

**FACT SHEET - RATIONALE
 DISCHARGES ASSOCIATED WITH
 CONCENTRATED ANIMAL FEEDING OPERATIONS
 GENERAL PERMIT IN COLORADO
 COLORADO DISCHARGE PERMIT NUMBER COA-932000**

I. INTRODUCTION

The Colorado Department of Public Health and Environment’s Environmental Agriculture Program is issuing General Permit No. COA932000 for discharges from concentrated animal feeding operations (CAFOs) in Colorado (except for tribally-owned Indian lands). The United States Environmental Protection Agency (EPA) requires that CAFOs that discharge be regulated under the National Pollutant Discharge Elimination System (NPDES) program. This permit provides coverage under the NPDES regulations promulgated at 40 CFR Part 122 and the Effluent Guidelines Limitations and Standards promulgated at 40 CFR Part 412, along with coverage under the Colorado Water Quality Control Commission, Colorado Discharge Permit System Regulations, Regulation No. 61, and the Colorado Water Quality Control Act as amended in sections 25-8-501 to 504, C.R.S. (Note: The Colorado program is referred to as the Colorado Discharge Permit System, or CDPS, instead of NPDES).

The department’s Water Quality Control Division (Division) has CAFO regulations (5 CCR 1002-61) in place which are implemented and enforced by the Environmental Agriculture Program. These regulations require CAFOs that discharge to obtain a CDPS permit for such discharges. The general permit includes general and specific conditions that CAFOs certified under the permit must meet in order to comply with federal and state regulations to protect waters of the state of Colorado and waters of the United States. Animal feeding operations that may be covered under the general permit include those defined as a Large or Medium CAFOs that confine as many or more than the number of animals specified below:

Large Concentrated Animal Feeding Operations (Large CAFOs)

Animal Type	Stables or Confines
Cattle (other than mature dairy cows)	1,000
Veal Calves	1,000
Mature Dairy Cattle	700
Swine (weighing 55 pounds or more)	2,500
Swine (weighing less than 55 pounds)	10,000
Sheep or Lambs	10,000
Horses	500
Turkeys	55,000
Layer Chickens (dry manure facility)	82,000
Non-Layer Chickens (dry manure facility)	125,000
Chickens (liquid manure facility)	30,000

Medium Concentrated Animal Feeding Operations (Medium CAFOs)

Animal Type	Stables or Confines
Cattle (other than mature dairy cows)	300-999
Veal Calves	300-999
Mature Dairy Cattle	200-699
Swine (weighing 55 pounds or more)	750-2,499
Swine (weighing less than 55 pounds)	3,000-9,999
Sheep or Lambs	3,000-9,999
Horses	150-499
Turkeys	16,500-54,999
Layer Chickens (dry manure facility)	25,000-81,999
Non-Layer Chickens (dry manure facility)	37,500-124,999
Chickens (liquid manure facility)	9,000-29,999

The Division has determined that a general permit is an appropriate mechanism to regulate discharges from CAFOs in accordance with Section 61.9(2) of Regulation No. 61. Certification of a facility under a general permit does not in any way infringe on the Division’s right to revoke that coverage and issue an individual permit, when such specialized facility attention is required.

II. BACKGROUND

Colorado's General Permit No. COA931000 was originally issued on August 14, 2005, with an expiration date of August 13, 2010. The permit was administrative extended on August 14, 2010, in order to allow the state to revise Colorado Water Quality Control Commission Regulation No. 61, the Colorado Discharge Permit System Regulations, 5 CCR 1002-61 (Regulation No. 61) to incorporate revisions to the federal CAFO regulations made in 2008. (40 CFR Part 122 and Part 412)

The applicable requirements from that 2005 permit are continued in Colorado's General Permit No. COA932000. Revisions made to Regulation No. 61, to incorporate the applicable portions of the federal 2008 CAFO rule, became effective September 30, 2011. General Permit No. COA932000 includes the following changes and requirements:

A. Changes in General Permit No. COA932000

- 1) Federal 2008 CAFO Rule: On December 4, 2008 the United States Environmental Protection Agency (EPA) issued a final rule which revised the federal CAFO NPDES regulations. On March 15, 2011, the U. S. Court of Appeals for the Fifth Circuit vacated portions of the federal 2008 CAFO Rule because the court concluded that portions were beyond the authority of the Clean Water Act. Colorado revised Regulation 61 consistent with the changes to the federal regulations upheld by the Court and the general permit incorporates these revisions.
- 2) Application Requirements: Any CAFO that discharges must apply for a permit. The permit application requirements have changed to require that a nutrient management plan (NMP) be submitted with the application. The terms of the NMP become terms of certification under the general permit. See Part I (G).
- 3) 100-Year, 24-Hour Storm: Language referring to 100-year, 24-hour storm has been removed throughout the general permit.
- 4) Effluent Guidelines Limitations and Standards (ELGs) for New Source Swine, Poultry and Veal Calf CAFOs: New source large swine, poultry and veal calf CAFOs can no longer use a 100-year, 24-hour containment structure, in conjunction with best management practices (BMPs), to fulfill the no discharge requirement. Large swine, poultry and veal calf CAFOs that are new sources can satisfy the no discharge requirement by using BMPs based on a defensible technical evaluation. Such a CAFO must demonstrate that it has designed its open containment system to comply with the no discharge requirement through the use of the most recent version of the USDA, Natural Resources Conservation Service (NRCS) Animal Waste Management (AWM) software, or equivalent, and the most recent version of the NRCS Soil Plant Air Water (SPA-W) Hydrology Tool, or an equivalent model. See Part II (A) 4).
- 5) Nutrient Management Plan (NMP)
 - (a) The NMP must be reviewed and approved by the Division prior to issuing a permit.
 - (b) Changes to the terms of the NMP are considered changes to the terms of the permit, and require a modification of the certification under the general permit. See Part III (C).
 - (c) The terms of the NMP are enforceable terms of certification under the general permit.
 - (d) If approved by the Division, NMP terms that meet the requirements of 40 CFR 122.42(e)(5)(i) may also be used to satisfy the NMP requirements of the general permit.
- 6) Reporting: Information associated with planted crops, actual yields, NMP calculations and soil testing were added to the annual reporting requirements. See Part VII (C).

Numerous other minor changes were made for clarification or typographical correction purposes only.

III. PERMIT AREA AND COVERAGE

A. Permit Area

Colorado's general permit offers CPDS permit coverage for discharges from operations defined as concentrated animal feeding operations (CAFOs) in the State of Colorado (except for federal and tribally-owned Indian lands).

B. Permit Coverage

CAFOs that discharge are point sources subject to the NPDES/CDPS permitting program. The general permit provides coverage for any eligible Large or Medium CAFO (subject to the effluent limitation requirements in section 61.7(6) of Regulation No. 61) that discharges in the permit coverage area.

C. Permit Eligibility

Unless excluded from coverage as described below, the following facilities are eligible for coverage under the general permit:

- 1) New or existing CAFOs, whether a defined or designated CAFO.
- 2) Any operation that meets the definition of an animal feeding operation (AFO) in Section 61.2 of Regulation No. 61 and desires to be certified under the general permit.

The following AFOs and CAFOs are not eligible for coverage under the general permit:

- 1) Housed commercial swine feeding operations as defined under section 61.2 of Regulation No. 61.
- 2) CAFOs for which a total maximum daily load (TMDL) has been established with a waste load allocation for the CAFO.
- 3) A CAFO that will discharge to surface water for which there is an applicable control regulation that limits the quantity or concentration of total phosphorus or total nitrogen in the discharge.
- 4) A CAFO for which the Division has established, per the operator's request, alternative Colorado Discharge Permit System CAFO effluent limitations based upon the operation's proposed use of a site-specific alternative technology, in accordance with section 61.17(7) of Regulation No. 61.
- 5) A Duck CAFO.

D. Application for Coverage

Eligible CAFOs may apply for authorization under the terms and conditions of the general permit, by submitting the Division's Application to Be Certified Under a General Permit for Concentrated Animal Feeding Operations along with a complete Nutrient Management Plan (NMP).

Upon receipt, the Division will review the application and NMP to ensure that all permit requirements are fulfilled. The Division may request additional information from the CAFO owner or operator if additional information is necessary to complete the application and/or NMP, or to clarify, modify or supplement previously submitted material.

If the Division determines that the application is complete, the application and draft terms of the NMP to be incorporated into the permit will be made available on the Division's website at <http://www.cdphe.state.co.us/oeis/eap/index.html> for a 30-day public review and comment period. The Division will respond to comments received during this period and, if necessary, require the CAFO owner or operator to revise the application and/or NMP. At the end of this process the applicant will be granted coverage under the general permit only upon written notification from the Division.

If the Division determines that the facility cannot be covered under the general permit, the facility will be notified by the Division that it must apply for an individual permit.

E. Requiring an Individual Permit

The Division may require any facility authorized by the general permit to apply for, and obtain, an individual CAFO permit. An individual permit may also be required of those facilities listed as ineligible above. An individual permit may be required where a facility discharges to surface water for which a control regulation has been put into place that limits the quantity or concentration of pollutants in such discharges, where a facility has demonstrated historical or significant noncompliance, or where a discharge(s) is shown to be contributing to an exceedance of a water quality standard(s). The Division will notify the operator, in writing, that an application for an individual permit is required within 180 days of being notified of the requirement for an individual permit. Coverage of the facility under the general permit is automatically terminated when: (1) the operator fails to submit the required permit application within 180 days; or (2) the individual permit is issued by the Division.

F. Continuation of The General Permit

The general permit will expire five years from the effective date. If the permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedure Act, C.R.S., 24-4-101, et seq., and will remain in force and effect.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND STANDARDS

A. Effluent Limitations

Part 5 of the Colorado Water Quality Control Act, 25-8-501, C.R.S., prohibits the discharge of pollutants by any point source into waters of the state except in accordance with a permit. It also requires that dischargers comply with effluent limitations necessary to meet state water quality standards. Section 61.8(2) of Regulation No. 61 requires that each permit issued under Regulation No. 61 include conditions that meet technology-based effluent limitations and standards, as well as water quality standards and state requirements. Large CAFOs are subject to the effluent guidelines found at section 61.17(6) of Regulation No. 61. The following effluent limitations apply to facilities covered under the general permit.

1. Technology-Based Effluent Limitations – Production Areas

There shall be no discharge of manure or process wastewater into surface water from the production area except as provided below.

(a) Large Horse and Sheep CAFOs (New Source and Existing)

Whenever precipitation causes an overflow of manure or process wastewater into surface water from the production area, pollutants in the overflow may be discharged, without effluent limitations, only if the following conditions have been met:

- i) The production area is properly designed, constructed, operated and maintained to contain all manure and process wastewater and the runoff and direct precipitation from either the 25-Year, 24-Hour Storm or Chronic Storm, whichever is greater. The applicable storm event for the permittee is identified in the certification on page one of the general permit.
- ii) The CAFO collects, analyzes and reports the results of process wastewater samples in a manner and at locations as described in Part VI of the general permit.
- iii) During a Chronic Storm, discharge is not authorized if there is an interval between days of precipitation that was sufficient to allow process wastewater in the impoundment(s) and tanks to be transferred to another available impoundment or tank, or land applied in accordance with the conditions of the general permit.)

(b) Large Dairy Cow and Cattle CAFOs (New Source and Existing)

Whenever precipitation causes an overflow of manure or process wastewater into surface water from the production area, pollutants in the overflow may be discharged, without effluent limitations, only if the following conditions are met:

- i) The production area is properly designed, constructed, operated and maintained to contain all manure and process wastewater and the runoff and direct precipitation from either the 25-Year, 24-Hour Storm or Chronic Storm, whichever is greater, for the location of the facility. The applicable storm event for the permittee is identified in the certification on page one of the general permit.
- ii) The production area is operated in accordance with the best management practices required in Part IV (B), and the recordkeeping requirements in Part V of the general permit.
- iii) The owner collects, analyzes, and reports the results of process wastewater samples in a manner and at locations as described in Part VI of the general permit.
- iv) During a Chronic Storm, discharge is not authorized if there is an interval between days of precipitation that is sufficient to allow process wastewater in the impoundment(s) and tanks to be transferred to another available impoundment or tank, or land applied in accordance with the conditions of the general permit.

(c) Large Swine, Poultry, and Veal Calf CAFOs (Existing Source Only)

Whenever precipitation causes an overflow of manure or process wastewater into surface water from the production area, pollutants in the overflow may be discharged, without effluent limitations, only if the following conditions are met:

- i) The production area is properly designed, constructed, operated and maintained to contain all manure and process wastewater and the runoff and direct precipitation from either the 25-Year, 24-Hour Storm or Chronic Storm, whichever is greater, for the location of the facility. The applicable storm event for the permittee is identified in the certification on page one of the general permit.
- ii) The production area is operated in accordance with the best management practices required in Part IV (B), and the recordkeeping requirements in Part V of the general permit.
- iii) The owner collects, analyzes and reports the results of process wastewater samples in a manner and at locations as described in Part VI of the general permit.
- iv) During a Chronic Storm, discharge is not authorized if there is an interval between days of precipitation that is sufficient to allow process wastewater in the impoundment(s) and tanks to be transferred to another available impoundment or tank, or land applied in accordance with the conditions of the general permit.

(d) Large Swine, Poultry, and Veal Calf CAFOs (New Source Only)

There shall be no discharge of manure, litter or process wastewater into surface water from the production area except as provided below. The Division may establish effluent limitations based upon a site-specific evaluation of the CAFO's open surface manure storage structure(s).

- i) The storage structure(s) must be designed, operated, and maintained in accordance with best management practices established by the Division on a site-specific basis after a technical evaluation meeting the requirements of section 61.17(6)(iv)(A)(I)(1-9) of Regulation No. 61.
- ii) The production area is operated in accordance with the best management practices required in Part IV (B), and the recordkeeping requirements in Part V of the general permit.
- iii) The owner collects, analyzes and reports the results of process wastewater samples in a manner and at locations as described in Part VI of the general permit.

2. Additional Requirements (Best Management Practices) – Production Area

- (a) Properly operate and maintain all facilities and systems of treatment and control which are installed or used to achieve compliance with the conditions of the general permit.
- (b) Develop and implement specific practices and associated structures to ensure adequate storage capacity for process wastewater to achieve permit limitations.
- (c) Impoundments must have a spillway designed and maintained to prevent erosion of the structural integrity of the impoundment, except impoundments that hold a depth of process wastewater that is five feet or less, retains process wastewater for 48 hours or less, and from which any overflow will be captured by a down-gradient impoundment or tank.
- (d) Prevent direct contact of confined animals with surface waters.
- (e) Perform weekly inspections of all stormwater run-on diversion devices, runoff diversion structures, animal waste storage structures and devices channeling process wastewater to impoundments or tanks.
- (f) Perform daily inspections of water lines, including drinking water or cooling water lines.
- (g) Install depth markers in all open surface impoundments and terminal storage tanks to indicate the design volume and to clearly indicate the minimum capacity necessary to contain a 25-Year, 24-Hour Storm or Chronic Storm, whichever is greater, and to clearly indicate the two-foot freeboard elevation. At a minimum, depth markers must be clearly marked in one foot increments. An alternative to the two-foot freeboard elevation requirement may be used, if approved by the Division.
- (h) Perform weekly inspections of impoundments and tanks and record the process wastewater level in open surface impoundments and terminal storage tanks as indicated by the required depth marker(s).

- (i) Correct any deficiencies found as a result of daily and weekly inspections as soon as possible, but no later than 30 days after identifying the deficiency, unless factors preventing correction within 30 days have been documented.
- (j) Remove accumulations of manure from impoundments and tanks as necessary to maintain the capacity of the structures to retain the storage volume from the storm event specified in the certification on page one of the general permit.
- (k) Ensure proper management of animal mortalities (i.e., dead animals) to prevent discharge of pollutants to surface waters. Mortalities must remain on the production area until disposal and must be managed to ensure that they are not disposed of in a liquid manure, storm water or process wastewater storage system that is not specifically designed to treat animal mortalities.
- (l) Maintain on-site records documenting the implementation of Best Management Practices in accordance with Part IV of the general permit. All records must be maintained on-site for five years from the date they are created and must be made available within a reasonable time to the Division or its designee upon request.

3. Water Quality-Based Effluent Limitations – Production Area

An individual permit may be required if a facility discharges to surface water for which a control regulation has been put into place that limits the quantity or concentration of pollutants in such discharges, or where such discharges are shown to be contributing to an exceedance of a water quality standard(s). CAFOs for which a total maximum daily load (TMDL) has been established with a waste load allocation for the CAFO are not eligible for coverage under the general permit. CAFOs that discharge to surface water for which there is an applicable control regulation that limits the quantity or concentration of total phosphorus or total nitrogen in the discharge are not eligible for coverage under the general permit.

4. Technology-Based Effluent Limitations – Land Application Sites

Each facility covered by the general permit must implement a site-specific nutrient management plan (NMP) upon the date of permit coverage. The NMP must include best management practices and procedures necessary to implement the effluent limitations and standards, and all applicable conditions of the general permit.

The NMP must meet all the requirements of section 61.17(8)(b) of Regulation No. 61. Implementation of technology-based effluent limitations will be accomplished by satisfying all of the following regulatory requirements as part of, or in addition to, the NMP:

- (a) Develop and implement a NMP that is based on a field-specific assessment of the potential for nitrogen and phosphorus transport from the field.
- (b) Address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters.
- (c) Determine application rates for manure, litter, and process wastewater that minimize phosphorus and nitrogen transport from the field to surface waters using the USDA, NRCS Colorado Phosphorus Index Risk Assessment tool or other Division-approved method.
- (d) Establish protocols to land apply manure, litter, and process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater.
- (e) Analyze manure a minimum of once annually for nitrogen and phosphorus content. Analyze soil a minimum of once annually for nitrogen content, and a minimum of once every five years for phosphorus content.
- (f) Periodically inspect equipment used for land application of manure, litter, or process wastewater for leaks.
- (g) Manure, litter, or process wastewater cannot be applied closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters. The CAFO may substitute the 100-foot setback with a 35-foot wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited. The CAFO may also demonstrate that a set-back or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the 100-foot setback.
- (h) Complete on-site records including the site specific NMP must be maintained to document implementation of all required land application practices.

5. Additional Requirements (Best Management Practices) – Land Application Sites

- (a) Process wastewater shall not be applied to either frozen or flooded land application sites.
- (b) Solid manure shall be incorporated as soon as possible after application, unless the application site has perennial vegetation or is no-till cropped, or except where the nutrient management plan adequately demonstrates that surface water quality will be protected where manure is not so incorporated.

6. Water Quality-Based Effluent Limitations – Land Application Sites

Discharges from CAFO land application areas, except where it is an agricultural stormwater discharge, are prohibited except in accordance with a permit, including water quality-based effluent limitations. It is expected that a CAFO that meets technology-based permit limits requiring manure to be applied at appropriate agronomic rates will not discharge from land application areas except where it is an agricultural stormwater discharge.

B. Other Legal Requirements

No condition of the general permit releases the permittee from any responsibility or requirements under other statutes or regulations, Federal, State/Tribal, or local.

V. SPECIAL CONDITIONS

A. Nutrient Management Plan (NMP)

1. Schedule

CAFOs seeking coverage under the general permit must submit a complete NMP along with the Division's Application to Be Certified Under a General Permit for Concentrated Animal Feeding Operations.

2. NMP Review and Terms

When seeking authorization to discharge under the general permit in accordance with 61.17(5)(c), a CAFO must develop and submit along with the permit application a site specific NMP. The NMP must specifically identify and describe the practices that will be implemented to assure compliance with the effluent limitations and special conditions in the CAFO general permit. The NMP accomplishes this primarily by restricting the quantity of nutrients that can be land applied and matching that quantity with the nutrient needs of the crops being grown on the fields used for such land application.

The Division will review these submittals upon receipt. When additional information is necessary to complete the notice of intent or clarify, modify, or supplement previously submitted material, the Division may request such information from the CAFO. If the Division makes a preliminary determination that the notice of intent meets the requirements of 61.17(5)(c) and 61.17(8)(b), the Division will notify the public of the Division's proposal to grant coverage under the general permit to the CAFO and make available for public review and comment the notice of intent submitted by the CAFO, including the CAFO's nutrient management plan, and the draft terms of the nutrient management plan to be incorporated into the general permit.

For permits, the process for submitting public comments and hearing requests, and the hearing process if a request for a hearing is granted, will follow the procedures applicable to draft permits set forth in section 61.5 of Regulation No. 61. For nutrient management plans, the Division may establish an appropriate period of time and process for the public to comment and request a hearing that differs from those specified in section 61.5. The Division will respond to significant comments received during the comment period and, if necessary, require the CAFO to revise the nutrient management plan in order to be granted permit coverage.

When the Division authorizes coverage for the CAFO under the general permit, the terms of the nutrient management plan as specified in 61.17(8)(b)(i) through (xii) become incorporated as terms and conditions of the general permit for the CAFO. The Division will notify the CAFO owner or operator and inform the public that coverage has been authorized and of the terms of the nutrient management plan incorporated as terms and conditions of the permit applicable to the CAFO.

3. NMP Content

The general permit specifies that each NMP must, at a minimum, include practices and procedures necessary to implement the applicable effluent limitations and standards, described below. In addition, each NMP must meet measures required under 61.17(8)(b) of Regulation No. 61.

- (a) Ensure adequate storage of manure and process wastewater, including procedures to ensure proper operation and maintenance of the impoundments and tanks.
- (b) Ensure proper management of animal mortalities to prevent discharge of pollutants to surface waters.
- (c) Ensure that clean water is diverted, as appropriate, from the production area.
- (d) Prevent direct contact of confined animals with surface waters.
- (e) Ensure that chemicals and other contaminants handled on-site are not disposed of in any manure, storm water, or process wastewater storage system unless specifically designed to treat such chemicals and other contaminants.
- (f) Identify site-specific conservation practices that will be implemented, including as appropriate, buffers or equivalent practices, to control runoff of pollutants to surface water.
- (g) Identify the protocols for appropriate sampling and testing of manure, process wastewater and soil.
- (h) Establish protocols to land apply manure or process wastewater in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure or process wastewater.
- (i) Identify specific records that will be maintained to document the implementation and management of the minimum NMP elements.
- (j) Application rates may be expressed in NMPs consistent with the approaches described below.
- (k) Narrative Rate Approach

The narrative rate approach expresses the field-specific rate of application as a narrative rate prescribing how to calculate the amount of manure, litter and process wastewater allowed to be applied. This approach results in the amount of manure, litter and process wastewater to be land applied according to the following specifications:

- i) The terms include maximum amounts of nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the NMP, in chemical forms determined to be acceptable to the Division, in pounds per acre, for each field, and certain factors necessary to determine such amounts. At a minimum, the factors that are terms must include: 1) the outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field; 2) the crops to be planted in each field or any other uses such as pasture or fallow fields (including alternative crops identified in accordance with the general permit); 3) the realistic yield goal for each crop or use identified for each field; and 4) and the nitrogen and phosphorus recommendations from Division-approved sources for each crop or use identified for each field. In addition, the terms include the methodology by which the NMP accounts for the following factors when calculating the amounts of manure, litter, and process wastewater to be land applied: 1) results of soil tests conducted in accordance with protocols identified in the NMP; 2) credits for all nitrogen in the field that will be plant available; 3) the amount of nitrogen and phosphorus in the manure, litter and process wastewater to be applied; 4) consideration of multi-year phosphorus application; 5) accounting for all other additions of plant available nitrogen and phosphorus to the field; 6) the form and source of manure, litter and process wastewater; 7) the timing and method of land application; and 8) volatilization of nitrogen and mineralization of organic nitrogen.
- ii) The terms of the NMP include alternative crops identified in the CAFO's NMP that are not in the planned rotation. If a CAFO includes alternative crops in its NMP, the crops must be listed by field, in addition to the crops identified in the planned crop rotation for that field and the NMP must include realistic crop yield goals and the nitrogen and phosphorus recommendations from sources specified by the Division for each crop. Maximum amounts of nitrogen and phosphorus from all sources of nutrients and the amounts of manure, litter and process wastewater to be applied must be determined in accordance with the methodology described in the NMP.

- iii) For CAFOs using the narrative rate approach the following projections must be included in the NMP, but are not terms of the NMP: 1) the CAFO's planned crop rotations for each field for the period of permit coverage; 2) the projected amount of manure, litter, or process wastewater to be applied; 3) projected credits for all nitrogen in the field that will be plant available; 4) consideration of multi-year phosphorus application; 5) accounting for all other additions of plant available nitrogen and phosphorus to the field; and 6) the predicted form, source and method of application of manure, litter and process wastewater for each crop. Timing of application for each field, insofar as it concerns the calculation of rates of application, is not a term of the NMP.
- iv) CAFOs using the narrative rate approach must calculate maximum amounts of manure, litter and process wastewater to be land applied at least once each year using the methodology described in the NMP before land applying manure, litter and process wastewater. Calculations must rely on a field-specific determination of soil levels of nitrogen and phosphorus, including, for nitrogen, a concurrent determination of nitrogen that will be plant available consistent with the methodology described in the NMP, and for phosphorus, the result of the most recent soil test conducted in accordance with soil testing requirements approved by the Division. The calculations must also rely on the results of most recent representative manure, litter and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application, in order to determine the amount of nitrogen and phosphorus in the manure, litter and process wastewater to be applied.

The Division has developed an NMP template that includes acceptable processes for developing a narrative rate approach in Colorado.

(l) Linear Approach

If approved by the Division, nutrient management plan terms that meet the requirements of 40 CFR 122.42(e)(5)(i) may also be used to satisfy the NMP requirements of the general permit.

4. Signature

The nutrient management plan must be signed by the operator or authorized signatory for the CAFO in accordance with Part I (K) of the general permit.

5. Recordkeeping

A current copy of the NMP shall be kept on-site at the permitted facility in accordance with Part V (A) of the general permit and provided to the permitting authority upon request

6. Changes to the NMP

- (a) The general permit recognizes that a CAFO may need to make changes to its NMP. When a CAFO owner or operator covered by the general permit makes changes to the NMP previously submitted to the Division other than the results calculations for the maximum amounts of manure, litter and process wastewater made in accordance with paragraph 61.17(8)(b)(xiv), the CAFO must provide the Division with the most current version of the CAFO's NMP and identify changes from the previous version.
- (b) The Division will review the revised NMP. If the Division determines that the changes to the NMP require revision of the terms of the NMP incorporated into the permit issued to the CAFO, the Division must then determine whether such changes are substantial. Substantial changes to the terms of a NMP incorporated as terms and conditions of a permit include, but are not limited to:
 - i) Addition of new land application areas not previously included in the CAFO's NMP. Except that if the land application area that is being added to the NMP is covered by the terms of a NMP incorporated into an existing permit, and the CAFO applies manure, litter, or process wastewater on the newly added land application area in accordance with the existing field-specific permit terms applicable to the newly added land application area.
 - ii) Any changes to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop.
 - iii) Addition of any crop or other uses not included in the terms of the CAFO's nutrient management plan and corresponding field-specific rates of application.

- iv) Changes to site-specific components of the CAFO's nutrient management plan, if such changes are likely to increase the risk of nitrogen and phosphorus transport to surface water based on the USDA, NRCS Colorado Phosphorus Index Risk Assessment tool or other Division-approved method.
- (c) If the changes to the terms of the NMP are not substantial, the Division will include the revised NMP in the permit record, revise the terms of the permit based on the site-specific NMP, and notify the permittee and the public of any changes to the terms of the permit based on revisions to the NMP.
- (d) If the Division determines that the changes to the terms of the NMP are substantial, the Division will notify the public, make the proposed changes and make the information submitted by the CAFO owner or operator available for public review and comment, and respond to all significant comments received during the comment period. The Division may require the permittee to further revise the NMP, if necessary. Once the Division incorporates the revised terms of the NMP into the permit, the Division will notify the permittee of the revised terms and conditions of the permit.

B. Requirements for the Transfer of Manure, Litter and Process Wastewater to Third Parties

The CAFO general permit does not establish requirements for off-site management of CAFO-generated manure, litter or process wastewater released to third parties. However, the Division can use the documentation specified below to ensure proper management of such materials as appropriate. Under the CAFO general permit, if CAFO-generated manure, litter or process wastewater is sold or given away, the permittee must comply with specific requirements that document the transaction and promote proper management. These requirements are based on section 61.17(8)(d) of Regulation No. 61 and include the following conditions:

1. The permittee must maintain records showing the date and amount of manure, litter and/or process wastewater that leaves the permitted operation.
2. The permittee must maintain records of the name and address of the recipient.
3. The permittee must provide the recipient with the most current nutrient analysis of the manure or process wastewater that was acquired in accordance with the nutrient management plan.
4. These records must be retained on-site, for a period of five years, and be submitted to the permitting authority upon request.

VI. DISCHARGE MONITORING, NOTIFICATION AND RECORDKEEPING REQUIREMENTS

A. Notification of Discharge

The general permit requires that in the event of a discharge of pollutants to waters of the state, the permittee is required to make immediate oral notification within 24-hours to the Colorado Release and Incident Reporting Line at 1-877-518-5608, and notify the Division in writing within five working days of the discharge from the facility. In addition, the permittee must keep a copy of the notification submitted to Division together with the other records required by the general permit. The discharge notification must include: 1) a description of the discharge, including an estimated volume of waste discharged; 2) the period of discharge, including exact dates and times and/or the anticipated time when the discharge will return to compliance; 3) steps being taken to reduce, eliminate and prevent recurrence of the discharge; and 4) the results of discharge monitoring performed in accordance with Part VI of the general permit. Note that runoff that meets the criteria of the agricultural stormwater exemption does not constitute a point source discharge.

B. Monitoring Requirements

The CAFO general permit provides that in the event of any discharge of pollutants from a manure and/or wastewater storage or retention structure, whether or not authorized by the general permit, all discharges must be sampled and analyzed, and an estimate of the volume of the release and the date and time must be recorded.

Samples must, at a minimum, be analyzed for the following parameters: five-day biochemical oxygen demand (BOD₅), total suspended solids, E. coli, nitrate-nitrogen, and ammonia nitrogen. The discharge must be analyzed in accordance with approved methods cited in the Colorado Water Quality Control Commission Regulations for Effluent Limitations (5 CCR 1002-62), the Colorado Discharge Permit System Regulations (5 CCR 1002-61), the federal regulations (40 CFR Part 136), and other applicable state or federal regulations.

If conditions are not safe for sampling, the permittee shall provide documentation of why samples could not be collected and analyzed. For example, the permittee may be unable to collect samples during dangerous weather conditions (such as local flooding, tornadoes, electrical storms). However, once dangerous conditions have passed, the permittee shall collect a sample from the impoundment or tank from which the discharge occurred.

C. General Inspection, Monitoring and Recordkeeping Requirements

CAFO General Permit Recordkeeping Requirements	
Record	Frequency
Permit and Nutrient Management Plan	
A copy of the current Colorado General Permit	At all times
A current site specific NMP that reflects existing operational characteristics and all necessary records to document that the NMP is being properly implemented	At all times
Soil and Manure/Wastewater Nutrient Analysis	
Analysis of manure, litter and process wastewater to determine nitrogen and phosphorus content ¹	At least annually
Analysis of soil in all fields where land application activities are conducted to determine phosphorus content ¹	At least once every 5 years
Operation and Maintenance	
Visual inspection of all water lines	Daily ²
Documentation of depth of manure and process wastewater in all liquid impoundments	Weekly
Documentation of all corrective actions taken. Deficiencies not corrected within 30 days must be accompanied by an explanation of the factors preventing immediate correction	As necessary
Documentation of animal mortality handling practices	As necessary
Design documentation for all manure, litter and wastewater storage structures including the following information:	Once in the permit term unless revised
Volume for solids accumulation	
Design treatment volume	
Total design storage volume	
Days of storage capacity	
Documentation of all overflows from all manure and wastewater storage structures including:	
Date and time of overflow	Per event
Estimated volume of overflow	Per event
Analysis of overflow (as required by the Permitting Authority)	Per event
Land Application	
For each application event where manure, litter or process wastewater is applied, documentation of the following by field:	
Date of application	Daily
Method of application	Daily
Weather conditions at the time of application and for 24 hours prior to and following application	Daily
Total amount of nitrogen and phosphorus applied ³	Daily
Documentation of the crop and expected yield for each field	Seasonally
Documentation of the actual crop planted and actual yield for each field	
Documentation of test methods and sampling protocols used to sample/analyze manure, litter and wastewater and soil	Once unless revised
Documentation of the basis for the application rates used for each field where manure, litter or wastewater is applied	Once unless revised
Documentation showing the total nitrogen and phosphorus to be applied to each field including nutrients from the application of manure, litter and wastewater and other sources	Once unless revised
Documentation of manure application equipment inspection	Seasonally
Third Party Transfer of Manure	
For all manure transfers the CAFO must maintain the following records:	
Date of transfer	Per event
Name and address of recipient	Per event
Approximate amount of manure, litter or wastewater transferred	Per event
¹ Refer to the NMP and supporting documents for the specific analyses to be used. ² Visual inspections should take place daily during the course of normal operations. Some operations may wish to maintain a daily log while others may choose to make a weekly entry of daily findings. ³ Including quantity/volume of manure, litter or process wastewater applied and the basis for the rate of phosphorus application.	

VII. Annual Reporting

- A. The permittee must submit an annual report to the Division by March 31st of each year. The annual report must, at a minimum, include the following information:
1. The number and type of animals, whether in open confinement or housed under roof.
 2. The estimated amount (tons or gallons) of total manure and process wastewater generated by the facility in the previous 12 months.
 3. The estimated amount (tons or gallons) of total manure and process wastewater transferred to other persons by the facility in the previous 12 months.
 4. The total number of acres for land application covered by the approved nutrient management plan in the previous 12 months.
 5. The total number of acres of land application sites that were used for application of manure and process wastewater in the previous 12 months.
 6. A summary of all manure and process wastewater discharges from the production area that have occurred in the previous 12 months, including date, time and approximate volume.
 7. A statement indicating whether the current version of the facility's nutrient management plan was developed or approved by a certified nutrient management planner.
 8. The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter and process wastewater, the results of calculations conducted in accordance with Part III (B) of the general permit, and the amount of manure, litter and process wastewater applied to each field during the previous 12 months.
 9. The results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations conducted in accordance with Part III (B) of the general permit, and the amount of any supplemental fertilizer applied during the previous 12 months.
 10. The signature of the operator or other authorized signatory in accordance with Part I (K) of the general permit.

VIII. STANDARD CONDITIONS

The CPDS general permit for CAFOs incorporates the terms and conditions applicable to all permits issued under the CPDS program in accordance with section 61.8 of Regulation No. 61.

Sean Scott
February 17, 2012

IX. RESPONSE TO PUBLIC COMMENTS

Public comment period closed March 19, 2012. The Division received no comments on the general permit.