What are the Required Agricultural Practices (RAPs)?

The Required Agricultural Practices (RAPs) establish practices and management strategies to which all types of farms must be managed to reduce the impact of agricultural activities to water quality.

These standards are intended to improve the quality 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. The RAPs establish nutrient, manure, and waste storage standards, make recommendations for soil health and establish requirements for vegetated buffer zones and livestock exclusion from surface water. In addition, the RAPs establish standards for nutrient management planning and soil conservation.

In addition to the various standards included in the RAPs, small farms that meet the criteria to be considered a Certified Small Farm Operation (see page 3) will need to annually certify compliance with the RAPs as well as develop and implement nutrient management plans.

Resources are available in the form of both technical and financial assistance for farmers to help them comply with the RAPs. (See pages 11-12).
Farm Size Classification

**SMALL FARMING OPERATION (SFO)**
- Operate 4 or more acres for farming; OR
- Have filed a 1040(F) Tax Form once in the last 2 years; OR
- Earn an annual gross income of more than $2,000 from the sale of agricultural products.

**CERTIFIED SMALL FARM OPERATION (CSFO)**
- Operate more than 50 acres of annual cropland (corn, sweet corn, soybean, or pumpkin); OR
- Operate more than 50 acres of vegetable production.

**MEDIUM FARM OPERATION (MFO)**
- Operates a farm within the thresholds for a Permitted Medium Farm Operation (MFO) (200-699 dairy cows, 300-999 youngstock or heifers; etc.)

**LARGE FARM OPERATION (LFO)**
- Operates a farm within the thresholds for a Permitted Large Farm Operation (LFO) (700+ dairy cows, 1,000+ youngstock or heifers; etc.)

All Farms Must Comply with the RAPs.

**Other Requirements:**
- Annual Certification
- Farm Inspections
- 590 Nutrient Management Plan
- Water Quality Training
RAP Summary

This summary is meant to inform farmers about the RAPs, but the full rule should be referenced for further information regarding site specific concerns, variances, exemptions, and complete management practices required by the RAPs.

Small Farm Certification (Sec. 4.3)

Every year, Certified Small Farm Operations (CSFOs) will submit an Annual Certification Form that certifies the Farm’s compliance with the RAPs by January 31 each year.

A CSFO will be inspected at least once every seven years.

Water Quality Training (Sec. 5)

Large Farm Operation (LFO), Medium Farm Operation (MFO) and CSFO will need 4 hours of water quality training every 5 years. This may be achieved through courses with UVM Extension, or trainings provided by the Vermont Agency of Agriculture, Food and Markets (VAAFM). Check the Agriview Calendar or the the VAFFM website to find approved courses. Trainings will be available both in person and online.

Nutrient Management Planning (Sec. 6.03)

All CSFOs, MFOs, and LFOs need a field by field Nutrient Management Plan (NMP), that meets the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Nutrient Management Practice Code 590 Standard.

For all Small Farming Operations (SFOs) that don’t need to certify, all sources of nutrients should be considered when deciding nutrient application rates. All fields receiving mechanical application of manure, agricultural wastes, or fertilizer need to be soil sampled every five years.

For all farms, records of soil analysis and nutrient application need to be kept for five years and contain:

- Date of application
- Field location
- Application rate
- Source of nutrients applied
- Weather and field conditions at the time of application

VAFFM understands that not all CSFOs will have a complete NMPs, but expects farmers to be in the process of obtaining one, or be in contact with partner agencies in order to begin NMP development. Farmers should be actively working towards NMP completion by taking modified Morgan extractant soil samples and applying manure at agronomic rates.
(Sec. 6.01) **Discharges**

Farms are not allowed to have a discharge of agricultural wastes from a farm to surface waters of the state through a pipe, ditch, or conduit.

Production areas should have runoff and collection systems, diversion, or other runoff management strategies to prevent and control runoff from reaching surface water or groundwater.

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(Sec. 6.04) **Soil Health**

Practices such as cover cropping, conservation tillage, green manures, and legume rotations that promote soil health are highly recommended and may be necessary to meet soil erosion requirements.

Frequently flooded soils, (USDA Soil Survey Flooding Frequency Class) must be cover-cropped for the winter by October 1 if broadcast seeded, or October 15 if drilled or incorporated.

Prevent fieldborne gully erosion with grassed waterways, filter strips, or crop rotations.
These standards are intended to improve the quality 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. The RAPs establish nutrient, manure, and waste storage standards, make recommendations for soil health and establish requirements for vegetated buffer zones and livestock exclusion from surface water. In addition, the RAPs establish standards for nutrient management planning and soil conservation.

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Resources are available in the form of both technical and financial assistance for farmers to help them comply with the RAPs. (See pages 11-12).

**Manure and Nutrient Storage** (Sec. 6.02)

Prevent runoff or leaching of agricultural wastes into water or across property boundaries. Prevent structural or mechanical failure in waste management systems.

Pesticides and fertilizer shall be managed per appropriate regulations.

Waste storage facilities must be maintained to protect structural integrity, prevent leaks or overflows, and provide adequate volume to prevent overflows.

See diagram for manure stacking setbacks requirements. Additionally, manure cannot be stacked on exposed bedrock.

Any waste storage facility constructed (or modified) after July 1, 2006 must be designed and constructed per USDA NRCS standards or other equivalent standards certified by a licensed engineer.

**Manure and Nutrient Application** (Sec. 6.05)

*Manure and other agricultural wastes cannot be applied between December 15 and April 1.

*Manure and other agricultural wastes cannot be applied to areas of land with frequently flooded soils, (USDA Soil Survey Flooding Frequency Class) between October 16 and April 14.

Manure cannot be spread within 100 feet of a private water supply, or 200 feet of a public water supply.

**Steep Slope Management**

*Site specific exemptions and variances exist; please see full RAPs for more details.
(Sec. 6.07) **Buffers**

Buffers can be grazed or harvested, but they cannot be tilled or have compost or fertilizer applied except for establishment or maintenance.

Buffer Zones are required:
- 10’ on ditches
- 25’ on surface water
- 25’ on surface inlets

*Site specific exemptions and variances exist; please see full RAPs for more details.*

(See diagram).

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**Mortalities**

(Sec. 6.08)

Animal mortalities must be managed within 48 hours in a way that doesn’t impact water quality or create a nuisance to neighboring properties.

See the diagram for animal mortality siting requirements.

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**Livestock Exclusion**

(Sec. 7)

Adequate vegetation on banks needs to be maintained.

Livestock must be fenced out of surface waters that have unstable or eroded banks.

Livestock cannot be pastured within 50 feet of a neighbors well.

If a stream goes through the farmstead and production area, make sure livestock are fenced out except at defined stream crossings or watering areas. (See diagram).
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- Field location
- Application rate
- Source of nutrients applied
- Weather and field conditions at the time of application

VAAFM understands that as of 2017, few CSFOs will have a complete NMP, but expects farmers to be in the process of obtaining one, or be in contact with partner agencies in order to begin NMP development. Farmers should be actively working towards NMP completion by taking modified Morgan extractant soil samples and applying manure at agronomic rates.

**Farm Structures (Sec. 9)**

There are specific siting requirements for farm structures. VAAFM is the statewide zoning authority for farm structures.

Farmers still must notify the zoning administrator or town clerk of proposed farm structure construction, but are not required to obtain a zoning permit or pay a fee.

For construction of farm structures in flood hazard and river corridor areas, you need to obtain a permit from the Agency of Natural Resources (ANR). Local municipalities can provide assistance if necessary.

For construction of new farm structures that disturb more than one acre, a stormwater construction permit from ANR is required.

Manure stacking and field application need to be kept away from water supplies and exposed bedrock. If manure contamination occurs, it can result in high nitrates and bacteria in drinking water, which can be harmful to humans and livestock.

VAAFM can provide free ground water testing for agricultural contaminants to farmers, and neighbors of farming operations.

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<table>
<thead>
<tr>
<th>Important Dates</th>
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</thead>
<tbody>
<tr>
<td><strong>Custom Manure &amp; Ag Waste Applicator Certification</strong></td>
</tr>
<tr>
<td>Custom Applicators are required to renew their annual certification and pay an annual fee by January 31 of each year. Exams are required every 5 years. Applicators who are seeking certification should contact the VAAFM.</td>
</tr>
<tr>
<td><strong>CSFO Annual Certification</strong></td>
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<tr>
<td>Farming operations that meet the threshold of a Certified Small Farm will be required to self-certify their operation with the Agency of Agriculture annually by January 31.</td>
</tr>
<tr>
<td><strong>LFO Annual Reporting and Fee</strong></td>
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<tr>
<td>Farming operations within the threshold of a Large Farm must submit their annual compliance report and operating fee before February 15 of each year.</td>
</tr>
<tr>
<td><strong>MFO Annual Reporting and Fee</strong></td>
</tr>
<tr>
<td>Farming operations within the threshold of a Medium Farm must submit their annual compliance report and operating fee by April 30 of each year.</td>
</tr>
<tr>
<td><strong>Cover Cropping of Floodplains</strong></td>
</tr>
<tr>
<td>Annually, fields need to be broadcast seeded by October 1, and drilled or otherwise incorporated by October 15.</td>
</tr>
<tr>
<td><strong>Extended Winter Spreading Ban on Floodplains</strong></td>
</tr>
<tr>
<td>The extended winter manure spreading ban for frequently flooded areas of annual crop fields will take place from October 16 to April 14.</td>
</tr>
<tr>
<td><strong>Winter Manure Spreading Ban</strong></td>
</tr>
<tr>
<td>This winter manure spreading ban has been in place since 1995 and prohibits spreading of manure or other agricultural wastes during the winter season. There are exemptions for emergency and non-emergency situations, call (802) 828-2431.</td>
</tr>
</tbody>
</table>
Financial Assistance

CONSERVATION PRACTICES AND WATER QUALITY IMPROVEMENTS

NRCS Environmental Quality Incentives Program (EQIP):
Contact (802) 951-6796 // Visit https://www.nrcs.usda.gov/wps/portal/nrcs/main/vt/contact/ to find your local NRCS office.

VAAFM Best Management Practice (BMP) Program:
Contact Jeff Cook // (802) 828-3474 // Email Jeff.Cook@Vermont.gov

VAAFM Farm Agronomic Practices (FAP) Program:
Contact Clark Parmelee // (802) 661-8284 // Email Clark.Parmelee@Vermont.gov

Pasture and Surface Water Fencing (PSWF) Program:
Contact Jenn Colby // (802) 535-7606 // Email Jennifer.Colby@UVM.edu

VAAFM Conservation Reserve Enhancement Program (CREP):
Contact Ben Gabos // (802) 461-3814 // Email Ben.Gabos@Vermont.gov

VAAFM Grassed Waterway and Filter Strip (GWFS) Program
Contact Farmers’ Watershed Alliance // Email farmerswatershedallianceNW@gmail.com
Contact the Vermont Association of Conservation Districts // (802) 496-5162 // susie.walshdaloz@vacd.org

VHCB Grant Programs
Contact Katie Michaels // (802) 828-5587 // Katie@vhcb.org

CONSERVATION EQUIPMENT

VAAFM Capital Equipment Assistance Program (CEAP):
Contact Nina Gage // (802) 622-4098 // Email Nina.Gage@Vermont.gov
Adequate vegetation on banks needs to be maintained. Livestock must be fenced out of surface waters that have unstable or eroded banks. Livestock cannot be pastured within 50 feet of a neighbor's well. If a stream goes through the farmstead and production area, make sure livestock are fenced out except at defined stream crossings or watering areas. (See diagram).

Technical Assistance

YOUR LOCAL CONSERVATION DISTRICT

<table>
<thead>
<tr>
<th>Bennington County NRCD</th>
<th>Ottauquechee NRCD</th>
<th>Orleans County NRCD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(802) 442-2275</td>
<td>(802) 295-7942 x111</td>
<td>(802) 334-6090 x118</td>
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</table>

<table>
<thead>
<tr>
<th>Windham County NRCD</th>
<th>Winooski NRCD</th>
<th>Lamoille County NRCD</th>
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</thead>
<tbody>
<tr>
<td>(802) 254-5323 x104</td>
<td>(802) 828-4493 x113</td>
<td>(802) 888-9218 x113</td>
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<thead>
<tr>
<th>Poulteny-Mettowee NRCD</th>
<th>White River NRCD</th>
<th>Franklin County NRCD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(802) 287-8339</td>
<td>(802) 396-3167</td>
<td>(802) 528-4176</td>
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<table>
<thead>
<tr>
<th>Otter Creek NRCD</th>
<th>Caledonia County NRCD</th>
<th>Grand Isle County NRCD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(802) 388-6746 x126</td>
<td>(802) 748-3885 x110</td>
<td>(802) 372-8400</td>
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<table>
<thead>
<tr>
<th>Rutland NRCD</th>
<th>Essex County NRCD</th>
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<tbody>
<tr>
<td>(802) 775-8034 x117</td>
<td>(802) 424-5353</td>
</tr>
</tbody>
</table>

Vermont Association of Conservation Districts (VACD)
(802) 496-5162

YOUR LOCAL FARMER WATERSHED ALLIANCE:

Farmer’s Watershed Alliance, Franklin & Grand Isle // Darlene Reynolds (802) 752-5156
Champlain Valley Farmer Coalition // Nate Severy (802) 388-4969
Connecticut River Watershed Farmer Alliance // Paul Doton (802) 457-2230

BUSINESS PLANNING FOR WATER QUALITY IMPROVEMENTS

UVM Extension Water Quality Business Analysis
Contact Tony Kitsos at (802) 524-6501 // Email Tony.Kitsos@uvm.edu

VHCB Vermont Farm & Forest Viability Program:
Contact Katie Michaels at (802) 828-5587 // Email Katie@vhcb.org