

# CNMP CAP 102

## Supporting Documentation Checklist

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Beginning in 2016, deliverables for the CAP-102 Comprehensive Nutrient Management Plan (CNMP) are divided into the Conservation Plan (the producer's CNMP) and the Supporting Documentation (for the NRCS case file). Following is a checklist for the Supporting Documentation *to be provided to the NRCS Field Office*.

### Format of Supporting Documentation

- Electronic format is required (use pdf or Word unless otherwise specified below).
- Provide four (4) separate files to minimize file size. Use the following naming conventions for the files:
  - ClientLastname\_Firstname\_CNMPSupport\_GeneralInformation\_date
  - ClientLastname\_Firstname\_CNMPSupport\_Farmstead\_date
  - ClientLastname\_Firstname\_CNMPSupport\_LandTreatment\_date
  - ClientLastname\_Firstname\_CNMPSupport\_NutrientManagement\_date
- Present the information in the order listed below, to streamline NRCS review.

### Part 1: General Information

- Client information (name, address, email, phone, and any information that would be helpful for future reference by NRCS).
- Client's objectives for the AFO and farm operation.
- Forms and worksheets used in developing and evaluating alternatives.
- Operation and maintenance plans for practices already existing or for which implementation requirements have been developed (unless already in NRCS case file).
- Record Keeping as appropriate.
- If requested by NRCS, provide the following as **separate files** with descriptive file names (example: ClientLastname\_Firstname\_CNMPSupport\_MMP.mmp):
  - The Geographic Information Systems (GIS) electronic shapefiles created for the operation.
  - Nutrient Management planning tool electronic file (If using MMP, this would be the ".mmp" file).
  - Revised Universal Soil Loss Equation (RUSLE2) database electronic file (.gdb extension) and, when wind erosion is a concern, the Wind Erosion Prediction System (WEPS) files.
  - Conservation plan electronic xml file from Customer Service Toolkit (.consplan.xml extension); or your own template for displaying the record of decision for conservation practices already applied or planned.
  - Photographs, audio and video files.

## Part 2: Farmstead/Production Area(s)

- Signature, stamp, and date from a Professional Engineer licensed in Illinois qualified to provide CNMP assistance.
- A narrative explaining how waste is or will be collected and/or transferred to and from each storage facility and applied, including scraping of lots, etc (e.g. – slurry pumped from Pit #1, transferred to utilization field in a slurry wagon, and surface applied with incorporation in 24 hours).
- Accurate, scaled drawing or scaled aerial photo (preferably a GIS-produced map) of the confinement areas, marked to identify production buildings, waste storage, handling and treatment locations, feedlot areas, feeding facilities, clean water diversions, and feed storage areas, as well as any other existing and proposed conservation practices, at a scale where the map information required can easily be read. Include information where items that require setbacks are near the production or storage area (e.g. wells, non-farm residences, etc.)
- For operations in which the proposed condition includes outdoor lots and/or outdoor waste storage, transfer or treatment systems, include a contour map(s) of the site adequate to delineate source and direction of clean water flow through and around the system. The contours must be at a maximum 2 ft contour interval. If the contours do not adequately show direction of flow, draw arrows indicating flow direction to supplement the contours. Show existing and proposed practices on the contour map.
- Existing and proposed manure and wastewater production volumes, including but not limited to:
  - Information about the livestock: animal type and production phase (e.g. milk cow, dry cow, calf, etc), average weight in pounds, numbers of each type/phase of animal and location(s).
  - Locations where manure is/will be stored and type of storage (e.g. feedlot, barn, pasture, lagoon, etc) for each animal type/phase.
  - Confinement period for each location (e.g. months per year, hours per day, etc).
  - Percentage of annual manure collected for each location (days of confinement in that location/365x100).
  - Volume (cubic feet) of manure produced per time unit (e.g. day/week/month/year) for each location. In the absence of documented site specific data, the manure volume should be calculated using current NRCS Agricultural Waste Management Field Handbook (AWMFH), Chapter 4 values. Where the AWMFH does not contain the necessary data, use other sources acceptable to NRCS.
  - Type of manure for existing and proposed storages (e.g. solid, slurry, liquid). For solid manure facilities, include calculations to show that the manure will be solid enough to stack as planned.
  - Volume of additional waste added to the waste stream (e.g. bedding, wash water, silage leachate) for the same time unit as above.

- For existing waste storage or treatment facilities:
  - Assessment of physical condition.
  - Identify with a label corresponding to the map and list the volumes of the following items (in cubic feet): working volume, capacity required for unpumpable volume, runoff, 25-year storm, freeboard or rainfall on the surface of the storage volume.
  - Number of days of existing waste storage for the current and proposed animal type(s), animal numbers, and other on-site conditions.
  
- For proposed waste storage or treatment facilities, provide a concept plan which includes the following:
  - Map showing location and elevation of 100 year floodplain relative to proposed structure site.
  - Type, dimensions, and total volume (cubic feet) of proposed facility.
  - Identify with a label corresponding to the map and list the volumes of the following items (in cubic feet): working volume, capacity required for unpumpable volume, runoff, 25-year storm, freeboard or rainfall on the surface of the storage volume.
  - Number of days of proposed waste storage for the proposed animal type(s), animal numbers, and other on-site conditions.
  - Suitability of foundation materials for type of facility proposed, as identified in the applicable NRCS Conservation Practice Standard.
  - Quantity estimate with types and approximate quantities of materials required to build the facility (e.g. cubic yards concrete or earthfill), to support producer decision making.
  - Description of planned practice, adequate to determine the appropriate NRCS payment schedule category.
  - Where applicable, location of proposed waste storage compared to possible Karst locations in the region.
  
- For proposed mortality management facilities, provide a concept plan which includes the following:
  - Practice identification, correlating to map.
  - Location of 100 year floodplain relative to the proposed structure site.
  - Type of practice (e.g., static bin composting facility, etc).
  - Expected normal mortality rate (%) and total (pounds) per time unit.
  - Dimensions and working capacity of proposed facility. Include enough information about the proposed operation to show that the proposed number of bins is adequate.
  - Type and quantity of bulking materials used/ to be used for composting, if applicable.
  - Quantity estimate with types, sizes and approximate quantities of components required to implement the practice installation.
  
- For each proposed production area conservation practice (not associated with waste storage, treatment or composting), provide a concept plan which includes the following:

- Practice identification, correlating to map
  - Type of practice (diversion, roof runoff structure, underground outlet, concrete reception pit, transfer line on confinement site, off site transfer line, manure agitator, etc.)
  - Quantity estimate with types, sizes and approximate quantities of components required to implement the practice, to support producer decision making.
- For CNMPs that include exporting of manure, adequate information to show that the quantity of manure that is proposed to be exported will be removed from the site as required in the plan.
- Air quality site assessment using the National Air Quality Site Assessment Tool (NAQSAT).

### **Part 3: Land Treatment**

- Maps used in CNMP development process – conservation plan, soils, land treatment maps, and any other maps needed to communicate the existing and planned practices.
- Sheet and Rill Erosion: document, for each field or conservation management unit where manure or wastewater may be utilized:
- Table listing the soil types in each field by percentage, and including any narrative needed to explain how the planning soil type was selected.
  - RUSLE2 soil loss calculations for present crop rotation, tillage management and enduring practices. Document RUSLE2 calculations using the “Profile Erosion Calculation Record,” or other report acceptable to NRCS.
  - RUSLE2 soil loss calculations for the proposed future condition (if different from the present condition) using the “Profile Erosion Calculation Record,” or other report acceptable to NRCS.
  - Quantity estimate with types, sizes and approximate quantities of components required to implement the practice installation, to support producer decision making.
  - Description of planned practice adequate to determine the appropriate NRCS payment schedule category.
- Ephemeral and Gully Erosion: document, for each field or conservation management unit where manure or wastewater may be utilized:
- A narrative outlining the feasibility of the erosion control alternatives considered (e.g., grassed waterway, terrace, water and sediment control basin, grade stabilization structure, etc)
  - Quantity estimate with types, sizes and approximate quantities of components required to implement the practice installation, to support producer decision making.
  - Description of planned practices adequate to determine the appropriate NRCS payment schedule category.
- Water Quality Considerations: if needed to preclude direct, untreated manure/wastewater runoff from fields to streams or other water bodies, document:

- Quantity estimate with types, sizes and approximate quantities of components required to implement the practice installation, to support producer decision making.
- Description of planned practice (e.g., buffer or filter strips, diversions, constructed wetlands, etc), adequate to determine the appropriate NRCS payment schedule category.

## Part 4: Nutrient Management

- A narrative description of the existing and proposed management practices associated with the fields including:
  - Field work done (i.e. cultivation, manure application, etc.) and timing of that work.
  - Equipment used for field work, and estimated total length of time to land apply the entire annual amount of manure.
  - Any significant information about alternatives that were discussed with the producer during conservation planning.
  
- Table of field names (using field identification as in CNMP), total acres, spreadable acres and setback distances for all fields where manure or fertilizer may be utilized (if this table is not already included in the client's CNMP document.)
  
- Annual manure production by source and storage facility. The summary should show if the storage is being fully cleaned out annually or if manure will be left in the storage for each year in the plan.
  
- Any additional information showing accuracy of Nitrogen and Phosphorus Risk Assessment (for example, tile maps).
  
- Table containing soil test data for each field, using field identification as in CNMP. Current soil tests should be included with any calculations needed to determine median soil test values. Soil tests must follow the requirements of Conservation Practice Standard 590 – Nutrient Management.
  
- Table of most recent manure/wastewater analysis. Include any calculations needed to determine nutrient averages. Manure analyses must follow the requirements of Conservation Practice Standard 590 – Nutrient Management.
  
- List any restrictions that would prevent nutrient/manure applications, for example, winter spreading or high potential for nitrate leaching.
  
- Summary (and calculations if needed) of phosphorus soil test buildup for each field. Include a prediction of the rate at which soil test phosphorus will increase and the number of years until the maximum threshold soil test phosphorus will be reached. Include strategies and management activities/techniques that will be implemented by the producer to lower soil test phosphorus.