

Information Required for 2017 General Permit Nutrient Management Plans

The following nutrient management plan (NMP) items must be submitted to DENR by new operations or operations with coverage under the 2003 general permit to meet the nutrient management plan requirements of the 2017 general permit. At least two hard copies must be submitted. One copy will be returned to the producer. If the engineer or crop consultant also wants a copy of the approved plan, three copies must be submitted. For operations with a previously approved NMP, a complete NMP must be submitted to replace any NMP with approval under the 2003 permit.

When permitted under the 2017 general permit, the submitted nutrient management plan is approved and replaces the operation's nutrient management plan approved under the 2003 general permit.

A. Nutrient Management Requirements - If the SD-CPA-63 NMP tool is used (<http://denr.sd.gov/des/fp/nutrientmanagementtools.aspx>), the following required information will be provided in the printout of the tool (**Make sure your tool includes any alternative crops you may use in your rotation**):

1. The maximum animal numbers and average weight throughout the production cycle for all types of animals that will be confined. For each animal type, the maximum number of days livestock will be present per year shall also be provided.
2. An estimate of the total nitrogen and phosphorus in pounds that will be available for crop production. The producer may use either estimated nutrient concentrations for the animal manure or nutrient concentrations from laboratory analysis. If laboratory analysis is conducted, the analysis shall be included with the plan. If estimated concentrations are used to determine the total nutrients available, the source of the estimated concentrations of nitrogen for the animal manure shall be provided.
3. An estimate of the daily and annual amount of manure produced in tons of wet manure.
4. The type or types of manure containment structures and manure handling practices.
5. The method(s) and timing of manure application. Percent of nitrogen retained after application shall be determined based on Table 3 in the "Print Manual Forms and Associated Tables" tab in the SD-CPA-63 or a basis provided by SDSU or NRCS.
6. The initial nutrient management plan shall include the proper mineralization rates for subsequent years of manure and process wastewater application to account for the potential buildup of nitrogen (See Table 4. in the "Print Manual Forms and Associated Tables" tab in the SD-CPA-63 or provide basis from SDSU or NRCS).
7. The legal description of all fields to be used for land application, information indicating whether the land is owned, rented, or leased by the producer, the crop to be planted on each field for each of five years, the number of acres in each

Information Required for 2017 General Permit Nutrient Management Plans

field, and whether the field is irrigated. Land identified or classified as wetlands, lakes, rivers, or streams, farmsteads, tree belts, or other buffer zones that cannot or will not be used for manure application shall not be included in the total number of acres available for land application. Wetlands may be farmed on a case-by-case basis if it would be a normal practice to apply fertilizer to them and this can be done without impacting surface or ground water.

8. Total Acres and Acres Available for Application.
9. Realistic yield goals for each field and crop in the plan. The yield goal for initial nutrient management planning shall be determined from the 3 highest yields used for purchasing multi-peril crop insurance plus 10 percent; proven yields on a field-by-field or farm-by-farm basis for a continuous 3-year average plus 10 percent; the NRCS Crop Yield Tables (Productivity Indexes and 5 year average of continuous South Dakota Agricultural Statistics Service published yield) plus ten percent, or the South Dakota Agricultural Statistics Service published continuous five-year average plus ten percent. Yield goals based on multi-peril crop insurance or field by field/farm by farm basis shall include documentation used to calculate the yield. For new crops or varieties, industry-demonstrated yield and nutrient utilization information may be submitted and used until SDSU information is available.
10. Times of the year that land application is planned.
11. Identify whether fields in the nutrient management plan can be used to land apply manure based on nitrogen need or phosphorus crop removal (see Table 2, page 34 of the 2017 general permit).
12. An estimate on the number of years it would take to raise all fields in the initial nutrient management plan to a phosphorus soil test level over 50 parts per million using the Olsen test or 75 parts per million using the Bray-1 test.
13. Comparison of the total nitrogen requirement and crop removal of phosphorus for each field to the total nitrogen and phosphorus available in the manure. If the nitrogen in the manure exceeds the field nitrogen requirements, the producer shall identify additional fields that can be used for the application of manure.

B. A clear **Aerial Photograph / Field Map** for each field (may be obtained from the local FSA office).

- Clearly outline / highlight boundary of each field (show the entire section for clarity)
- Outline and / or crosshatch all excluded areas within each field
 - Well setbacks (this includes private and public wells for domestic or livestock use and irrigation wells) (see section 1.4.3.3.v. on page 22 of the 2017 general permit)
 - Buffer zones next to a lake, river, stream, or a conveyance to surface water (i.e. any natural or manmade drainage, open tile intake structures or other conduits to surface water, etc.) (see section 1.4.4.g. on page 29 of the 2017 general permit)
 - Other areas not used for application (farmsteads, tree belts, non-farmed wetlands, steeply sloping areas, etc.)

Information Required for 2017 General Permit Nutrient Management Plans

- If local governments require setback distances or buffer zones, areas within those buffer zones shall be identified on the field maps and cannot be included in the total available number of acres
 - Label each field with a Field or ID # (i.e. Tract & Field #) - when assigning field numbers consider continuing from the list in the existing NMP to avoid assigning the same field identification to more than one field
 - Map must show the legal location (Section, Township, and Range)
 - Legal Description of each field in the following format: *W ½ of the SE ¼ of Section 25, Township 104 North, Range 52 West, Yankton County, SD*
 - A soils map for each land application field, identifying the predominate soil type for each field
- C. Phosphorous Soil Test Result** - The results of a representative 0 to 6 inch soil phosphorus test from each field included in the nutrient management plan no older than two years from when the application was submitted (Olson or Bray 1 test). To obtain a representative sample, a minimum of 15 soil sample cores shall be taken from each field or landscape position to determine the soil test phosphorus in the field. [Sampling Soils for Nutrient Management SDNRCS- FS-50](#) (June 2012) or [SDSU's Recommended Soil Sampling Methods for South Dakota FS935](#) (May 2006). The laboratory analyzing the soil samples shall participate in the [North American Proficiency Testing Program \(NAPT\) Proficiency Assessment Program \(PAP\)](#).
- D. Erosion Value** (include calculations sheets) - Identify the annual average soil loss value for the sum of wind and water erosion for each field to be included in the nutrient management plan using the most current soil loss prediction technology used by the South Dakota Natural Resources Conservation Service. References can be found in the South Dakota Natural Resources Conservation Service Field Office Technical Guide, Section 1, and Erosion Prediction at the following web site: <http://efotg.nrcs.usda.gov/> or local Natural Resources Conservation Service office. The soil loss number may be adjusted by implementing alternative crop rotation and cropping practices, or implementing conservation practices such as contour farming, cross-slope farming, buffer strips, strip cropping, or terracing (Additional information on wind erosion can be found at <http://denr.sd.gov/des/fp/documents/WindErosion.pdf>).
- E. Field Ownership** - identify if the producer is the legal land owner of each field. If the producer does not own the field, a **manure application agreement** between the legal landowner and the producer is required.
- F. Manure Application Agreements** - Copies of agreements used as part of a 2003 nutrient management plan can be resubmitted if they have not expired, are still valid, and are legible. DENR has an example agreement that can be used at <http://denr.sd.gov/des/fp/forms/MAGreement.pdf>. Submit an original copy of new agreements to DENR.
- Must include Field or ID #, legal description (see format above), and acres available for manure application

Information Required for 2017 General Permit Nutrient Management Plans

- Agreement authorizes the producer to apply manure to the field.
 - The agreement must be for at least one year and must be current during the time of application.
 - Actual landowner (not someone renting the land) must print and sign their name and date the document (field ownership information is verified through the County Director of Equalization Office)
- G.** A list indicating out of state landowners or landowners in “Indian Country” who will be sold or given manure for its fertilizer value, the county and number of acres where manure will be applied, and the estimated amount of manure or process wastewater that will be given to each landowner. The producer shall annually provide each landowner with the manure or process wastewater sample results for total nitrogen, inorganic nitrogen, and total phosphorus. The producer shall maintain records documenting the manure and litter transferred including the date of transfer, nutrient content, and the quantity transferred.
- H. Endangered Species Action Plan** - All operations with manure containment systems or land application areas within ¼ mile of streams, where according to the U.S. Fish and Wildlife Service, Topeka shiners have been observed or have potentially occupied http://www.sddot.com/business/environmental/endangered/docs/Topeka_dist.pdf shall develop and implement an Endangered Species Action Plan. The Endangered Species Action Plan shall identify BMP(s) that shall be implemented upon receiving permit coverage to minimize the likelihood of a discharge from entering waters of the state occupied by Topeka shiners. The Endangered Species Action Plan shall be included as an element of the submitted initial nutrient management plan or revisions to any initial nutrient management plan.
- I. Training and Education** - The producer or onsite representative shall attend an approved environmental training program on proper O&M of a manure management system and proper natural resource management. If the person who attended training no longer works at the operation, a producer or onsite representative shall attend training for the operation within one year. Applicators of manure and process wastewater should consider attending this training so they are aware of the permit’s requirements. Anyone wishing to provide an approved environmental training program shall submit an outline of the training program to the Secretary for approval. Upon request, the Secretary shall provide producers with a listing of approved environmental training programs. The producer shall submit training verification prior to receiving a Certificate of Compliance and coverage under this permit.
- J. Field Maps for Application to Saturated, Snow Covered, or Frozen Soil** - See Section 1.4.4.1.t.11. on page 32 of the 2017 general permit. A tool to determine National Hydrography Dataset (NHD) named lakes, rivers, or perennial streams can be found at <http://denr.sd.gov/des/fp/nutrientmanagementtools.aspx>.

Information Required for 2017 General Permit Nutrient Management Plans

- K.** Two or more separately permitted operations within two miles of each other with approved nutrient management plans or having adjacent nutrient management plan fields can submit a written agreement signed by both producers and legal landowner(s) for application fields. The agreement between producers shall indicate which operation is responsible for maintaining both initial nutrient management plans, annual nutrient management planning requirements, record keeping, and reporting requirements. Upon approval by DENR, manure from any of the permitted operations covered by the agreement can be applied on any field in either approved nutrient management plan.

New field(s) being added to the 2017 nutrient management plan cannot be used for manure application until DENR approves the field(s) to be included in your NMP.