretary may appeal to the superior court within 30 days of the decision. The administrative judge may specially assign an environmental judge to superior court for the purpose of hearing the appeal.

**REQUIRED AGRICULTURAL PRACTICES RULE
FOR
THE AGRICULTURAL NONPOINT SOURCE POLLUTION CONTROL
PROGRAM**

Section 1. General

- 1.1 Introduction: As defined in 6 V.S.A. Chapter 215, §§ 4810 and 4810a, the Required Agricultural Practices (RAPs) shall be management standards to be followed by all persons engaged in farming in this State. These standards shall address activities which have a potential for causing agricultural pollutants to enter the groundwater and waters of the State, including dairy and other livestock operations, all forms of crop and nursery operations and on-farm or agricultural fairground registered pursuant to 20 V.S.A. § 3902, and livestock and poultry slaughter and processing activities. The RAPs shall include, as well as promote and encourage, practices for farmers in preventing agricultural pollutants from entering the groundwater and waters of the State when engaged in animal waste management and disposal, soil amendment applications, plant fertilization, and pest and weed control. Persons engaged in farming who are in compliance with these practices shall be presumed to not have a discharge of agricultural pollutants to waters of the State. The RAPs shall be designed to protect water quality and shall be practical and cost-effective to implement, as determined by the Secretary.
- 1.2 Purpose: The RAPs are farm and land management practices that will control and reduce agricultural nonpoint source pollution and subsequent nutrient losses from farm fields and production areas to surface and ground waters of the State or across property boundaries. The RAPs also establish minimum construction and siting requirements for farm structures in floodplains, floodways, river corridors, and flood hazard areas.
- 1.3 Authority: 6 V.S.A. Chapter 215 (Agricultural Water Quality), including §§ 4810, 4810(a), and 4811, and Act 64 of the Vermont General Assembly (2015 session).
- 1.4 Enforcement: Violations of this rule are subject to enforcement by the Secretary of the Vermont Agency of Agriculture, Food and Markets and the Attorney General under the provisions of 6 V.S.A. §§ 4991 - 4996 and additional remedies available to the State under other applicable Vermont law.
- 1.5 Further considerations under the RAPs: 6 V.S.A. § 4810a(b) requires that on or before January 15, 2018, the Secretary of Agriculture, Food and Markets shall amend by rule the Required Agricultural Practices in order to include requirements for reducing nutrient contribution to waters of the State from subsurface tile drainage. As part of the rule amendment process, the Secretary

may also evaluate the current status of effectiveness of the Required Agricultural Practices, the implementation of additional best management practices, and the current water quality condition of waters of the State. The Secretary may consider additional changes to the Required Agricultural Practices, as appropriate, to meet the water quality goals of the State.

Section 2. Definitions

- 2.01 Agency means the Vermont Agency of Agriculture, Food and Markets.
- 2.02 Agricultural Product means any raw agricultural commodity, as defined in 6 V.S.A. § 21(6), that is principally produced on the farm and includes products prepared from the raw agricultural commodities principally produced on the farm.
- 2.03 Annual Cropland means, for the purposes of this rule, land devoted to the production, cultivation, harvesting, and management of annual row crops, including sweet corn and pumpkins, but does not include:
- (a) vegetable, fruit, or berry crops grown for human consumption; and
 - (b) small grains.
- 2.04 ANR means the Vermont Agency of Natural Resources, and the Secretary of the Vermont Agency of Natural Resources and her or his designees.
- 2.05 Buffer Zone means an area of perennial vegetation between the edge of cropland and the top of the bank of an adjoining water of the State, a ditch that is not a surface water under State law and that is not a water of the United States under federal law, and surface inlets or open drains.
- 2.06 Certified Small Farm means a farm that is required to submit annual certification of compliance with the Required Agricultural Practices Rule as specified in Section 4 of this rule.
- 2.07 Compost means a stable, humus-like material produced by the controlled biological decomposition of organic matter through active management, but shall not mean sewage, septage, or materials derived from sewage or septage.
- 2.08 Cover Crop means a temporary vegetative crop established for the purpose of:
- (a) reducing erosion and runoff; and
 - (b) enhancing soil health by providing organic matter in annual cropland.

- 2.09 Crop and Cropland, for the purposes of this rule, means plants grown for food, feed, fiber (other than trees grown for silvicultural or timber purposes), Christmas trees, maple sap, horticultural, orchard crops, and pasture.
- 2.10 Custom Applicator means a person who is engaged in the business of applying manure or other agricultural wastes to land and who charges or collects other consideration for the service including full-time employees of a person engaged in the business of applying manure or agricultural wastes to land.
- 2.11 Discharge means the placing, depositing, or emission of any wastes, directly or indirectly, into an injection well or into waters.
- 2.12 Ditch means a constructed channel or channel which forms as a result of human activities primarily associated with land drainage or water conveyance through or around private or public property or infrastructure.
- 2.13 Farm means a parcel or parcels of land owned, leased, or managed by a person and devoted primarily to farming as defined in Section 2.15 of this rule and that meets the threshold criteria as established in Section 3 of this rule, provided that the lessee controls the leased lands to the extent they would be considered as part of the lessee's own farm. Indicators of control may include whether the lessee makes day-to-day decisions concerning the cultivation or other farming-related use of the leased lands and whether the lessee manages the land for farming during the leased period.
- 2.14 Farm Structure means a structure that is used by a person for farming, including a silo, a building to house livestock or raise horticultural or agronomic plants, or customarily used to carry out the agricultural practices defined in Section 3.2 of this rule. A farm structure includes a barnyard or waste management system, either of which is created from an assembly of materials, including the supporting fill necessary for structural integrity, but excludes a dwelling for human habitation. A farm structure also must be used by a person who can demonstrate meeting the minimum threshold criteria as found in Section 3.1 of this rule.
- 2.15 Farming means:
- (a) the cultivation or other use of land for growing food, fiber, Christmas trees, maple sap, or horticultural and orchard crops; or
 - (b) the raising, feeding, or management of livestock, poultry, fish, or bees;
- or
- (c) the operation of greenhouses; or
 - (d) the production of maple syrup; or
 - (e) the on-site storage, preparation, and sale of agricultural products principally produced on the farm; or

(f) the on-site storage, preparation, production, and sale of fuel or power from agricultural products or wastes principally produced on the farm; or

(g) the raising, feeding, or management of four or more equines owned or boarded by the farmer, including training, showing, and providing instruction and lessons in riding, training, and the management of equines.

- 2.16 Fertilizer means any substance containing one or more recognized plant nutrients that is used for its plant nutrient content and that is designed for use or claimed to have value in promoting plant growth or health, except unprocessed animal or vegetable manures and other products exempted by the Secretary.
- 2.17 Flood Hazard Area means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year (a.k.a. 100-yr flood). The term has the same meaning as “area of special flood hazard” under 44 C.F.R. § 59.1. The area may be designated as Zone A or AE on the National Flood Insurance Program maps.
- 2.18 Floodplain means any land area susceptible to being inundated by water from any source.
- 2.19 Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base (one percent annual chance) flood without cumulatively increasing the water surface elevation more than one foot at any point. Flood hazard areas and floodways may be shown on separate National Flood Insurance Program map panels.
- 2.20 Food Processing Residual means the remaining organic material from a food processing plant and may include whey and other dairy, cheese making, and ice cream residuals or residuals from any food manufacturing process excluding slaughtering and rendering operations. It does not include materials from markets, groceries, or restaurants.
- 2.21 Groundwater means water below the land surface in a zone of saturation but does not include surface waters.
- 2.22 Groundwater Quality Standards means the primary and secondary groundwater quality standards listed in Appendix One of the Groundwater Protection Rule and Strategy in accordance with 10 V.S.A. Chapter 48 (Groundwater Protection).
- 2.23 Livestock means cattle, cow/calf pairs, youngstock, heifers, bulls, american bison, swine, sheep, goats, horses, cervids, camelids, ratites, rabbits, pheasants, chukar partridge, coturnix quail, laying hens, broilers, ducks, turkeys, or any other type of fowl as designated by the Secretary. Other livestock types may be designated by the Secretary based on the potential to generate nutrients or other associated agricultural wastes.

- 2.24 Manure means livestock waste in solid or liquid form that may also contain bedding, spilled feed, water, milkhouse waste, or soil.
- 2.25 Nonpoint Source Pollution for the purposes of this rule, means agricultural wastes that reach surface water or groundwater indirectly or in a diffuse manner as a result of farming.
- 2.26 Person means:
- (a) an individual, partnership, corporation, association, unincorporated organization, trust, or other legal or commercial entity, including a joint venture or affiliated ownership; or
 - (b) a municipality or state agency; or
 - (c) individuals and entities affiliated with each other for profit, consideration, or any other beneficial interest derived from agricultural management, including lessors and lessees.
- 2.27 Pesticide means economic poison as defined in 6 V.S.A. § 911(5) and Section I 22 of the Vermont Regulations for Control of Pesticides.
- 2.28 Principally Produced means that more than 50% (either by weight or volume) of raw agricultural products grown or produced as a result of farming that are stored, prepared, or sold at the farm are also grown or produced on the farm.
- 2.29 Production Area means those areas of a farm where animals, agricultural inputs, or raw agricultural products are confined, housed, stored, or prepared whether within or without structures, including barnyards, raw materials storage areas, heavy use areas, fertilizer and pesticide storage areas, and waste storage and containment areas. Production areas include egg washing or egg processing facilities, milkhouses, raw agricultural commodity preparation or storage, or any area used in the storage, handling, treatment, or disposal of mortalities.
- 2.30 River Corridor means the land area adjacent to a river that is required to accommodate the dimensions, slope, planform, and buffer of the naturally stable channel and that is necessary for the natural maintenance of natural restoration of a dynamic equilibrium condition and for minimization of fluvial erosion hazards, as delineated by the Agency of Natural Resources in accordance with river corridor protection procedures.
- 2.31 Secretary means the Secretary of the Agency of Agriculture, Food and Markets and her or his designees.

- 2.32 Surface Water or Waters means all rivers, streams, brooks, reservoirs, ponds, lakes, springs, and all bodies of surface waters, artificial or natural, which are contained within, flow through, or border the state or any portion of it.
- 2.33 Top of Bank means 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. Annual flood event shall be determined according to the Agency of Natural Resources' Flood Hazard Area and River Corridor Protection Procedure.
- 2.34 Vegetable Production means the production of all true vegetables and all commonly known vegetables that are technically fruits, including, but not limited to, peppers, tomatoes, eggplants, and peas.
- 2.35 Waste or Agricultural Waste means material originating or emanating from a farm that is determined by the Secretary or the Secretary of Natural Resources to be harmful to the waters of the State, including sediments, minerals, including heavy metals; plant nutrients, pesticides, organic wastes, including livestock waste, animal mortalities, compost, feed and crop debris, waste oils, pathogenic bacteria and viruses, thermal pollution, silage runoff, untreated milkhouse waste, and any other farm waste as the term waste is defined in 10 V.S.A. § 1251(12).
- 2.36 Waste Management System means an on-farm waste management program and conservation practices which may include a combination of:
- (a) an adequately sized waste storage facility, field stacking, composting, leachate control systems, bedded pack systems, and milkhouse waste systems;
 - (b) contracts which transfer the ownership of wastes generated at a production area to another person for management in a manner determined by the Secretary; and/or,
 - (c) a nutrient management plan (NMP) for all wastes to be applied in compliance with this rule.
- 2.37 Waste Storage Facility means an impoundment made for the purpose of storing agricultural waste by constructing an embankment, excavating a pit or dugout, fabricating an in-ground or above-ground structure, or any combination thereof.
- 2.38 Waters of the State include, for the purposes of this rule, surface water and groundwater as applied.
- 2.39 Water Supply means a drinking water source that intersects the water table and provides water through pipes or other conveyances and includes drilled wells, dug wells, driven point wells, and natural springs.

Section 3. Required Agricultural Practices Activities and Applicability

3.1 Persons engaged in farming and the agricultural practices as defined in Section 3.2 of this rule and who meet the minimum threshold criteria for applicability of this rule as found in Section 3.1(a) – (f) must meet all applicable Required Agricultural Practices conditions, restrictions, and operating standards. Persons engaged in farming who are in compliance with these conditions, restrictions, and operating standards, as applicable, shall be presumed to not have a discharge of agricultural wastes to waters of the State.

Compliance with the Required Agricultural Practice Rule is required if a farm:

(a) is required to be permitted or certified by the Secretary, consistent with the requirements of 6 V.S.A. Chapter 215 and this rule; or

(b) has produced an annual gross income from the sale of agricultural products of \$2,000.00 or more in an average year; or

(c) 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;

(3) 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

(d) 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

(e) 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

(f) has a prospective business or farm management plan, approved by the Secretary, describing how the farm will meet the threshold requirements of this section.

3.2 The agricultural practices on farms meeting the minimum threshold criteria set forth in Section 3.1 that are governed by this rule 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.

Section 4. Small Farm Certification and Training Requirements

4.1 As used in this section, “Certified Small Farm” means:

(a) (1) a parcel or parcels of land on which 10 or more acres are used for the raising, feeding, or management of livestock;

6 (2) that house no more than the number of animals specified under V.S.A. § 4857(2) (Medium Farm definition); and

(3) that house at least the following numbers and types of livestock:

(A) 50 mature dairy cows;

(B) 75 youngstock 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 lambs;

(I) 4,125 turkeys;

(J) 2,250 laying hens or broilers with a liquid manure handling system;

(K) 6,250 laying hens 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

(b) farms on a parcel or parcels of land greater than 50 acres used for the preparation, tilling, fertilization, planting, protection, irrigation, and harvesting of annual cropland where fertilizer, manure, or agricultural wastes are mechanically applied to said parcel or parcels; or

(c) 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; or

(d) that the Secretary has designated, on a case-by-case basis after an opportunity for a hearing, as a farm required to comply with the certification requirements pursuant to 6 V.S.A. § 4871(c) 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.

4.2 On a case-by-case basis after an opportunity for a hearing, the Secretary may designate a farm as not being required to comply with the certification requirements pursuant to 6 V.S.A. § 4871(c) 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.

4.3 Certified Small Farms shall annually certify compliance with the Required Agricultural Practices Rule. Certification shall be in a manner and schedule established by the Secretary.

(a) Certified Small Farms may be inspected at any time for the purposes of assessing compliance by the farm with the Required Agricultural Practices Rule.

(b) The Secretary may prioritize inspections and inspection frequency based on the identified water quality or compliance issues posed by a farm. Certified Small Farms shall be scheduled for inspection at least once in every seven-year period commencing at the receipt by the Secretary of certification.

(c) A person who owns or leases a Certified Small Farm shall notify the Secretary of a change of ownership or change of lessee of a Certified Small Farm within 30 days of the change. The notification shall include the certification of farm compliance and shall be submitted by the new owner or lessee.

Section 5. Agricultural Water Quality Training

(a) Owners or operators of small farms, medium farms, or large farms certified or permitted by the Secretary shall obtain water quality training as approved by the Secretary. Training shall provide information regarding:

- (1) the prevention of discharges;
- (2) the mitigation and management of stormwater runoff;
- (3) statutory and regulatory requirements of the operation of a large, medium, or small farm and financial resources available to assist in compliance;
- (4) the mechanical application of manure or nutrients and methods or techniques used to minimize the runoff of applied manure or nutrients to waters of the State;
- (5) weather and soil conditions that increase the risk of runoff of manure or nutrients to waters of the State; and
- (6) standards for nutrient management including nutrient management planning.

(b) Large Farm Operations (LFO), Medium Farm Operations (MFO), and Certified Small Farm Operations (SFO) shall obtain four hours of approved training at least once in every five years. This requirement will commence upon notice from the Secretary.

(c) The Secretary may approve training offered by other entities upon request of the entity providing the training. All requests for training approval shall be provided to the Secretary at least 30 days prior to the

scheduled training dates. The entity will be required to submit information about the training and attendees in a manner requested by the Secretary.

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

6.01 Discharges

(a) Farms shall not create any discharge of agricultural wastes to surface waters of the State through a discrete conveyance such as, but not limited to, a pipe, ditch, or conduit without a permit from the Secretary of ANR.

(b) Production areas, barnyards, animal holding or feedlot areas, manure storage areas, and feed storage areas shall utilize runoff and leachate collections systems, diversion, or other management strategies in order to prevent the discharge of agricultural wastes to surface water or groundwater.

6.02 Storage of Agricultural Wastes and Agricultural Inputs

(a) All agricultural wastes shall be managed in a manner to prevent runoff or leaching of wastes to waters of the State or across property boundaries.

(b) All components of a waste management system, including waste storage facilities, shall be managed and maintained so as to prevent structural or mechanical failures.

(c) Waste Storage Facilities maintenance and construction shall ensure:

(1) Vegetation is managed so that the facility maintains structural integrity and prevents leaks or overflows at all times.

(2) Waste Storage Facilities are managed to provide adequate volume in order to prevent overflows at all times.

(3) All waste storage facilities constructed, expanded, or modified after July 1, 2006 are designed and constructed according to the United States Department of Agriculture's Natural Resource Conservation Service (USDA NRCS) standards and specifications or an equivalent standard certified by a professional engineer licensed in the State of Vermont. Waste Storage Facilities shall be managed and maintained consistent with the requirements of the Operation and Maintenance Plans for the facility.

(d) The Secretary may require, on a case-by-case basis, that the owner or operator of a waste storage facility certify compliance with standards

established by the USDA NRCS for waste storage facilities, or an equivalent standard certified by a professional engineer licensed in the State of Vermont.

(e) Field stacking of manure or other agricultural wastes on sites not approved consistent with USDA NRCS standards, or otherwise approved by the Secretary:

(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;

(f) The Secretary may authorize site specific standards other than those listed in Section 6.02(e)(4)(A)-(E) 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.

(g) Field stacked agricultural wastes shall be land applied consistent with the nutrient management plan requirements of Section 6.03 or shall be exported off the farm within two years.

(h) Fertilizer shall be stored consistent with the Vermont Fertilizer and Lime regulations Section XIII. Fertigation and chemigation equipment shall be operated with an adequate anti-siphon device between the system and the water source.

(i) Pesticides shall be used in accordance with 6 V.S.A. Chapter 87 (Control of Pesticides) and all regulations promulgated thereunder.

6.03 Nutrient Management Planning

(a) All Certified Small Farm Operations as defined in Section 4 of this rule and all permitted Medium and Large Farm Operations managing manure, agricultural wastes, or fertilizer for use as nutrient sources shall implement a field-by-field nutrient management plan consistent with the requirements of the USDA NRCS Nutrient Management Practice Code 590 or other equivalent standards approved by the Secretary.

(b) For all other farming operations subject to this rule, all sources of nutrients shall be accounted for when determining nutrient application rates. Recommended rates may be adjusted based on manure or other waste analysis and/or leaf analysis. Recommended rates shall be consistent with current university recommendations and standard agricultural practices.

(c) For all other farming operations subject to this rule, all fields receiving mechanical application of manure, agricultural wastes, or fertilizer shall be soil sampled at least once in every five years using modified Morgan's extractant or other equivalent standards approved by the Secretary. Records of soil analysis, manure or other agricultural waste application, and fertilizer applications shall be maintained on the farm for a period five years and provided to the Secretary upon request.

(d) Owners and operators of annual cropland, perennial grass land, or hay land who are required to implement a USDA 590 standard nutrient management plan and who have soil analyses demonstrating greater than 20 parts per million (ppm) phosphorous shall implement practices to reduce phosphorus levels over time in soil, including eliminating or reducing manure applications, and shall implement appropriate provisions of an approved nutrient management plan that balances excessive soil phosphorus levels with management strategies to reduce those levels.

(e) Owners and operators of farms required to implement a USDA 590 standard nutrient management plan shall document significant changes in animal numbers, management, nutrient application rates, field management, or crop management, and shall make appropriate modifications to the farm's nutrient management plan in a timely manner.

(f) The following records of manure or other agricultural waste application shall be maintained by all farms for a period of five years and shall be provided to the Secretary upon request:

(1) date of application;

- (2) field location;
- (3) application rate;
- (4) source of nutrients applied; and
- (5) weather and field conditions at the time of application.

6.04 Soil Health Management; Cover Crop Requirements

(a) Soil management activities that increase organic matter, reduce compaction, promote biological activity, reduce erosion, and maintain appropriate nutrient levels shall be considered and implemented as practicable. Practices that promote these goals 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.

(b) Cropland shall be cultivated in a manner that retains soil in the field and promotes soil health while minimizing visible erosion into buffer strips, across property boundaries, or creates gully 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.

(c) Croplands shall be managed to minimize gully erosion and reduce or eliminate associated sediment discharges using management strategies that may include the establishment of grassed waterways, filter strips, or other methods deemed appropriate by the Secretary.

(d) Annual croplands subject to frequent flooding from adjacent surface waters, as described in the USDA Soil Survey Flooding Frequency Class, shall be required to be planted to cover crops. Broadcast seeding must be completed by October 1 of each year. Seed planted with drill seeders or otherwise incorporated shall be completed by October 15 of each year. The Secretary may, on a case-by-case basis, approve alternative planting dates due to unusual soil or weather conditions upon request of the owner or operator of a farm managing annual croplands subject to frequent flooding from adjacent surface waters, as described in the USDA Soil Survey Flooding Frequency Class. If annual crops cannot be harvested prior to October 15, then 30% crop residue, growing directly in the soil, must remain in order to limit soil loss.

6.05 Manure and Waste Application Standards and Restrictions

(a) Manure or other agricultural wastes shall not be spread between December 15 and April 1. The Secretary may prohibit the application of manure to land in the State following adequate notice to the agricultural community between December 1 and December 15 and between April 1 and April 30 of any calendar year when the Secretary determines that due to weather conditions, soil conditions, or other limitations, application of manure to land would pose a significant potential of runoff to waters of the State.

(b) 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.

(c) Manure or other agricultural wastes applied to annual cropland subject to frequent flooding, as described in the USDA Soil Survey Flooding Frequency Class, shall be injected or otherwise incorporated within 48 hours of application. This requirement shall not apply to land in no-till management.

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

(e) Manure or other agricultural wastes shall 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 requirements of Section 6.06; or

(3) have exposed bedrock.

(f) Manure or other agricultural wastes shall not be applied to annual croplands 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.

(g) Manure or other agricultural wastes shall not be mechanically applied within 100 feet of a private water supply or 200 feet of a public water

supply. 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.

6.06 Manure Spreading Exemptions

(a) Manure and other agricultural wastes shall be land applied consistent with the requirements of this section unless the Secretary grants an emergency exemption because of an emergency situation such as the structural failure of a waste storage facility or has granted a seasonal exemption consistent with Section 6.06(b) – (d). In granting an emergency exemption, the Secretary shall establish requirements so that manure will be spread on fields in a manner with the least likelihood of generating runoff to surface waters.

(b) The Secretary may approve a seasonal exemption to the winter spreading ban or the restrictions on frequently flooded fields for manure applications on a case-by-case basis upon written request. Requests for an exemption to the seasonal winter spreading ban shall provide:

- (1) the identification and location of specific fields to be used for winter spreading;
- (2) the proposed rates of application;
- (3) the location of nearest surface water, mapped wetlands, mapped floodplains, wells, tile drains, surface inlets or open drains, property boundaries and ditches;
- (4) the identification of soil types, depth to groundwater, and slopes;
- (5) the current soil test results;
- (6) the annual nutrient application plan for the fields;
- (7) the Phosphorus Index, or equivalent, results;
- (8) the RUSLE2, or equivalent, results; and
- (9) the flooding frequency class as described in USDA Soil Survey, and if applicable to the request, evidence that the flood frequency class is not accurate.

(c) All approvals for a seasonal exemption to the winter spreading ban shall be in writing and shall prohibit the application of manure:

- (1) to areas with established channels of concentrated storm water runoff to surface waters;
- (2) to permanent vegetative buffer zones;
- (3) to wetlands, as that term is defined in 10 V.S.A. § 902(5);
- (4) within 200 feet of a potable water supply, as that term is defined in 10 V.S.A. § 1972(6);
- (5) to fields exceeding tolerable soil loss (T);
- (6) to saturated soils; and
- (7) to any other area as designated by the Secretary on a case-by-case basis.

(d) Approvals for seasonal exemptions to the winter spreading ban shall establish requirements and conditions for the application of manure when frozen or snow-covered soils prevent effective incorporation at the time of application, require manure to be applied according to a nutrient management plan, establish the maximum amounts of manure that may be applied per acre during any one application, and establish required no application zones from surface water, wells, and other water conveyances. Seasonal exemptions to the winter spreading ban may be renewed annually upon request and submission of winter spreading records of application.

6.07 Buffer Zones: Manure and Agricultural Wastes Application Setbacks

A vegetative buffer zone of perennial vegetation shall be maintained between croplands and the top of the bank of adjoining surface waters consistent with all the criteria in (a) through (i) below:

- (a) Adjacent surface waters shall be buffered from croplands by 25 feet of perennial vegetation.
- (b) Ditches shall be buffered from croplands by 10 feet of perennial vegetation unless determined to potentially transport significant waste or nutrients to surface water consistent with the USDA 590 standard nutrient management requirements.

(c) Surface inlets or open drains shall be buffered from croplands by 25 feet of perennial vegetation.

(d) Mechanical application of manure or other agricultural wastes is prohibited within perennially vegetated buffer zones. Grazing of livestock consistent with the provisions of Section 6 of this rule is permitted.

(e) 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.

(f) Tillage within the perennially vegetated buffer zone is prohibited other than for the establishment of the buffer zone.

(g) Harvesting a vegetative buffer zone as a perennial crop is allowed.

(h) Spoils from agricultural ditch maintenance shall not be stored in the buffer zone or in such a manner as to discharge to surface water.

(i) Exceptions to the required vegetative buffer zone widths, including the requirements of Section 6.05(f), may be considered upon request on a site specific basis according to standards approved by the Secretary, but in no case shall a buffer zone be less than 10 feet in width. Site specific buffer zones may be approved based on field characteristics such as a determination that a conveyance has the potential to transport significant wastes or nutrients to surface water, field contours, soil types, slopes, proximity to water, nutrient management plan requirements, and other relevant characteristics when the Secretary determines that the proposed site specific buffer zones are adequately protective of surface waters.

6.08 Animal Mortality Management Requirements

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

(a) Animal mortalities buried on farm property shall be sited so as to be:

(1) a minimum of 150 feet from property lines and the top of the bank of surface waters;

(2) a minimum of three feet above the seasonal high water table and bedrock;

(3) covered with a minimum of 24 inches of soil;

(4) a minimum of 200 feet from public or private drinking water supplies; and

(5) not located on lands in a floodway or subject to annual flooding.

(b) Animal mortalities composted on farm property shall be prohibited on lands in a floodway or subject to annual flooding, and shall be sited so as to be:

(1) a minimum of 200 feet from property lines;

(2) a minimum of 200 feet from the top of the bank of surface waters;

(3) a minimum of 200 feet from public or private drinking water wells not owned by the farm;

(4) a minimum of 300 feet from neighboring residences or public buildings;

(5) 100 feet from a ditch or conveyance to surface water; and

(6) not upon areas of exposed bedrock.

6.09 On-Farm Composting of Imported Food Processing Residuals

(a) 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:

(1) 200 feet of the top of bank of surface water;

(2) 200 feet from a public or private water supply;

(3) 300 feet from a neighboring residence or public building;

(4) 200 feet from a property line;

(5) 100 feet from a ditch or conveyance to surface water;

(6) not within floodways, areas subject to annual flooding or concentrated runoff; and

(7) not upon areas of exposed bedrock.

(b) Other site specific standards may be authorized by the Secretary, but in no case shall unimproved composting sites be located less than 100 feet from a private water supplies or the top of the bank of surface water.

6.10 Stabilization of Banks of Surface Waters

(a) The areas from the top of a bank of surface water to the edge of the surface water shall be left in their natural state except as allowed by State statute including, but not limited to, 10 V.S.A. § 1021, and the standards established for the pasturing of livestock consistent with Section 7 of this rule.

(b) Stabilization of farm field banks of surface waters, when allowed under Section 6.10(a) of this rule, shall 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.

Section 7. Exclusion of Livestock from the Waters of the State

(a) Except at defined crossings and defined watering areas, adequate vegetative cover shall be maintained on banks of surface waters by limiting livestock trampling and equipment damage to protect banks of surface waters from excessive erosion.

(b) Livestock shall not have access to surface water in production areas or immediately adjacent to production areas except:

(1) at defined livestock crossings or defined watering areas;

(2) 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

(3) in areas approved by the Secretary based on site specific characteristics and management requirements.

(c) Livestock shall not have access to surface water in areas outside of production areas that:

(1) contain unstable banks or where erosion is present; or

(2) are areas designated by the Secretary as having actual or potential threat to water quality as a result of livestock access.

(d) Livestock shall 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.

Section 8. Ground Water Quality and Groundwater Quality Investigations

(a) Farm operations shall 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 Appendix One of the Groundwater Protection Rule and Strategy in accordance with 10 V.S.A. Chapter 48 (Groundwater Protection).

(b) Farm operations shall 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.

(c) 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:

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

(d) The Secretary shall 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 has contaminated the drinking water or groundwater of the water supply owner.

(e) The Secretary shall conduct a groundwater investigation where sampling indicates that drinking water or groundwater contains detectable concentrations of agricultural contaminants.

(f) The Secretary shall provide:

(1) written notification of testing results to each individual water supply owner and tenant, if known, that participates in the sampling program.

(2) 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.

(3) 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.

(g) In order to identify and remediate sources of drinking water and groundwater contamination, the Secretary, without limitation, may:

(1) conduct site visits to interview property owners and farm operators, gain an understanding of the physical characteristics of the landscape and locate additional sites for water quality sampling;

(2) communicate with farm operators and adjacent property owners to identify practices and activities that are potential sources of contamination;

(3) conduct additional sampling to confirm the detection of contaminants and to determine the extent and scope of contamination at the site;

(4) 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;

(5) conduct follow up water quality sampling to determine the effectiveness of changes made or corrective actions taken;

(6) seek additional investigative or consultation resources to evaluate and characterize sites to determine vulnerability to drinking water and groundwater contamination; and

(7) review testing results and site evaluations to determine if changes in water quality data are the result of changes in activities or natural site conditions.

(h) The Secretary may 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.

(i) 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. When the Secretary makes a determination that a waste storage facility no longer poses a threat to human health or the environment, the Secretary shall provide notification of the revised determination to the Department of Health and the ANR.

Section 9. Construction of Farm Structures

(a) Construction of farm structures in Flood Hazard Areas and River Corridors are required to obtain a Flood Hazard Area and River Corridor permit from the ANR or its designee unless otherwise exempt (refer to Appendix A). Fences through which floodwater may flow are not structures which represent an encroachment in a floodway area.

(b) Local setbacks shall 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 in accordance with Section 9(e).

(c) Notwithstanding the provision of Section 9(e)(2), and in addition to the provisions of Sections 9(a) and (b), new structures, with the exception of replacement structures built to occupy existing structural footprints, shall be constructed so that a minimum distance of 50 feet is maintained between the top of the bank of adjoining surface waters and the farm structure. Such structures do not include those solely constructed for irrigation, drainage, fencing, or livestock watering.

(d) 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.

(e) Construction of Farm Structures – Setbacks Approved by the Secretary

(1) Local setbacks or no build areas for wetlands, River Corridors, and other setbacks applicable to all development in a local zoning bylaw established by the municipality shall be maintained, unless upon written request of the person, consistent with the procedures found in Appendix A, the Secretary has approved other reasonable setbacks for the specific farm structure being constructed. The Secretary may consider the following in rendering a decision regarding alternative setbacks:

(A) 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;

(B) 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;

(C) 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

(D) the setback, if approved by the Secretary, will represent the minimum alternative setback necessary to allow for reasonable operation of the farm.

(2) The following minimum setbacks shall apply to all new waste storage facilities proposed on sites where no waste storage facility or production area previously existed:

(A) 100 feet from the centerline of a public road;

(B) 100 feet from any abutting property line;

(C) 100 feet from the top of the bank of any surface water;
and

(D) 200 feet from public or private wells.

Section 10. Custom Applicator Certification

(a) Custom applicators of manure or other agricultural wastes shall be certified by the Secretary in order to operate within the State and shall comply with all applicable requirements of the Required Agricultural Practices Rule, Medium Farm Operations Rule and Permits, and Large Farm Operations Rule and Permits.

(b) Custom applicators shall demonstrate knowledge of Required Agricultural Practices Rule standards, Medium Farm Operation Rule and Permit requirements, Large Farm Operation Rule and Permit requirements, and the USDA NRCS Nutrient Management Practice Code 590, including manure or other wastes application restrictions, buffer zones, setback requirements, and record keeping requirements.

(c) Custom applicators shall demonstrate competency in methods and techniques used to minimize runoff from application sites, identification of weather or soil conditions that may increase risk of field runoff, recordkeeping, and other information deemed pertinent by the Secretary.

(d) Certified custom applicators shall train all employees and seasonal workers in methods or techniques to minimize runoff to surface water, identification of weather or soil conditions that may increase the risk of runoff, and the Required Agricultural Practice Rule, Medium Farm Operation Rule and Permit, Large Farm Operation Rule and Permit standards and restrictions for the application of manure or other agricultural wastes. Records of training shall be maintained in a manner prescribed by the Secretary.

(e) Certification shall be valid for five years from the date of issuance and shall be renewable annually on a form and in a manner prescribed by the Secretary.

(f) Certified custom applicators shall complete eight hours of training in each five-year period of certification. Completion of five-year training requirements will serve as meeting the requirements for recertification.

(g) Certified custom applicators shall make all applications of manure or other agricultural wastes consistent with this rule and the requirements of the farm's Nutrient Management Plan.

(h) 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.

(i) If a custom applicator has a request to apply manure or agricultural wastes on a farm that does not have a nutrient management plan as required, the applicator must notify the Agency and request the ability to proceed with the land application. The Secretary may require application restrictions.

Section 11. Site Specific On-Farm Conservation Practices

When the Secretary determines, after inspection of a farm, that a person engaged in farming is complying with the Required Agricultural Practices Rule but there still exists the potential for agricultural pollutants to enter the waters of the State, the Secretary shall require the person to implement additional, site-specific, on-farm conservation practices designed to prevent agricultural pollutants from entering the waters of the State. When requiring implementation of a conservation practice, the Secretary shall inform the person engaged in farming of the resources available to assist the person in implementing the conservation practices to comply with the requirements of this rule.

Section 12. Severability Clause

If any provision of this rule, or the application thereof to any person or circumstance, is held invalid, such determination shall not affect other provisions or applications of this rule which can be given effect without the invalid provision or application, and to that end the provisions of this rule are severable.

Section 13. Effective Dates

(a) Sections 1 – 6.04(c) and 6.05(c) – 13 of this regulation shall become effective on [date of adoption]; and

(b) Sections 6.04(d), 6.05(a), and 6.05(b) of this regulation shall become effective on April 15, 2017.

Appendix A: Process for obtaining variances and exemptions

Farm Structures/Municipal Setbacks: Variances

- (a) A complete petition for an alternative setback shall include:
- (1) the location of the parcel, and contact information where the applicant can be reached for additional information or clarification;
 - (2) a detailed description of the farm operation and description of how the applicant is engaged in Required Agricultural Practices as defined in Section 3 of the RAPs;
 - (3) a statement of the reason why less restrictive setbacks are necessary and why the setback is the least deviation possible to provide relief;
 - (4) a copy of the zoning ordinance governing the tract on which the structure will be built outlining the setback requirements or a letter from the municipality with the required setback information;
 - (5) the name and contact information for your town's Zoning Administrator or Town Clerk, including an affirmative statement that the town has been notified of the intent to construct a Farm Structure;
 - (6) a plan of the existing structure(s) and proposed structure(s) showing the distance to all property lines from the furthest projection of the structure, including overhangs. For property lines along highway rights-of-way, measure the setback appropriately as outlined in the municipal regulations;
 - (7) name(s) and address(es) of the affected adjoining property owner(s) and a description of each adjoining land use;
 - (8) any letter(s) from adjoining landowners where applicable; and
 - (9) certification that the farm is in compliance with all Required Agricultural Practices rules.

The Secretary bases his or her decision on facts provided by the petitioner. Failure to provide information to the Secretary could result in denial of request.

(b) Public Notice and Issuance Requirements

The Secretary will notify the municipality in writing by certified mail and copy the affected adjoining property owner(s) of his or her intent to consider a petition for an alternative setback. The notification shall include a description of the proposed project, submitted plan, and shall be accompanied by information that clearly states where additional information may be obtained. The Secretary will request that the notice be posted in a public place in the municipal office.

Any comments resulting from this posting or from the municipality must be received in writing at the Agency by 4:30 p.m. on the seventh business day following receipt of the notice.

(c) Standards

The Secretary may grant a petition for an alternate setback or grant a petition for an alternate setback with conditions, except as otherwise outlined in this rule or statutorily required, when:

- (1) there are unique existing physical conditions or exceptional topographical or other physical constraints peculiar to the particular property that would create a hardship for the farm operation;
- (2) because of such physical conditions or constraints, there is no possibility that the property can be developed in strict conformity with the provisions of this rule and that the authorization of an alternative setback is therefore necessary to enable the reasonable operation of the farm;
- (3) the hardship has not been created by the applicant;
- (4) the alternative setback, if authorized by the Secretary, will not substantially or permanently impair the appropriate use or development of adjoining property, nor be detrimental to the public health, safety, and welfare; and
- (5) the variance, if authorized by the Secretary, will represent the minimum alternative that will afford relief and will represent the least deviation possible from this rule.

* The Agency cannot approve alternate setbacks from State wetland regulations, nor approve construction within Highway rights-of-way.

Roles of Other State Agencies: Information

Public Drinking Water Supplies and Wastewater Management: Nutrients, sediment, organic matter, and microorganisms may also impact drinking water supplies derived from surface waters. Farm operations should be aware of the locations of surface drinking water source intakes and appropriately manage agricultural activities to reduce potential negative impacts. Information regarding public water supplies as well as information pertaining to wastewater systems requirements may be obtained at (802) 828-1535.

Wetlands: Farm operations should be aware of existing rules pertaining to wetlands under state and federal jurisdiction. The Natural Resources Conservation Service, U.S. Army Corps of Engineers, and the Vermont Department of Environmental Conservation coordinate all agriculture and wetland issues in Vermont. It is strongly suggested that landowners contact the U.S. Army Corps of Engineers at (802) 872-2893 and the Vermont Department of Environmental Conservation at (802) 828-1535 before initiating farm-related projects in or near wetlands.

Construction of New Farm Structures: Construction of new farm structures, specifically buildings and other farm-related structures, or other construction on the farm that disturb one or more acres of land, must obtain authorization from the ANR before commencing with land disturbance or construction activities. Approval will be issued by the ANR upon receipt of a Notice of Intent (NOI) which certifies that adequate measures for the control of erosion and sedimentation will be used during land disturbance and construction efforts. Persons needing additional information about the Construction General Permit or NOI concerning one or more acres of land disturbance are advised to contact the Watershed Management Division of the Vermont Department of Environmental Conservation's Environmental Assistance Hotline at 1-800-974-9559. Authorization by the ANR is not needed for construction or land disturbance related to cultivation, irrigation, drainage, and fencing.

Flood Hazard Area and River Corridor General Permit: An ANR General Permit for activities exempt from municipal regulation in Flood Hazard Areas and River Corridors may be required. The primary purpose for the General Permit is to fully implement the Vermont Flood Hazard Area & River Corridor Rule (effective 03/01/2015) which requires the Agency to regulate activities exempt from municipal regulation in Flood Hazard Areas and River Corridors. These activities include state-owned and operated institutions and facilities, required agricultural and silvicultural practices, and power generating and transmission facilities regulated under 30 V.S.A. §§ 248 and 248a. More information can be obtained by calling (802) 828-1535.

Solid and Hazardous Waste Management: Farm operations are required to manage all wastes generated on the farm consistent with all applicable solid waste rules and hazardous waste rules. Information regarding the proper management, storage, and disposal of hazardous waste, universal waste, used oil, and petroleum products can be obtained from the Vermont Waste Management & Prevention Division by calling (802) 828-1138. Information regarding the proper management, storage, and disposal of pesticidal waste and empty pesticide containers can be obtained from the Vermont Agency of Agriculture, Food and Markets by calling (802) 828-2431. On-farm composting or anaerobic digestion of food residuals and food processing residuals may require registration or permitting by the Vermont Waste Management & Prevention Division. More information can be obtained by calling (802) 828-1138.

Wastewater Management and Residuals Management: Farm operations generating wastewater indirect discharges or discharges to underground injection wells are advised that permits may be required from the Department of Environmental Conservation Watershed Management Division or Groundwater Protection and Management Division. The management of sewage, biosolids, and septage on a farm must be conducted consistent with the Vermont Solid Waste Management Rules and any Solid Waste Management Facility Certification authorizing these activities. Information regarding these requirements can be obtained by calling (802) 828-1535.

Water Withdrawal and Irrigation: Farm operations utilizing surface waters for irrigation purposes are advised that water withdrawals above a *de minimus* rate are required to obtain a permit from the Department of Environmental Conservation consistent with the *Procedure for Determining Acceptable Minimum Stream Flows*. More information regarding water withdrawals for irrigation purposes and permitting requirements can be obtained by calling the Watershed Management Division at (802) 828-1535.

Alteration of Streams: Stream alteration permits regulate activities that take place in or along streams. The permit program is intended to prevent the creation of flood hazards, protect against damage to aquatic life, and protect the rights of neighboring landowners. The types of activities that are regulated include streambank stabilization, road improvements that encroach on streams, bridge construction or repair, and utility crossings under streambeds. More information regarding stream alteration and permitting requirements can be obtained by calling the River Management Division at (802) 828-1535.

Spill Prevention, Control, and Countermeasure (SPCC): EPA's oil pollution prevention regulation requires facilities that are subject to regulation to prepare and implement a plan to prevent any discharge of oil into navigable waters or adjoining shorelines of the U.S. A farm must prepare a SPCC Plan if it has an aggregate aboveground storage capacity of greater than 1,320 gallons. Only containers of oil with a capacity of 55-gallons or greater are counted toward this aggregate capacity threshold. The plan is referred to as a Spill Prevention, Control, and Countermeasure (SPCC) plan.

More information regarding SPCC and permitting requirements can be obtained by calling the Environmental Assistance Office at 1(800) 974-9559.