



Michigan
Agriculture
Environmental
Assurance
Program

Field Notes

Developing a Comprehensive Nutrient Management Plan (CNMP)

The Michigan Agriculture Environmental Assurance Program (MAEAP) offers producers effective tools to use in assessing and correcting environmental risks on farms. Working with agriculture agencies and producers, MAEAP has developed a voluntary, confidential method to evaluate and correct environmental issues on farm operations. These include (but are not limited to) Comprehensive Nutrient Management Plans (CNMP), ground and surface water quality and compliance with Generally Accepted Agricultural Management Practices (GAAMPs).

Developing a CNMP is the primary focus of the Livestock System Phase now underway. A CNMP is a confidential document allowing livestock producers to follow GAAMPs and MAEAP-approved guidelines to address manure management, field crop nutrients and storm water runoff. The CNMP takes a look at the whole farm, giving the producer a comprehensive look at the entire operation and its practices and trends in resource management. With a well-documented plan in place, producers can make management decisions with more confidence.

What is a CNMP?

A CNMP is a planning tool that details the activities implemented on the specific farming operation. A CNMP describes a farm's production practices, as well as the equipment and structure(s) used. It combines conservation practices with management activities to create a system that addresses animal production operations from feed inputs to the use of animal manure and other organic by-products.

The CNMP will help the farm manager comply with the GAAMPs developed under the Michigan Right to Farm Act. Additional objectives of developing a CNMP include: protecting water quality, obtaining beneficial use from animal manure and organic by-products of the operation, and minimizing impacts to the environment and public health from feeding operations.

CNMP Components

The CNMP concepts are introduced to producers through the education phase of MAEAP. The data and records needed to complete a CNMP are presented along with the components and purpose.

A CNMP includes 13 major components. The components include: Overview; Farm Headquarters Map; Animal Outputs; Conservation Practices on Fields Used for Land Application; Land Application Management; Record of CNMP Implementation; Feed Management; Alternative Utilization Activities; Inspection, Operation and Maintenance Training; Schedule of Implementation; Emergency Action Plan; References; and Appendices

The Overview is a brief statement describing the farm operation, including enterprises, goals and long-term plans for resource management.

In developing a Farm Headquarters Map, producers develop a site map showing the location of farm buildings, animal housing, manure storage structures, sources of manure and wastewater, feed storage, farm house(s) and any other relevant physical features.

Animal Outputs is one of the more comprehensive components in developing a CNMP as it involves an in-depth review of the production, collection, storage, treatment and transfer of manure. A few areas producers are asked to review during this component includes the inventory of species, total amount and characteristics of manure, animal mortalities management, manure and waste water collection methods, as well as the method for transport of manure and wastewater.

Conservation Practices on Fields for Manure Application is another key component in developing a CNMP. In this component, producers evaluate the potential for nitrogen or phosphorus transport off-site; identify sensitive areas such as streams and water bodies; identification of conservation and management practices needed for erosion control and water management in order to control offsite transport of manure, and develop maps showing sensitive areas and conservation practices.

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The Land Application Management component allows producers to develop a nutrient budget. In addition, during this component, equipment is calibrated and the application schedule and rates are determined.

While all components of a CNMP are important, perhaps the most critical element in safeguarding against potential nuisance complaints is the completion of the Record of CNMP Implementation. This component includes key items such as keeping records by field regarding soil tests, dates of manure/wastewater application, method of application, weather conditions and previous crops grown and yields. In addition, other records are documented including the analysis results of manure/wastewater quantities and record of manure/wastewater sold or distributed to others.

The Inputs to Animals component addresses the management of animal diets that results in optimum production, best economical use of feed materials and minimizes the amount of nutrients contained in manure.

For some farms with a limited base, Alternative Utilization of manure may need exploration; compost or other value added options might need to be looked at. Additionally, this component asks producers to review the environmentally sound off-site utilization and the transportation of manure.

Inspections, Operation and Maintenance Training is instrumental in training and keeping up to date all existing employees as well as new hires regarding a farm's CNMP. This component also includes scheduling an inspection of structural and vegetative practices and equipment, as well as reviewing the operation and maintenance practices, and scheduling the review of management practices to ensure implementation of the plan.

Schedule of Implementation is merely a timeline showing when changes occurred or will occur. The schedule that is implemented is the result of the producer and plan writer working together, allowing for reasonable implementation. In addition to the suggested changes, this component includes scheduling the farm's annual review.

The purpose of devising an Emergency Action Plan is to provide producers with actions to take in the event of a spill or failure of collection of transfer components. In the Emergency Action Plan, a list of emergency telephone numbers is compiled, as well as developing the anticipated flow paths in the event of a spill.

The References and Appendices components allow the producer to collect information that is cited in the development of the plan, as well as gather environmental documentation and copies of pertinent references cited in the plan.

How Long Will It Take To Write A CNMP?

Developed by the producer, with the help of an approved plan writer if needed, a CNMP takes a look at the entire farm, allowing producers to see the "big picture" and trends in their operation.

Such a comprehensive look at the farm operation is no easy undertaking and the time commitment to complete a CNMP varies depending on the size and complexity of the operation. Producers who keep accurate and up-to-date records will have an easier time completing a CNMP than those who do not.

Assistance In Writing A CNMP

CNMPs will only be useful if farmers take ownership of them and use them as a management tool for their operation. While farmers can independently develop a CNMP for their operation, they may desire assistance for this task. Assistance is available from private businesses with individuals certified as CNMP Providers. Assistance may also be available through the Natural Resources Conservation Service, MSU Extension or the local Soil Conservation District.

An approved CNMP is a CNMP approved by an individual certified as a CNMP Provider. An approved CNMP is required in order to progress to the Verification Phase of MAEAP.

For information regarding CNMP certification or to receive a list of those organizations providing CNMP certification contact: Kevin Wickey with the USDA Natural Resources Conservation Services at (517) 341-5279 / kevin.wickey@mi.usda.gov, call the MAEAP main office at (517) 353-1758, visit www.maeap.org or contact the following MAEAP Representatives:

Bill Bickert, MAEAP co-chair
Michigan State University
Phone: (517) 353-8643
Email: bickert@egr.msu.edu

Scott Piggott, MAEAP co-chair
Michigan Farm Bureau
Phone: (517) 323-7000, ext. 2021
Email: spiggott@mail.michfb.com

Jan Wilford, MAEAP Program Manager
Michigan Department of Agriculture
Phone: (517) 241-4730
Email: WilfordJ9@state.mi.us