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Nutrient Management Plans

Topic	Summary
Coverage	CAFOs (300 or more dairy cows) are required to have a Nutrient Management Plan or Comprehensive Nutrient Management Plan under the State Pollutant Discharge Elimination System (SPDES) Permits. New York's two SPDES/NPDES permits – the Environmental Conservation Law (ECL) CAFO General Permit and the Clean Water Act (CWA) CAFO General Permit. Other Plans under the CWA and ECL NPDES permits: 1 2 An Emergency Action Plan for responding to a manure, process wastewater and pesticide spillage, fuel handling and storage and catastrophic emergency situations may also be required under the permit. More information can be found here and here.
Content	 The permits require a CNMP or a NMP depending on each permit. Generally, the plan requirements include: Production areas and land application areas. NMP Best Practices (adequate storage of manure and process water, proper management of mortalities, diversion of clean water from production areas, preventing confined animals from direct contact with surface waters, proper handling and disposal of chemicals and other contaminants, buffers, manure and soil testing and protocols to land apply manure or process wastewater). Site specific plan designed according to the NRCS NY 590 practice standard (1/2013) by an AEM certified planner and additional NRCS NY conservation practices as necessary. Practices are listed here. Waste application/storage requirements (listed below). Emergency action plan. Waste application requirements (below).
Frequency of Updates	The permits require the use of an <u>AEM certified planner.</u> Information on annual CNMP updates can be found <u>here.</u>
Paperwork	The Nutrient Management Plan portion of the CWA NPDES permit needs to be filed with the Department of Environmental Conservation and will be available to the public. ³
Planner Qualifications	NMPs and CNMPs must be developed by an <u>AEM certified planner</u> .



Manure Storage and Application

Manure Storage and Appl	
Topic	Summary
Overview	Both the CWA and ECL contain many of the same elements related to storage and application, but some of the requirements vary.
	Additionally, farms receiving <u>state cost share funds</u> must retain a professional engineer to design and certify the manure storage system and all other engineering practices in accordance with USDA NRCS Conservation Practice Standards. ⁴
Storage Structure Storage Length	 Facility Siting/Setback/Structure CWA NPDES Permit⁵ and the ECL NPDES Permit⁶ include the following requirements for storage: New facilities and structures shall not be built in a surface water of the state and must be outside the 100-year floodplain and 100 feet from any New York State classified stream or protected waterbody. Retention facilities and structures must be designed, constructed and operated to prevent discharge. Wastewater and manure storage structures shall be designed, constructed, operated and maintained in accordance with NRCS NY 313 practice standard. Storage must be designed for a 25-year 24-hour rainfall event.
	Additional details on the permits that can be found <u>here</u> .
Application	 Spreading/Incorporation The permits include the following requirements for manure application and setbacks: No manure applications to fluid saturated or frozen saturated soils. No applications at a rate that creates or causes the soil to become fully saturated. Application rates must be identified in the CNMP. Winter spreading and wet weather applications - use the "Revised Winter and Wet Weather Manure Spreading Guidelines to Reduce Water Contamination Risk" Cornell 2015 guide. Additional requirements for the protection of groundwater and artificial drainage. Setbacks: no application closer than 100 feet from any wellhead, the top of the bank of any down-gradient surface water of the state, a New York State Regulatory Freshwater Wetland with surface connection to the filed, an open tile line intake structure, sinkhole or down gradient direct conduit to surface or ground water. Setback substitutes: Vegetated buffer of 35 feet to down gradient waters or 15-foot setback to down gradient waters when manure and process



wastewater is applied under the conservation practice of incorporation within 24 hours of the application and included in the NMP.

Testing

The permits include requirements for manure and soil testing: All CAFOs must analyze each individual land-applied waste source at least once a year in accordance with NRCS NY590 unless a more frequent sampling is deemed appropriate by the AEM certified planner. In addition, soil tests must be taken at least every 3 years.

Technical Assistance

Topic	Summary
Software Tools	Farm Information Technologies, LLC, offers two nutrient management software tools: Cropware Classic and Cropware Plus. Cornell University's Nutrient Management Spear program created online tools including: New York Phosphorus Runoff Index (NY-PI) calculator. Additional downloadable calculators available here. Manure Management Planner (MMP) is a software tool created by Purdue University that includes state specific information for New York producers to create manure management plans for crop and animal feeding operations.
Guides / Handbooks	 New York NRCS provides these items: A 590 national Nutrient Management Conservation Practice Standard summary. Guidance documents for nutrient management applications via National Nutrient Management Policy and National Instruction publications. The Cornell Nutrient Management Spear Program provides regular research publications on improving nutrient management plans, including the 2020 Cornell University Guidelines for Comprehensive Nutrient Management Plans (CNMPs).
Classes / Trainings	Cornell University's PRO-DAIRY Nutrient Management Program offers nutrient management educational opportunities to producers and individuals. The Cornell Nutrient Management Spear Program has an ongoing Whole Farm Nutrient Balance Assessment partnership project. Individuals who are interested in becoming an Agricultural Environmental Management (AEM) certified planner can find information on the educational requirements on the New York State Department of Labor website.



Tailored Expert Assistance

The New York State Soil and Water Conservation Committee connects farmers with <u>local AEM certified planners</u>.

Cornell University offers the following:

- The <u>Cornell Nutrient Analysis Laboratory</u> (CNAL) provides producers, researchers, agencies and other individuals with cost-effective analyses of soil, plant, and water samples.
 - o For individual soil health analyses or a comprehensive assessment of soil health (CASH), contact the <u>Cornell Soil Health Laboratory.</u>
- Fertilizer recommendations, based on Cornell University research, are available from <u>Dairy One Cooperative</u>, <u>Inc.</u>'s (Dairy One's) agronomy service, <u>AgroOne</u>.
 - o DairyOne also offers a <u>manure analysis</u> service.

Financial Assistance

Summary

USDA NRCS in New York offers several options for financial assistance to dairy producers:

- <u>Environmental Quality Incentives Program (EQIP)</u> offers financial cost-share assistance to farmers for the adoption of conservation practices and development of nutrient management plans.
 - o An additional step-by-step guide on how to get assistance is available here.
 - o View the state cost share rates and payment schedules for EQIP here.
- Great Lakes Restoration Initiative (GLRI) in New York (eligible practices include livestock waste storage and nutrient management).
- Conservation Stewardship Program (CSP), <u>provides</u> producers with financial assistance to adopt conservation management practices on their operation.

Cornell University's PRO-DAIRY's <u>Dairy Acceleration Program (DAP)</u> provides financial support to producers for comprehensive nutrient management planning, farm business planning and conservation practice design.

The New York State Soil and Water Conservation Committee's Agricultural Non-Point Source Abatement and Control Program provides competitive cost share grants for farms to prevent or reduce water pollution.

¹ <u>GP-0-19-001 Final CWA SDPES CAFO General Permit (ny.gov)</u>

NYS DEC ECL SPDES General Permit for Concentrated Animal Feeding Operations (CAFOs)

³ <u>Clean Water Act CAFO General Permit - NYS Dept. of Environmental Conservation</u>

⁴ Frequently Asked Questions Regarding Manure Storage in New York State (ny.gov)

⁵ GP-0-19-001 Final CWA SDPES CAFO General Permit (ny.gov)

⁶ NYS DEC ECL SPDES General Permit for Concentrated Animal Feeding Operations (CAFOs)