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| **NRCS Nutrient Management (590) Plan**  Act 38-equivalent (content & format)  **Implementation Requirements**  for Comprehensive Nutrient Management Plan (CNMP) | | | | |
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| **For Crop Year(s)** | | | | |
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| Prepared For | | | | |
| Operator's Name, Mailing Address, Telephone Number(s) | | | | |
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| Operation’s Location Address (if different than above) | | | | |
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| Prepared By | | | | |
| Nutrient Management Planner Name, Address, Phone Number(s) | | | | |
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| Date of Plan Submission | | | | |
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| Nutrient Management Plan Summary Notes (Excel) |
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| **Additional Nutrient Management Plan Requirements** | | | |
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| **Manure Management and Stormwater BMP Implementation Summary** | | | |
| **Best Management**  **Practice** | **NRCS Practice**  **Code 1** | **BMP Location** | **Implementation**  **Season & Year** |
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| 1 If applicable, enter USDA-NRCS Practice Code. For other non-technical BMPs, leave blank. | | | |
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| **In-Field Manure Stacking Procedures**  Manure must be applied to the field within 120 days of stacking or the stacks must be covered. Stacks must be implemented and maintained according to sound BMPs, addressing concerns such as soil type, soil slope, shape of the pile, setbacks, and rotation of piles. | | | |
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| **Additional CAFO Requirements**  In-field stacking criteria, winter storage requirements, and other issues identified by DEP’s review of the nutrient management plan. | | | |
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| **Proposed Manure Storage Description**  Type, dimensions, volume, freeboard and location on map. | | | |
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| Description of Planned Alternative Manure Technology Practices Type of practice, volume of manure addressed, and result of practice. | | | |
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| **Exported Manure Summary**  Summarize in a short paragraph the arrangements proposed for the manure to be exported from the operation. This information is described in more detail in Appendix 8 of this plan. | | | |
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| **Operator Management Map** | | | |
| Three types of maps are required for a CNMP 590 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Operator Management Map** is to be included here in the Nutrient Management Plan Summary and must include field identification, acreage and boundaries, manure application setback areas and buffers and associated landscape features (streams and other water bodies, sinkholes and active water wells), location of existing and proposed structural BMPs (including manure storage facilities), location of existing or proposed emergency manure stacking areas and in-field manure stacking areas, and road names adjacent to and within the operation. All features on the map must be clearly identified and include a legend for setback areas and other features. The Topographic Map and Soils Map must be included in Appendix 9. | | | |

**NRCS Nutrient Management (590) Record Keeping Checklist**

#### Comprehensive Nutrient Management Plans

The following records are required to be maintained on the operation:

\_\_\_\_\_ **Manure Test Results** – annually; manure analysis results for each manure group

\_\_\_\_\_ **Soil Test Results** – current within 3 years; current soil test results for each crop management unit

\_\_\_\_\_ **Land Application of Nutrients** – annually; location (ID) & number of acres, date of application, and application rate for each crop management unit

\_\_\_\_\_ **Crop Yields** – annually; approximate yield levels for each crop management unit

\_\_\_\_\_ **Uncollected Manure Information** – annually; number of animals, number of days, and average number of hours per day on each pasture unit

\_\_\_\_\_ **Manure Export Sheets** – (if applicable) completed manure export sheets for each importing operation (copy to importer; copy retained on exporting operation; small quantity exclusion only requires name, amount of manure transferred and date)

\_\_\_\_\_ **Exported Manure Applied Under Exporter Direction** – (if applicable) annually; application location (ID and notation of observation of application setbacks), number of acres, date of application, application methods, and application rate

\_\_\_\_\_ **Exported Manure Through Broker – Broker Responsible** – (if applicable) annually; broker is responsible for application records; application location (ID and notation of observation of application setbacks), number of acres, date of application, application methods, and application rate and provide copies to the importing operations

\_\_\_\_\_ **Alternative Manure Utilization Other Than Manure Export** – (if applicable) annually; amount and use of manure

## Field Crop Record

**NRCS Nutrient Management (590) requires an annual accounting of the application rate of nutrients and the resulting crop for each crop management unit.**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Crop Information** | | **Manure & Fertilizer Application Information (lb/a, ton/a or gal/a)** | | | | | | | | |
| **Application 1** | | | **Application 2** | | | **Application 3** | | |
| **CMU/**  **Field**  **ID** | **Crop** | **Yield** | **Date** | **Manure or Fertilizer Type** | **Application Rate** | **Date** | **Manure or Fertilizer Type** | **Application Rate** | **Date** | **Manure or Fertilizer Type** | **Application Rate** |
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## Manure Group Application Record

**NRCS Nutrient Management (590) requires the following land application information be recorded annually: application location, number of acres, date of application, and application rate for each crop management unit.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Manure Group** |  | **Date** |  | | **Manure Source/Location** |  |
| **Spreader ID 1** |  | **Spreader**  **Calibrated Rates** |  | | | |
| **Temperature 1** |  | **Wind Speed**  **& Direction 1** |  | **Weather Conditions** | |  |
| **Applicator 1** |  | | **Notes** |  | | |

**1** Optional information not required by 590.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Field Information** | | | **Manure Application Information** | | | |
| **CMU/Field ID** | **Field Acres** | **Acres Covered** | **Application Rate** | **Application Method** | **Days to Incorporation**  **(if < 7 days)** | **Total Amount Applied** |
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| **Field Information** | | | **Manure Application Information** | | | |
| **CMU/Field ID** | **Field Acres** | **Acres Covered** | **Application Rate** | **Application Method** | **Days to Incorporation**  **(if < 7 days)** | **Total Amount Applied** |
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## Manure Sampling Record

**NRCS Nutrient Management (590) requires annual sampling and analysis of each manure group listed in the nutrient management plan. To fulfill keeping requirements a file of all manure analysis reports must be maintained. In addition, the following table can be used (optional) to summarize the manure analysis results for easier reference and use.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Manure**  **Group** | **Lab** | **Date**  **Sampled** | **Total**  **Nitrogen (N)** | **Ammonium**  **N (NH4-N)** | **Total**  **Phosphate**  **(P2O5)** | **Total**  **Potash**  **(K2O)** | **Percent**  **Solids** | **P Source Coefficient Value** |
| **Note lb/ton or lb/1000 gal** | | | |
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## Pasture Uncollected Manure Record

**NRCS Nutrient Management (590) requires that the number of animals, number of days and average number of hours per day be recorded for each pasture unit listed in the nutrient management plan.**

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| --- | --- | --- | --- | --- | --- | --- |
| **Pasture ID** | **Period Dates** | **Animal Type** | **Number of Animals** | **Average Weight** | **Number of Days** | **Average Number of Hours Per Day** |
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## Soil Testing Record

**NRCS Nutrient Management (590) requires that soil tests for each crop management unit or field be current within the last three years. To fulfill Act 38 record keeping requirements a file of all soil test reports must be maintained. In addition, the following table can be used (optional) to summarize the soil test results for easier reference and use.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **CMU/Field**  **ID** | **Lab** | **Date**  **Sampled** | **Soil Test Levels** | | | **Soil Test Report Levels 1**  **(If not in ppm)** | |
| **pH** | **ppm Mehlich-3 P** | **ppm K** | **Phosphorus**  **(lbs P or lbs P2O5)** | **Potassium**  **(lbs K or lbs K2O)** |
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**1** Complete only if laboratory did not report phosphorus and potassium levels in ppm. Indicate units used on the soil test report.

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| **Appendix 1** |
| **CNMP 590 Nutrient Management Plan Agreement & Responsibilities** |

NRCS program participants must develop and provide a copy of an NRCS-approved Comprehensive Nutrient Management Plan (CNMP) including a 590 nutrient management plan before NRCS provides technical or financial assistance involving manure or wastewater handling, storage and treatment and nutrient management that involves the application of manure and wastewater associated with the operation.

**Plan Implementation Requirements**

This nutrient management plan meets the NRCS 590 Nutrient Management conservation practice standard. Implementation of this plan is required to maintain compliance with your conservation plan. Implementation includes adherence to manure and fertilizer application rates, timing, setbacks and conditions and record keeping obligations.

The following records are required to be maintained:

1. Annual crop yields by field
2. Manure and fertilizer application rates, locations and date of application
3. Soil test reports (testing required every 3 years per crop management unit)
4. Manure test reports (testing required once a year for each manure group)
5. Number of animals on pasture, number of days on pasture, and hours per day on pasture
6. Manure imports, exports, and internal transfers

Develop a revised CNMP 590 when significant changes in nutrient management occur on operation. Significant changes in nutrient management include implementation of practices that affect the planned time, rate, form, and placement of nutrients, such as a new waste storage facility.

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| **Specialist Signature** | |
| I affirm that the information contained in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, based on information provided by the operator; that this plan has been developed in accordance with the criteria established for the Nutrient Management (code 590) Conservation Practice Standard; and that I have presented the final complete plan to the operator and discussed the content and implementation of this plan with the operator. | |
| **Specialist Signature** |
| **Date** |

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| **Operator Signature** | |
| I understand and agree that I will implement the practices, procedures and record keeping obligations as outlined in this plan in order to protect water quality and address the nutrient needs of the crops associated with the operation. I agree that if I use a commercial hauler or broker for the application or export of manure, that only haulers or brokers that hold a valid certification issued by the Pa Department of Agriculture, under Act 49 of 2004, will be used. I affirm that all information provided in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, and reflects the current and planned activities of the operation; and that, if this plan was completed by a nutrient management specialist, I have reviewed the final completed plan and the specialist has discussed the content and implementation of this plan with me. | |
| **Operator Signature** |
| **Operator Title** |
| **Date** |

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| **Appendix 2** | | |
| **Operation Information** | | |
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| **Operation Description**  Animal types and numbers; cropland, hayland and pastureland acreage; farmstead acreage; crop rotation (crops, sequence of crops, and number of years for each crop); manure group management (contributing animal groups, collection, storage and handling procedures); composting (including mortality) management. | | |
|  | | |
| **County(s)** | | |
|  | | |
| **Name of Receiving Stream(s)/Watershed(s)** | | |
|  | | |
| **Notation of Special Protection Waters** | | |
|  | | |
| **Operation Acres** | | |
| Total Acres: | |  |
| **Total Acres Available for Nutrient Application Under Operator’s Control** | | |
| Owned: |  | |
| Rented: |  | |
| **Names & Addresses of Owners of Rented or Leased Land and/or Facilities** | | |
|  | | |
|  | | |
| **Existing Manure Storages & Capacity**  Type of storage, dimensions, useable capacity, freeboard, top or bottom loaded, dimensions and description of contributing runoff area, description of wastewater additions, types and amounts of bedding. Briefly describe, for each manure group, manure storage management during removal (degree of agitation, method of manure removal, extent the storage is emptied, type of unremoved manure, etc.) and manure sampling procedures. | | |
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| **Manure Application Equipment Capacity & Practical Application Rates**  Description of application equipment, practical application rates based on calibration and calibration method used, the data recorded during equipment calibration is to be retained on the farm. | | |
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| **Appendix 6** | |
| **Manure Management** | |
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| **Date of Site Evaluation:** |  |
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| **Statement Documenting Areas Evaluated During Site Evaluation**  List and clearly identify each of the specific areas evaluated. | |
|  | |
| **Identification of Inadequate Manure Management Practices and Conditions**  List of each specific inadequate manure management practice or condition identified. | |
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| **BMPs to Address Manure Management Problem Areas**  List of specific BMPs (including PA Technical Guide standard name and number) and management changes that will be implemented to address each of the inadequate practices listed above | |
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| **Appendix 7** | |
| **Stormwater Control** | |
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| **Date of Site Evaluation:** |  |
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| **Statement Documenting Areas Evaluated During Site Evaluation**  List and clearly identify each of the specific areas evaluated | |
|  | |
| **Identification of Critical Runoff Problem Areas**  List of each specific critical runoff problem area identified. | |
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| **BMPs to Address Critical Runoff Problem Areas**  List of BMPs (including PA Technical Guide standard name and number) and specific management changes that will be implemented to address each of the critical runoff problem areas listed above. | |
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| **Appendix 8** |
| **Importer/Broker Agreements & NBSs** |
| Nutrient Balance Sheets are not required for importers that have an approved Nutrient Management Plan. |
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| **Appendix 9** |
| **Operation Maps** |
| Three types of maps are required for a CNMP 590 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Topographic Map and Soils Map** must be included here. The Topographic map must be drawn to scale and identify the land included in the plan with operation boundaries. The Soils Map must include the field identification and boundaries, soil types and slopes with soil legend. Adding P Index lines can be helpful on the Topographic or Soils map but are not required. The Operator Management Map must be included in the Nutrient Management Plan Summary. |
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| **Appendix 10** |
| **Supporting Information & Documentation** |

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| Includes if applicable the Rainfall Additions Worksheet, Winter Application Matrix, Residual N Calculation Worksheet and other supplemental worksheets included in the NMP Spreadsheet. Attach information and documentation necessary to support plan content not included elsewhere in the NMP Spreadsheet or appendices. Examples include, but are not limited to, documentation of animal weights if Agronomy Facts 54 is not used, bedding calculations, or calculations for irrigation rates. |