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Nutrient Management Plans

Topic	Summary
Coverage	Dairy operations that are Concentrated Animal Operations (CAOs) with 8 or more animal equivalent units where the animal density exceeds 2 animal units per acre on an annualized basis are required to have a Nutrient Management Plan. Additional description and calculations of animal units can be found here. Any farm that violates the Clean Streams Law may also be required to develop a nutrient management plan. A flowchart depicting what type of plan needed can be found here. Information on NPDES permits for CAFOs (greater than 300 animal equivalent units) can be found here.
Content	 The <u>nutrient management plan</u> must contain: Farmer identification and operator agreement to carry out the plan. Nutrient application practices. Nutrient management plan calculations. Alternative uses for excess manure. Manure management (BMPs, storage standards, storage setbacks). Stormwater management. Emergency Response Plan.
Frequency of Updates	Plans must be reviewed every 3 years by a certified nutrient management specialist.
Paperwork	Plans must be submitted to the local conservation district or State Conservation Commission (SCC) for review and approval.
Planner Qualifications	Nutrient management plans must be prepared by a certified nutrient management specialist. Farmers may obtain <u>certification</u> to write their own plans.

Manure Storage and Application

Topic	Summary
Overview	The <u>Pennsylvania Technical Guide</u> provides information on nutrient management requirements.



In addition to NMP requirements, all farms that land apply manure or agricultural process wastewater are required to have and implement a <u>Manure Management Plan</u>. An overview of a plan can be found <u>here.</u>

Storage

Setbacks

The NMP requires that manure storage facilities not be constructed in the following locations. These distances may be waived by the SCC or Conservation District.

Within 100 feet of:

- A stream, river, spring, lake, or reservoir.
- A private water well or open sinkhole.
- A wetland delineated on the National Wetlands Inventory maps, if the wetland is within the 100-year floodplain of an exceptional value stream.
- An active public drinking water well, water source surface intake, or both, unless other state or federal laws require a greater distance.
- Of a property line, unless the landowners agree and execute a waiver (200 feet for new operations).

Within 200 feet of:

- Any perennial stream, river, lake, pond, reservoir, wetland (as described above), or any water well where such facilities (except permanent stacking and composting facilities) are located on slopes exceeding 8 percent or have a capacity of 1.5 million gallons or greater.
- Of any property line where such facilities (except permanent stacking and composting facilities) are located on slopes exceeding 8 percent where the slope is toward the property line or have a capacity of 1.5 million gallons or greater, unless the landowners agree and execute a waiver (300 feet for new operations).

Structure

Manure storage structure may be required to be designed by a PA professional Engineer to meet NRCS standards and maybe require a state permit.¹

Information on Manure Storage requirements under the NPDES permit can be found <u>here</u> and <u>here</u>.

Application

Spreading

The NMP requires the following manure application setback and buffer areas:

- Year-round: including 100 feet from streams, lakes, ponds, or open sinkholes. If a minimum 35-foot permanent vegetative buffer exists along the sensitive area, then a 35-foot manure application setback is acceptable.
- Year-round: 100-foot setback from active drinking water well or spring.



- Winter: 100 feet from aboveground intakes to agriculture drainage systems; also 100 feet from prior delineated wetlands adjacent to exceptional value streams.

Winter application of manure requires additional calculations in the NMP.

Incorporation

The NMP is required to include planned spreading periods and incorporation time for manure.

Testing

Soil test used in the NMP must be current within 3 years.²

Technical Assistance

Topic	Summary
Software Tools	Manure Management Planner (MMP) is a software tool created by Purdue University that includes state-specific information for Pennsylvania producers to create manure management plans for crop and animal feeding operations. Penn State Cooperative Extension Land Analysis Lab provides PAOneStop: a set of online tools to help farmers meet regulatory requirements for Conservation and Nutrient Management Planning.
Guides / Handbooks	 Penn State Extension provides the following Nutrient Management Program resources: Planning tools for producers, including current versions of Act 38 plan standard format and state phosphorus index. Planning resources for producers, including a Pennsylvania Act 38 nutrient management program technical manual and agronomy guide. Various educational materials on nutrient management, manure storage and application, best management practices and soil fertility and management. Manure Management Manual Program. Pennsylvania NRCS provides: Information on its website that covers what a Comprehensive Nutrient Management Plan (CNMP) requires and resources for plan development, including a CNMP technical review guide. Informational documents on the state's 590 nutrient management standard. A template for completing the Conservation Practice Standard Nutrient Management (CODE PA 590) Job Sheet here.



	The Pennsylvania Association of Conservation Districts (PACD) provides a nutrient management workshop <u>outline</u> as an easy-to-read overview of information regarding nutrient management regulations, soil testing, fertilizer, manure and field application records for the state.
Classes / Trainings	The Pennsylvania Department of Agriculture (PDA) provides information on the process, cost and requirements for becoming a certified nutrient management specialist through its State Conservation Commission's Nutrient Management Certification Program. Penn State Extension's Pennsylvania Nutrient Management Program offers: - Specialist certification webpage with information on becoming a certified nutrient management specialist.
Tailored Expert Assistance	 Many county conservation districts offer some form of technical assistance/guidance for the creation of NMPs; contact your conservation district to learn more. A list of contacts for each state conservation district is available here. Penn State Extension gives the following: Pennsylvania Nutrient Management Program contacts are available here. A list of state-certified commercial nutrient management plan writers and specialists is available here. A step-by-step guide on choosing a planner is available here.

Financial Assistance

Summary

Pennsylvania NRCS helps through:

- Environmental Quality Incentives Program (<u>EQIP</u>)- offers financial cost-share assistance to farmers for the adoption of conservation practices and development of nutrient management plans.
- Conservation Stewardship Program (<u>CSP</u>), which gives producers financial assistance to implement new conservation management practices and enhancements.
 - o View state EQIP and CSP payment schedules <u>here</u>.

The Pennsylvania Association of Conservation Districts (PACD) offers funding through its <u>Agricultural Plan</u> <u>Reimbursement Program</u> to reimburse farmers in the Chesapeake Bay Watershed for developing plans to improve local water quality.

- View an Agricultural Plan Reimbursement Program FAQ sheet <u>here</u>.

¹ Overview of Manure Management Manual Guidelines — Pennsylvania Nutrient Management Program — Penn State Extension (psu.edu)

² nutrient-management-technical-manual (psu.edu)