

Tools for Developing and Writing CNMPs

Ted Hartsig
Sustainable Environmental Solutions, Inc.
Lenexa, Kansas

As part of the two-day training seminar, [CNMP Development and Business Opportunities], one of the sessions presented a demonstration of “Tools for Developing and Writing CNMPs.” The session was one of two concurrent sessions wherein half of the training participants learned about state-specific (either Iowa or Nebraska) information about CNMPs, while the other half could learn of the computer-based systems that will be available for writing plans. This session was presented twice to assure that all of the participants could learn the information.

The “Tools” session focused two components of writing CNMPs, data needs for the CNMP, and the use of one of the many but similar computer-based systems for developing the plan. The session included a Microsoft Power Point[®] presentation reviewing the data that would be required for the CNMP in general and nutrient management planning in particular. This was an important introductory component to demonstrate to the audience that development of the nutrient management plan strategy requires the collection of numerous types of data to assure that the plan can achieve the intended goals of land application of livestock manure or its need for alternative utilization. This introductory component fit well with the information provided by previous speakers regarding the logistics and process involved in developing permits for livestock producers and dairies, and CNMPs required by those permits. The information also was a prelude for information provided later in the day about use of state P Indexes that will be required for CNMPs.

The greater portion of the session focused on tools for writing CNMPs, or more specifically, the nutrient management portion of CNMPs. The nutrient management planning is considered by many to be the heart and the mainstay of the whole document. The USDA CNMP guidance lists six primary management criteria required for a CNMP, these being:

- manure and wastewater handling and storage,
- land treatment practices,
- nutrient management,
- record keeping,
- feed management, and
- other manure or organic by-products utilization activities.

Of these six primary management areas, the essential elements of the CNMP are focused on the first four items. The record keeping component of the CNMP requires data records of manure storage (volume), nutrient content of the manure, the amount of manure produced, the amount of manure used in land application or alternative uses, the fields to which manure was land applied, nutrient status of those fields pre- and post-treatment, and crop production in those fields, among other data needs. In addition, maps of the fields are required that show field locations, boundaries, and locations of environmental receptors.

The CNMP writing tool (or, more accurately, the nutrient management planning tool) demonstrated during the session was Vantage Point's CNMP program. This program was developed commercially and incorporates the functions of Geographic Information System programs with the Manure Management Program produced by Dr. Brad Joern at Purdue University. For this program, we provided a working model demonstration instead of a general description, enabling the audience the ability to witness how the program can work, its function, and how effective it will be for delineating land application fields, environmental receptors, and details of manure management and planning for land application. The Vantage Point program is similar to other programs being developed for CNMPs, providing a very strong and effective tool for efficiently building nutrient management strategies for land application of manure from Concentrated Animal Feeding Operations

The presentation garnered many questions about how the tools can be used, balancing crop nutrient needs with manure application, and if the program accounts for crop production results and changes in soil nutrient status, among other questions. Some support came from Obie Ashford, attending the conference and in the audience, who provided some answers about derivation of some data sources that could be used for the program. Overall, interest in the software appeared to be high.

The presentation ended with information that software programs such as the Vantage Point CNMP program are still in development, but should be available within the next few months.