

Comprehensive Nutrient Management Plans

A Comprehensive Nutrient Management Plan (CNMP) is a conservation system that is unique to animal feeding operations. It includes a grouping of conservation practices and management activities which, when implemented as part of a conservation system, will help to ensure that production and natural resource protection goals are achieved. A CNMP addresses natural resource concerns dealing with manure and organic by-products and their potential impacts on water quality. Development of a CNMP addresses the following six elements and associated criteria as defined in the CNMP Technical Guidance:

Manure and Wastewater Handling and Storage – addresses components and activities associated with the production facility, feedlot, manure and wastewater storage and treatment structures and areas, and any areas used to facilitate transfer of manure and wastewater. Generally, a combination of conservation practices and management activities will be needed, such as manure storage, clean and contaminated water diversions, manure collection and transfer, runoff storage ponds, and mortality management.

Land Treatment Practices – addresses components and activities associated with the fields where manure and organic by-products are applied as beneficial nutrients. Generally, this includes identification of sensitive areas and implementation of conservation practices, such as residue management, contouring, and terraces, to retain nutrients on-site and available for plant uptake.

Nutrient Management – addresses components and activities associated with land application of all nutrients and organic by-products to meet crop needs and minimize potential adverse impacts to the environment and public health. Generally, this includes planning and applying nutrients with consideration of form (e.g., manure, wastewater, commercial fertilizer, crop residue, legumes, irrigation water), timing, rate, and application method (e.g., irrigation, box spreaders, honey wagons).

Record Keeping – describes considerations for AFO owner/operator documentation of management and implementation activities associated with their CNMP. Typically, this includes recording soil tests, manure tests, manure and wastewater field application dates and rates, manure transfers, and operations and maintenance activities.

Feed Management – addresses activities that improve feed delivery, reduce feed wastage, or increase nutrient uptake in order to reduce nutrient content of manure and production area wastes. Feed management is a planning consideration and does not address specific criteria.

Other Utilization Activities – addresses AFO alternatives to land application of manure and organic by-products, such as energy production (e.g., burning, methane generation), nutrient stabilization and extraction for commercial fertilizers or other products, composting or pelletizing, mixing or co-composting with other by-products to produce specialized use materials. Alternatives are planning considerations and do not address specific criteria.