

STATEMENT OF WORK
Comprehensive Nutrient Management Plan
Michigan

These deliverables apply to this individual plan. For other planned practice deliverables, refer to those specific Statements of Work.

PLANNING

NOTE: A comprehensive nutrient management plan (CNMP) should address all land units that the animal feeding operation (AFO) or Concentrated animal feeding operation (CAFO) owner and/or operator owns or has decision-making authority over and on which manure and organic by-products will be generated, handled, stored, or applied.

NOTE: NRCS policy requires that technical assistance provided for conservation planning follow the guidance and processes in the NRCS National Planning Procedures Handbook (NPPH). For the purposes of providing conservation planning technical assistance, Technical Service Providers are to complete the actions required in the first seven steps of the NPPH planning process. All deliverables below are based on that requirement. For detailed guidance, planners should refer to the appropriate section of the NRCS NPPH (CNMP Technical Guidance).

Deliverables:

1. Documentation that addresses all applicable elements in the current “**CNMP Review Checklist**” found at this Web site: <http://www.maeap.org/maeap/livestock/howtowrite>, follow the link titled *CNMP checklist*.
2. A completed **CNMP Farm Nutrient Balance Worksheet** that lists estimated manure production volumes and nutrients from all animal groups on the farm, and estimated crop acres with average yield goals for all acres receiving manure. This worksheet (Excel) is found at this Web site: http://efotg.nrcs.usda.gov/references/public/MI/MI_Farm_Nutrient_Balance_Sept_04.xls
3. The total volumes of all water inputs will be estimated using the current version of **Animal Waste Management Software**, or AWM, available at this Web site: <http://www.wcc.nrcs.usda.gov/awm/awm.html>

Based upon a complete description (Inventory and Evaluation) of the Production Area (headquarter site), planners will determine the total annual volume and storage capacity for each storage facility (existing and planned). The annual volume will be placed in the landowners’ MMP file, Analysis tab, Measured Manure Production. The operational storage volume (capacity of facility that is useable) will be placed in the same MMP file, Storage tab, and Pumpable or Spreadable capacity. Operational storage volume is defined as total facility volume *minus* freeboard and the emergency volume (25 year-24 Hour storm on facility surface and runoff contributing area). Planners may use landowner records for these two volumes, in MMP, if they are reasonable by comparing them to the AWM volumes. This strategy can only be used if the Production Area has existing storage and the landowner has accurate pumping or hauling records.

Using this software will help estimate all volume inputs on the Production Area that is or can be diverted or added to the manure volume. Further, this software accounts for differential

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runoff curve numbers (RCN) that correctly account for water input as a function of abstraction plus runoff equals precipitation. *The AWM MMP Input document(s) and the electronic AWM file(s) will be included with the CNMP submitted to NRCS.*

4. The current version of **Manure Management Planner** software will be used to develop the CNMP. This software is available at this Web site: <http://www.agry.purdue.edu/mmp/>

The Nutrient Management Tab in MMP will be used for the development of the crop nutrient budget for all nutrient sources, including manures, fertilizers, and organic by-products. Planners will schedule starter fertilizer applications, then manure applications, and finally add additional fertilizer nutrients (as necessary) that complete the crop nutrient budget. The MMP output report Field Nutrient Status Details and the electronic MMP file will be included in the CNMP.

5. The **Michigan CNMP Template** or the **National USDA NRCS Format Document Maker** will be used to create the primary CNMP document. Planners may use either Template. The Templates are MS Word documents written electronically as an MMP output file, thereby linking the MMP file to the Template. Planners can add farm specific text in the Template, which helps explain values in a table, or adds specific language not related to a table (for instance the Schedule of Implementation).

The current version of the National CNMP *Document Maker* is part of the MMP software (Custom Tool Section: National USDA-NRCS Format Document Maker); no additional file or extracting is necessary.

The Producer Activity Document (PAD) will be created using the National USDA NRCS Format Document Maker- Make Producer Activity Document custom tool option. Maps must be manually inserted into the PAD.

The CNMP document printed copy along with a printed copy of the PAD will be submitted to NRCS. A printed copy of the CNMP and PAD will be provided to the owner/operator.

6. *Submit to NRCS electronic versions of the CNMP Word document, the PAD Word document, MMP file, AWM file, the MOSES database (.gdb extension) file used to run RUSLE2, and the consplan.xml from Toolkit. These files are required to recreate and/or update the CNMP.*
7. Document that the **CNMP meets all applicable local, Tribal, State, and Federal Laws and Regulations**. When applicable, ensure that USEPA-NPDES or State permit requirements (i.e., minimum standards and special conditions) are addressed.

REFERENCES

- NRCS National Planning Procedures Handbook (CNMP Technical Guidance)
- NRCS Field Office Technical Guide
- NRCS National Engineering Manual
- NRCS National Agronomy Manual

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REFERENCES

- NRCS Environmental Compliance Handbook
- NRCS Cultural Resources Handbook