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States' Nutrient Management Plans Statutes & Regulations:

Vermont



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A National Agricultural Law Center Research Publication
States' Nutrient Management Plans Statutes & Regulations:
Vermont

6 VT Stats § 4802
6 VT Stats § 4810a(a)(4)(A)
6 VT Stats § 4811
VT Code of Rules 20-010-008(1.1, 1.4, 1.5, 2.40, 3, 5, 6.02(g), 6.03)
6 VT Stats § 4850-52
VT Code of Rules 20-010-010
6 VT Stats § 4857-58
VT Code of Rules 20-010-012
6 VT Stats § 4810
10 VT Stats § 1263
10 VT Stats § 1259(i)
6 VT Stats § 4989

*The statutes and Constitution are current through the 2018 regular and special legislative sessions.
The statutes are subject to changes by the Vermont Legislative Council.*

6 VT Stats § 4802. Definitions.

As used in this chapter:

- (1) "Agency" means the Agency of Agriculture, Food and Markets.
- (2) "Farming" shall have the same meaning as used in 10 V.S.A. § 6001(22).
- (3) "Healthy soil" means soil that has a well-developed, porous structure, is chemically balanced, supports diverse microbial communities, and has abundant organic matter.
- (4) "Manure" means livestock waste in solid or liquid form that may also contain bedding, spilled feed, water, or soil.
- (5) "Secretary" means the Secretary of Agriculture, Food and Markets.
- (6) "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.

(7) "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).

(8) "Water" shall have the same meaning as used in 10 V.S.A. § 1251(13).

6 VT Stats § 4810a. Required agricultural practices; revision.

(a) On or before September 15, 2016, the Secretary of Agriculture, Food and Markets shall file under 3 V.S.A. § 841 a final proposal of a rule amending the required agricultural practices in order to improve water quality in the State, assure practices on all farms eliminate adverse impacts to water quality, and implement the small farm certification program required by section 4871 of this title. At a minimum, the amendments to the required agricultural practices shall:

(1) Specify those farms that:

(A) are required to comply with the small farm certification requirements under section 4871 of this title due to the potential impact of the farm or type of farm on water quality as a result of livestock managed on the farm, agricultural inputs used by the farm, or tillage practices on the farm; and

(B) shall be subject to the required agricultural practices, but shall not be required to comply with small farm certification requirements under section 4871 of this title.

(2)

(A) Except as authorized under subdivision (C) of this subdivision (2), prohibit a farm from stacking or piling manure, storing fertilizer, or storing other nutrients on the farm:

(i) in a manner and location that presents a threat of discharge to a water of the State or presents a threat of contamination to groundwater; or



(ii) on lands in a floodway or otherwise subject to annual flooding.

(B) Except as authorized under subdivision (C) of this subdivision (2), manure stacking or piling sites, fertilizer storage, or other nutrient storage shall not be located within 200 feet of a private well or within 200 feet of a water of the State.

(C) The Secretary may authorize one or more of the following:

(i) siting of manure stacking or piling sites, fertilizer storage, or other nutrient storage within 200 feet, but not less than 100 feet, of a private well or surface water if the Secretary determines that the site is the best available site on the farm for the purposes of protecting groundwater quality or surface water quality; and

(ii) siting of a waste storage facility within 200 feet of a surface water or private well if the site is the best available site on the farm for the purposes of protecting groundwater quality or surface water quality and the waste storage facility is designed by a licensed engineer to meet the requirements of section 4815 of this title.

(3) Require the construction and management of barnyards, waste management systems, animal holding areas, and production areas in a manner to prevent runoff of waste to a surface water, to groundwater, or across property boundaries.

(4) Establish standards for nutrient management on farms, including:

(A) required nutrient management planning on all farms that manage agricultural wastes; and

(B) recommended practices for improving and maintaining soil quality and healthy soils in order to increase the capacity of soil to retain water, improve flood resiliency, reduce sedimentation, reduce reliance on fertilizers and pesticides, and prevent agricultural stormwater runoff.

(5) Require cropland on the farm to be cultivated in a manner that results in an average soil loss of less than or equal to the soil loss tolerance for the prevalent soil, known as 1T, as calculated through application of the Revised Universal Soil Loss Equation, or through the application of similarly accepted models.



(6)

(A) Require a farm to comply with standards established by the Secretary for maintaining a vegetative buffer zone of perennial vegetation between annual croplands and the top of the bank of an adjoining water of the State. At a minimum the vegetative buffer standards established by the Secretary shall prohibit the application of manure on the farm within 25 feet of the top of the bank of an adjoining water of the State or within 10 feet of a ditch that is not a surface water under State law and that is not a water of the United States under federal law.

(B) Establish standards for site-specific vegetative buffers that adequately address water quality needs based on consideration of soil type, slope, crop type, proximity to water, and other relevant factors.

(7) [Repealed.]

(8) Regulate, in a manner consistent with the Agency of Natural Resources' flood hazard area and river corridor rules, the construction or siting of a farm structure or the storage of manure, fertilizer, or pesticides within a river corridor designated by the Secretary of Natural Resources.

(9) Establish standards for the exclusion of livestock from the waters of the State to prevent erosion and adverse water quality impacts.

(10) Establish standards for soil conservation practices such as cover cropping.

(11) Allow for alternative techniques or practices, approved by the Secretary, for compliance by an owner or operator of a farm when the owner or operator cannot comply with the requirements of the required agricultural practices due to site-specific conditions. Approved alternative techniques or practices shall meet State requirements to reduce adverse impacts to water quality.

(b) 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. Upon adoption of requirements for subsurface tile drainage, the Secretary may require an existing subsurface tile drain to comply with the requirements of the RAPs for subsurface tile drainage



upon a determination that compliance is necessary to reduce adverse impacts to water quality from the subsurface tile drain.

6 VT Stats § 4811. Powers of Secretary.

The Secretary of Agriculture, Food and Markets in furtherance of the purposes of this chapter may:

- (1) Make, adopt, revise, and amend reasonable rules which define practices described in section 4810 of this title as well as other rules deemed necessary to carry out the provisions of this chapter.
- (2) Appoint assistants, subject to applicable laws, to perform or assist in the performance of any duties or functions of the Secretary under this chapter.
- (3) Enter any lands, public or private, and review and copy any land management records as may be necessary to carry out the provisions of this chapter.
- (4) Sign memorandums of understanding between agencies when the Secretary of Agriculture, Food and Markets agrees it is necessary for the success of the program.
- (5) Solicit and receive federal or private funds.
- (6) Cooperate fully with the federal government or other agencies in the operation of any joint federal-state programs concerning the regulation of agricultural non-point source pollution.

VT Code of Rules 20-010-008. Required Agricultural Practices Rule for the Agricultural Nonpoint Source Pollution Control Program.

Section 1. General.

1.1 Preamble: Agriculture has been identified as a major contributor of non-point source pollution to surface waters of Vermont. For example, the Lake Champlain Total Maximum Daily Load (TMDL), as modeled by the Environmental Protection Agency, estimates that nutrient losses from agricultural activities represent 29% of the total phosphorous load to the Lake Champlain basin and over 40% of Vermont's contribution to the phosphorous load to the basin. Agriculture contributes non-point source pollution to surface and groundwater from multiple sources, including cropland erosion, farmstead management, crop storage, and manure storage and application. While contributions of non-point source pollution from agriculture may vary from watershed to watershed, the overall impact to water quality from agricultural lands, when not managed well, is significant.



The Vermont legislature first directed the Agency of Agriculture, Food and Markets to develop a comprehensive Agricultural Non-Point Source Pollution Reduction Program in 1992. The Accepted Agricultural Practices Rules (AAPs), which regulate farming activities in order to protect water quality, became effective in 1995 and were revised in 2006.

As a result of Act 64--the Vermont Clean Water Act--the Agency of Agriculture was tasked with updating the AAPs to further reduce the impact of agricultural activities to water quality across the State. The Required Agricultural Practices Rules (RAPs) are an updated version of the AAPs, re-written to a higher level of performance.

Act 64, which was signed into law by the Governor in June 2015, amended and enacted multiple requirements related to water quality in the State. The act required the Agency of Agriculture to amend several provisions of the AAPs in order to improve water quality in Vermont. The first change was to rename the Accepted Agricultural Practices Rules the Required Agricultural Practices Rules. The RAPs are standards to which all types of farms must be managed. Act 64 further required the Agency of Agriculture to:

- Establish requirements for a Small Farm Certification Program;
- Establish nutrient, manure, and waste storage standards;
- Make recommendations for soil health;
- Establish requirements for vegetated buffer zones;
- Establish requirements for livestock exclusion from surface water;
- Establish nutrient management planning standards; and
- Establish standards for soil conservation such as cover cropping

The standards and rules that follow are intended to improve the quality of all of Vermont's waters by reducing and eliminating cropland erosion, sediment losses, and nutrient losses through improved farm management techniques, technical and compliance assistance, and, where appropriate, enforcement. This rule strives to balance the complexity, variability, and requirements of farm management with the need to improve that management in order to meet the State's goals in improving and protecting water quality.

Soil quality and soil health are critical elements of an overall agricultural non-point source pollution reduction program. Agricultural soils are recognized as a critical resource for the overall prosperity of Vermont's agricultural community and for the public at large. Efforts to build soil organic matter, increase biological activity, and reduce compaction, including reduced tillage, use of composts, establishing crop rotations, cover cropping, and the elimination of annual cropping on



highly vulnerable lands, will be essential to the success of programs whose goal is to improve Vermont's water quality. The Vermont Agency of Agriculture, Food and Markets supports and endorses all practices that lead to the goal of healthy soils and productive agricultural lands.

1.2 **Enabling Legislation**: As defined in 6 V.S.A. §§ 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.

1.3 **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.

1.4 **Authority**: 6 V.S.A. Chapter 215 (Agricultural Water Quality), including §§ 4810, 4810a, and 4811, and Act 64 of the Vermont General Assembly (2015 session).

1.5 **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.

1.6 **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 **Barnyard and Feedlot** means an area, either earthen or improved, where animals are confined by fences, other structures, or topography, are primarily sustained by supplemental feed, and where vegetation cover is sparse.

2.06 **Buffer Zone** means an area of perennial vegetation between the edge of cropland and:

- (a) the top of the bank of an adjoining water of the State;
- (b) 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
- (c) surface inlets or open drains.

2.07 **Certified Small Farm** means a farm that meets the criteria of Section 4.1 of this rule.

2.08 **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.

2.09 **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 cropland.



2.10 **Crop and Cropland**, for the purposes of this rule, means:

(a) plants grown for food, feed, fiber (other than trees grown for silvicultural or timber purposes), Christmas trees, maple sap, horticultural, viticultural, orchard crops, and pasture; and

(b) the land upon which they are grown.

2.11 **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.

2.12 **Discharge** means the placing, depositing, or emission of any wastes, directly or indirectly, into an injection well or into waters.

2.13 **Ditch** means a constructed channel for the collection of field runoff water or shallow groundwater and its conveyance to an outlet.

2.14 **Farm** means a parcel or parcels of land owned, leased, or managed by a person and devoted primarily, to farming, as defined in Section 2.16 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.

2.15 **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.

2.16 **Farming** means:

(a) the cultivation or other use of land for growing food, fiber, Christmas trees, maple sap, or horticultural, viticultural, 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.

2.17 **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.

2.18 **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.

2.19 **Floodplain** means any land area susceptible to being inundated by water from any source.

2.20 **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.

2.21 **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.

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



2.23 **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).

2.24 **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.

2.25 **Manure** means livestock waste in solid or liquid form that may also contain bedding, spilled feed, water, milkhouse waste, or soil.

2.26 **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.

2.27 **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.

2.28 **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.

2.29 **Principally Produced** means that more than 50% (either by weight or volume) of raw agricultural products that are stored, prepared, or sold at the farm are also grown or produced on the farm.

2.30 **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.



2.31 **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 or 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.

2.32 **Secretary** means the Secretary of the Agency of Agriculture, Food and Markets and her or his designees.

2.33 **Small Farm** means a small farm as defined in 6 V.S.A. § 4871.

2.34 **Subsurface Tile Drainage** means a conduit installed in cropland beneath the ground surface to collect and/or convey water to an outlet.

2.35 **Surface Inlet or Open Drain** means an aboveground structure that receives, collects, or redirects field runoff water to other underground drainage or ditches.

2.36 **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.

2.37 **Top of Bank** means the point along the bank of a surface water or ditch where an abrupt change in slope is evident, and where the surface water 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.

2.38 **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.

2.39 **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).

2.40 **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.

2.41 **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

2.42 **Waters of the State** include, for the purposes of this rule, surface water and groundwater as applied.

2.43 **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) -- (g) 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 Practices Rule is required if a person:

(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 preparing, tilling, fertilizing, planting, protecting, irrigating, and harvesting crops for sale on a farm that is no less than 4.0 contiguous acres in size; or

(d) is raising, feeding, or managing at least the following number of adult livestock on a farm that is no less than 4.0 contiguous acres in size:



- (1) four equines;
- (2) five cattle, cows, or American bison;
- (3) 15 swine;
- (4) 15 goats;
- (5) 15 sheep;
- (6) 15 cervids;
- (7) 50 turkeys;
- (8) 50 geese;
- (9) 100 laying hens;
- (10) 250 broilers, pheasant, Chukar partridge, or Coturnix quail;
- (11) three camelids;
- (12) four ratites;
- (13) 30 rabbits;
- (14) 100 ducks;
- (15) 1,000 pounds of cultured trout; or
- (16) other livestock types, combinations, or numbers as designated by the Secretary based upon or resulting from the impacts upon water quality consistent with this rule; or

(e) 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

(f) 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

(g) 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, and the establishment and maintenance of vegetated buffer zones and riparian buffer zones;
- (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;
 - (2) that house no more than the number of animals specified under 6 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 goats;
- (I) 4,125 turkeys;
- (J) 2,250 laying hens or broilers with a liquid manure handling system;
- (K) 6,250 laying hens or broilers without a liquid manure handling system;
- (L) 375 ducks with a liquid manure handling system;
- (M) 2,500 ducks without a liquid manure handling system;
- (N) any other animal type, number, or combination of animals as designated by the Secretary that is having an adverse impact on water quality; or
- (O) any combination of more than one animal type exceeding 90,000 pounds of total live animal weight (animal units); or

(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 certified small farms, permitted medium farms, or permitted large farms 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, Medium Farm Operations, and Certified Small Farm Operations 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 collection 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 Resources 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;

(E) areas subject to concentrated runoff; or

(F) 100 feet of subsurface tile drainage;

(f) The Secretary may authorize site-specific standards other than those listed in Section 6.02(e)(4)(A)-(F) 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) Over a three-year period, field stacked agricultural wastes shall be land applied consistent with the nutrient management plan requirements of Section 6.03, actively managed as a compost, or moved to a suitable alternative location.

(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 nutrient testing procedures. Recommended nutrient application 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:

(1) implement appropriate provisions of an approved nutrient management plan that balances excessive soil phosphorus levels with management strategies to reduce those levels, including eliminating or reducing manure applications; and

(2) apply nutrients at less than UVM phosphorus crop nutrient removal rates on cropland fields with "pattern tile drainage", which for the purposes of this section is defined as subsurface tile drainage systematically installed in a repeating pattern.

(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 that 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 prevent fieldborne 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 or other specific crop management



needs and 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 applied 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 applied to cropland, perennial grass land, small grain cropland, or hay land subject to frequent flooding from adjacent surface waters, as described in the USDA Soil Survey Flooding Frequency Class, after October 16 or before April 14.

(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 applied 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, regardless of NMP recommendations.

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



(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 water supply was established.

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

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 applied 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 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, water supply, 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 RUSLE 2, or equivalent, results; and
- (9) the USDA Soil Survey Flooding Frequency Class, and if applicable to the request, evidence that the flood frequency class is not accurate.



(c) All approvals for a seasonal exemption 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 manure spreading setbacks from surface water, water supplies, 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 and ditches consistent with 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 inlets of 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 7 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 and maintenance 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**

(a) Animal mortalities shall be properly stored, handled, and disposed of within 48 hours, so as to minimize adverse water quality impacts.

(b) 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.



(c) Animal mortalities composted or otherwise disposed of on farm property on unimproved sites 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 supplies not owned by the farm;
- (4) a minimum of 300 feet from neighboring residences or public buildings;
- (5) a minimum of 100 feet from a ditch or conveyance to surface water; and
- (6) not upon areas of exposed bedrock.

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

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 at a minimum:

- (1) 200 feet from the top of bank of surface water;
- (2) 200 feet from a public or private water supply not owned by the farm;
- (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 sites be located less than 100 feet from a private water supply, property boundary, 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) Adequate vegetative cover shall be maintained on banks of surface waters by limiting livestock trampling and equipment damage to protect banks of surface waters to minimize erosion.

(b) Crossings and watering areas need to be maintained so as to minimize erosion and be adequately protective of surface waters.

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

(1) at livestock crossings or watering areas;

(2) in areas prescribed by a rotational grazing plan consistent with NRCS standards or an equivalent standard, and approved by the Secretary. Approved grazing plan areas shall maintain at least an average of three inches of vegetative growth within 25 feet of the top of bank of surface water, and within 10 feet of the top of bank of ditches; or

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

(d) 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.

(e) 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 water supply 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 water supply 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 wastes.

(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) Siting

(1) 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.

(2) Local setbacks and setbacks designed by this rule 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(b).

(3) 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.

(4) Construction of new farm structures, specifically buildings and other farm structures that disturb one or more acres of land must obtain authorization from the ANR before commencing with land disturbance or construction activities.

(5) Existing Production Areas

Farm 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.

(A) Such structures do not include those solely constructed for irrigation, drainage, fencing, or livestock watering,



(B) Such structures do not include water quality conservation practices where the site is the best available site on the farm, as approved by the Secretary, for the purposes of protecting ground water quality or surface water quality.

(C) Such structures do not include waste storage facilities if the site is the best available site on the farm, as approved by the Secretary, for the purposes of protecting ground water quality or surface water quality and the waste storage facility is designed by a licensed engineer.

(6) New Production Areas

(A) Farm structures, excluding waste storage facilities, 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.

(i) Such structures do not include those solely constructed for irrigation, drainage, fencing, or livestock watering,

(ii) Such structures do not include water quality conservation practices where the site is the best available site on the farm, as approved by the Secretary, for the purposes of protecting ground water quality or surface water quality.

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

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

(ii) 100 feet from any abutting property line;

(iii) 200 feet from the top of the bank of any surface water;
and

(iv) 200 feet from public or private water supplies.

(b) Setbacks Approved by the Secretary

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 authorize the siting of a waste storage facility within 200 feet of a surface water or private water supply if the site is the best available site on the farm for the purposes of protecting ground water quality or surface water quality and the waste storage facility is designed by a licensed engineer to meet USDA NRCS standards and specifications or an equivalent standard. If an equivalent design standard is used, the design and construction shall be certified by the Secretary, or a licensed professional engineer operating within the scope of his or her expertise. The Secretary may consider the following in rendering a decision regarding alternative setbacks:

- (1) 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;
- (2) 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;
- (3) the alternative setback, if approved by the Secretary, will be the site that is the best available on the farm for the purposes of protecting ground water quality or surface water quality; and
- (4) the setback, if approved by the Secretary, will represent the minimum alternative setback necessary to allow for reasonable operation of the farm.

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 recordkeeping 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 Practices 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 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.

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 wastes 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 wastes 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 Subsurface Tile Drainage

12.1 Requirements for Subsurface Tile Drainage For all farming operations subject to this rule, all cropland with any subsurface tile drainage must implement the following practices, unless other site-specific standards are approved by the Secretary:

(a) Concentrated feeding areas of unimproved barnyards and unimproved feedlots shall not be sited over subsurface tile drainage.

(c) New vegetative treatment areas for agricultural wastes shall not be installed within 200 feet upslope of a subsurface tile drain and new subsurface



drainage shall not be installed within 200 feet downslope from the edge of an existing vegetative treatment area.

(d) Subsurface tile drainage installed or modified after January 1, 2019 shall have a rodent guard installed at the outlet of the subsurface tile drainage system.

12.2 Requirements for Surface Inlets For all farming operations subject to this rule, no new installations of surface inlets shall be located within or adjacent to cropland. For the purposes of this section, surface inlets do not include drainage controls such as diversion structures or grade stabilization practices approved by the Secretary.

Section 13 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 14 Effective Date

This regulation shall become effective on [date of adoption].

Appendix A. Process for Obtaining Variances.

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 minimis 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.

6 VT Stats § 4850. Definitions.

As used in this subchapter:

- (1) "Domestic fowl" means laying-hens, broilers, ducks, turkeys, or any other number or type of fowl that the Secretary deems domestic fowl.
- (2) "Livestock" means cattle, mature cow/calf pairs, youngstock, heifers, bulls, swine, sheep, goats, horses, or any other number and type of domestic animal that the Secretary deems livestock.

6 VT Stats § 4851. Permit requirements for large farm operations.

(a) No person shall, without a permit from the Secretary, construct a new barn, or expand an existing barn, designed to house more than 700 mature dairy animals, 1,000 cattle or cow/calf pairs, 1,000 veal calves, 2,500 swine weighing over 55 pounds, 10,000 swine weighing less than 55 pounds, 500 horses, 10,000 sheep or lambs, 55,000 turkeys, 30,000 laying hens or broilers with a liquid manure handling system, 82,000 laying hens without a liquid manure handling system, 125,000 chickens other than laying hens without a liquid manure handling system, 5,000 ducks with a liquid manure handling system, or 30,000 ducks without a liquid manure handling system. No permit shall be required to replace an existing barn in use for livestock or domestic fowl production at its existing capacity. The Secretary of Agriculture, Food and Markets, in consultation with the Secretary of Natural Resources, shall review any application for a permit under this section with regard to water quality impacts and, prior to approval of a permit under this subsection, shall issue a written determination regarding whether the applicant has established that there will be no unpermitted discharge to waters of the State pursuant to the federal regulations for concentrated animal feeding operations. If upon review of an application for a permit under this subsection, the Secretary of Agriculture, Food and Markets determines that the permit applicant may be discharging to waters of the State, the Secretary of Agriculture, Food and Markets and the Secretary of Natural Resources shall respond to the discharge in accordance with the memorandum of understanding regarding concentrated animal feeding operations under section 4810 of this title. The Secretary of Natural Resources may require a large farm to obtain a permit under 10



V.S.A. § 1263 pursuant to federal regulations for concentrated animal feeding operations.

(b) A person shall apply for a permit in order to operate a farm which exceeds 700 mature dairy animals, 1,000 cattle or cow/calf pairs, 1,000 veal calves, 2,500 swine weighing over 55 pounds, 10,000 swine weighing less than 55 pounds, 500 horses, 10,000 sheep or lambs, 55,000 turkeys, 30,000 laying hens or broilers with a liquid manure handling system, 82,000 laying hens without a liquid manure handling system, 125,000 chickens other than laying hens without a liquid manure handling system, 5,000 ducks with a liquid manure handling system, or 30,000 ducks if the livestock or domestic fowl are in a barn or adjacent barns owned by the same person, or if the barns share a common border or have a common waste disposal system. In order to receive this permit, the person shall demonstrate to the Secretary that the farm has an adequately sized manure management system to accommodate the wastes generated and a nutrient management plan to dispose of wastes in accordance with required agricultural practices adopted under this chapter and current U.S. Department of Agriculture nutrient management standards.

(c) The Secretary shall approve, condition, or disapprove the application within 45 business days of the date of receipt of a complete application for a permit under this section. Failure to act within the 45 business days shall be deemed approval.

(d) A person seeking a permit under this section shall apply in writing to the Secretary. The application shall include a description of the proposed barn or expansion of livestock or domestic fowl; a proposed nutrient management plan to accommodate the number of livestock or domestic fowl the barn is designed to house or the farm is intending to expand to; and a description of the manure management system to be used to accommodate agricultural wastes.

(e) The Secretary may condition or deny a permit on the basis of odor, noise, traffic, insects, flies, or other pests.

(f) Before granting a permit under this section, the Secretary shall make an affirmative finding that the animal wastes generated by the construction or expansion will be stored so as not to generate runoff from a 25-year, 24-hour storm event and shall be disposed of, in accordance with the required agricultural practices adopted under this chapter and current U.S. Department of Agriculture nutrient management standards.

(g) A farm that is permitted under this section and that withdraws more than 57,600 gallons of groundwater per day averaged over any 30



consecutive-day period shall annually report estimated water use to the Secretary of Agriculture, Food and Markets.

The Secretary of Agriculture, Food and Markets shall share information reported under this subsection with the Agency of Natural Resources.

(h) The Secretary may inspect a farm permitted under this section at any time, but no less frequently than once per year.

(i) A person required to obtain a permit under this section shall submit an annual operating fee of \$2,500.00 to the Secretary. The fees collected under this section shall be deposited in the Agricultural Water Quality Special Fund under section 4803 of this title.

6 VT Stats § 4852. Rules.

The Secretary may adopt rules pursuant to 3 V.S.A. chapter 25 concerning program administration, program enforcement, appeals and standards for waste management and waste storage, setbacks or siting criteria for new construction or expansion, groundwater contamination, odor, noise, traffic, insects, flies, and other pests in order to implement this subchapter. The siting criteria adopted by the Secretary by rule shall be consistent with the standards for the quality of State waters and standards for acceptable agricultural practices pursuant to subchapter 2 of this chapter. The groundwater contamination rules adopted by the Secretary shall include a process under which the agency shall receive, investigate, and respond to a complaint that a farm has contaminated the drinking water or groundwater of a property owner.

VT Code of Rules 20-010-010. Large Farm Operations (LFO).

Subchapter 1 Authority.

These Large Farm Operations (LFO) Rules are adopted under the express authority of 6 VSA Chapter 215 Subchapter 3 Section 4852. The Secretary is given authority under 6 VSA Chapter 215 (a)(10) to adopt rules pursuant to 3 VSA Chapter 25, for the implementation of the provisions of 6 VSA Chapter 215, Subchapter 4.

Subchapter 2 Declaration of Purpose.

These Rules establish procedures and standards for the preparation and review of large farm operations permit applications, the issuance of permits for the operation the expansion of large farms, the construction of new buildings, or the expansion of existing buildings for large farm operations in Vermont. These Rules also establish procedures and standards for permit amendments, permit compliance, and permit enforcement.



The original LFO Rule framed how a farmer should apply for a LFO Permit. In this 2007 Rule revision, the Agency has added to the framework of these rules direction on maintaining the facility once permitted.

The LFO program is designed to achieve the legislative and administrative purposes of 6 VSA Chapter 215. The Vermont Agency of Agriculture, Food, and Markets intends that these Rules will also prescribe criteria that will cause a Vermont LFO to be managed in a manner which achieves at least a functionally equivalent technical standard as required by federal Concentrated Animal Feeding Operations (CAFO) regulations.

These Rules apply to all large farm operations in Vermont. Large farm operations are required to comply with these Rules, the farm's Large Farm Operations permit, and any additional conditions or requirements as specified by the Secretary in accordance with state law.

These Rules shall also apply to all large farm operations that meet the definition of a Large Farm, but are not yet permitted.

Subchapter 3 Definitions.

For the Purposes of These Rules:

25-year 24-hour rain event: means the maximum 24 hour precipitation event with a probable recurrence interval of once every 25 years, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States", May 1961 and subsequent amendments, or equivalent regional or state rainfall probability information developed there from.

AAFAM: means the Vermont Agency of Agriculture, Food, and Markets.

AAPs: means Vermont's Accepted Agricultural Practice Regulations adopted pursuant to Title 6, Chapter 215.

AFO: means an animal feeding operation.

Adjacent Barns: means two or more barns owned by the same person that are on a single parcel of land.

Agency: means the Vermont Agency of Agriculture, Food, and Markets; also means AAFAM.

Animal Feeding Operation: means a lot or a facility which has animals that have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period, and crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal



growing season over any portion of the lot or facility where animals are confined.

Animal Type: means livestock or domestic fowl type.

Applicant: means a person applying for, or required to apply for, a LFO permit under Vermont law.

Barn: means a structure used for livestock or domestic fowl housing.

Certified Nutrient Management Planner: means an individual certified through the completion of the USDA/NRCS nutrient management certification process that creates, reviews, and modifies NMPs.

Common Border: means land parcels upon which barns owned by the same person are located when the land parcels abut each other (those divided by a road are considered abutting). "Roads" include town roads, state roads, and US roadways. Barns separated by a parcel of land owned by a third person do not share a common border.

Common Waste Disposal System: means a shared waste management system for the storage, treatment, or the land application of waste from farms owned by the same person.

Common Waste Storage System: means shared manure storage lagoons, pits, or other structures, owned or leased by a single farming entity (individual or owners within a corporation), which is/are located adjacent to or on the LFO barn site.

Conservation Practice: means a specific treatment used to address a specific natural resource need and can be structural, vegetative, or land management.

Construction: means any activity which requires a LFO permit or permit amendment prior to building a new barn, or expanding an existing barn, or expanding an existing permitted barn which has the capacity to increase the number of livestock or domestic fowl housed, and regulated by 6 VSA Chapter 215 Subchapter 3, Regulation of Large Farm Operations at a farm.

Cropland: means land devoted to row crop, or pasture production.

Dirty Water: means precipitation or other water which has moved in, over or through a barnyard, manure, or other nutrient or pathogen laden matter, so that they have become co-mingled.

Discharge: for the purpose of these LFO Rules, means the placing, depositing, or emission of waste directly into surface water.



Domestic Fowl: means laying-hens, broilers, ducks, turkeys, and any other number and type of fowl that the Secretary may deem to fit this category.

Expansion: means a type of LFO activity which requires a LFO permit or amendment in order to increase the number of animals or domestic fowl of an existing farm operation. An expansion may occur with or without construction:

(a) when the number of animals or domestic fowl are below the threshold defined in the LFO law and an expansion is proposed which would cause the farm operation to have the potential to meet or exceed the LFO threshold; or

(b) when the existing number of animals or domestic fowl is at or above the threshold defined in the LFO law and an expansion is proposed, which could cause the farm to meet or exceed the permitted number of animals or domestic fowl.

Facility: see LFO Facility.

Farm: means the LFO facility, cropland, and non-cropland included in one or more parcels of land.

Groundwater: For the purpose of these Rules, means water below the land in a zone of saturation, but does not include surface water.

Groundwater Quality Standards: means the primary and secondary groundwater quality standards listed in Appendix One of the Groundwater Protection Rule and Strategy adopted by the Secretary of Natural Resources in accordance with 10 V.S.A. Chapter 48.

LFO: means Large Farm Operation(s).

LFO Facility: means the production area, the barns, the land devoted to waste storage and other agricultural structures, including those created as waste management systems constructed to prevent direct discharges to waters of the state or to prevent groundwater from exceeding state groundwater quality standards, designed, adapted, or used to operate a farm in which the barn or barns are designed to house more than:

700 mature dairy animals, whether milked or dry; or

700 bulls; or

1000 cattle, cow/calf pairs, young stock, or heifers; or

1000 veal calves; or

2500 swine weighing over 55 pounds; or



10,000 swine weighing less than 55 pounds; or
500 horses; or
10,000 sheep or lambs; or
55,000 turkeys; or
30,000 laying hens with a liquid manure handling system; or
82,000 laying hens without a liquid manure handling system;
125,000 chickens other than laying hens without a liquid manure handling system; or
5000 ducks with a liquid manure handling system; or
30,000 ducks without a liquid manure handling system; or any other animal type and number that the Secretary may deem to fit this category if:

1. Such livestock or domestic fowl are confined:
for more than 45 days; and
in an area where vegetation is not sustained during the growing season; and
2. Such livestock or domestic fowl are in a barn or adjacent barns owned by the same person; or
3. The barns, collectively designed to house the threshold number of livestock or domestic fowl, owned by the same person, share a common border or
4. The barns, owned by the same person, which have the potential to collectively house the threshold number of livestock or domestic fowl, share a common waste disposal system; or,
5. If any barns, owned by any person, where the threshold number of livestock or domestic fowl are collectively housed, share a common waste disposal system or fields.

Land Application Area: means land under the control of an AFO operator, whether it is owned, rented, or leased, excluding the production area, to which wastes from the production area are or may be applied.

Livestock: means cattle, mature cows, cow/calf pairs, young stock, heifers, bulls, swine, sheep, or horses, or any other number and type of livestock that the Secretary may deem to fit this category.



NRCS: means United States Department of Agriculture (USDA) Natural Resources Conservation Service.

New Large Farm Barn: means new barn construction on a site or parcel where no animal housing structures exist. Also called NLFB.

Non-cropland: means woodland or other areas where crop or pasture production does not occur.

Nutrient Management: means managing the amount, form, placement, and timing of application of plant nutrients for the purpose of obtaining optimum forage and crop yields, minimizing entry of nutrients into waters of the state and groundwater, and optimizing economic use of nutrients generated on and off the farm.

Nutrient Management Plan: means the system by which animal waste generation, storage, and use is handled for the purpose of obtaining optimum forage and crop yields including the management aspects of fertilizer nutrients, conservation practices, animal mortalities, clean water, waste and soil testing, and record keeping. Also called NMP.

Operating: means a type of activity which requires a permit for large farm activities regulated by 6 VSA Chapter 215 Subchapter 3.

Pasture: means a confined area of perennial vegetation used for the grazing and confinement of animals.

Permittee: means a person that has received a LFO permit.

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.

Production Area: means those parts of a LFO facility that include the animal confinement area, the waste storage area, the waste containment areas, an egg washing or egg processing facility, the raw materials storage area, and any area used in the handling, treatment, or storage of mortalities.

Secretary: means the Secretary of the Agency of Agriculture, Food, and Markets.



VT Water Quality Standards: means the standards and criteria adopted by the Natural Resources Board, pursuant to 10 VSA Chapter 47 Section 1252 (e).

Waste: For the purposes of these LFO Rules, waste includes spoiled feed, manure, milkhouse waste, washwater, leachate, used bedding, agricultural litter, carcasses, barnyard runoff, or dirty water.

Waste Management Structure: Means components, practices and other facilities used for storage, composting, and stacking manure.

Waste Management System: means a waste management program and conservation practices which include, but are not limited to, a combination of:

1. an adequately sized waste storage facility, field stacking, composting, leachate control system, and milk house waste system.
2. contracts which transfer the ownership of wastes generated at a production area to another party for management in a manner determined by the Secretary to be appropriate; and/or
3. a nutrient management plan (NMP) for all wastes to be applied compliance with these Rules.

Waste Storage Facility: means an impoundment made for the purpose of storing waste by constructing an embankment, excavating a pit or dugout, fabricating an in-ground or above-ground structure, or any combination thereof.

Waste Storage System: means manure storage lagoons, pits, fields, or other farm waste management structures.

Waters of the State: For the purposes of these LFO Rules, means all rivers, streams, creeks, 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.

Subchapter 4 Activities that Trigger the Requirement to Obtain a LFO Permit.

A. The following large farm construction or operation activities require a Large Farm Operation permit from the Agency:

1. The construction or expansion of a barn designed to house more than the number of animals or domestic fowl listed under the definition of Large Farm in subchapter 3 above; or
2. The construction or expansion or operation of any number of barns owned by the same person which are located on a contiguous parcel of land and which are designed to house more than the



number of animals or domestic fowl listed under the definition of Large Farm in subchapter 3 above; or

3. The construction or expansion or operation of any number of barns owned by the same person which are located on parcels of land which share a common border (such as abutting lands or lands separated by a road), and which barns are designed to house more than the number of animals or domestic fowl listed under the definition of Large Farm in subchapter 3 above; or

4. The construction or expansion or operation of any number of barns owned by the same person which share a common waste management system (such as manure storage, land application areas or methane digestion systems) and which barns are designed to house more than the number of animals or domestic fowl listed under the definition of Large Farm in subchapter 3 above.

B. For barn construction and for farm operation, the Agency will process a single LFO permit for persons who apply for or are required to obtain a LFO permit.

C. An LFO permit which authorizes construction shall expire within two years (twenty-four months) from the date of issuance. If construction is not substantially completed within 24 months, the permittee shall apply for a permit amendment to extend the authorized construction period.

D. A permit or amendment to a previously issued LFO permit is not required to replace an existing barn in use for livestock or domestic fowl production at its existing capacity.

Subchapter 5 Applications and Review.

A. How to Apply for a LFO Permit

1. An applicant shall apply for a LFO permit in writing to the Secretary, on a form provided by the Agency, and shall, at a minimum, provide supporting documentation describing or including the following:

- a. The name of the owner and operator;
- b. The LFO facility location and mailing address;
- c. A topographic map of the geographic area in which the LFO is located showing the latitude and longitude of the entrance to production area or proposed production area;



- d. The existing barn structures, any proposed new barn proposed barn expansions, or other structures or improvements. Include a sketch which identifies the layout of existing and proposed barns, bunkers, lagoons, pits, etc. The number of animals and their weights shall be identified along with an indication of which barn each group is raised in, and into which waste storage facility each group's waste is stored. If any changes to existing farm structures are proposed, these changes shall be identified on the sketch, and a short explanation of the changes shall be included;
- e. Identify and describe any siting and setback considerations for new large farm barns, where appropriate;
- f. The existing type of waste management structures or systems, and any proposed waste management structures systems expansions, or modifications, including the total capacities of each waste storage facility;
- g. The existing number and types of all livestock or domestic fowl in the operation, and any proposed increase in number of livestock or domestic fowl, and whether the barns are in open confinement or housed under roof;
- h. The farm's nutrient management plan;
- i. A certification from NRCS or a professional engineer licensed in the state of Vermont, that all waste storage facilities or other conservation practices designed and constructed to control wastes at the LFO facility meet NRCS standards and specifications contained in the Vermont NRCS Field Office Technical Guide Section IV, as amended, or meet an equivalent standard;
- j. A plan to manage the proposed operations for odor, noise, traffic, insects, flies and other pests;
- k. How a minimum of 180 days worth of waste storage or management shall be met;
- l. The estimated amounts of waste generated per year (tons or gallons) and the planned destination thereof;
- m. The estimated amounts of waste transferred to other persons per year (tons or gallons); and,
- n. The total number of acres under control of the permittee available for land application of wastes.



B. Application Review Process

1. Administrative Coordination for Applications for Construction of a New Large Farm Barn:

a. Upon receipt by the Agency of a signed permit application form and the information required above for construction of a new large farm barn, the Secretary shall consult at this stage with the Secretary of the Agency of Natural Resources regarding the administrative completeness of the application.

b. When all application contents have been submitted to the satisfaction of the AAFM and to the Secretary of the Agency of Natural Resources, the application will be considered to be administratively complete, and a full review of the application will commence.

c. Also upon receipt by the Agency of a signed permit application form and the information required above for construction of a new large farm barn, the Secretary shall initiate establishing an Advisory Group to assist in reviewing a complete application, by notifying and requesting participation of:

i. the Secretary of Natural Resources or his or her duly authorized representative;

ii. a farmer appointed by the Office of the Governor; and

iii. a representative appointed by the legislative body of the municipality in which the proposed LFO facility would be located. Such representative shall be appointed by the legislative body but need not be a resident of the municipality.

d. The Secretary's notice shall provide the name and location of the proposed barn, and shall state that the request for appointments is being made early in the process.

e. The Secretary will notify the appointees directly at the point in time when the Advisory Group has established a meeting date, and will invite them to assist the Agency in reviewing the application at that time.

f. The Advisory Group shall meet as determined by the Secretary to review the application, and provide recommendations to the Secretary.



g. The Secretary may establish the advisory group pursuant to this subsection upon receipt of a permit application for expansion of an existing barn under this subchapter.

2. Public Informational Meeting for LFO Applications for Construction of a New Large Farm Barn and for Expansions

a. The Agency shall conduct a public informational meeting for LFO projects which propose a new barn construction.

b. The Agency may conduct a public informational meeting for LFO projects which propose a barn expansion, if the barn is already subject to permitting requirements.

c. Public informational meetings shall only be scheduled and held after the Secretary has notified the applicant that the application has been deemed administratively complete.

d. After having been notified by the Secretary that the application is administratively complete, the applicant shall initiate the newspaper notice.

e. The applicant shall find a location for the informational meeting and schedule the public informational meeting after coordinating with the Agency. Informational meetings shall be held in handicapped accessible locations, in the municipality where the proposed LFO project is located.

f. The applicant shall coordinate public notification of the LFO project and the public informational meeting by issuing a notice through a local daily newspaper that has been approved by the Secretary.

g. The applicant shall use and modify the sample notice found in Appendix A. Other forms of notice shall be approved in advance by the Secretary.

h. The published advertisement shall be at least two (2) columns wide by three (3) inches high.

i. The notice shall appear in the local daily newspaper once, at least 14 days prior to the public informational meeting.

j. The purpose of the public informational meeting shall be to provide an opportunity for the public to learn about the proposed project.



k. The public may submit written comments to the Agency about a proposed LFO project for five (5) business days after a public informational meeting.

l. The Secretary may use an abbreviated notice process if holding a discretionary meeting.

3. Establishing an Advisory Group when the Secretary receives an application for construction of a new large farm barn.

a. Upon receipt by the Secretary of a permit application for construction of a new large farm barn under this subchapter, the Secretary shall establish an Advisory Group to assist in reviewing the application. The advisory group shall consist of, in addition to the Secretary, the Secretary of Natural Resources or his or her duly authorized representative, a farmer appointed by the governor, and a representative appointed by the legislative body of the municipality in which the proposed LFO facility would be located. Such representative shall be appointed by the legislative body but need not be a resident of the municipality. The Secretary may establish the advisory group pursuant to this subsection upon receipt of a permit application for expansion of an existing barn under this subchapter.

b. The Secretary may convene an Advisory Group when the Secretary receives an application for expansion of an existing large farm barn.

c. When the Secretary receives an application for construction of a new large farm barn, the Secretary shall notify the Secretary of Natural Resources, the Office of the Governor, and the municipality where the large farm barn is proposed. The Secretary's notice shall provide the name and location of the proposed barn. The notice shall include the Secretary's request for an appointee of the Secretary of Natural Resources, a farmer appointee from the Office of the Governor, and an appointee from the governing board of the municipality in which the facility is proposed to be located.

d. The Secretary's notice shall include a request that the appointments be made upon announcement from the Secretary that the application has been deemed administratively complete. The Secretary will notify the appointees directly at the point



in time when the Advisory Group has established a meeting date.

e. When the Secretary does deem the application to be administratively complete and has established a meeting date, the Secretary shall contact the members of the Advisory Group to invite them to assist the Agency in reviewing the application.

f. The Advisory Group will meet as determined by the Secretary to review the application and provide recommendations to the Secretary.

4. Application Review Process, Communicating with the Applicant

a. The Secretary shall notify applicant in writing as to whether the two agencies have determined the application to be administratively complete or administratively incomplete. If the application has been determined to be administratively incomplete, the letter shall set out what components are missing.

b. An incomplete application shall not be deemed complete until the identified items or components are submitted.

c. The Secretary shall request from the Secretary of Natural Resources assistance in making a written determination whether the applicant has established that there are no unpermitted discharges to waters of the state that would require a federal CAFO permit under the Clean Water Act.

d. Title 6 Chapter 215 §4851 (c) states that the Agency has 45 business days to review an application once it is fully complete.

e. The formal 45 business day application review period will not start until the Agency determines that the application has been considered administratively complete, the application review advisory group has met and provided feedback (where required by statute), and the public informational meeting has been held. The day after the application is deemed complete is day 1 of the statutory 45 business day review period.

f. In the absence of a permit determination by the Agency within 45 business days, the applicant's permit is awarded by default.

i. A permit awarded by default requires the permittee, upon request by the Secretary or Secretary's designee, to demonstrate: compliance with AAPs; compliance with adopted LFO Rules; compliance with LFO



statutory criteria; and to demonstrate that the LFO facility will be managed consistent with a well managed, similarly sized farm of the same animal type; and that there will be no discharge to waters of the state and groundwater impacts will meet state groundwater quality standards; and

ii. A permit awarded by default can be amended, conditioned, or revoked by the Secretary.

iii. A permit awarded by default shall not preclude a farm from being required to obtain other permits.

g. The options available to the Secretary for application determinations are to: approve as is; approve with conditions; or deny.

h. The Agency is not required to meet the provisions of Title 6 Chapter 215 Subchapter 3, Section 4851 (c), regarding the 45 business day review period for applications submitted for LFO permits, when the number of animals or domestic fowl at the existing operation are below the LFO permit threshold requirement, and a farmer chooses to apply for a permit.

Subchapter 6 Management and Design Standards.

A. General Operational and Maintenance Standards Applicable to LFOs

1. The permittee shall ensure that all structures and practices shall be operated and maintained in accordance with the requirements and recommendations detailed in the appropriate practice code in Vermont NRCS Field Office Technical Guide Section IV, or an equivalent standard as recommended in writing by the permittee's hired professional engineer licensed in the state of Vermont.

2. The permittee shall ensure that adequate waste management structures are managed to assure that there are no direct discharges of wastes from the LFO facility to waters of the state or to prevent groundwater from exceeding state standards.

3. The permittee shall operate and maintain the waste storage facility to prevent direct discharges to waters of the state or to prevent groundwater from exceeding state standards by removal of material to avoid overtopping, and to create space for the ongoing generation of waste.



4. The permittee shall ensure that the LFO facility, cropland, and non-cropland will be managed in compliance with all applicable AAPs and these Rules.
5. The permittee shall ensure that all wastes which are land applied, are applied according to a nutrient management plan which meets the requirements of these Rules.
6. The permittee shall ensure that the LFO facility shall not generate odors of a type different than, or in excess of those from a well managed similar sized farm of the same animal type using a similar waste management system. The Agency will use the technical components of the American Society of Agricultural Engineers published Standards and Engineering Practices Data, ASAE EP379.1 DEC96, "Control of Manure Odors" as the standard when addressing livestock or domestic fowl manure odor issues.
7. The permittee shall ensure the LFO facility shall not create noise disturbances in excess of those from a well managed similar sized farm of the same animal type.
8. The permittee shall ensure the LFO facility shall not generate traffic flows and frequency at a greater level than those from a well managed similar sized farm of the same animal type.
9. The permittee shall ensure that the LFO facility will not generate or breed flies, insects, or other pests above a level where adult flies, insects, or other pests moving off the farm premises are in excess of those from a well managed similar sized farm of the same animal type.
10. The LFO shall implement erosion and sediment control conservation practices when land clearing, field drainage, ditching, or other field preparation or improvement activities, to prevent movement of sediment to waters of the state, groundwater, or across property boundaries.
11. All storage of compost and the resulting leachate shall be managed to prevent a discharge to waters of the state and to prevent groundwater from exceeding state groundwater quality standards, and in accordance with the NMP.
12. Compost and compost leachate shall be collected and spread on land in accordance with a NMP and without causing a discharge to waters of the state or to cause groundwater to exceed state groundwater quality standards, and in accordance with the NMP.



B. Specific LFO Structural Design Standards

1. All structural components of the following aspects of a LFO waste management system shall be described in the permit application, and shall meet the following conditions:

a. Any waste storage facility or components of a waste management system including, but not limited to, barnyards, manure field stacking sites, leachate control systems, or runoff control systems shall meet or exceed the standards of the Vermont NRCS Field Office Technical Guide Section IV, or an equivalent standard as certified by the permittee's engineer licensed to practice in Vermont.

b. LFOs shall have a waste storage facility capable of holding waste generated in 180 consecutive days. An alternative to providing 180 days worth of storage is developing a manure management program which may involve a combination of field stacking, composting, or contracts which transfer the ownership of manure to another party, for management in a manner consistent with these Rules.

c. Milkhouse waste systems and leachate runoff systems shall be accounted for in the design of the waste management system or in an approved structure. Milkhouse waste and leachate runoff must be contained in such a way as to prevent a discharge to waters of the state.

d. All storage of compost and the resulting leachate shall be conducted to prevent adverse impacts to waters of the state and groundwater. Compost and compost leachate shall be collected and spread on land without creating an adverse impact to waters of the state and groundwater.

e. Mortalities shall be managed in such a way as to prevent a discharge to surface waters or to cause groundwater to exceed state groundwater quality standards.

2. All aspects of the waste management system and clean water runoff shall be designed to meet or exceed the standards described in Vermont NRCS Field Office Technical Guide Section IV, or shall be designed to an equivalent standard by a professional engineer licensed in the state of Vermont.



a. Waste Storage Facility: An adequately sized waste storage facility shall be designed to hold all wastes, including clean water unless it is diverted elsewhere, generated during a minimum of 180 days for the proposed herd size, and be designed to handle a 25-year, 24-hour storm event.

b. An alternative to providing a minimum of 180 days worth of storage is developing a waste management system which may involve a combination of field stacking, composting, or contracts which transfer the ownership of manure to another party, for management in a manner determined by the Secretary to assure no discharges will occur to waters of the state or to cause groundwater quality to exceed state groundwater standards, and to assure compliance with AAPs.

c. Another possible alternative to providing a minimum of 180 days worth of storage exists, if:

i. The available certified storage capacity is less than 180 days, but it is greater than 106 days, and

ii. Funding has already been secured to construct certified storage for at least 75 additional days' worth of generation. The schedule to construct additional storage shall be defined by the Secretary and contained in a compliance schedule in the permit.

d. Field stacking of semi-solid manure may be permitted on a case-by-case basis. Field stacking of manure shall meet the criteria defined in Vermont NRCS Field Office Technical Guide, Section IV, as amended Practice Code 313, and be operated in a manner which allows no direct discharge to waters of the state or to prevent groundwater from exceeding state standards; and

e. Field stacking of semi-solid manure may be authorized by the Secretary if a portion of the waste storage structure (pit, lagoon, tankage or other contained space) is used to store whey or other wastes not generated on the farm, which then displaces an amount of manure generated by the LFO.

3. Any new construction, modifications, additions, or repairs of storage structures shall be designed in accordance with Vermont NRCS Field Office Technical Guide Section IV, as amended Practice Code 313 Waste Storage Facility - Standards and Specifications or Vermont NRCS Field Office Technical Guide Section IV, as amended, Composting



Facility, or other appropriate waste storage facility(s) contained in the Vermont NRCS Field Office Technical Guide Section IV, as amended, or other equivalent standards as certified by the permittee's engineer licensed to practice in Vermont, and shall be operated in a manner which allows no direct discharge to waters of the state or to prevent groundwater from exceeding state standards;

4. For new waste storage facilities for a large swine, veal, or poultry operation, the waste storage structure shall either be:

a. Covered in such a way as to prevent precipitation from falling on to the structure; or

b. Designed in accordance with Vermont NRCS Field Office Technical Guide Section IV, as amended Practice Code 313 Waste Storage Facility - Standards and Specifications or Vermont NRCS Field Office Technical Guide Section IV, as amended, with the exception that the storm event for the design is based shall be the 100-year, 24-hour storm event for that location.

5. Plans and specifications for new or upgraded waste storage facilities or for new or upgraded runoff control systems shall be submitted to the Agency by the permittee prior to construction. Post construction documentation shall be submitted within 60 days of project completion, or as otherwise specified by the Secretary.

C. Required Certifications for Waste Storage/Management Facilities

1. All conservation practice structures shall be affirmed to be designed to meet or exceed the standards described in Vermont NRCS Field Office Technical Guide Section IV or shall be designed by a professional engineer licensed in the state of Vermont, and shall include:

a. The adequacy of structure linings to prevent exfiltration of manure contaminants to groundwater;

b. The proximity of bedrock and the water table to the floor of the structure;

c. Scaled drawings showing location(s) of the storage unit(s) and runoff control system(s), and surface water(s), water supply well(s), property boundary(-ies), elevation(s), and other pertinent information;

d. As-built drawings, including date and materials of construction;



e. Existing storage structure's ability to meet the criteria and specifications outlined in Vermont NRCS Field Office Technical Guide, Section IV, as amended Practice Code 313, Waste Storage Facility, or Vermont NRCS Field Office Technical Guide Section IV, as amended Practice Code 313, Waste Storage Pond, or other appropriate waste storage facility(s) contained in Vermont NRCS Field Office Technical Guide Section IV, as amended;

f. The adequacy of the system(s) to control manure runoff generated by a 25-year, 24-hour storm event for the location;

g. A full description of the system's components, including any reference to practices specified in Vermont NRCS Field Office Technical Guide Section IV, as amended; and,

h. A full description of the management of mortalities, in such a way as to prevent a discharge to surface waters or to cause groundwater to exceed state groundwater quality standards.

2. Additional Limitations: In the event that any waste management system does not prevent discharges to waters, or does not conform to AAPs, the permit may be modified by the Secretary to require additional discharges to be eliminated and a schedule of compliance to achieve the elimination of discharges.

D. Siting and Setback Requirements for Construction of and Expansions of New Large Farm Barns and New Waste Management Systems

1. In making determinations regarding the siting of a new large farm barn and other LFO farm structures related to the application for a new large farm barn expansion for existing LFOs, the secretary shall consider the following:

a. The adjoining and neighboring land uses in the vicinity of the proposed barn, expansion, and operation;

b. The identification of any waters of the state on, or in close proximity to, the proposed barn, expansion, and operation;

c. Whether the siting of the proposed barn, expansion, and operation is designed to comply with AAPs;

d. Whether the siting of the proposed barn, expansion, and operation is designed to comply with standards established in these Rules for groundwater protection;



e. Whether the siting of the proposed barn, expansion, and operation will allow for compliance with the standards established in these Rules for:

- i. Odor;
- ii. Noise;
- iii. Traffic;
- iv. Insects;
- v. Flies; and,
- vi. Other pests

f. The permittee's history of compliance with these Rules.

E. Setback Requirements for Farm Structures for New and Expanded Large Farm Operations

1. Notwithstanding the provisions of the AAP Regulations for the construction of farm structures, the following minimum setbacks shall apply to all farm structures at a LFO located in a town in Vermont that has no zoning:

- a. 100 feet back from the centerline of a public road, and
- b. 100 feet back from any abutting property line.

2. In municipalities with zoning or municipalities without zoning, the Secretary may require a setback exceeding 100 feet from the centerline of a public road or on abutting property line if, in the Secretary's discretion or upon recommendation of the Advisory Group, such an additional setback is necessary due to:

- a. Unique physical circumstances or conditions, including irregularity, narrowness, farm size or shape, or exceptional topographical or other physical conditions peculiar to the particular farm property or the abutting property.
- b. The impact that odor, noise, traffic, insects, flies, and other pests from the farm property will have on the abutting property.

3. The Secretary may grant adjustments from these setback requirements if the applicant or permittee can demonstrate:

- a. There are unique physical circumstances or conditions, including irregularity, narrowness, farm size or shape, or



exceptional topographical or other physical conditions peculiar to the particular farm property, and that unnecessary hardship in meeting these setbacks is due to these conditions;

b. Because of these physical circumstances or conditions, there is no possibility that the farm property can be efficiently managed in strict conformity with the setback and that an adjustment is necessary;

c. Unnecessary hardship has not been created by the applicant or permittee;

d. The adjustment, if authorized, will not substantially or permanently impair the appropriate use or development of adjacent property, or be detrimental to the public welfare; and,

e. The adjustment, if authorized, will represent the minimum adjustment that will afford relief and will represent the least deviation possible from the Rules.

4. In making determinations and recommendations regarding the siting of the barn and other farm structures related to the application the Advisory Group shall consider the following:

a. The animal type of the operation;

b. The number of animals proposed to be covered by the permit;

c. The number of acres included in the farm property;

d. The adjoining and neighboring land uses in the vicinity of the proposed barn and operation;

e. The identification of any waters of the state on, or in close proximity to, the proposed barn and operation;

f. Whether the siting of the proposed barn and operation is designed to comply with AAPs;

g. Whether the siting of the proposed barn and operation is designed to comply with standards established in these Rules for surface water and groundwater protection; and,

h. Whether the siting of the proposed barn and operation will allow for compliance with the standards established in these Rules for:

i. Odor;



- ii. Noise;
- iii. Traffic;
- iv. Insects;
- v. Flies; and,
- vi. Other pests

F. Nutrient Management Plan (NMP) Standards for Crop and Non-Cropland Areas

1. Developing a Nutrient Management Plan:

- a. All LFOs shall have a field-by-field NMP developed by the Permittee or a certified nutrient management planner; and,
- b. The Agency may periodically inspect NMPs and required records for the purpose of determining compliance with LFO nutrient management requirements.

2. Requirements of the Nutrient Management Plan:

- a. Development and implementation of a NMP shall meet or exceed the standards of Vermont AAPs, Vermont NRCS Field Office Technical Guide Section IV, as amended Practice Code 590 for Nutrient Management, and shall also be in compliance with the following additional criteria to the extent applicable:
 - i. Ensure adequate storage of wastes, including procedures to ensure proper operation and maintenance of the storage facilities;
 - ii. Ensure proper management of mortalities (i.e., dead animals) to ensure that they are not disposed of in a liquid manure, storm water, or waste storage or treatment system that is not specifically designed to treat animal mortalities;
 - iii. Ensure clean water is diverted, as appropriate, from entering the production area;
 - iv. Prevent direct contact of confined animals within the production area with waters of the state;
 - v. Ensure chemicals and other contaminants handled on-site are not disposed of in any waste storage or treatment system unless specifically designed to treat such chemicals and other contaminants;



vi. Identify appropriate site specific conservation practices to be implemented, including, as appropriate, buffers or equivalent practices to control runoff of pollutants to waters of the state or to prevent groundwater from exceeding state standards;

vii. Identify protocols for appropriate testing of waste and soil;

viii. Establish protocols to land apply waste in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the waste; and,

ix. Identify specific records that will be maintained to document the implementation of the NMP.

b. The Nutrient Management Plan shall:

i. Include all land receiving application of manure, compost, other wastes, fertilizer, or any other source of nutrients;

ii. Document adequate storage of manure, compost, and other wastes, including procedures to ensure proper operation and maintenance of the storage facilities;

iii. Document proper management of mortalities (i.e., dead animals) to ensure that they are not disposed of in a liquid manure, storm water, waste storage, or treatment system that is not specifically designed to treat animal mortalities;

iv. Document that clean water is diverted, as appropriate, from the production area;

v. Document that confined animals within the production area do not have direct contact with waters of the state;

vi. Document that chemicals and other contaminants handled on-site are not disposed of in any manure, compost, waste, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants;

vii. Document site specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants



to waters of the state or to prevent groundwater from exceeding state standards;

viii. Document appropriate testing of manure, compost, other wastes, and soil;

ix. Document protocols to land apply manure, compost, and other wastes in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, compost, and other wastes; and,

x. Document the destiny of the total annual volume of manure produced.

3. The following NMP components shall be performed, calculated, and presented on a field-by-field basis:

a. Yearly soil loss shall not exceed T (of the dominant soil type) as determined by RUSLE 2 (Revised Universal Soil Loss Equation 2), and calculations shall be conducted. If a rotation is needed to meet T, that rotation shall not exceed 10 years in length.

b. Other conservation practices shall be implemented as necessary to reduce runoff of pollutants to waters of the state or to prevent groundwater from exceeding state standards.

c. Fields receiving mechanical application of nutrients shall have soil tested every three years.

d. At least one third of all fields must have a soil test less than three years old when developing the nutrient management plan. A soil test 3-5 years old may be used for developing the nutrient management plan if application rates of nutrients will be planned at a rate no greater than the phosphorus removal rate and revised accordingly within 1 year based on current soil tests.

e. Soil samples shall be collected and prepared according to UVM guidance or standard industry practice.

f. Soil testing shall be conducted using Modified Morgan Extract for available phosphorus and aluminum following industry standards and methodology.

g. Soil tests, at a minimum, shall include content of:

i. Available phosphorus;



- ii. Reactive aluminum;
 - iii. pH; and,
 - iv. The Secretary may require that the soil be analyzed for additional parameters, based on other information received about field use, including other wastes used on the land.
- h. If pertinent to monitoring or amending the annual nutrient budget, soil shall be tested for:
- i. Electrical conductivity (EC); and/or,
 - ii. Soil organic matter.
- i. Nutrient recommendations (lbs. N and P[2]O[5,]per acre) shall be made based on the University of Vermont "Nutrient Recommendations for Field Crops in Vermont" (and/or industry practice when recognized by the University) using current soil test results, realistic yield goals, and management capabilities. Other university recommendations for nitrogen and potassium, that are appropriate for the geographic area, may be used.
- j. Every waste storage facility shall be sampled for nutrient content analysis prior to preparing the nutrient management plan.
- k. Every waste storage facility shall be sampled for nutrient content analysis yearly and shall be representative of the waste stored.
- l. A buffer zone of perennial vegetation shall be maintained between annual croplands and the top of the bank of adjoining surface waters consistent with i. through v. below, in order to filter out sediments, nutrients, pathogens, and agricultural chemicals and to protect the surface waters from erosion of stream banks due to excessive tillage.
- i. Surface waters shall be buffered from croplands by at least 25 ft of perennial vegetation, measured from the top of the bank.
 - ii. No manure, compost, or other wastes shall be applied within vegetative buffers.
 - iii. Use of fertilizer for the establishment and maintenance of the vegetative buffer is allowed.



- iv. Tillage shall not occur in a vegetative buffer except for the establishment or maintenance of the buffer.
- v. Harvesting the buffer as a perennial crop is allowed.
- m. No application of manure shall occur within 50 feet of a private well, unless legal documentation is provided to the Secretary that demonstrates a different isolation distance has been provided for, or when a private well is in a location that is inconsistent with state law or regulation.
- n. All land receiving application of nutrients shall have a risk assessment for potential nitrogen transport into ground water using the Leaching Index.
- o. All land receiving application of nutrients shall have a risk assessment for potential phosphorus transport into waters of the state using the Vermont Phosphorus Index.
- p. Nutrient applications shall be consistent with results of the Vermont Phosphorus Index.
- q. Conservation practices for nitrogen management shall be recommended and implemented based on the results of the Leaching Index.
- r. When the Leaching Index is greater than 10 directly adjacent to a private well, the nutrient setback distance shall be increased to 100 ft.
- s. The timing and method of nutrient application shall correspond as closely as possible with plant nutrient uptake characteristics while considering cropping system limitations, weather and climatic conditions, and field accessibility.
- t. Soil amendments shall be applied, as needed, to adjust soil pH to the specific range of the crop for optimum availability and utilization of nutrients.
- u. All applicable records identified including test results shall be kept on-farm for a period of no less than 5 years.
- v. Field applied manure and other wastes shall not:
 - i. Run off to waters of the state from the intended site during applications, or:
 - ii. Pond on the intended site at any time.



G. Production Area Standards

1. All LFOs shall implement the following:

a. Visual inspections. There must be routine visual inspections of the LFO production area. At a minimum, the following must be visually inspected:

i. Weekly inspections of all storm water diversion devices, runoff diversion structures, and devices channeling dirty storm water to the wastewater and manure storage and containment structure;

ii. Daily inspection of water lines, including drinking water or cooling water lines;

iii. Weekly inspections of the manure, litter, and process wastewater impoundments; the inspection will note the level in liquid impoundments.

b. Corrective actions. Any deficiencies found as a result of these inspections must be corrected as soon as possible.

c. Mortality handling. Mortalities shall not be disposed of in any liquid waste storage system, and must be handled in such a way as to prevent the discharge of pollutants to surface water or to prevent groundwater from exceeding state standards, unless alternative technologies designed to handle mortalities are approved by the Secretary.

H. Waste Management Standard for Wastes Transferred to Another Manager

1. Wastes generated by the LFO facility which are transferred to another manager shall require a contract or other written agreement including sufficient detail to require no direct discharges to waters of the state or to prevent groundwater from exceeding state standards, and to require compliance with AAPs.

2. Small volumes of wastes transferred via individual buckets or trunk loads do not require a contract, but shall be tracked as part of the annual report requirements.

3. Waste transferred must be analyzed a minimum of once annually for nutrient content and organic matter. The results of the analyses are to be used in determining application rates for waste.

I. Site/ Soil Design and Operations Standards



1. Manure and other wastes shall not be spread:

- a. Within buffer areas for streams, rivers, lakes, ponds, and water supply wells; and
- b. In a waterway, terrace channel or any areas where there may be a concentration of runoff.

2. Manure and other wastes spread on annual cropland that is subject to overland flow from adjacent surface water shall be incorporated within 48 hours. This restriction does not apply to no-till land, or land planted to a cover crop.

J. Groundwater Protection Criteria

1. Farm operations shall be conducted so that wastes do not reach or exceed the primary or secondary groundwater standards as established by the Secretary of the Agency of Natural Resources in the Groundwater Protection Rule and Strategy. Where monitoring indicates that wastes have reached or exceeded an enforcement standard in groundwater, the Secretary may require corrective modifications to the LFO permit, the NMP, the waste management system, or other corrective actions as needed.

2. LFO permits require sampling and analysis of on-farm water supplies. LFOs shall conduct water testing for farm drinking water supplies and for each farm water supply within 500 feet of cropland. The LFO shall also conduct testing on the water supply for each barn on an LFO production area that has a waste management system. Water supplies shall be analyzed for nitrates, chlorides, total and fecal coliform bacteria, and for soil applied pesticides, if specified by the Agency. If nitrate-N levels are greater than 5 ppm, chloride levels are greater than 250 ppm or soil applied pesticides are detected, the LFO shall conduct testing on an annual basis (or as otherwise directed by the Agency) until nitrate-N levels are less than 5 ppm, chloride levels are less than 250 ppm and soil applied pesticides are not detected.

3. The Secretary may conduct groundwater sampling:

- a. At sites selected by the Secretary where well owners have volunteered or agreed to participate in the sampling program;
- b. At sites upon the request of a well owner;



- c. At sites selected by the Secretary based on the results of other sampling data or the existence of vulnerable site characteristics;
- d. At sites with activities or operations permitted or regulated by the Secretary; and,
- e. 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.

K. Groundwater Investigation

1. The permittee shall comply with the sampling and analytical requirements for on-farm water supplies. LFOs shall conduct water testing for farm drinking water supplies and for each farm water supply within 500 feet of cropland. The LFO shall also conduct testing on the water supply for each barn on an LFO production area that has a waste management system. Water supplies shall be analyzed for nitrates, chlorides, total and fecal coliform bacteria, and for soil applied pesticides, if specified by the Agency. If nitrate-N levels are greater than 5 ppm, chloride levels are greater than 250 ppm or soil applied pesticides are detected, the LFO shall conduct testing on an annual basis until nitrate-N levels are less than 5 ppm, chloride levels are less than 250 ppm and soil applied pesticides are not detected.
2. The Secretary shall conduct a groundwater investigation where the Secretary has received a complaint from a well owner in the vicinity of an LFO that the operation or its agricultural practices has contaminated the drinking water or groundwater of the well owner.
3. The Secretary shall investigate the occurrence of contamination where sampling indicates that drinking water or groundwater contains detectable concentrations of agricultural contaminants.
4. The approaches the Secretary may utilize to identify the sources of drinking water and groundwater contamination and to require the remediation of contamination include, but are not limited to:
 - a. Conducting site visits to interview property owners and farm operators, to gain an understanding of the physical characteristics of the landscape, and locate additional sites for water quality sampling;



- b. Communicating with farm operators and adjacent property owners to identify practices and activities that are potential sources of contamination;
- c. Conducting additional sampling to confirm the detection of contaminants and to determine the extent and scope of contamination at the site;
- d. Making 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;
- e. Conducting follow up water quality sampling to determine the effectiveness of changes made or corrective actions taken;
- f. Seeking additional investigative or consultation resources to evaluate and characterize the site to determine vulnerability to drinking water and groundwater contamination; and,
- g. Reviewing testing results and site evaluations to determine if changes in water quality data are the result of changes in activities or natural site conditions.

5. Where annual testing or surveillance monitoring indicates a large farm operation has caused the concentration of wastes in groundwater to reach or exceed the primary or secondary groundwater quality standards as defined by the Secretary of Natural Resources in the Groundwater Protection Rule and Strategy, the LFO shall be managed to reduce the contamination from current activities and prevent contamination from future activities.

6. Changes in activities, management practices, cropping patterns, NMPs, or structures to reduce concentration of wastes in groundwater may be required to be implemented according to a permit amendment or modification, an Assurance of Discontinuance (AOD), or other enforcement action including a compliance schedule issued to the farm operation by the Secretary.

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

- a. Property owners in the vicinity of a LFO shall receive the test results for each well owned by them that is sampled by the Secretary.



b. LFOs shall receive the test results for wells owned by the farm operation, and for wells adjacent to or impacted by the crop land or LFO facilities managed by the LFO. The LFO shall also receive test results for wells when the Secretary has received a complaint from a well owner in the vicinity of an LFO that the operation or its agricultural practices has contaminated the drinking water or groundwater of the well owner.

8. The Secretary may require the owner or operator of a LFO waste storage facility to modify the waste storage facility to meet the Vermont NRCS Field Office Technical Guide Section IV, as amended or an equivalent standard for the waste storage facility or to implement additional management measures if the waste storage facility poses a threat to human health or the environment as established by a violation of the Groundwater Quality Standards.

9. For the purpose of making a determination that a LFO 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 LFO 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 LFO facility and the name of the owner or operator. When the Secretary makes a determination that a LFO 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.

10. When the Secretary has made a determination that a LFO poses a threat to human health or the environment, the Secretary may require the cost of continued groundwater monitoring be paid for by the farm operation.

11. The owner or operator of a LFO, if required by the Secretary to design, construct or modify a waste storage facility, may apply for cost share assistance.

Subchapter 7 Permittee Responsibilities, Recordkeeping.

A. Record Keeping for Nutrient Management Plans

1. The LFO permit shall define the frequency of testing and record development.



2. The Agency shall have access to all records that are required to be maintained by the permittee.
3. Nutrient management plans shall be maintained according to the following standards:
 - a. An annual analysis of manure, compost, and other wastes per storage structure shall be conducted;
 - b. Soil shall be sampled and analyzed for nutrient content every three years;
 - c. Implementation of additional conservation practices and/or application rate modifications as deemed necessary by the Secretary may be required when the following conditions exist:
 - i. A use of an unproven experimental technology;
 - ii. A determination by the Secretary that a field would otherwise no longer be acceptable for waste application; or,
 - iii. Any circumstances of potentially significant contamination to surface water or ground water.
4. Records pertaining to the implementation and maintenance of the nutrient management plan shall be kept on-farm for a period of no less than 5 years and shall include:
 - a. A copy of the site-specific nutrient management plan including:
 - i. Results from manure, compost, other waste, and soil sampling;
 - ii. Planned soil loss (as determined using RUSLE2); and,
 - iii. A list of fields with high or excessive Phosphorus Index results.
 - b. Yearly NMP implementation information (which may differ from planned) by field including:
 - i. A list of crops planted, planting dates, and harvest dates;
 - ii. A list of yields;
 - iii. The amount of, and the date(s) of manure, compost, other waste, and fertilizer applications by source;
 - iv. Fertilizer application rates by formulation; and,



- v. The date and weather conditions at the time of nutrient applications.
 - c. A copy of annual reports submitted to the Agency.
- 5. Records specific to sampling all media shall describe:
 - a. The date, exact location, method, and time of sampling or measurement;
 - b. The individual who performed the sampling or measurements;
 - c. The date the analysis was performed;
 - d. The individual who performed the analysis;
 - e. The analytical techniques or methods used; and,
 - f. The results of the analyses.
- 6. LFO Permittees shall maintain the following records specific to land applying manure, on a field-by-field basis:
 - a. Expected crop yields;
 - b. The date(s) waste is applied to each field;
 - c. Weather conditions at time of application and for 24 hours prior to and following application;
 - d. The method used to apply the wastes;
 - e. Date (s) of manure application equipment inspection;
 - f. Test methods used to sample and analyze manure, or waste, and soil;
 - g. Explanation of the basis for determining manure application rates, as provided in the technical standards provided by these Rules;
 - h. Calculations showing the total nitrogen and phosphorus to be applied to each field, including documentation of calculations for the total amount applied, and including sources other than wastes; and,
 - i. All manure and other wastes that are spread shall be documented on log sheets, including each field name or number; dates of spreading; whether each field is owned or leased; gallons per acre or tons per acre of manure or waste spread



each date; grade and tons per acre of commercial fertilizer applied; name of waste structure from which manure or other waste came; and last manure analysis for each waste structure.

B. Recordkeeping for the Production Area and Associated Conservation Practices

1. Routine visual inspections of the LFO facility and conservation practices are required. At a minimum, the following must be visually inspected and documented:

a. Weekly inspections of all storm water diversion devices, runoff diversion structures, and devices channeling dirty storm water to the wastewater and manure storage and containment structure;

b. Daily inspection of water lines, including drinking water or cooling water lines;

c. Weekly inspections of the manure, litter, and process wastewater impoundments; the inspection will note the level in liquid impoundments;

d. Mortality handling area(s) shall be inspected weekly to affirm that no discharge of pollutants to surface water has or can occur;

e. Waste storage facility(s) inspection shall be conducted by the permittee for cracks and corrosion. In addition, any earthen manure storage structures shall be inspected for damage, including that from frost, equipment and rodents. The inspection reports shall be maintained by the permittee and shall be made available for inspection by the Agency;

f. Composting Structure(s) Inspection shall be conducted by the permittee and shall include records of whether there was evidence of cracks and corrosion. In addition, any earthen structures shall be inspected for rodent damage. The inspection reports shall be maintained by the permittee and shall be made available for inspection by the Agency; and,

g. Corrective actions. Any deficiencies found as a result of these inspections must be corrected as soon as possible.

2. Inspection reports, at a minimum, shall include:

a. The date and names of persons performing the inspection;



- b. An inspection description including the components inspected;
- c. Details of what was discovered during the inspection;
- d. Recommendations for repair or maintenance;
- e. Any actions taken;
- f. Records of the date, time, and estimated volume of any discharge to waters of the state; and,
- g. A certification statement (form provided by the Agency) which is signed by the owner, verifying that all the materials included in the submittal have been reviewed by the owner.

3. Corrective actions regarding any deficiencies found as a result of these inspections must be corrected as soon as possible by the permittee and shall be made available for inspection by the Agency.

4. The permit will include dates by which compliance reports shall be completed. Written reports shall be received by the Agency no later than 14 days after the scheduled completion date.

5. Non-compliance with a permit condition shall be reported by the Permittee to the Agency within 24 hours, or during the next business day following the observation of noncompliance. Said report shall include:

- a. Which permit condition was not met;
- b. The cause of non-compliance;
- c. A description of remedial actions taken; and,
- d. An estimate of the effect of the non-compliance event on the permittee's ability to meet any remaining schedule dates.

6. The Permittee shall notify the Agency within 48 hours, or the next working day, in the event that a spill or accidental release of any waste results in a discharge to waters of the state or to prevent groundwater from exceeding state standards.

7. The Permittee shall furnish the Agency, within a reasonable time, any other information which the Agency may request in order to determine compliance with the Annual Reporting Requirements of these Rules and of the permit. The Permittee shall also furnish the Agency, upon request, copies of records required to be kept by the Permittee.

8. Records shall be kept on the farm for a period of no less than 5 years.



C. Record Keeping for Wastes that are Transferred

1. For wastes sold or given away, the permittee shall:
 - a. Maintain records showing the date and amount of manure, compost, or other wastes that leave the permitted operation;
 - b. Record the name and address of the recipient;
 - c. Provide the recipient(s) with representative information on the nutrient content of the wastes; and,
 - d. Retain records on-site for a period of 5 years.
2. All records relating to the transfer of manure, compost, or other wastes shall be submitted to the Agency with the Annual Report.

D. Annual Report Requirement

1. Annual reports shall be submitted by all LFO operators to the Agency no later than February 15 of each year.
2. The annual report shall include:
 - a. All the information required by Vermont NRCS Field Office Technical Guide Section IV, as amended Practice Code #590, Nutrient Management, and an accounting of animals; or
 - i. Manure analysis: submit sample results from each waste management structure annually. This includes waste management structures on other farms, if manure or other nutrient wastes from those farms will be land spread on fields associated with the LFO. The frequency of sampling and analysis may be reduced by written authorization from the Secretary. The laboratory analysis report shall include the moisture content of the manure and the available nitrogen, phosphorus and potassium content, calculated per ton or 1,000 gallons of manure or other nutrient waste;
 - ii. The number and type of livestock or domestic fowl, whether in open confinement or housed under roof;
 - iii. Total amount of manure and other nutrient wastes produced by the LFO;
 - iv. Total amount of manure and other nutrient wastes produced by other farms if the cropland and non-



cropland on those farms will be used to land spread manure and other wastes from the LFO facility;

v. Estimated total pounds of total nitrogen, phosphorous, and potassium produced on the LFO facility and land applied;

vi. Estimated total pounds of total nitrogen, phosphorous, and potassium produced on the LFO facility and transferred to other managers;

vii. Estimated total pounds of total nitrogen, phosphorous, and potassium produced on other farms and used by the LFO as part of the Nutrient Management Plan;

viii. Estimated amount of total wastes transferred to another person by the LFO in the previous 12 months (tons/gallons);

ix. Total number of acres for land application covered by the nutrient management plan, including number of acres rented and number of acres owned;

x. Total number of acres under control of the LFO that were used for land application of wastes in the previous 12 months;

xi. Summary of all waste discharges from the production area that have occurred in the previous 12 months, including date, time, and approximate volume;

xii. A statement indicating whether the current version of the LFO's nutrient management plan was developed or approved by a certified nutrient management planner;

xiii. For permitted operations that construct or expand, an annual reporting requirement regarding the increase in square footage added or otherwise made available for the purpose of housing animals or domestic fowl; and,

xiv. All reports required by a LFO permit shall be signed by the owner of the LFO facility operation and in the case of a corporation, a principal executive officer or a duly authorized representative having overall responsibility for operation of the LFO facility for which the permit is issued.



b. Results from water supply tests taken as required in the groundwater section of these Rules during the previous reporting period.

c. A reconciliation of the previous year's plan for managing nutrients, and how this information will be used in the next year's nutrient management plan.

Subchapter 8 Permit Amendments and Modifications.

A. Revisions and Modifications to Permits or Plans

1. Prior to making a substantial change in the LFO facility or in its operation, a Permittee shall submit a letter of intent to the Secretary describing the proposed change. The Secretary will determine whether a full application is required to accommodate that change, or whether a modification to an existing LFO permit is required, or neither. The Secretary's written determination will be sent to the Permittee.
2. If LFO facility ownership has transferred, the permittee shall notify the Secretary in writing within 30 days of that transaction, describing any proposed changes in operation or facilities. No increase in number of animals or change in animal type is allowed to occur without a full review of the operation by the Agency.
3. Farming operations permitted pursuant to these Rules shall obtain a permit amendment prior to increasing the number of animals or domestic fowl beyond the limit established in the LFO permit.
4. In addition to the administrative enforcement remedies set forth in these Rules, the Secretary may decide to amend an existing LFO permit on his or her own initiative. Circumstances that may prompt such an initiative include, but are not limited to:
 - a. A determination by the Secretary that waters of the state or groundwater have not been adequately protected in accordance with these Rules. The permit amendment may include additional measures and limitations and may also include a compliance schedule;
 - b. A determination by the Secretary that odor, noise, traffic, insects, flies, or other pests are not managed consistent with a well managed, similar sized operation of the same animal type;
 - c. A determination by the Secretary that a field is no longer acceptable for spreading or spray irrigation;



- d. A determination by the Secretary that the nutrient application rates in the NMP need to be adjusted;
- e. A determination by the Secretary that the management of the LFO production area, cropland, or non-cropland areas violates the standards contained in these Rules; or,
- f. Minor administrative errors in permits that necessitate correction in order for the permit to be accurate or reasonable.

5. Where Agency initiated modifications to the LFO permit require actions by the permittee, such actions shall be completed by the Permittee within the time frame established by the Agency.

6. For LFO permits, or for changes in permitted animal type, the Secretary may require:

- a. The applicant to demonstrate that the farm shall not generate odors of a type different than, or in excess of those from a well managed similar sized farm of the same animal type using a similar waste management system. The Agency will use the American Society of Agricultural Engineers published Standards and Engineering Practices Data, ASAE EP379.1 DEC96, "Control of Manure Odors" as guidance when addressing livestock or domestic fowl manure odor issues;
- b. The applicant to demonstrate that the LFO facility production area shall not create noise disturbances in excess of those from a well managed similar sized farm of the same animal type;
- c. The applicant to demonstrate that the LFO production area shall not generate traffic flows and frequency at a greater level than those from a well managed similar sized farm of the same animal type; and,
- d. The applicant to demonstrate that the LFO facility production area will not generate or breed flies, insects, or other pests above a level where adult flies, insects, or other pests moving off the farm premises are in excess of those from a well managed similar sized farm of the same animal type.

B. Transfer of Permit Ownership

1. A permittee may transfer permit ownership with the sale or lease of a LFO. Written notification shall be made by the original permittee to the Agency within 10 days of that transaction. The written



notification shall include a statement signed by the new owner or lessee which indicates that the new owner or lessee understands and agrees to comply with the conditions of the transferred LFO permit.

2. The Secretary may determine that a new application, or an application amendment is required to accomplish the permit transfer.

C. Relinquishment of Permits

1. A permittee may, at their own request, relinquish their LFO permit when a permittee ceases operations or when a permittee's herd or flock size falls below the threshold number of animals that would trigger the requirement to obtain a LFO permit, and when the barn that houses the animals is no longer designed to house the number of animals that would trigger the requirement to obtain a LFO permit. In order for the Secretary to agree to accept the relinquishment of an LFO permit for an operating farm, the permittee must submit a written request to do so with the Secretary, and must file a notice of intent to comply with the Agency's Medium Farm Operations general permit.

Subchapter 9 Permit Violations, Compliance, Enforcement, and Appeals.

A. Access to Site, Records

1. The Permittee shall allow the Secretary access to the site and records, and shall allow the Secretary to copy, any records that are required under the conditions of the permit or the LFO Rules.

2. The Permittee shall allow the Secretary to inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under the permit.

3. The Permittee shall allow the Secretary to sample or monitor at reasonable times, for the purposes of assuring permit compliance, any substances at any location.

B. Secretary's Compliance/Enforcement Determinations

1. The Secretary may seek enforcement remedies, including administrative penalties, under Sections 1, 12, 13, 15, 16, and 17 of Title 6 with regard to any person who violates the provisions of the LFO law, the LFO Rules, Vermont's AAP Regulations, or the conditions of a LFO permit.

2. The Secretary's authority to take a compliance or enforcement action does not preclude another regulatory entity from being able to execute any authority granted to it.



C. Appeals of Secretary's LFO Permit Determinations

1. Only the applicant seeking a permit who is aggrieved by the Secretary's final decision on the application, and the Secretary are parties to an LFO permit appeal in accordance with 6 V.S.A. §4855.
2. An applicant may appeal the Secretary's final permit decision to the environmental court within 30 days of the Secretary's final permit decision.
3. The notice of appeal shall be filed with the Secretary under Rule 5 of the Vermont Rules for Environmental Court Proceedings.
4. Nothing in these rules shall be construed to affect the legal rights of any person aggrieved by a permit decision of the Secretary.

D. Revocation of Permits

1. The Secretary may, after due notice and an opportunity for a hearing with the Permittee, revoke a permit issued under this Subchapter if, after investigation, the Secretary deems the permittee to be in violation of the provisions of the LFO law, the LFO Rules, Vermont's AAPs, or the conditions of a LFO permit.
2. A permittee aggrieved by the Secretary's final decision on an enforcement decision or on a permit revocation decision may appeal the decision to the Superior Court within 30 days of the final decision.

6 VT Stats § 4857. Definitions.

As used in this subchapter:

(1) "Animal feeding operation" (AFO) means a lot or facility where the livestock or domestic fowl have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and crops, vegetation, or forage growth are not sustained in the normal growing season over any portion of the lot or facility. Two or more individual farms qualifying as an AFO which are under common ownership and which adjoin each other or use a common area or system for the disposal of waste, shall be considered to be a single AFO if the combined number of livestock or domestic fowl resulting qualifies as a medium farm as defined in subdivision (2) of this section.

(2) "Medium farm" is an AFO which houses 200 to 699 mature dairy animals, 300 to 999 cattle or cow/calf pairs, 300 to 999 veal calves, 750 to 2,499 swine weighing over 55 pounds, 3,000 to 9,999 swine weighing less than 55 pounds, 150 to 499 horses, 3,000 to 9,999 sheep or lambs, 16,500 to 54,999 turkeys, 9,000 to 29,999 laying hens or broilers with a liquid manure



handling system, 25,000 to 81,999 laying hens without a liquid manure handling system, 37,500 to 124,999 chickens other than laying hens without a liquid manure handling system, 1,500 to 4,999 ducks with a liquid manure handling system or 10,000 to 29,999 ducks without a liquid manure handling system.

(3) "Small farm" is an AFO which houses no more than 199 mature dairy animals, 299 cattle or cow/calf pairs, 299 veal calves, 749 swine weighing over 55 pounds, 2,999 swine weighing less than 55 pounds, 149 horses, 2,999 sheep or lambs, 16,499 turkeys, 8,999 laying hens or broilers with a liquid manure handling system, 24,999 laying hens without a liquid manure handling system, 37,499 chickens other than laying hens without a liquid manure handling system, 1,499 ducks with a liquid manure handling system or 9,999 ducks without a liquid manure handling system.

(4) "Domestic fowl" means laying hens, broilers, ducks, turkeys, or any other number or type of fowl that the Secretary deems domestic fowl.

(5) "Livestock" means cattle, swine, sheep, goats, and horses, or any other number and type of domestic animal that the Secretary deems livestock.

6 VT Stats § 4858. Medium farm operation permits.

(a) Authorization to operation. – No person shall operate a medium farm without authorization from the Secretary pursuant to this section. Under exceptional conditions, specified in subsection (d) of this section, authorization from the Secretary may be required to operate a small farm.

(b) Rules; general and individual permits. – The Secretary shall establish by rule, pursuant to 3 V.S.A. chapter 25, requirements for a "general permit" and "individual permit" to assure that medium and small farms generating animal waste comply with the water quality standards of the State.

(1) "General" and "individual" permits issued under this section shall be consistent with rules adopted under this section, shall include terms and conditions appropriate to each farm size category and each farm animal type as defined by section 4857 of this title and shall meet standards at least as stringent as those established by federal regulations for concentrated animal feeding operations. Such standards shall address waste management, waste storage, development of nutrient management plans, carcass disposal, and surface water and groundwater contamination, plus recordkeeping, reporting, and monitoring provisions regarding such matters to ensure that the terms and conditions of the permit are being met. The groundwater contamination rules adopted by the Secretary under this section



shall include a process under which the Agency shall receive, investigate, and respond to a complaint that a farm has contaminated the drinking water or groundwater of a property owner.

(2) The rules adopted under this section shall also address permit administration, public notice and hearing, permit enforcement, permit transition, revocation, and appeals consistent with provisions of sections 4859 and 4861 of this title and subchapter 10 of this chapter.

(3) Each general permit issued pursuant to this section shall have a term of no more than five years. Prior to the expiration of each general permit, the Secretary shall review the terms and conditions of the general permit and may issue subsequent general permits with the same or different conditions as necessary to carry out the purposes of this subchapter. Each general permit shall include provisions that require public notice of the fact that a medium farm has sought coverage under a general permit adopted pursuant to this section. Each general permit shall provide a process by which interested persons can obtain detailed information about the nature and extent of the activity proposed to receive coverage under the general permit. The Secretary may inspect each farm seeking coverage under the general permit at any time, but no less frequently than once every three years.

(c)

(1) Medium farm general permit. – The owner or operator of a medium farm seeking coverage under a general permit adopted pursuant to this section shall certify to the Secretary within a period specified in the permit, and in a manner specified by the Secretary, that the medium farm does comply with permit requirements regarding an adequately sized and designed manure management system to accommodate the wastes generated and a nutrient management plan to dispose of wastes in accordance with required agricultural practices adopted under this chapter and current U.S. Department of Agriculture nutrient management standards. Any certification or notice of intent to comply submitted under this subdivision shall be kept on file at the Agency of Agriculture, Food and Markets. The Secretary of Agriculture, Food and Markets, in consultation with the Secretary of Natural Resources, shall review any certification or notice of intent to comply submitted under this subdivision with regard to the water quality impacts of the medium farm for which the owner or operator is seeking coverage, and, within 18 months of receiving the certification or notice of intent to comply, shall verify whether the owner or operator of the medium farm has



established that there will be no unpermitted discharge to waters of the State pursuant to the federal regulations for concentrated animal feeding operations. If upon review of a medium farm granted coverage under the general permit adopted pursuant to this subsection, the Secretary of Agriculture, Food and Markets determines that the permit applicant may be discharging to waters of the State, the Secretary of Agriculture, Food and Markets and the Secretary of Natural Resources shall respond to the discharge in accordance with the memorandum of understanding regarding concentrated animal feeding operations under section 4810 of this title.

(2) The owner or operator of a small farm may seek coverage under the medium farm general permit adopted pursuant to this section by certifying to the Secretary, in a manner specified by the Secretary, that the small farm complies with the requirements and conditions of the medium farm general permit.

(d) Medium and small farms; individual permit. – The Secretary may require the owner or operator of a small or medium farm to obtain an individual permit to operate after review of the farm's history of compliance, application of required agricultural practices, the use of an experimental or alternative technology or method to meet a State performance standard, or other factors set forth by rule. The owner or operator of a small farm may apply to the Secretary for an individual permit to operate under this section. To receive an individual permit, an applicant shall in a manner prescribed by rule demonstrate that the farm has an adequately sized and designed manure management system to accommodate the wastes generated and a nutrient management plan to dispose of wastes in accordance with required agricultural practices adopted under this chapter and current U.S. Department of Agriculture nutrient management standards, including setback requirements for waste application. An individual permit shall be valid for no more than five years. Any application for an individual permit filed under this subsection shall be kept on file at the Agency of Agriculture, Food and Markets. The Secretary of Agriculture, Food and Markets, in consultation with the Agency of Natural Resources, shall review any application for a permit under this subsection and, prior to issuance of an individual permit under this subsection, shall issue a written determination regarding whether the permit applicant has established that there will be no unpermitted discharge to waters of the State pursuant to federal regulations for concentrated animal feeding operations. If, upon review of an application for a permit under this subsection, the Secretary of Agriculture, Food and Markets that the permit applicant may be discharging to waters of the State, the Secretary of Agriculture, Food and Markets and the Secretary of Natural Resources shall respond to the



discharge in accordance with the memorandum of understanding regarding concentrated animal feeding operations under subsection 4810(b) of this title. The Secretary of Natural Resources may require a medium or small farm to obtain a permit under 10 V.S.A. § 1263 pursuant to federal regulations for concentrated animal feeding operations. Coverage of a medium farm under a general permit adopted pursuant to this section or an individual permit issued to a medium or small farm under this section is rendered void by the issuance of a permit to a farm under 10 V.S.A. § 1263.

(e) Operating fee. – A person required to obtain a permit or coverage under this section shall submit an annual operating fee of \$ 1,500.00 to the Secretary. The fees collected under this section shall be deposited in the Agricultural Water Quality Special Fund under section 4803 of this title.

VT Code of Rules 20-010-012. Medium and Small Farm Operation Rules for Issuance of General and Individual Permits.

Subchapter I. Authority.

These Rules are adopted under the express authority of 6 V.S.A. chapter 215 subchapter 5 section 4858 and under 6 V.S.A. subchapter 1(a)(10). The Secretary is authorized to adopt rules under 3 V.S.A. chapter 25, for the implementation of the provisions of 6 V.S.A. chapter 215 subchapter 5.

Related statutes include 6 V.S.A. chapter 215 subchapter 5 sections: 4856 regarding recycling animal waste nutrients; 4857 regarding definitions; 4858 regarding animal waste permits; 4859 regarding public notice and hearings; 4860 regarding revocation and enforcement; and, 4861 regarding appeals.

Subchapter II. Declaration of Purpose.

These Rules establish procedures for administration, public notice and hearing, comment, enforcement, transition, revocation and appeals, as well as standards for the issuance of a Medium Farm Operation (MFO) General Permit, including conditions, procedures, and standards for the issuance of Individual Permits for MFOs as may be required under certain circumstances.

The General Permit will be designed to ensure that medium farms generating animal waste comply with Vermont's water quality standards. Unless otherwise given notice by the Agency, all medium farms in Vermont are required to operate under the coverage and conditions of the General Permit.

The MFO general permitting program is designed to achieve the purpose of 6 V.S.A. chapter 215 subchapter 5. The Vermont Agency of Agriculture, Food and Markets intends that these Rules will establish a process for the issuance of a General Permit that will cause a Vermont MFO operator to manage a medium farm in a



manner which achieves at least an equivalent technical standard as required by federal regulations.

Subchapter III. Definitions.

25-year 24-hour Rainfall Event: means the maximum 24-hour precipitation event with a probable recurrence interval of once every 25 years, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States", May 1961 and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

AAPs: means the Vermont Accepted Agricultural Practice Regulations adopted pursuant to 6 V.S.A. Chapter 215.

AFO: means an animal feeding operation.

Animal Feeding Operation: means a lot or facility which has animals (other than aquatic animals) that have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period, and crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility where animals are confined.

Two or more individual farms qualifying as an AFO which are under common ownership and which adjoin each other or use a common area or system for the disposal of animal waste, shall be considered to be a single AFO if the combined number of livestock or domestic fowl resulting qualifies as a medium farm as defined herein.

Agency: means the Vermont Agency of Agriculture, Food and Markets.

Animal Type: means livestock or domestic fowl type.

Certified Nutrient Management Planner: means an individual certified through the completion of the USDA/NRCS nutrient management certification process who creates, reviews, and modifies NMPs.

Conservation Practice: means a specific treatment used to address specific natural resources needs and can be structural, vegetative, or land management.

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

Dirty Water: means precipitation or other water which has moved in, over or through a barnyard, manure, or other nutrient or pathogen laden matter, so that they have become co-mingled.



Discharge: means the placing, depositing, or emission of waste directly into surface water.

Domestic Fowl: means laying-hens, broilers, ducks, and turkeys.

Existing MFO: means an AFO meeting the definition of a MFO at the time the General Permit is issued.

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

Land Application Area: means land under the control of an AFO owner or operator, whether it is owned, rented, or leased, to which wastes from the production area is or may be applied.

Livestock: means cattle, swine, sheep, horses, or other animal types as deemed by the Secretary.

MFO: means a Medium Farm Operation.

Medium Farm Operation: means an AFO which houses:

- (i) 200 to 699 mature dairy cows, whether milked or dry;
 - (ii) 300 to 999 youngstock or heifers;
 - (iii) 300 to 999 veal calves;
 - (iv) 300 to 999 cattle or cow/calf pairs;
 - (v) 750 to 2,499 swine weighing over 55 pounds;
 - (vi) 3000 to 9,999 swine weighing less than 55 pounds;
 - (vii) 150 to 499 horses;
 - (viii) 3,000 to 9,999 sheep or lambs;
 - (ix) 16,500 to 54,999 turkeys;
 - (x) 9,000 to 29,999 laying hens or broilers with a liquid manure system;
 - (xi) 25,000 to 81,999 laying hens without a liquid manure handling system;
 - (xii) 1,500 to 4,999 ducks with a liquid manure handling system;
 - (xiii) 10,000 to 29,999 ducks without a liquid manure handling system;
- or,



(xiv) any other animal type and number that the Secretary may deem

New MFO: means an AFO meeting the definition of a MFO after the General Permit is issued.

NRCS: means United States Department of Agriculture (USDA) Natural Resources Conservation Service.

Nutrient Management: means managing the amount, form, placement, and timing of plant nutrient applications to obtain optimum forage and crop yields, minimize the entry of nutrients into waters of the state and groundwater, and optimize economic use of nutrients generated on and off the farm.

Nutrient Management Plan: means the system by which animal waste generation, storage, and use is handled for the purpose of obtaining optimum forage and crop yields including the relating management aspects of fertilizer nutrients, conservation practices, animal mortalities, clean water, chemical handling, waste and soil testing, and record keeping.

NMP: means nutrient management plan.

Pasture: means a confined area of perennial vegetation used for the grazing and confinement of animals.

Permit Decision: means a decision by the Secretary to issue a General Permit or permits, to issue a subsequent General Permit or permits, or to require a small farm to obtain an Individual Animal Waste Permit in order to continue in operation.

Permittee: means a person or business that has received a MFO General or Individual Permit.

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.

Person Aggrieved: means a person who alleges an injury to a particularized interest where the injury is attributable to an act or decision by the Secretary under subchapter 5 of chapter 215 of title 6 and the injury can be redressed by the environmental court or the Supreme Court.



Production Area: means those parts of a MFO that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. Also included in the definition of production area is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities.

Ruling: means a determination by the Secretary, after notice and an opportunity to be heard by a medium farm, that a medium farm is required to apply for and to obtain an Individual Animal Waste Permit in order to continue in operation, or a determination by the Secretary to deny an application by a medium farm for coverage under an Individual Animal Waste Permit.

Secretary: means the Secretary of the Agency of Agriculture, Food & Markets.

Small Farm Operation: means an AFO which houses no more than 199 mature dairy animals, 299 youngstock or heifers, 299 cattle or cow/calf pairs, 749 swine weighing over 55 pounds, 2,999 swine weighing less than 55 pounds, 149 horses, 2,999 sheep or lambs, 16,499 turkeys, 8,999 laying hens or broilers with a liquid manure handling system, 24,999 laying hens without a liquid manure handling system, 37,499 chickens other than laying hens without a liquid manure handling system, or 9,999 ducks without a liquid manure handling system.

Vermont Water Quality Standards: means the standards and criteria adopted by the Vermont Water Resources Board, pursuant to 10 V.S.A. Chapter 47 section 1252 (e).

Waste: means, for the purposes of these Rules, spoiled feed, manure, milkhouse waste, washwater, leachate, used bedding, carcasses, barnyard runoff, or other dirty water.

Waste Management System: means an on-farm waste management program and conservation practices which include, but are not limited to, a combination of:

1. an adequately sized waste storage facility, field stacking, composting, leachate control system, and milkhouse waste system;
2. contracts which transfer the ownership of wastes generated at a production area to another party for management in a manner determined by the Secretary; and/or,
3. a nutrient management plan (NMP) for all wastes to be applied in compliance with these Rules.



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.

Waters of the State: means, for the purpose of these Rules, all rivers, streams, creeks, 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.

Subchapter IV. Coverage Under the MFO General Animal Waste Permit.

A. After the conclusion of the MFO General Permit adoption process and final issuance of the MFO General Permit, no person shall operate a medium farm without authorization from the Secretary pursuant to 6 V.S.A. chapter 215 subchapter 5.

B. The following animal feeding operations shall seek coverage under the Medium Farm General Permit:

1. An existing animal feeding operation (AFO) meeting the definition of a Medium Farm Operation (MFO); or,
2. A new animal feeding operation (AFO) meeting the definition of a Medium Farm Operation (MFO).

C. A Medium Farm Operation seeking coverage under this General Permit is required to submit a Notice of Intent to Comply (NOIC) with the conditions as set forth within the General Permit. The NOIC must be received by the Agency no later than 180 days from issuance of the General Permit.

D. Prior to increasing the animal numbers to more than those defined by the MFO definition, a farm operation shall submit a NOIC in compliance with the conditions of the MFO General Permit.

E. The owner or operator of a small farm may seek coverage under the Medium Farm General Permit adopted pursuant to this section by certifying to the Secretary, in a manner specified by the Secretary, that the small farm complies with the requirements and conditions of the Medium Farm General Permit.

F. All farm operations seeking coverage under the Medium Farm General Permit shall receive written notification of permit coverage or denial.

G. The following situations may be exempt from the MFO General Permit requirements:



1. A farming operation that already operates under a MFO Individual Permit; or,
2. An operation that already operates under a LFO permit.

F. The following activities are prohibited under the coverage of this MFO General Permit:

1. Operation of a production area in a manner to cause a discharge to waters of the state, or to violate state groundwater standards.

Subchapter V. Public Notification and Hearing Process for the Adoption of a Draft General Animal Waste Permit.

A. Whenever the Secretary proposes to issue a General Permit for the regulation of animal wastes for medium or small farms he or she shall first prepare a draft permit for the purpose of receiving and considering public comment.

B. The following elements of the Draft MFO General Permit shall include, but not be limited to:

1. A Cover Page;
2. Effluent Limitations and Standards;
3. Monitoring and Reporting Requirements;
4. Record Keeping Requirements;
5. Special Conditions;
6. Standard Conditions;
7. Signatory Requirements;
8. Certification;
9. Availability of Reports;
10. Penalties for Violations of Permit Conditions; and,
11. Definitions.

C. The Draft General Permit shall contain at least the following information:

1. Conditions for required compliance with animal waste management standards and standards for waste management systems;
2. Standards for nutrient management planning;
3. Conditions for required compliance with record keeping;



4. Conditions for required compliance with inspection and monitoring; and,
5. Conditions for required compliance with implementation schedules.

D. Notification of the Preparation of the Draft General Permit

1. The Agency shall provide public notice of the preparation of a Draft MFO General Permit allowing at least 30 days for public comment.
2. The Agency shall provide notice of the preparation of a Draft MFO General Permit to the following:
 - a) State Office of the U.S. Corps of Engineers;
 - b) State Office of the U.S. Fish and Wildlife Service;
 - c) State Office of the U.S. Department of Agriculture Natural Resource Conservation Service;
 - d) Vermont Agency of Natural Resources;
 - e) Vermont Agency of Commerce and Community Affairs;
 - f) Persons on a mailing list developed by the Agency; and,
 - g) All town clerks in the State of Vermont.
3. Notice of the preparation of the Draft MFO General Permit will be placed in two (2) prominent Vermont newspapers. Included in the text of the public notice shall be the availability for viewing of the Draft MFO General Permit on the Agency homepage.
4. Additionally, the Agency may use any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.
5. Public notice of the preparation of the Draft MFO General Permit may be combined with public notification of the initial 30 day comment period and the date and location of a public hearing.
6. A fact sheet for the Draft General Permit shall be prepared by the Agency and made available to the public accompanying the draft permit. The fact sheet shall include:
 - a) A brief description of the facilities and activities subject to the Draft General Permit;



- b) A description of the waste, including manure, milkhouse waste, washwater, leachate, used bedding, carcasses, barnyard runoff, and dirty water, which is subject to regulation under these Rules;
- c) A list of the significant conditions of the Draft General Permit;
- d) A brief summary of the basis of the Draft General Permit;
- e) A description of the procedures for reaching a final decision on the Draft General Permit;
- f) The beginning and ending dates of the comment period;
- g) Procedures by which the public may participate; and,
- h) The name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the Draft General Permit and a fact sheet.

E. Public Comments and Hearing Requests

1. During the initial 30 day public comment period, any person may submit written comments on the Draft MFO General Permit.
2. All persons who believe any condition of the Draft MFO General Permit is inappropriate must raise all reasonable ascertainable issues and submit all reasonable arguments supporting their position by the close of the public comment period.
3. The Secretary may extend the public comment period at his or her discretion whenever, for instance, such comments might clarify one or more issues involved in the permit discussion or expedite the issuance process. Notice of an extended comment period shall be posted on the Agency homepage.
4. At the time of issuance of the MFO General Permit, the Agency shall issue a response to comments raised during the comment period, or hearing(s), specifying which provisions, if any, have been changed and the reasons for the changes, and a brief description and response to all significant comments.

F. Public Hearings

1. The Secretary shall hold a public hearing for the adoption of the Draft General Permit.
2. Public Hearing Procedures



- a) The purpose of the hearing shall be to provide an opportunity for the public to learn about the conditions of the General Permit and provide comments to the Agency.
- b) The Agency shall find locations for the public hearing and schedule the public hearing meeting.
- c) The Agency shall provide public notice of the hearing date and location at least 30 days prior.
- d) Notice of the preparation of the hearing date and location will be placed in two (2) prominent Vermont newspapers and will indicate the presence of the Draft General Permit on the Agency homepage. Additionally, the Agency may use any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.
- e) The published advertisement shall be at least two (2) columns wide by three (3) inches high.
- f) Public notice of the hearing may be combined with public notification of the prepared Draft MFO General Permit and initial comment period.
- g) Any person may submit oral or written statements and data concerning the Draft MFO General Permit.
- h) Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required.
- i) The Secretary may designate a Presiding Officer who shall be responsible for facilitating the hearing to ensure, to the extent possible, full participation by attendees.
- j) The public hearings shall be recorded and transcripts made available at cost to the public upon written request to the Secretary.
- k) The Agency will receive public comments for at least 30 days following the hearing.
- l) All persons who believe any condition of the Draft MFO General Permit is inappropriate should raise all reasonable ascertainable issues and submit all reasonable arguments



supporting their position by the close of the public comment period.

m) Following the 30 day comment period, the revised Draft MFO General Permit will be placed on the Agency's homepage.

n) Public hearings shall be held in handicapped accessible locations.

Subchapter VI. Issuance and Duration of the MFO General Animal Waste Permit.

A. After the close of the public comment period, the Secretary shall issue the MFO General Permit. The MFO General Permit shall be in affect immediately after the Secretary's signature and dating.

B. The MFO General Permit will remain in affect for a period of five (5) years from the date of issuance.

C. Transfer of an MFO permit

1. A MFO may transfer General Permit coverage with the sale or lease of a farm. Written notification shall be made by the original permittee to the Agency within 10 days of that transaction. Written notification shall include a statement signed by the new owner or lessee which indicates that the new owner or lessee understands and agrees to comply with the conditions of the transferred MFO permit.

2. The new owner or lessee shall notify the Secretary in writing within 30 days of that transaction, describing any proposed changes in operation or facilities, or the lack thereof. No change in animal type is allowed to occur without a full review of the operation by the Agency.

Subchapter VII. Issuance of an Individual Animal Waste Permit for Medium Farm Operations.

A. Upon determination of any of the following circumstances, the Secretary may require a Medium Farm Operation to apply for and obtain an Individual Medium Farm Operation Permit:

1. A determination by the Secretary that a MFO is not in compliance with the conditions of the General Permit;

2. A determination by the Secretary that a MFO has had a history of noncompliance and continues not to be in compliance with AAPs;

3. A determination by the Secretary that a MFO owner or operator is using unproven experimental technology;



4. A determination by the Secretary that a field is no longer acceptable for spreading or spray irrigation of wastes, thereby requiring site specific conditions;
5. A determination by the Secretary that the nutrient application rates need to be adjusted, thereby requiring site specific conditions; and,
6. A determination by the Secretary that implementation of a NMP may result in an unpermitted discharge to waters of the state.

B. Process for Secretary's Determination for Issuance of a Ruling Concerning Requirements for an Individual Permit for a Medium Farm Operation

1. Upon determination by the Secretary that an Individual Permit for a MFO is warranted, the Agency will notify the owner or operator in writing by certified mail, or in person, that an application for an Individual Permit is required.
2. The letter from the Agency to the MFO owner or operator requesting submittal of an Individual Permit application shall state the reasons for the determination by the Secretary, an outline of proposed conditions, a proposed schedule of compliance, and the process for requesting a hearing before the Secretary in the event that the owner or operator wishes to appeal the determination.
3. The owner or operator of the MFO may appeal the Secretary's ruling within 30 days of the receipt of the Secretary's ruling. An appeal is made by submitting a request for a hearing in writing to the Secretary, which must be received by the Secretary within 30 days of the receipt of the written ruling and stating therein the reasons for the appeal.
4. The Secretary shall conduct the hearing in accordance with 6 V.S.A. section 11.

C. If an owner or operator fails to submit an Individual Permit application as required by the Agency and does not request a hearing in a timely manner, then coverage under the General Permit is automatically terminated at the end of the day for specified submittal of the Individual Permit application.

D. When an Individual Permit is issued to an owner or operator otherwise subject to the General Permit, coverage under the General Permit is automatically terminated on the effective date of the Individual Permit.

E. Application Process for an Individual Permit for a Medium Farm Operation

1. An operator of a farm may petition the Secretary to request issuance of an Individual Permit.



2. All requests for issuance or coverage under an Individual Permit shall be in writing to the Secretary and shall contain any facts or reasons supporting the request including why coverage under a General Permit is inadequate to meet the purposes of the MFO Law or Rules.

3. If the Secretary rules the request is not justified, he or she shall send the petitioner a written response giving a reason for the ruling.

F. Upon issuance of an Individual Permit to a medium farm, the permittee shall comply with all the requirements of these Rules, including but not limited to:

1. Management and design standards;
2. Nutrient management plan requirements and components;
3. Plan maintenance and record keeping;
4. Annual reporting requirements; and,
5. Other site-specific conditions required by the Secretary in order to comply with these Rules and protect water quality.

G. Revisions and Modifications to MFO Individual Permits

1. Prior to making a substantial change in the operation that would lead to a violation of a condition of the Individual Permit, a permittee shall submit a letter of intent to the Secretary describing the proposed change or changes. The Secretary will determine whether the change remains within the conditions of the permit. The Secretary's written determination will be sent to the Permittee within 30 days of the receipt of the letter of intent.

2. Where Agency-initiated modifications to the MFO Individual Permit require actions by the permittee, such actions shall be completed by the Permittee within the time frame established by the Agency. Prior to any modifications to a MFO Individual Permit, the Secretary shall notify the permittee in writing of the proposed modification. The permittee shall have 30 business days to request to be heard regarding the proposed modification. This 30-day period may be extended by good cause shown by the permittee. If no such request is made, the Secretary may modify the permit accordingly.

3. No public notice is required when a request for permit modification, revocation and reissuance, or termination is denied.

H. Transfer of a MFO Individual Permit



1. A permittee may transfer ownership of a MFO Individual Permit with the sale or lease of a MFO if the livestock or fowl types and numbers will not be changed. Written notification shall be made by the original permittee to the Agency within 10 days of that transaction. Written notification shall include a statement signed by the new owner or lessee which indicates that the new owner or lessee understands and agrees to comply with the conditions of the transferred MFO Individual Permit.
2. The new owner or lessee shall notify the Secretary in writing within 30 days of that transaction, describing any proposed changes in the operation or facilities, or the lack thereof.
3. The Secretary may, within 30 days after the receipt of the notification, determine whether an Individual Permit amendment is required.

Subchapter VIII. Issuance of an Individual Animal Waste Permit for Small Farm Operations.

A. Upon a determination by the Secretary that a Small Farm Operation has had a history of non-compliance with the AAPs and is and will continue to be not in compliance with the AAPs, the Secretary may require a Small Farm Operation to apply for and obtain an Individual Small Farm Operation Permit.

B. Process for the Secretary's Determination for Issuance of a Ruling Concerning Requirements for an Individual Permit for a Small Farm Operation

1. Upon determination by the Secretary that an Individual Permit for a small farm is warranted, the Agency will notify the farm in writing by certified mail, or in person, that an application for an Individual Permit is required.
2. The letter from the Agency to the small farm requesting submittal of an Individual Permit application shall state the reasons for the determination by the Secretary, an outline of proposed conditions, a proposed schedule of compliance, and the process for requesting a hearing before the Secretary in the event that the owner or operator wishes to appeal the determination.
3. The small farm may appeal the Secretary's ruling within 30 days of the receipt of the Secretary's ruling. An appeal is made by submitting a request for a hearing in writing to the Secretary, which must be received by the Secretary within 30 days of the receipt of the written ruling and stating therein the reasons for the appeal.
4. The Secretary shall conduct the hearing in accordance with 6 V.S.A. section 11.



C. Upon issuance of an Individual Permit to a small farm, the permittee shall comply with all the requirements of these Rules applicable to MFOs, including but not limited to:

1. Management and design standards;
2. Nutrient management plan requirements and components;
3. Plan maintenance and record keeping;
4. Annual reporting requirements; and,
5. Other site-specific conditions required by the Secretary in order to comply with these Rules and protect water quality.

Subchapter IX. Revocation of General or Individual Permit Coverage.

A. The Secretary may, after due notice and an opportunity for hearing with the permittee, revoke coverage under the General Permit or an Individual Permit issued to a medium or small farm, if after investigation, the Secretary deems the permittee to be in violation of any of the terms or conditions of the MFO General and Individual Permit, provisions of the MFO Law, or provisions of these Rules.

Subchapter X. Compliance and Enforcement Determinations.

A. The Secretary may seek enforcement remedies, including reduction of herd size and administrative penalties, under sections 1, 12, 13, 15, 16, and 17 of 6 V.S.A. with regard to any person who violates the terms or conditions of the MFO General and Individual Permits, provisions of the MFO Law, or these MFO Rules.

Subchapter XI. Management and Design Standards.

A. Completion Schedule for all Technical Standards Applicable to MFOs

1. Existing MFOs shall have a field-by-field Nutrient Management Plan by March 31, 2008.
2. New MFOs shall have conservation practices to prohibit discharges from the production area and a nutrient management plan to manage wastes, prior to commencing operation.
3. MFOs shall not have a discharge of waste from the production area to waters of the state.

B. General Standards Applicable to all MFOs



1. Conservation practices shall be in place to assure that there are no discharges of wastes from the production area to waters of the state.
2. The production area will be managed in compliance with all applicable AAPs.
3. All land-applied wastes shall be applied at rates according to a NMP developed or approved by a certified nutrient management planner. The NMP shall balance nutrient loading of soils with crop yield goals for the cropland.
4. All wastes generated are stored so as not to generate runoff from a 25-year, 24-hour rainfall event.

C. Groundwater Protection Criteria

1. Farm operations shall be conducted so that wastes, as that term is defined in the AAP Rules, do not reach or exceed the primary or secondary groundwater standards as established by the Secretary of the Agency of Natural Resources in the Groundwater Protection Rule and Strategy. Where monitoring indicates that wastes, as that term is defined in the AAP Rules, have reached or exceeded an enforcement standard in groundwater, the Secretary may require corrective modifications to the NMP, the waste management system, or other corrective actions as needed.
2. 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.
3. The Secretary may conduct groundwater sampling:
 - a) At sites selected by the Secretary where well owners have volunteered or agreed to participate in the sampling program;
 - b) At sites upon the request of a well owner;
 - c) At sites selected by the Secretary based on the results of other sampling data or the existence of vulnerable site characteristics;
 - d) At sites with activities or operations permitted or regulated by the Secretary; and,
 - e) 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.



4. Groundwater Investigation

- a) 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.
- b) The Secretary shall investigate the occurrence of contamination where sampling indicates that drinking water or groundwater contains detectable concentrations of agricultural contaminants.
- c) 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.

5. Where monitoring indicates a farm operation has caused the concentration of wastes in groundwater to reach or exceed the primary or secondary groundwater quality standards as defined by the Secretary of Natural Resources in the Groundwater Protection Rule and Strategy, the farm operation shall be managed to reduce the contamination from current activities and prevent contamination from future activities.

a) Changes in activities, management practices, cropping patterns, or structures to reduce concentration of wastes in groundwater may be implemented according to an Assurance of Discontinuance (AOD) and a compliance schedule issued to the farm operation by the Secretary.

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

a) 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.

b) 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.

7. 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.

8. 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.

9. When the Secretary has made a determination that a farm operation poses a threat to human health or the environment, the Secretary may require the cost of continued groundwater monitoring be paid for by the farm operation.

10. 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 requirements for the design, construction or modification of 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.

D. Structural Design Standards

1. Structural components of the following aspects of a MFO waste management system shall meet the following conditions:

a) Any agricultural waste storage facility (except concrete slabs) constructed, upgraded, modified, or expanded after July 1, 2006 shall meet or exceed the standards of all applicable NRCS conservation practice standards or equivalent standards certified by a professional engineer licensed in the State of Vermont.

b) Any agricultural waste storage facility or components of a waste management system including, but not limited to, barnyards, manure field stacking sites, leachate control systems, or runoff control systems existing as of July 1, 2006 shall not be required to meet applicable NRCS conservation practice standards or equivalent standards certified by a professional engineer licensed in the State of Vermont provided the facility or system is not causing groundwater to exceed state groundwater standards or is causing a discharge to waters of the state.

c) Medium Farm Operations shall have an agricultural waste storage facility capable of holding waste for 180 consecutive days. An alternative to providing 180 consecutive days worth of storage is developing a manure management program



which may involve a combination of field stacking, composting, or contracts which transfer the ownership of manure to another party, for management in a manner to assure compliance with the these Rules.

d) Milkhouse waste systems and leachate runoff systems shall be accounted for in the design of the waste management system or in an approved structure. Milkhouse waste and leachate runoff must be contained in such a way as to prevent a discharge to waters of the state.

e) All storage of compost and the resulting leachate shall be conducted to prevent adverse impacts to waters of the state and groundwater. Compost and compost leachate shall be collected and spread on land without creating an adverse impact to waters of the state and groundwater.

E. Performance Standards and Conditions

1. A waste management system shall be designed, operated, and maintained to prevent groundwater to exceed state groundwater standards and discharges from the production area to waters of the state.

2. If a component of a waste management system, does not prevent discharges of agricultural wastes from the production area to waters of the state, or violates state groundwater standards, or has not been certified by NRCS or by a Vermont licensed professional engineer to meet or exceed NRCS conservation practice standards, or was incorrectly certified as an acceptable structure for the intended use, a MFO may be required to meet designed performance criteria through a schedule of compliance and/or apply for an Individual Permit.

3. The burden of proof that all structures meet design, construction, and operation performance standards lies with the permittee.

Subchapter XII. Nutrient Management Plan Requirements.

A. Production of a Nutrient Management Plan

1. All MFO's shall have a field-by-field NMP developed or approved by a certified nutrient management planner as defined by these Rules.

2. The Agency may periodically inspect NMPs developed or approved by certified persons and required records for the purpose of review for compliance with MFO nutrient management requirements. The



planner and the farmer shall keep a copy of the plan and plan records for a period no less than 5 years.

B. Requirements of the Planning Process

1. Development and implementation of a NMP shall meet or exceed the standards of Vermont AAPs and shall be in compliance with the following additional criteria to the extent applicable.

a) The nutrient management plan shall:

i) Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities;

ii) Ensure proper management of mortalities (i.e., dead animals) to ensure that they are not disposed of in a liquid manure, stormwater, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities;

iii) Ensure clean water is diverted, as appropriate, from the production area;

iv) Prevent direct contact of confined animals with waters of the state;

v) Ensure chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or stormwater storage or treatment system unless specifically designed to treat such chemicals and other contaminants;

vi) Identify appropriate site specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the state;

vii) Identify protocols for appropriate testing of manure, litter, process wastewater, and soil;

viii) Establish protocols to land apply manure, litter or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater, as appropriate; and,



ix) Identify specific records that will be maintained to document the implementation of the NMP.

2. All applicable records identified pursuant to nutrient management requirements (i-ix) above, including test results for vii and viii, shall be kept on-farm for a period of no less than 5 years.

Subchapter XIII. Annual Compliance Reporting Requirements.

A. The permittee shall submit an annual report to the Agency April 30 of each year. (see Appendix D -- Annual Compliance Report Form).

B. The annual compliance report must include, but is not limited to, the following information:

1. The number and type of animals, whether in open confinement or housed under roof;
2. An estimated amount of total manure, litter, and process wastewater generated by the MFO in the previous 12 months (tons/gallons);
3. An estimated amount of total manure, litter, and process wastewater transferred to other persons by the MFO in the previous 12 months (tons/gallons);
4. Number of acres for land application covered by the NMP;
5. Total number of acres under control of the MFO that were used for land application of manure, litter, and process wastewater in the previous 12 months;
6. Summary of all manure, litter, and process wastewater discharges from the production area that have occurred in the previous 12 months including the date, time, and approximate volume; and,
7. A statement indicating whether the current version of the MFO's nutrient management plan was developed or approved by a certified nutrient management planner.

C. The permittee shall submit a nutrient management report to the Agency April 30 of each year. (see Appendix F -- Nutrient Management Report Form).

D. The nutrient management report must include, but is not limited to, the following information:

1. Tract number, field number, acreage, previous year's crop, and previous year's crop yield for each field;



2. HEL determination, planned soil loss (as determined using RUSLE2), and previous soil loss (as determined using RUSLE2) for each field;
3. Animal waste application rates by source per field;
4. Fertilizer application rates by formulation per field;
5. A copy of all animal waste test results; and,
6. A copy of all soil test results.

Subchapter XIV. Appeals.

A. Permit Decisions to Issue and Re-Issue General Animal Waste Permits

1. The decision to issue and re-issue General Permits is subject to the preparation of draft permits, public notice, public hearing, and public comments prior to the permit decision being made. Persons aggrieved, as defined in 6 VSA Section 4861, by the permit decision to issue or re-issue a General Permit may appeal the permit decision to the environmental court within 30 days of the date of the effective date of the General Permit.
2. Appeals to the environmental court under this subsection are governed by Environmental Court Rules.
3. Notices of appeal received by the Secretary shall have noted thereon by the Secretary the date on which it was received, and the Secretary shall transmit the notice of appeal to the clerk of the environmental court.

B. Permit Decisions that a Small Farm Operation is Required to Apply for and Obtain an Individual Animal Waste Permit

1. When the Secretary determines, after notice and opportunity by the farm operator to be heard, that a Small Farm Operation is required to obtain an Individual Animal Waste Permit, the operator shall be sent a written decision which shall include, among other things, a statement of the right of the operator to appeal the Secretary's decision to the environmental court.
2. Appeals to the environmental court under this subsection are governed by Environmental Court Rules.
3. Notices of appeal received by the Secretary shall have noted thereon by the Secretary the date on which it was received, and the Secretary shall transmit the notice of appeal to the clerk of the environmental court.



C. Rulings that a Medium Farm Operation is Required to Apply for and Obtain an Individual Animal Waste Permit

1. When the Secretary determines, after notice and opportunity by the farm operator to be heard, that a Medium Farm Operation is required to obtain an Individual Animal Waste Permit, the operator shall be sent a written decision which shall include, among other things, a statement of the right of the operator to appeal the Secretary's decision to the environmental court.
2. Appeals to the environmental court under this subsection are governed by Environmental Court Rules.
3. Notices of appeal received by the Secretary shall have noted thereon by the Secretary the date on which it was received, and the Secretary shall transmit the notice of appeal to the clerk of the environmental court.

D. Rulings Denying an Application by a MFO to Obtain an Individual Animal Waste Permit

1. When the Secretary determines after hearing, that coverage of a MFO under a General Permit is adequate to meet the purposes of subchapter 5 of chapter 215 of 6 V.S.A., and that coverage of a MFO under an Individual Permit is inadequate to meet the purposes of subchapter 5 of chapter 215 of 6 V.S.A., the Secretary may deny the application of the MFO to be covered under an Individual Animal Waste Permit. The Secretary's decision shall be in writing and contain the reasons for the decision. The decision shall also contain, among other things, a statement of the right of the operator to appeal the Secretary's ruling to the environmental court.
2. Appeals to the environmental court under this subsection are governed by Environmental Court Rules.
3. Notices of appeal received by the Secretary shall have noted thereon by the Secretary the date on which it was received, and the Secretary shall transmit the notice of appeal to the clerk of the environmental court.

E. A person aggrieved by a final ruling of the Secretary on an application for coverage under a General Permit adopted pursuant to this section may appeal to the environmental court; provided, however, that the appeal shall be limited in scope to whether the medium farm complies with the terms and conditions of the General Permit.

6 VT Stats § 4810. Authority; cooperation; coordination.



(a) Agricultural land use practices. In accordance with 10 V.S.A. § 1259(i), the Secretary shall adopt by rule, pursuant to 3 V.S.A. chapter 25, and shall implement and enforce agricultural land use practices in order to satisfy the requirements of 33 U.S.C. § 1329 that the State identify and implement best management practices to control nonpoint sources of agricultural waste to waters of the State. These agricultural land use practices shall be created in two categories, pursuant to subsections (b) and (c) of this section.

(b) Required Agricultural Practices. 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 plus all forms of crop and nursery operations and on-farm or agricultural fairground, registered pursuant to 20 V.S.A. § 3902, 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. RAPs shall be designed to protect water quality and shall be practical and cost-effective to implement, as determined by the Secretary. Where the Secretary determines, after inspection of a farm, that a person engaged in farming is complying with the RAPs 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 under this subsection, the Secretary shall inform the person engaged in farming of the resources available to assist the person in implementing the conservation practice and complying with the requirements of this chapter. The RAPs for groundwater shall include a process under which the Agency shall receive, investigate, and respond to a complaint that a farm has contaminated the drinking water or groundwater of a property owner. A farmer may petition the Secretary to reduce the size of a perennial buffer or change the perennial buffer type based on site-specific conditions.

(c) Best Management Practices. Best management practices (BMPs) are site-specific on-farm conservation practices implemented in order to address the potential for agricultural pollutants to enter the waters of the State. The Secretary may require any person engaged in farming to implement a BMP. When requiring implementation of a BMP, the Secretary shall



inform a farmer of financial resources available from State or federal sources, private foundations, public charities, or other sources, including funding from the Clean Water Fund established under 10 V.S.A. § 1388, to assist the person in implementing BMPs and complying with the requirements of this chapter. BMPs shall be practical and cost effective to implement, as determined by the Secretary, and shall be designed to achieve compliance with the requirements of this chapter. The Secretary may require soil monitoring or innovative manure management as a BMP under this subsection. Soil monitoring or innovative manure management implemented as a BMP shall be eligible for State assistance under the Clean Water Fund established under 10 V.S.A. chapter 47, subchapter 7. If a perennial buffer of trees or other woody vegetation is required as a BMP, the Secretary shall pay the farmer for a first priority easement on the land on which the buffer is located.

(d) Cooperation and coordination. The Secretary of Agriculture, Food and Markets shall coordinate with the Secretary of Natural Resources in implementing and enforcing programs, plans, and practices developed for reducing and eliminating agricultural non-point source pollutants and discharges from concentrated animal feeding operations. On or before July 1, 2016, the Secretary of Agriculture, Food and Markets and the Secretary of Natural Resources shall revise the memorandum of understanding for the non-point program describing program administration, grant negotiation, grant sharing, and how they will coordinate watershed planning activities to comply with Pub. L. No. 92-500. The memorandum of understanding shall describe how the agencies will implement the antidegradation implementation policy, including how the agencies will apply the antidegradation implementation policy to new sources of agricultural non-point source pollutants. The Secretary of Agriculture, Food and Markets and the Secretary of Natural Resources shall also develop a memorandum of understanding according to the public notice and comment process of 10 V.S.A. § 1259(i) regarding the implementation of the federal Concentrated Animal Feeding Operation Program and the relationship between the requirements of the federal Program and the State agricultural water quality requirements for large, medium, and small farms under this chapter. The memorandum of understanding shall describe Program administration, permit issuance, an appellate process, and enforcement authority and implementation. The memorandum of understanding shall be consistent with the federal National Pollutant Discharge Elimination System permit regulations for discharges from concentrated animal feeding operations. The allocation of duties under this chapter between the Secretary of Agriculture, Food and Markets and the Secretary of Natural Resources shall be consistent with the Secretary's duties, established under the provisions of 10 V.S.A. § 1258(b), to comply with Pub. L. No. 92-



500. The Secretary of Natural Resources shall be the State lead person in applying for federal funds under Pub. L. No. 92-500, but shall consult with the Secretary of Agriculture, Food and Markets during the process. The agricultural non-point source program may compete with other programs for competitive watershed projects funded from federal funds. The Secretary of Agriculture, Food and Markets shall be represented in reviewing these projects for funding. Actions by the Secretary of Agriculture, Food and Markets under this chapter concerning agricultural non-point source pollution shall be consistent with the water quality standards and water pollution control requirements of 10 V.S.A. chapter 47 and the federal Clean Water Act as amended. In addition, the Secretary of Agriculture, Food and Markets shall coordinate with the Secretary of Natural Resources in implementing and enforcing programs, plans, and practices developed for the proper management of composting facilities when those facilities are located on a farm. On or before January 15, 2016, the Secretary of Agriculture, Food and Markets and the Secretary of Natural Resources shall each develop three separate measures of the performance of the agencies under the memorandum of understanding required by this subsection. Beginning on January 15, 2017, and annually thereafter, the Secretary of Agriculture, Food and Markets and the Secretary of Natural Resources shall submit separate reports to the Senate Committee on Agriculture, the House Committee on Agriculture and Forestry, the Senate Committee on Natural Resources and Energy, and the House Committee on Natural Resources, Fish, and Wildlife regarding the success of each agency in meeting the performance measures for the memorandum of understanding.

10 VT Stats § 1263. Discharge permits.

(a) Any person who intends to discharge waste into the waters of the State or who intends to discharge into an injection well or who intends to discharge into any publicly owned treatment works any waste that interferes with, passes through without treatment, or is otherwise incompatible with that works or would have a substantial adverse effect on that works or on water quality shall make application to the Secretary for a discharge permit. Application shall be made on a form prescribed by the Secretary. An applicant shall pay an application fee in accordance with 3 V.S.A. § 2822.

(b) When an application is filed under this section, the Secretary shall proceed in accordance with chapter 170 of this title. The Secretary may require any applicant to submit any additional information that the Secretary considers necessary and may refuse to grant a permit, or permission to discharge under the terms of a general permit, until the information is furnished and evaluated.



(c) If the Secretary determines that the proposed discharge will not reduce the quality of the receiving waters below the classification established for them and will not violate any applicable provisions of State or federal laws or regulations, he or she shall issue a permit containing terms and conditions as may be necessary to carry out the purposes of this chapter and of applicable federal law. Those terms and conditions may include providing for specific effluent limitations and levels of treatment technology; monitoring, recording, reporting standards; entry and inspection authority for State and federal officials; reporting of new pollutants and substantial changes in volume or character of discharges to waste treatment systems or waters of the State; pretreatment standards before discharge to waste treatment facilities or waters of the State; and toxic effluent standards or prohibitions.

(d) A discharge permit shall:

(1) Specify the manner, nature, volume, and frequency of the discharge permitted and contain terms and conditions consistent with subsection (c) of this section.

(2) Require proper operation and maintenance of any pollution abatement facility necessary in the treatment or processing of the waste by qualified personnel in accordance with standards established by the Secretary and the Director of the Office of Professional Regulation. The Secretary may require that a pollution abatement facility be operated by persons licensed under 26 V.S.A. chapter 99 and may prescribe the class of license required. The Secretary may require a laboratory quality assurance sample program to ensure qualifications of laboratory analysts.

(3) Contain an operation, management, and emergency response plan when required under section 1278 of this title and additional conditions, requirements, and restrictions as the Secretary deems necessary to preserve and protect the quality of the receiving waters, including requirements concerning recording, reporting, monitoring, and inspection of the operation and maintenance of waste treatment facilities and waste collection systems.

(4) Be valid for the period of time specified therein, not to exceed five years.

(e) A discharge permit may be renewed from time to time upon application to the Secretary. A renewal permit filing requirement for reissuance shall be determined by the Secretary and may range from a simple written request for reissuance to the submission of all information required by



the initial application. A renewal permit shall be issued following all determinations and procedures required for initial permit application.

(f) Existing indirect discharges to the waters of the State from on-site disposal of sewage shall comply with and be subject to the provisions of this chapter, and shall obtain the required permit, no later than July 1, 1991. Notwithstanding the requirements of subsections 1259(d) and (e) of this title, the Secretary shall grant a permit for an existing indirect discharge to the waters of the State for on-site disposal of sewage unless he or she finds that the discharge violates the water quality standards. Existing indirect discharges from on-site sewage disposal systems of less than 6,500 gpd capacity shall not require a permit.

(g) Notwithstanding any other provision of law, any person who owns or operates a concentrated animal feeding operation that requires a permit under the federal National Pollutant Discharge Elimination System permit regulations shall submit an application to the Secretary for a discharge permit and pay the required fees specified in 3 V.S.A. § 2822. On or before July 1, 2007, the Secretary of Natural Resources shall adopt rules implementing the federal National Pollutant Discharge Elimination System permit regulations for discharges from concentrated animal feeding operations. Until such regulations are adopted, the substantive permitting standards and criteria used by the Secretary to evaluate applications and issue or deny discharge permits for concentrated animal feeding operations shall be those specified by federal regulations. The Secretary may issue an individual or general permit for these types of discharges in accordance with the procedural requirements of subsection (b) of this section and other State law. For the purposes of this subsection, "concentrated animal feeding operation" means a farm that meets the definition contained in the federal regulations.

10 VT Stats § 1259. Prohibitions.

(a) No person shall discharge any waste, substance, or material into waters of the State, nor shall any person discharge any waste, substance, or material into an injection well or discharge into a publicly owned treatment works any waste that interferes with, passes through without treatment, or is otherwise incompatible with those works or would have a substantial adverse effect on those works or on water quality, without first obtaining a permit for that discharge from the Secretary. This subsection shall not prohibit the proper application of fertilizer to fields and crops, nor reduce or affect the authority or policy declared in Joint House Resolution 7 of the 1971 Session of the General Assembly.

(b) Any records or information obtained under this permit program that constitutes trade secrets under 1 V.S.A. § 317(c)(9) shall be kept



confidential, except that such records or information may be disclosed to authorized representatives of the State and the United States when relevant to any proceedings under this chapter.

(c) No person shall cause a direct discharge into Class A waters of any wastes that, prior to treatment, contained organisms pathogenic to human beings. Except within a waste management zone, no person shall cause a direct discharge into Class B waters of any wastes that prior to treatment contained organisms pathogenic to human beings.

(d) No person shall cause a discharge of wastes into Class A waters, except for on-site disposal of sewage from systems with a capacity of 1,000 gallons per day (gpd), or less, that are either exempt from or comply with the environmental protection rules, or existing systems, which shall require a permit according to the provisions of subsection 1263(f) of this title.

(e) Except for on-site disposal of sewage from systems of less than 6,500 gpd capacity that are either exempt from or comply with the environmental protection rules, no person shall cause any new or increased indirect discharge of wastes into Class B waters without a permit under section 1263 of this title. The Secretary shall not issue a permit for on-site disposal of sewage that discharges into Class B waters, unless the applicant demonstrates by clear and convincing evidence, and the Secretary finds, that the discharge:

- (1) will not significantly alter the aquatic biota in the receiving waters;
- (2) will not pose more than a negligible risk to public health;
- (3) will be consistent with existing and potential beneficial uses of the waters; and
- (4) will not cause a violation of water quality standards.

(f) The provisions of subsections (c), (d), and (e) of this section shall not regulate required agricultural practices, as adopted by rule by the Secretary of Agriculture, Food and Markets, or accepted silvicultural practices, as defined by the Commissioner of Forests, Parks and Recreation, including practices which are in compliance with the Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont, as adopted by the Commissioner of Forests, Parks and Recreation; nor shall these provisions regulate discharges from concentrated animal feeding operations that require a permit under section 1263 of this title; nor shall those provisions prohibit stormwater runoff or the discharge of nonpolluting wastes, as defined by the Secretary.



(g) Nothing in this chapter shall prohibit the Secretary from approving nondischarging sewage treatment systems that the Secretary finds are safe, reliable, and effective.

(h) The Secretary shall adopt rules to ensure that the installation of two or more systems discharging sewage will not result in the circumvention of the purposes of this chapter or the requirements of this section.

(i) The Secretary of Natural Resources, to the extent compatible with federal requirements, shall delegate to the Secretary of Agriculture, Food and Markets the State agricultural non-point source pollution control program planning, implementation, and regulation. A memorandum of understanding shall be adopted for this purpose, which shall address implementation grants, the distribution of federal program assistance, and the development of land use performance standards. Prior to executing the memorandum, the Secretary of State shall arrange for two formal publications of information relating to the proposed memorandum. The information shall consist of a summary of the proposal; the name, telephone number, and address of a person able to answer questions and receive comments on the proposal; and the deadline for receiving comments. Publication shall be subject to the provisions of 3 V.S.A. § 839(d), (e), and (g), relating to the publication of administrative rules. The proposed memorandum of understanding shall be available for 30 days after the final date of publication for public review and comment prior to being executed by the Secretary of Natural Resources and the Secretary of Agriculture, Food and Markets. The Secretary of Natural Resources and the Secretary of Agriculture, Food and Markets annually shall review the memorandum of understanding to ensure compliance with the requirements of the Clean Water Act and the provisions of section 1258 of this title. If the memorandum is substantially revised, it first shall be noticed in the same manner that applies to the initial memorandum. Actions by the Secretary of Agriculture, Food and Markets under this section shall be consistent with the water quality standards and water pollution control requirements of chapter 47 of this title and the federal Clean Water Act as amended.

(j) No person shall discharge waste from hydraulic fracturing, as that term is defined in 29 V.S.A. § 503, into or from a pollution abatement facility, as that term is defined in section 1278 of this title.

6 VT Stats § 4989. Certification of Custom Applicators of Manure or Nutrients.

(a) On or before July 1, 2019, the Secretary of Agriculture, Food and Markets shall adopt by rule a process by which a nutrient management technical service provider shall be certified to operate within the State. The



certification process shall require a nutrient management technical service provider to complete eight hours of training over each five-year period regarding:

- (1) calculating manure and agricultural waste generation;
 - (2) taking soil and manure samples;
 - (3) identifying and creating maps of all natural resource features;
 - (4) use of erosion calculation tools;
 - (5) reconciling plans using records;
 - (6) use of nutrient index tools; and
 - (7) requirements within the Required Agricultural Practices, Medium Farm Operation rules and general permit, and Large Farm Operation rules.
- (b) Beginning on July 1, 2019, a nutrient management technical service provider shall not create a nutrient management plan for a farm unless certified by the Secretary of Agriculture, Food and Markets.

