

Sorting out manure management plan options

— by Reddy Ganta, Jay Lazarus, and Sharon Lombardi —

COMPREHENSIVE Nutrient Management Plan (CNMP), Nutrient Management Plan (NMP), and an alphabet soup of other nutrient handling guidelines are out there, but which one are you required to submit? How are these plans similar or different? Has your old Pollution Prevention Plan (PPP) been replaced by the NMP required by the new CAFO rule?

Many of you may have asked these questions and been presented with answers that lack clarity. Understanding the differences between the plans is important because such acronyms are used interchangeably to address the requirements of different regulatory agencies. More importantly, each costs time and money to develop and implement, so making sure you are working on the right one is key.

A CNMP and a NMP are two different plans unique to animal feeding operations (AFOs), and subtle differences exist between them. A Natural Resource Conservation Service (NRCS) required CNMP as a grouping of conservation practices which helps make sure that both production and natural resource protection goals are achieved. A CNMP is required by the NRCS when it provides incentive payments and cost-share money to implement conservation practices. NRCS will not cut you a check without an approved CNMP even if you have an approved contract.

A NMP is required by the new CAFO rule requirements and is used to determine the suitability of fields to receive manure, as well as rates and timing of applications. Typically, a NMP is considered to be a part of CNMP, but this is not entirely true. Under the new CAFO rule, a NMP is required to be submitted with a Notice of Intent (NOI) as a part of the CAFO/NPDES (Na-

tional Pollutant Discharge Elimination System) permit application. Terms of the NMP may be incorporated as permit conditions.

Can a CNMP be substituted?

Though a CNMP is not a regulatory document, it could become the regulatory equivalent of a NMP if the two are combined. The following elements of the plan will help us to understand the differences between the two. In general, the NRCS CNMP includes the impacts of selected conservation practices on air quality and pathogens not specifically identified in the NMP.

● **Manure and green water handling and storage.** Do you have sufficient storage capacity for manure, green water, and storm water runoff? Can you prevent runoff from dry manure? Can you ensure proper operation and maintenance of storage facilities, treatment structures, and any areas used for transfer of manure and green water? To comply with your CNMP and NMP, the answer to the above questions should be "yes."

● **Land treatment practices.** Have you implemented appropriate conservation practices to address runoff, soil erosion, and allow for plant uptake of these nutrients on sites proposed for land application of manure and organic by-products? Both plans encourage implementation of appropriate practices.

● **Nutrient management.** The goal of this element is to ensure the appropriate utilization of manure, litter, and process green water nutrients. Have you developed nutrient budgets based on agronomic uptake, soil nutrient status, crop plans, and yield goals? Both plans expect that you have.

● **Record keeping.** Do you maintain records to document the implementation of management activities required by both plans? Records need to include, but not be limited to, the amount of manure produced, how manure is utilized, current soil, plant, water, and

manure analysis, pond designs, and storage capacities. The NMP requires that the above records be maintained for five years, while a CNMP only requires

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activities. These activities, specifically recognized in a CNMP, and not specifically recognized in a NMP, identify environmentally safe alternatives to land application of manure. Other utilization activities include manure use for energy production, methods to reduce weight, volume, or form of manure, or manure mixing with industrial or municipal by-products to produce value-added material. Transportation and marketing options for moving manure from areas of oversupply to areas with nutrient deficiencies and treatment technologies are potential options.

● **Chemical handling.** This component is unique to a NMP and addresses development and implementation of controls to prevent inappropriate introduction of chemicals into the manure, green water, and storm water storage and handling system. Since this component is not identified in a CNMP but required for a NMP, a supplement to CNMP may be needed for regulatory purposes.

● **Proper mortality management.** Do you have a plan designed to prevent discharge of pollutants to surface waters from mortalities? NMPs emphasize dead animal disposal as a distinct planning component. This component is included as needed in a CNMP.

● **Diverting of clean water.** Diversion of roof water and runoff from the production area is emphasized as a distinct component in a NMP and is included as needed in a CNMP.

● **Keeping animals out of surface waters.** This component is an important planning component in a NMP and addresses developing and implementing appropriate controls to prevent animals from having direct contact with surface waters. This component is included as needed in the CNMP.

● **Public review.** After the Waterkeeper court decision, any "substantial changes" made to a NMP require public review. These substantial changes include increases in: runoff; the rate of land applied nutrients; number of animals; significant change in nutrient balance; changes in manure handling, storage, treatment, or land application;



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The authors are senior agronomist, Glorieta Geoscience, Inc.; president and senior geohydrologist, Glorieta Geoscience, Inc.; and executive director, Dairy Producers of New Mexico, respectively.

Nutrient Management Plan
for
Example Dairy Farm
February 10, 2008

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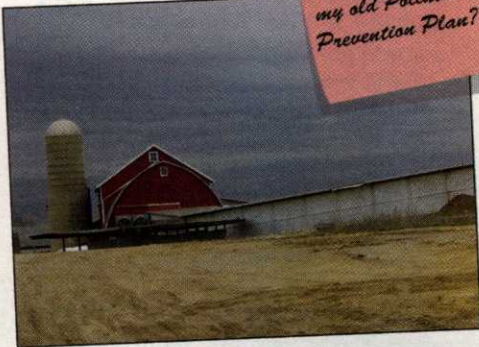
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Nutrient Management Plan
for
Example Dairy Farm

February 10, 2008



Nutrient Management Plan Prepared for:

Example Doe (Operator)
Legal Description
Example, ID 83000
(208) 332-8000

Certified Planner: Jenifer Beddoes, ISDA

*Does this replace
my old Pollution
Prevention Plan?*

value-added material. Transportation and marketing options for moving manure from areas of oversupply to areas with nutrient deficiencies and treatment technologies are potential options.

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• **Record keeping.** Do you maintain records to document the implementation of management activities required by both plans? Records need to include, but not be limited to, the amount of manure produced, how manure is utilized, current soil, plant, water, and manure analysis, pond designs, and storage capacities. The NMP requires that the above records be maintained for five years, while a CNMP only require those records be kept for three years.

• **Feed management.** Feed management is mainly identified with a CNMP and is suggested as a planning consideration for individual AFOs. Feed management attempts to reduce nutrients that get excreted in manure. Feed management activities are not specifically recognized in a NMP.

• **Other utilization ac-**

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• **Public review.** After the Waterkeeper court decision, any "substantial changes" made to a NMP require public review. These substantial changes include increases in: runoff; the rate of land applied nutrients; number of animals; significant change in nutrient balance; changes in manure handling, storage, treatment, or land application; processed green water transferred and more land application areas. Your CNMP should be updated on a regular basis, but no changes will require public review.

Bottom line . . .

The NRCS CNMP satisfies many of the requirements of the NMP, but certain components unique to NMP must be included as a supplemental document if you decide to substitute a CNMP for a NMP. It is likely that NMPs now substitute for Pollution Prevention Plans (PPPs), but you should check with your local EPA office. 

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