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States' Nutrient Management Plans Statutes & Regulations:

Colorado

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CO Rev Stat § 25-8-501
CO Rev Stat § 25-8-501.1
CO Rev Stat § 25-8-502
CO Rev Stat § 25-8-503
CO Rev Stat § 25-8-504
5 CO Code Regs 1002-61 § 13(3)(f)
5 CO Code Regs 1002-61 § 17(8)(b)

The statutes and Constitution are current through the 2018 regular and special legislative sessions. The statutes are subject to changes by the Colorado Legislative Council.

CO Rev Stat § 25-8-501. Permits required for discharge of pollutants – administration.

(1) No person shall discharge any pollutant into any state water from a point source without first having obtained a permit from the division for such discharge, and no person shall discharge into a ditch or man-made conveyance for the purpose of evading the requirement to obtain a permit under this article. No person covered by this article shall use or dispose of biosolids, except as authorized by regulations that shall not be more restrictive than the requirements adopted for solid wastes disposal sites and facilities pursuant to part 1 of article 20 of title 30, C.R.S., except as necessary to be consistent with section 405 of the federal act. Existing authorization for the use or disposal of biosolids shall continue until permits are issued in accordance with this part 5. Each application for a permit duly filed under the federal act shall be deemed to be a permit application filed under this article, and each permit issued pursuant to the federal act shall be deemed to be a temporary permit issued under this article which shall expire upon expiration of the federal permit.

(2) The division shall examine applications for and may issue, suspend, revoke, modify, deny, and otherwise administer permits for the discharge of pollutants into state waters and for the use and disposal of biosolids. Such administration shall be in accordance with the provisions of this article and regulations

promulgated by the commission. Until modified pursuant to this article, final permits shall be governed by their existing limitations.

(3) The commission shall promulgate such regulations as may be necessary and proper for the orderly and effective administration of permits for the discharge of pollutants, which regulations shall include, but not be limited to, procedures for the issuance of a variance pursuant to section 25-8-503 (4), and shall also require that, in appropriate circumstances, the effluent limitations contained in a permit shall be adjusted to account for the pollutants contained in the discharger's intake water. Such regulations shall be consistent with the provisions of this article and with federal requirements and shall be in furtherance of the policy contained in section 25-8-102. Such regulations shall establish a permit process that allows permit conditions to remain in effect as long as circumstances dictate those conditions. In order to comply with federal requirements, but not to lessen compliance with federal standards, such permit process may require periodic renewal of permits even where minimal or no changes in the permit conditions are necessary. Renewal shall be required where more than minimal changes in permit conditions are necessary. The regulations may pertain to and implement, among other matters, permit and permit application contents, procedures, requirements, and restrictions with respect to the following:

(a) Identification and address of the owner and operator of the activity, facility, or process from which the discharge is to be permitted;

(b) Location and quantity and quality characteristics of the permitted discharge;

(c) Effluent limitations and conditions for treatment prior to discharge to a publicly owned treatment works;

(d) Monitoring as well as record-keeping and reporting requirements consistent with standard procedures and methods established by the division;

(e) Schedules of compliance;

(f) Procedures to be followed by division personnel for entering and inspecting premises;

(g) Submission of pertinent plans and specifications for the facility, process, or activity which is the source of a waste discharge;

(h) Restrictions on transfers of the permit;

(i) Procedures to be followed in the event of expansion or modification of the process, facility, or activity from which the discharge occurs or the quality, quantity, or frequency of the discharge;

(j) Duration of the permit and renewal procedures using a risk-based approach that limits the amount of work required to renew permits that have minimal or no changes in the permit conditions to streamline the renewal process;

(k) Authority of the division to require changes in plans and specifications for control facilities as a condition for the issuance of a permit;

(l) Identification of control regulations over which the permit takes precedence and identification of control regulations over which a permit may never take precedence;

(m) Notice requirements of any intent to construct, install, or alter any process, facility, or activity that is likely to result in a new or altered discharge;

(n) Effectiveness under this article of permit applications submitted to and permits issued by the federal government under the federal act.

(4) Nothing in any permit shall ever be construed to prevent or limit the application of any emergency power of the division.

(5) Every permit issued for a domestic wastewater treatment works shall contain such terms and conditions as the division determines to be necessary or desirable to assure continuing compliance with applicable control regulations. Such terms and conditions may require that whenever deemed necessary by the division to assure such compliance the permittee shall:

(a) Require pretreatment of effluent from industrial, governmental, or commercial facilities, processes, and activities before such effluent is received into the gathering and collection system of the permittee;

(b) Prohibit any connection to any municipal permittee's interceptors and collection system that would result in receipt by such municipal permittee of any effluent other than sewage required by law to be received by such permittee;

(c) Include specified terms and conditions of its permit in all contracts for receipt by the permittee of any effluent not required to be received by a municipal permittee;

(d) Initiate engineering and financial planning for expansion of the domestic wastewater treatment works whenever throughput and treatment reaches eighty percent of design capacity;

(e) Commence construction of such domestic wastewater treatment works expansion whenever throughput and treatment reaches ninety-five percent of design capacity or, in the case of a municipality, either commence such construction or cease issuance of building permits within such municipality until such construction is commenced; except that building permits may continue to be issued for any construction which would not have the effect of increasing the input of domestic wastewater to the sewage treatment works of the municipality involved. The term "commence construction", as used in this paragraph (e), includes execution of, and commencement of work under, contracts for engineering design, plans, and specifications for erection, building, alteration, remodeling, improvement, or extension of treatment works and commitment to the completion of construction of such treatment works prior to exceeding permit effluent limitations based upon facility design and capacity or execution of a contract for the construction thereof.

(6) Inclusion of the requirements authorized by paragraph (d) of subsection (5) of this section shall be presumed unnecessary to assure compliance upon a showing that the area served by a domestic wastewater treatment works has a stable or declining population; but this provision shall not be construed as preventing periodic review by the division should it be felt that growth is occurring or will occur in the area.

CO Rev Stat § 25-8-501.1. Permit required for point source water pollution control – definitions – housed commercial swine feeding operations – legislative declaration.

(1) The people of the state of Colorado hereby find, determine, and declare that the advent of large housed commercial swine feeding operations in Colorado has presented new challenges to ensuring that the quality of the state's environment is preserved and protected. As distinguished from more traditional operations that historically have characterized Colorado's livestock industry, large housed swine feeding operations use significant amounts of process water for flushing and disposing of swine waste, commonly store this waste in large impoundments, and dispose of it through land application. The waste storage, handling and disposal by such operations are particularly odorous and offensive. The people further find that it is necessary to ensure that the storage and land application of waste by housed

commercial swine feeding operations is done in a responsible manner, so as not to adversely impact Colorado's valuable air, land and water resources.

(2) As used in this section, unless the context otherwise requires:

(a) "Agronomic rate of application" means the rate of application of nutrients to plants that is necessary to satisfy the plants' nutritional requirements while strictly minimizing the amount of nutrients that run off to surface waters or which pass below the root zone of the plants, as specified by the most current published fertilizer suggestions of the Colorado state university cooperative extension service for the plants, or most closely related plant type, to which the nutrients are applied.

(b) "Housed commercial swine feeding operation" means a housed swine feeding operation that is capable of housing eight hundred thousand pounds or more of live animal weight of swine at any one time or is deemed a commercial operation under local zoning or land use regulations. Two or more housed swine confined feeding operations shall be considered to comprise a single housed commercial swine feeding operation if they are under common or affiliated ownership or management, and are adjacent to or utilize a common area or system for manure disposal, are integrated in any way, are located or discharge within the same watershed or into watersheds that are hydrologically connected, or are located on or discharge onto land overlying the same groundwater aquifer.

(c) "Housed swine feeding operation" means the practice of raising swine in buildings, or other enclosed structures wherein swine of any size are fed for forty-five days or longer in any twelve-month period, and crop or forage growth or production is not sustained in the area of confinement.

(d) "Process wastewater" means any process-generated wastewater used in a housed commercial swine feeding operation, including water used for feeding, flushing, or washing, and any water or precipitation that comes into contact with any manure, urine, or any product used in or resulting from the production of swine.

(3) No person shall operate, construct, or expand a housed commercial swine feeding operation without first having obtained an individual discharge permit from the division.

(4) On or before March 31, 1999, the commission shall promulgate rules necessary to ensure the issuance and effective administration and enforcement of permits under this section by July 1, 1999. Such rules

shall incorporate the preceding subsection (3) and shall, at a minimum, require:

(a) That the owner or operator of a housed commercial swine feeding operation must obtain division approval of construction, operations and swine waste management plans that, for any land waste application, includes a detailed agronomic analysis. Said plans shall employ the best available waste management practices, provide for remediation of residual soil and groundwater contamination, and ensure that disposal of solid or liquid waste to the soil not exceed agronomic rates of application.

(b) That appropriate setbacks for maintaining water quality be established for land waste application areas and waste impoundments;

(c) That waste impoundments or manure stock piles shall not be located within a one-hundred-year floodplain unless proper flood proofing measures are designed and constructed;

(d) That the owner or operator of the housed commercial swine feeding operation shall provide financial assurances for the final closure of the housed commercial swine feeding operation, the conduct of any necessary postclosure activities, the undertaking of any corrective action made necessary by migration of contaminants from the housed commercial swine feeding operation into the soil and groundwater, or cleanup of any spill or breach;

(e) That the owner or operator of a housed commercial swine feeding operation shall ensure that no solid or liquid waste generated by it shall be applied to land by any person at a rate that exceeds, in amount or duration, the agronomic rate of application; and

(f) That, because waste storage and disposal by housed commercial swine feeding operations pose particular jeopardy for state trust lands, in light of the mandate in the Colorado constitution, article IX, section 10, that state land board trust lands be held in trust and be protected and enhanced to promote long-term productivity and sound stewardship, the construction, operations and waste management plans approved for housed commercial swine feeding operations on such lands, shall not permit the degradation of the physical attributes or value of any state trust lands.

(5) Any spill or contamination by a housed commercial swine feeding operation shall be reported immediately to the division and the county or district public health agency for the county in which the housed commercial

swine feeding operation is conducted, and, within twenty-four hours after the spill or contamination, a written report shall be filed with the division and the county or district public health agency for the county in which the housed commercial swine feeding operation is conducted.

(6) Housed commercial swine feeding operations shall submit to the division and the county or district public health agency quarterly, comprehensive monitoring reports and agronomic analyses that demonstrate that the operation has land-applied solid and liquid waste at no greater than agronomic rates. The division shall require the sampling and monitoring of chemical and appropriate biological parameters to protect the quality and existing and future beneficial uses of groundwater including, at a minimum, nitrogen, phosphorus, heavy metals, and salts. At a minimum, the monitoring program shall include quarterly samples, analysis, and reporting of the groundwater, soils within the root zone, and soils beneath the root zone within each waste application site, and shall also include monitoring to ensure that no excessive seepage occurs from any waste impoundments.

(7) Repealed.

(8) The division shall enforce the provisions of this section and shall take immediate enforcement action against any housed commercial swine feeding operation that has exceeded the agronomic rate limit of this section. In addition, any person who may be adversely affected by a housed commercial swine feeding operation may enforce these provisions directly against the operation by filing a civil action in the district court in the county in which the person resides.

(9) These provisions shall not preclude any local government from imposing requirements more restrictive than those contained in this section.

CO Rev Stat § 25-8-502. Application – definitions – fees – funds created – public participation – repeal.

(1) For the purposes of this section:

(a) "Animal feeding operation" or "CAFO" means a lot or facility, other than an aquatic animal production facility, where:

(I) Animals, other than aquatic animals, have been, are, or will be stabled or confined and fed or maintained for a total of forty-five days or more in any twelve-month period; and

(II) Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

(b) "Categorical effluent standards" means those standards established by the federal environmental protection agency pursuant to section 307 (b) of the federal act.

(c) "Discharge" means the discharge of pollutants, and includes land application.

(d) "Gallons per day" is based on design capacity of the facility, not flow.

(e) "Land application" is any discharge being applied to the land for treatment purposes.

(f) "Municipal separate storm sewer system" or "MS4" means a conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains, that is:

(I) Owned or operated by a state, city, town, county, district, association, or other public body created by or pursuant to state law having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law such as a sewer district, flood control district, drainage district, or similar entity, or a designated and approved management agency under section 208 of the federal act that discharges to state waters;

(II) Designed or used for collecting or conveying storm water;

(III) Not a combined sewer; and

(IV) Not part of a publicly owned treatment works.

(g) "Significant industrial discharger" means an industrial discharger that meets one or more criteria established by the federal environmental protection agency pursuant to section 307 (b) of the federal act.

(1.1) For each regulated activity listed in this subsection (1.1), the division may assess an annual permit fee and a nonrefundable permit application fee for new permits that must equal fifty percent of the annual permit fee. The full amount of the application fee is credited toward the annual permit fee. All such fees must be in accordance with the following schedules:

(a) The animal agriculture sector includes annual fee schedules for regulated activities associated with animal feeding operations as follows:

(I) General permit: The division shall assess a CAFO an annual permit fee not to exceed two hundred fifty dollars plus four cents per animal unit, based on the CAFO's permitted capacity; except that, from July 1, 2009, through June 30, 2025, the division shall assess a CAFO an annual permit fee not to exceed seven hundred fifty dollars plus nine cents per animal unit, based on the CAFO's permitted capacity.

(II) Individual permit: The division shall assess a CAFO an annual permit fee not to exceed five hundred dollars plus eight cents per animal unit, based on the CAFO's permitted capacity; except that, from July 1, 2009, through June 30, 2025, the division shall assess a CAFO an annual permit fee not to exceed one thousand five hundred dollars plus nine cents per animal unit, based on the CAFO's permitted capacity.

(III)

(A) Effective July 1, 2009, through June 30, 2025, the division shall assess an unpermitted CAFO an annual administrative fee, not to exceed six cents per animal unit, based upon the CAFO's registered capacity, to cover the direct and indirect costs associated with the environmental agriculture program, including inspections, compliance assurance, compliance assistance, and associated regulatory interpretation and review.

(B) This subsection (1.1)(a)(III) is repealed, effective July 1, 2025.

(IV)

(A) Except as otherwise provided in this subsection (1.1)(a)(IV), the division shall assess on each housed commercial swine feeding operation an annual permit fee, not to exceed twenty cents per animal, based on the operation's working capacity, to offset the direct and indirect costs of the program created in section 25-8-501.1.

(B) From July 1, 2009, through June 30, 2025, the division shall assess on each housed commercial swine feeding operation an annual permit fee, not to exceed twenty-six cents per animal, based on the operation's working capacity, to offset the direct and indirect costs of the

program created in section 25-8-501.1. This subsection (1.1)(a)(IV)(B) is repealed, effective July 1, 2025.

(C) As used in this subsection (1.1)(a)(IV), "working capacity" means the number of swine the housed commercial swine feeding operation is capable of housing at any one time.

(b) The commerce and industry sector includes annual fee schedules for regulated activities associated with mining, hydrocarbon refining, sugar processing, industrial storm water, utilities not included in the private and public utilities sector, manufacturing activities, commercial activities, and all other industrial activities as follows:

Facility Categories and Subcategories for Permit Fees within the Commerce and Industry Sector Annual Fees

(I) Sand and gravel and placer mining:

(A) Pit dewatering only $805

(B) Pit dewatering or wash-water discharge $918

(C) Mercury use with discharge impact $1,030

(D) Storm water discharge only $700

(II) Coal mining:

(A) Sedimentation ponds, surface runoff only $1,578

(B) Mine water, preparation plant discharge $2,125

(III) Hardrock mining:

(A) Mine dewatering from 0 up to 49,999 gallons per day $1,835

(B) Mine dewatering from 50,000 up to 999,999 gallons per day $3,462

(C) Mine dewatering, 1,000,000 gallons per day or more $5,281

(D) Mine dewatering and milling with no discharge $5,281

(E) Mine dewatering and milling with discharge $15,907

(F) No discharge $1,835

(G) Milling with discharge from 0 up to 49,999 gallons per day $5,394

(H) Milling with discharge, 50,000 gallons per day or more $10,755

(IV) Oil shale:

(A) Sedimentation ponds, surface runoff only $3,204

(B) Mine water from 0 up to 49,999 gallons per day $3,462

(C) Mine water from 50,000 up to 999,999 gallons per day $4,299

(D) Mine water from 1,000,000 gallons per day or more $4,186

(E) Mine water and process water discharge $15,907

(F) No discharge $2,946

(V) General permits:

(A) Sand and gravel with process discharge and storm water $435

(B) Sand and gravel without process discharge- storm water only $121

(C) Placer mining $837(D) Coal mining $1,256

(E) Industrial - single municipal industrial- storm water only $298

(F) Active mineral mines less than ten acres- storm water only $201

(G) Active mineral mines - ten acres or more- storm water only $604

(H) Inactive mineral mines - storm water only $121

(I) Department of transportation - sand and gravel storm-water permit $7,020

(J) Coal degasification - process water from 0 up to 49,999 gallons per day $3,462

(K) Coal degasification - process water from 50,000 up to 99,999 gallons per day $5,281

(L) Coal degasification - process water, 100,000 gallons per day or more $15,907

(M) Minimal discharge of industrial or commercial waste waters - general permit $630

(VI) Power plants:

(A) Cooling water only, no discharge $1,835

(B) Process water from 0 up to 49,999 gallons per day $3,462

(C) Process water from 50,000 up to 999,999 gallons per day $5,281

(D) Process water from 1,000,000 up to 4,999,999 gallons per day $15,907

(E) Process water, 5,000,000 gallons per day or more $15,907

(VII) Sugar processing:

(A) Cooling water only, no discharge $1,948

(B) Process water from 0 up to 49,999 gallons per day $2,383

(C) Process water from 50,000 up to 999,999 gallons per day $5,957

(D) Process water from 1,000,000 up to 4,999,999 gallons per day $15,907

(E) Process water, 5,000,000 gallons per day or more $15,907

(VIII) Petroleum refining:

(A) Cooling water only, no discharge $1,835

(B) Process water from 0 up to 49,999 gallons per day $4,122

(C) Process water from 50,000 up to 999,999 gallons per day $5,289

(D) Process water from 1,000,000 up to 4,999,999 gallons per day $15,907

(E) Process water, 5,000,000 gallons per day or more $15,907

(IX) Fish hatcheries $1,320

(X) Manufacturing and other industry:

(A) Cooling water only $1,835

(B) Process water from 0 up to 49,999 gallons per day $3,462

(C) Process water from 50,000 up to 999,999 gallons per day $5,281

(D) Process water from 1,000,000 up to 4,999,999 gallons per day $15,907

(E) Process water from 5,000,000 up to 19,999,999 gallons per day $19,545

(F) Process water, 20,000,000 gallons per day or more $31,814

(G) No discharge $2,383

(H) Amusement and recreation services $2,383

(XI) Individual industrial storm-water permits:

(A) Individual industrial - less than ten acres $475

(B) Individual industrial - ten acres or more $604

(C) Individual industrial - storm water only- international airports $10,014

(c) The construction sector includes annual fee schedules for regulated activities associated with construction activities as follows:

Facility Categories and Subcategories for Permit Fees within the Construction Sector Annual Fees

(I) Repealed.

(II) General permits:

(A) to (D) Repealed.

(E) Department of transportation (DOT) -storm-water construction discharges from projects where DOT is the permittee -statewide permit $9,400

(F) Minimal discharge of industrial or commercial wastewater $630

(G) Low complexity $820

(H) High complexity $2,000

(I) Construction - storm water only; less than 1 acre of disturbed area $165

(J) Construction - storm water only; from 1 acre to less than 30 acres $350

(K) Construction - storm water only; 30 acres or more of disturbed area $540

(III) The fee for an individual permit for construction activity is four thousand four hundred dollars; and

(IV) The division shall use the revenue generated by the fees set forth in subsections (1.1)(c)(II)(G) to (1.1)(c)(II)(K) and (1.1)(c)(III) of this section to continue to fund the administration and oversight of the construction sector and shall use the increased revenue, when compared with the revenue generated by the corresponding fees as they existed on June 30, 2015, to fund new services provided under the alternative compliance assurance model. The division shall not use the increased revenue to fund additional enforcement staff. The division may use the increased revenue for the following purposes:

(A) Increasing inspections of the construction sector to meet compliance objectives identified by the federal environmental protection agency;

(B) Implementing a compliance strategy that relies on increased assistance and follow-up to obtain an overall increase in compliance instead of increased reliance on enforcement;

(C) Targeting additional compliance assistance towards permittees to seek increased compliance, including: Streamlined site visits that provide initial assistance consultations and increased assistance resources

such as guidance documents, presentations, and online resources; review and response to the inspected entity's written response to the inspection; follow-up inspections and additional inspections for owners and operators with systemic violations; and increased overall inspection frequency;

(D) Maintaining and increasing current service levels of administration and oversight for the division's storm water management system administrator program; and

(E) Targeting enforcement towards operators that show chronic violations, significant violations, or recalcitrant response actions.

(d) The pesticide sector includes annual fee schedules for regulated activities associated with pesticide applications that are regulated under the federal act as follows: For a general permit, decision makers with pesticide application on or over waters of the state that are subject to annual reporting requirements under the pesticide general permit, an annual fee of two hundred eighty-one dollars.

(e) The public and private utilities sector includes annual fee schedules for regulated activities associated with the operation of domestic wastewater treatment works, water treatment facilities, reclaimed water systems, and industrial operations that discharge to a domestic wastewater treatment works as follows:

Facility Categories and Subcategories for Permit Fees within the Public and Private Utilities Sector Annual Fees

(I) Water treatment plants:

(A) Intermittent discharge $695

(B) Routing discharge $1,000

(II) General permits:

(A) Water treatment plants – intermittent discharge $580

(B) Water treatment plants - routine discharge $872

(C) Discharges associated with treated water distribution systems for a population of 3,300 or fewer $128

(D) Discharges associated with treated water distribution systems for a population from 3,301 up to 9,999 $256

(E) Discharges associated with treated water distribution systems for a population of 10,000 or more $384

(III) Domestic wastewater - lagoons:

(A) Sewage from 0 up to 49,999 gallons per day $641

(B) Sewage from 50,000 up to 99,999 gallons per day $1,031

(C) Sewage from 100,000 up to 499,999 gallons per day $1,501

(D) Sewage from 500,000 up to 999,999 gallons per day $2,586

(E) Sewage from 1,000,000 up to 1,999,999 gallons per day $3,867

(F) Sewage, 2,000,000 gallons per day or more $7,881

(IV) Domestic wastewater - mechanical plants:

(A) Sewage from 0 up to 19,999 gallons per day $750

(B) Sewage from 20,000 up to 49,999 gallons per day $1,196

(C) Sewage from 50,000 up to 99,999 gallons per day $1,757

(D) Sewage from 100,000 up to 499,999 gallons per day $2,733

(E) Sewage from 500,000 up to 999,999 gallons per day $4,538

(F) Sewage from 1,000,000 up to 2,499,999 gallons per day $7,430

(G) Sewage from 2,500,000 up to 9,999,999 gallons per day $13,920

(H) Sewage from 10,000,000 up to 49,999,999 gallons per day $24,132

(I) Sewage from 50,000,000 up to 99,999,999 gallons per day $27,840

(J) Sewage, 100,000,000 gallons per day or more $30,622

(V) Domestic facilities discharge to unclassified waters - general permit:

(A) Sewage from 0 up to 49,999 gallons per day $555

(B) Sewage from 50,000 up to 199,999 gallons per day $976

(C) Sewage from 200,000 up to 599,999 gallons per day $1,427

(D) Sewage from 600,000 up to 999,999 gallons per day $2,269

(VI) Industrial dischargers subject to categorical effluent standards discharging to publicly owned treatment works with pretreatment programs, not including categorical industries subject to zero-discharge standards:

(A) Very low flow - less than 100 gallons per day $356

(B) 100 up to 9,999 gallons per day $853

(C) 10,000 up to 50,000 gallons per day $1,277

(D) More than 50,000 gallons per day $1,704

(VII) All other significant industrial dischargers discharging to publicly owned treatment works with pretreatment, including categorical industries subject to zero-discharge standards:

(A) Less than 10,000 gallons per day $214

(B) 10,000 up to 50,000 gallons per day $426

(C) More than 50,000 gallons per day $567

(D) Pit dewatering only $329

(VIII) Industrial dischargers subject to categorical effluent standards discharging to publicly owned treatment works without pretreatment programs, not including categorical industries subject to zero discharge standards:

(A) Less than 10,000 gallons per day $994

(B) 10,000 up to 50,000 gallons per day $1,562

(C) More than 50,000 gallons per day $2,130

(IX) All other significant industrial dischargers discharging to publicly owned treatment works without pretreatment programs, including categorical industries subject to zero-discharge standards:

(A) Less than 10,000 gallons per day $426

(B) 10,000 up to 50,000 gallons per day $639

(C) More than 50,000 gallons per day $853

(X) Domestic wastewater - lagoons:

(A) Sewage from 0 up to 49,999 gallons per day $92

(B) Sewage from 50,000 up to 99,999 gallons per day $92

(C) Sewage from 100,000 up to 499,999 gallons per day $92

(D) Sewage from 500,000 up to 999,999 gallons per day $92

(E) Sewage from 1,000,000 up to 2,499,999 gallons per day $99

(F) Sewage, 2,500,000 gallons per day or more $115

(XI) Domestic wastewater - mechanical plants:

(A) Sewage from 0 up to 19,999 gallons per day $92

(B) Sewage from 20,000 up to 49,999 gallons per day $92

(C) Sewage from 50,000 up to 99,999 gallons per day $92

(D) Sewage from 100,000 up to 499,999 gallons per day $92

(E) Sewage from 500,000 up to 999,999 gallons per day $92

(F) Sewage from 1,000,000 up to 2,499,999 gallons per day $99

(G) Sewage from 2,500,000 up to 9,999,999 gallons per day $115

(H) Sewage from 10,000,000 up to 49,999,999 gallons per day $128

(I) Sewage from 50,000,000 up to 99,999,999 gallons per day $143

(J) Sewage, 100,000,000 gallons per day or more $156

(XII) Wastewater reuse authorizations:

(A) Facility capacity of less than 100,000 gallons per day $549

(B) Facility capacity from 100,000 gallons to 499,999 gallons per day $1,025

(C) Facility capacity from 500,000 gallons to 999,999 gallons per day $1,708

(D) Facility capacity from 1,000,000 gallons to 2,499,999 gallons per day $2,806

(E) Facility capacity from 2,500,000 gallons to 9,999,999 gallons per day $5,246

(F) Facility capacity, 10,000,000 gallons per day or more $7,686

(XIII) and (XIV) Repealed.

(f) The municipal separate storm sewer systems sector includes annual fees for regulated activities associated with the operation of municipal separate storm sewer systems, as follows:

Facility Categories and Subcategories for Permit Fees within the Municipal Separate Storm Sewer System Sector Annual Fees

(I) MS4 general permits:

(A) Storm water municipal for a population of 10,000 or fewer $462

(B) Storm water municipal for a population from 10,000 up to 49,999 $1,053

(C) Storm water municipal for a population from 50,000 up to 99,999 $2,626

(D) Storm water municipal for a population of 100,000 or more $5,265

(II) MS4 individual permits:

(A) Municipalities with a population from 10,000 up to 49,999 $1,619

(B) Municipalities with a population from 50,000 up to 99,999 $4,043

(C) Municipalities with a population from 100,000 up to 249,999 $8,093

(D) Municipalities with a population of 250,000 or more $13,754

(E) Statewide permit for municipal separate storm water systems, owned or operated by the department of transportation, in municipal areas where storm water permits are required $5,668

(1.2)

(a) For the activities listed in this subsection (1.2) associated with reviewing requests for certifications under section 401 of the federal act and this article 8, known as "401 certificates", the division may assess a fee for the review. There is hereby created in the state treasury the water quality certification sector fund, which consists of fees collected pursuant to this subsection (1.2). The division shall transmit the fees to the state treasurer, who shall credit them to the water quality certification sector fund. All such fees must be in accordance with the following schedules:

(I) The fee for a tier 1 project is one thousand one hundred twenty-two dollars, which must be submitted with the certification application. Tier 1 projects are projects that incur minimal costs and minimal water quality impacts. Tier 1 includes certifications of channel stabilization projects and single drainage improvement projects. Typical characteristics of tier 1 projects may include all or some of the following:

(A) The potential for minimal impacts to water quality;

(B) A low level of public participation;

(C) No more than standard coordination with federal, state, or local agencies may be required;

(D) Limited technical assistance may be needed.

(II) The fee for a tier 2 project is three thousand eight hundred seventy-six dollars, which must be submitted with the certification application. Tier 2 projects are projects that incur moderate costs and potential water quality impacts. Tier 2 includes certifications of projects that affect multiple drainages. Typical characteristics of tier 2 projects may include all or some of the following:

(A) The potential for minimal impacts to water quality;

(B) A basic to high level of public participation may be required with potential for participation in public meetings or hearings held by outside parties;

(C) More than the standard level of coordination with multiple federal, state, or local agencies may be required, including one or more meetings or pre-application site visits;

(D) A moderate and ongoing level of technical assistance may be needed;

(E) Compensatory mitigation review may be required;

(F) Review of a full evaluation and findings report if needed; or

(G) If the certification is appealed, addressing an appeal of the division's water quality certification to the commission pursuant to sections 25-8-202 (1)(k), 25-8-302 (1)(f), and 25-8-401.

(III) The fee for a tier 3 project is calculated on an hourly rate based on the actual costs of division staff and contractor time. Tier 3 projects are projects that involve a large watershed area, a high degree of complexity, or high potential for water quality impacts. Tier 3 includes certifications of federal energy regulatory commission relicensing projects or projects involving more long-term water quality impacts. Typical characteristics of tier 3 projects may include all or some of the following:

(A) The potential for greater, permanent water quality impacts if one or more of the following occurs: The water body is identified as not attaining water quality standards; or multiple stream or lake segments as established by section 25-8-203 are affected;

(B) A high level of public participation, including extensive public comments and the potential for one or more public meetings or hearings conducted by the division or outside parties;

(C) Substantially more than standard coordination with multiple federal, state, or local agencies may be required, including one or more meetings;

(D) A high level of iterative technical assistance may be required or substantive project revisions may be received;

(E) The potential for complex compensatory mitigation review;

(F) A site visit may be needed to understand impacts and advise on potential alternatives;

(G)The review of a full evaluation and findings report if needed; or

(H) If the certification is appealed, addressing an appeal of the division's water quality certification to the commission pursuant to sections 25-8-202 (1)(k), 25-8-302 (1)(f), and 25-8-401.

(IV) The fee for a tier 4 project is calculated on an hourly rate based on the actual costs of division staff and contractor time. Tier 4 projects are projects that involve multiple or large watershed areas, a very high degree of complexity, a very high potential for water quality impacts, or a high level of public participation. Tier 4 includes transmountain water supply projects. Typical characteristics of tier 4 projects may include all or some of the following:

(A) The potential for greater water quality impacts if one or more of the following occurs: The water body is identified as not attaining water quality standards; or multiple stream or lake segments as established by section 25-8-203 are affected;

(B) A high level of public participation, including extensive public comments and the potential for one or more public meetings or hearings conducted by the division or outside parties;

(C) Substantially more coordination than is standard with multiple federal, state, or local agencies may be required, including one or more meetings;

(D) A high level of iterative technical assistance may be required or substantive project revisions may be received;

(E) The potential for complex compensatory mitigation review;

(F) A site visit may be needed to understand impacts and advise on potential alternatives;

(G) Coordination with the governor's office in conjunction with other state agencies, tribal nations, and the federal government may be required;

(H) To the extent pertinent, review of additional documents, such as federal "National Environmental Policy Act" resource reports, environmental assessments, and environmental impact statements;

(I) If needed, to the extent not addressed in the documents addressed in sub-subparagraph (H) of this subparagraph (IV) and consistent with the requirements of this article and of the rules promulgated pursuant to this article, review and use of a full evaluation and findings report; or

(J) If the certification is appealed, addressing an appeal of the division's water quality certification to the commission pursuant to sections 25-8-202 (1)(k), 25-8-302 (1)(f), and 25-8-401.

(b) For tier 3 and tier 4 projects, the division may assess fees for services provided by the division prior to the applicant submitting a formal water quality certification application, which fees must reflect the actual cost of division staff and contractor time.

(c) For tier 3 and tier 4 projects, the division may assess fees for services provided by the division to monitor the projects certified with conditions, which fees must reflect the actual cost of division staff and contractor time.

(1.3) For each service listed below, the division may assess a fee for the service, and all such fees must be in accordance with the following schedules:

(a) Amendments to permits associated with the commerce and industry sector, construction sector, pesticides application, public and private utility sector under subsection (1.1) of this section, and amendments to permits issued through June 30, 2018, associated with regulated activities in subparagraph (IV) of the animal agriculture sector in paragraph (a) of subsection (1.1) of this section:

(I) Minor amendment: An amount equal to twenty-five percent of the annual fee for the permit being amended, not to exceed two thousand eight hundred ten dollars;

(II) Major amendment: An amount equal to fifty-five percent of the annual fee for the permit being amended, not to exceed five thousand nine hundred fifty dollars;

(b) Preliminary effluent limitations:

(I) In accordance with section 25-8-702, the division may assess a fee, as set forth in the schedules in this paragraph (b), for the determination of preliminary effluent limitations upon a domestic wastewater treatment works pursuant to the site location approval process. All such fees shall be paid in advance of any work done.

(II) At the request of an entity that is not a domestic wastewater treatment works, and upon payment of the appropriate fee as set forth in the schedules in this paragraph (b), the division may determine preliminary effluent limits for a proposed discharge as described by the requester.

(III) Fees set forth in the schedules established in this paragraph (b) are increased by an amount equal to seventy-five percent of the applicable fee for each set of preliminary effluent limitations requested by domestic wastewater treatment works for discharges to second or additional receiving water bodies.

(IV) The division may, where an entity requests modification of existing division-approved preliminary effluent limitations, complete the modification for a fee equal to twenty-five percent of the applicable fee as set forth in the schedules in this paragraph (b).

Facility Categories and Subcategories for Preliminary Effluent Limitations Fees

(V) Preliminary effluent limitations for individual permits:

(A) Less than 100,000 gallons per day $2,562

(B) 100,000 to 999,999 gallons per day $5,124

(C) 1,000,000 to 9,999,999 gallons per day $7,686

(D) 10,000,000 or more gallons per day $10,248

(VI) Preliminary effluent limitations for general permits from 0 up to 1,000,000 gallons per day $1,281

(VII) Preliminary effluent limitations for discharges to groundwater:

(A) Minor facilities, less than 1,000,000 gallons per day $641

(B) Major facilities, 1,000,000 gallons per day or more $1,025

(VIII) Review of preliminary effluent limitations for individual permits professionally prepared by others:

(A) Minor facilities, less than 1,000,000 gallons per day $1,922

(B) Major facilities, 1,000,000 gallons per day or more $3,843

(c) Wastewater site applications and design reviews:

Facility Categories and Subcategories for Wastewater Site Applications and Design Reviews Fees

(I) Wastewater site applications:

(A) Wastewater treatment plants, less than 100,000 gallons per day: New $9,440 Expansion $7,553

(B) Wastewater treatment plants from 100,000 to 999,999 gallons per day: New $18,882 Expansion $15,105

(C) Wastewater treatment plants from 1,000,000 to 9,999,999 gallons per day:

New $28,322 Expansion $22,658

(D) Wastewater treatment plants, 10,000,000 gallons per day or more: New $37,763 Expansion $30,211

(E) Lift stations, less than 100,000 gallons per day:

New $2,361 Expansion $1,889

(F) Lift stations from 100,000 to 999,999 gallons per day:

New $4,720 Expansion $3,776

(G) Lift stations from 1,000,000 to 9,999,999 gallons per day: New $7,081 Expansion $5,664

(H) Lift stations, 10,000,000 gallons per day or more:

New $9,440 Expansion $7,553

(I) Amendments to site applications concerning a change from gas chlorination to liquid chlorination or from any form of chlorination to ultraviolet light disinfection, less than 100,000 gallons per day $550

(J) Amendments to site applications concerning a change from gas chlorination to liquid chlorination or from any form of chlorination to ultraviolet light disinfection from 100,000 to 999,999 gallons per day $1,102

(K) Amendments to site applications concerning a change from gas chlorination to liquid chlorination or from any form of chlorination to ultraviolet light disinfection from 1,000,000 to 9,999,999 gallons per day $1,652

(L) Amendments to site applications concerning a change from gas chlorination to liquid chlorination or from any form of chlorination to ultraviolet light disinfection, 10,000,000 gallons per day or more $2,203

(M) Other amendments to site application, less than 100,000 gallons per day $787

(N) Other amendments to site applications from 100,000 to 999,999 gallons per day $1,574

(O) Other amendments to site applications from 1,000,000 to 9,999,999 gallons per day $2,361

(P) Other amendments to site applications, 10,000,000 gallons per day or more $3,146

(Q) On-site wastewater treatment systems $5,490

(R) Extension $793(S) Interceptor site applications $1,586

(T) Interceptor certifications $366(U) Outfall sewers $1,586

(II) Wastewater design review:

(A) Wastewater treatment plants, less than 100,000 gallons per day: New $5,978 Expansion $4,758

(B) Wastewater treatment plants from 100,000 to 999,999 gallons per day: New $12,078 Expansion $9,638

(C) Wastewater treatment plants from 1,000,000 to 9,999,999 gallons per day:

New $18,056 Expansion $14,396

(D) Wastewater treatment plants, 10,000,000 gallons per day or more: New $24,034 Expansion $19,276

(E) Lift stations, less than 100,000 gallons per day: New $1,464 Expansion $1,220

(F) Lift stations from 100,000 to 999,999 gallons per day: New $3,050 Expansion $2,440

(G) Lift stations from 1,000,000 to 9,999,999 gallons per day: New $4,514 Expansion $3,660

(H) Lift stations, 10,000,000 gallons per day or more: New $5,978 Expansion $4,758

(I) Amendments to site applications concerning a change from gas chlorination to liquid chlorination or from any form of chlorination to ultraviolet light disinfection, less than 100,000 gallons per day $610

(J) Amendments to site applications concerning a change from gas chlorination to liquid chlorination or from any form of chlorination to ultraviolet light disinfection from 100,000 to 999,999 gallons per day $1,220

(K) Amendments to site applications concerning a change from gas chlorination to liquid chlorination or from any form of chlorination to ultraviolet light disinfection from 1,000,000 to 9,999,999 gallons per day $1,830

(L) Amendments to site applications concerning a change from gas chlorination to liquid chlorination

or from any form of chlorination to ultraviolet light disinfection, 10,000,000 gallons per day or more $2,440

(M) Other amendments to site application, less than 100,000 gallons per day $854

(N) Other amendments to site applications, from 100,000 to 999,999 gallons per day $1,708

(O) Other amendments to site applications, from 1,000,000 to 9,999,999 gallons per day $2,562

(P) Other amendments to site applications, 10,000,000 gallons per day or more $3,416

(Q) On-site wastewater treatment systems $3,660

(R) Interceptor site applications $1,708

(S) Outfall sewers $1,708

(1.4) The division may establish an interim fee that must be consistent and equitable with the fees contained in subsection (1.1) of this section in any case where a facility other than those listed must be permitted. This interim fee applies until the date of adjournment sine die of the next regular session of the general assembly following imposition of the interim fee.

(1.5)

(a)

(I) There is hereby created in the state treasury the commerce and industry sector fund, which consists of all annual fees for regulated activities associated with the commerce and industry sector collected pursuant to subsection (1.1) of this section; all fees for services performed by the division associated with the commerce and industry sector collected pursuant to subsection (1.3) of this section; and all interim fees associated with the commerce and industry sector collected pursuant to subsection (1.4) of this section. The division shall transmit the fees to the state treasurer, who shall credit them to the commerce and industry sector fund.

(II) There is hereby created in the state treasury the construction sector fund, which consists of all annual fees collected for regulated activities associated with the construction sector pursuant to subsection (1.1) of this section; all fees for

services performed by the division associated with the construction sector collected pursuant to subsection (1.3) of this section; and all interim fees associated with the construction sector collected pursuant to subsection (1.4) of this section. The division shall transmit the fees to the state treasurer, who shall credit them to the construction sector fund.

(III) There is hereby created in the state treasury the pesticides sector fund, which consists of all annual fees collected for regulated activities associated with the pesticides sector pursuant to subsection (1.1) of this section; all fees for services performed by the division associated with the pesticides sector collected pursuant to subsection (1.3) of this section; and all interim fees associated with the pesticides sector collected pursuant to subsection (1.4) of this section. The division shall transmit the fees to the state treasurer, who shall credit them to the pesticides sector fund.

(IV) There is hereby created in the state treasury the municipal separate storm sewer system sector fund, which consists of all annual fees collected for regulated activities associated with the municipal separate storm sewer system sector pursuant to subsection (1.1) of this section; all fees for services performed by the division associated with the municipal separate storm sewer system sector collected pursuant to subsection (1.3) of this section; and all interim fees associated with the municipal separate storm sewer system sector collected pursuant to subsection (1.4) of this section. The division shall transmit the fees to the state treasurer, who shall credit them to the municipal separate storm sewer system sector fund.

(V) There is hereby created in the state treasury the public and private utilities sector fund, which consists of all annual fees collected for regulated activities associated with the public and private utilities sector pursuant to subsection (1.1) of this section; all fees for services performed by the division associated with the public and private utilities sector collected pursuant to subsection (1.3) of this section; and all interim fees associated with the public and private utilities sector collected pursuant to subsection (1.4) of this section. The division shall transmit the fees to the state treasurer, who shall credit them to the public and private utilities sector fund.

(b)

(I) The general assembly shall annually appropriate the money in the funds created in paragraph (a) of this subsection (1.5) and in subsection (1.2) of this section to the department of public health and environment for its direct and indirect costs in administering the appropriate sector. The department shall review expenditures of the money to ensure that it is used only to fund the expenses of the discharge permit system and other activities included in subsections (1.1), (1.2), (1.3), and (1.4) of this section and that, except as specified in subparagraph (II) of this paragraph (b):

(A) Money derived from a particular sector is used only for that sector; and

(B) Money derived from subsection (1.2) of this section is used only to provide water quality certifications.

(II) Repealed.

(III) All interest earned on the investment or deposit of money in each fund and all unencumbered or unappropriated balances in each fund remain in each individual fund, shall be appropriated only for the expenses of the discharge permit system, and shall not be transferred or revert to the general fund or any other fund at the end of any fiscal year or any other time.

(c)

(I) It is the intent of the general assembly that:

(A) A portion of the expenses of the discharge permit system be funded from the general fund, reflecting the benefit derived by the general public; except that the general assembly may determine, in any given fiscal year, that general fund revenues are inadequate to meet general fund demands and that, as a consequence, it is necessary to forego, subject to future reconsideration, all or some portion of such general fund contribution to the discharge permit program pursuant to this part 5; and

(B) The fees established in this section should not be adjusted until at least 2023 and, before the general assembly adjusts the fees, the department of public health and environment shall engage stakeholders in a process to review the total funding for the discharge

permit system, including federal money, money from the general fund, and all sector fees.

(II) In furtherance of this policy, in future fee and funding changes, the ratios described in this subsection (1.5)(c)(II) should be maintained except as may be revised by the general assembly by bill:

(A) Commerce and industry sector: Fifty percent general fund and fifty percent cash funds;

(B) Construction sector: Twenty percent general fund and eighty percent cash funds;

(C) Municipal separate storm sewer: Fifty percent general fund and fifty percent cash funds;

(D) Pesticides sector: Ninety-four percent general fund and six percent cash funds;

(E) Public and private utilities sector: Fifty percent general fund and fifty percent cash funds; and

(F) Water quality certifications sector: Five percent general fund and ninety-five percent cash funds.

(d) Notwithstanding the amount specified for any fee in subsection (1.1) or (1.3) of this section, the commission by rule or as otherwise provided by law may reduce the amount of one or more of the fees if necessary pursuant to section 24-75-402 (3), C.R.S., to reduce the uncommitted reserves of the fund to which all or any portion of one or more of the fees is credited. After the uncommitted reserves of the fund are sufficiently reduced, the commission by rule or as otherwise provided by law may increase the amount of one or more of the fees as provided in section 24-75-402 (4), C.R.S.

(1.6) There is hereby created the animal feeding operations fund, which consists of all fees collected for regulated activities associated with the animal agriculture sector in paragraph (a) of subsection (1.1) of this section, as well as all fees collected for services provided by the division associated with the animal agriculture sector in subsection (1.3) of this section. The division shall transmit the fees to the state treasurer, who shall credit them to the animal feeding operations fund. Any unexpended and unencumbered moneys remaining in the animal feeding operations fund at the end of any fiscal year remain in the animal feeding operations fund and shall not be transferred or revert to the general fund or any other fund. The general

assembly shall annually appropriate the moneys in the animal feeding operations fund to the department of public health and environment for the direct and indirect costs associated with the permitting and oversight of animal feeding operations under this article.

(1.7)

(a) The department of public health and environment shall report annually to:

(I) The senate agriculture and natural resources committee and the house of representatives agriculture, livestock, and natural resources committee, or their successor committees, on:

(A) The environmental agriculture program. The report must include the number of permits processed, the number of inspections conducted, the number of enforcement actions taken, and the costs associated with all program activities during the preceding year. The department shall submit the report on or before March 31 of each year.

(B) The clean water program. The report must include the number of permits processed, the number of applications pending for new and amended permits, the length of time the permits remain in the system prior to issuance, the number of inspections conducted, the number of site application and design reviews completed, the number of enforcement actions taken, the costs associated with each sector specified in subsections (1.1), (1.2), and (1.3) of this section, the number of full-time equivalents assigned to and actively processing permits, the number of full-time equivalents assigned to and actively conducting inspections, the number of full-time equivalents assigned to and actively conducting site application and design reviews, the number of full-time equivalents assigned to and actively conducting enforcement actions, and the number of full-time equivalents assigned to and actively developing rules and standards. The department shall inform the committees regarding all new standards and rules to be proposed within the subsequent year. The department shall submit the report on or before March 31 of each year. Commencing in 2017, the department shall develop baseline information for reporting. Commencing in 2018, the department shall provide

information on improvements that have been made in comparison to the baseline information and information on the barriers to making improvements.

(II) The joint budget committee by November 1 of each year regarding the fee revenue received from each sector specified in subsections (1.1), (1.2), and (1.3) of this section, including expenditures by fund source and revenues by fund and sector source based on the November 1 request.

(b) The reporting required by this section is exempt from section 24-1-136, C.R.S.

(2)

(a) A complete and accurate application for all discharges shall be filed with the division not less than one hundred eighty days prior to the date proposed for commencing the discharge.

(b) The application shall contain such relevant plans, specifications, water quality data, and other information related to the proposed discharge as the division may reasonably require. Prior to submitting an application for a permit, the applicant may request and, if so requested, the division shall grant a planning meeting with the applicant. At such meeting, the division shall advise the applicant of the applicable permit requirements, including the information, plans, specifications, and data required to be furnished with the permit application.

(c) The division shall begin the review of an application within forty-five days after the receipt of the application and shall notify the applicant within ninety days after receipt of the application whether the application is complete. If the division determines that an application is incomplete, the division may request that the applicant submit additional information. If additional information is requested by the division and submitted by the applicant, the division shall have fifteen days after the date the additional information is submitted to determine whether the additional information satisfies the request and to advise the applicant if, and in what respects, the additional information does not satisfy the request. A final decision that an application is not complete shall be considered final agency action upon issuance of such decision to the applicant and shall be subject to judicial review. A petition for review of such decision shall be given priority scheduling by the court.

(3)

(a) The division shall evaluate complete permit applications to determine whether the proposed discharge will comply with all applicable federal and state statutory and regulatory requirements.

(b) The division shall give public notice of a complete permit application and the division's preliminary analysis of the application as provided in subsection (4) of this section. The notice shall advise of the opportunity for interested persons to submit written comments on the permit application and the division's preliminary analysis or to request, for good cause shown, a public meeting on the application and analysis. A request for a public meeting shall be made within thirty days after the initial public notice of the permit application and the division's preliminary analysis. If a public meeting is requested and the division, in its discretion and for good cause shown, grants the request, the division shall hold the public meeting not more than seventy-five days after the initial public notice. The division shall provide notice as provided in subsection (4) of this section of the public meeting not less than thirty days prior to the date of the meeting.

(c) The period for public comment shall close thirty days from the date of notice of the permit application and the division's preliminary analysis thereof; except that, if a public meeting is held on the application and analysis, the period for public comment shall close sixty days from the date of notice of the application.

(4) Public notice of every complete permit application and the division's preliminary analysis thereof shall be circulated in a manner designed to inform interested and potentially interested persons of the application and analysis. Procedures for the circulation of such public notice or a notice regarding a public meeting concerning an application and analysis shall be established by the commission and shall include at least the following:

(a) Notice shall be given by at least one publication in a newspaper of general circulation which is distributed within the geographical areas of the proposed discharge.

(b) Notice shall be mailed to any person or group upon request.

(c) The division shall add the name of any person or group upon request to a mailing list to receive copies of notices for all discharge permit applications within the state or within a certain geographical area.

(d) The division shall also, during the period from the date of the initial public notice of the application and analysis to the close of the public comment period, maintain in the office of the county clerk

and recorder of the county in which the proposed discharge, or a part thereof, is to occur a copy of its preliminary analysis and a copy of the permit application with all accompanying data for public inspection.

(5)

(a)

(I) Except as provided in this subsection (5), if the division has not finally issued or denied a permit within one hundred eighty days after receipt of the permit application, unless this time limit is waived or extended by the applicant or if the division determines at any time after receiving an application that it cannot issue a permit prior to the expiration of an existing permit, the division shall issue a temporary permit or the existing permit shall be extended pursuant to the operation of section 24-4-104, C.R.S.

(II) The deadlines established pursuant to subparagraph (I) of this paragraph (a) for a determination on a permit application shall be extended by:

(A) The number of days which an applicant takes to submit information requested by the division pursuant to paragraph (c) of subsection (2) of this section plus the fifteen days provided for the division to evaluate such additional information; and

(B) Forty-five days, if a public meeting is held pursuant to subsection (3) of this section.

(b) All temporary permits shall contain such conditions as are necessary to protect public health and shall not be less restrictive than required by state and federal effluent guidelines unless a schedule of compliance or a variance is set forth therein. A temporary permit shall be issued for a period not to exceed two years and shall expire as provided in the issuance or denial of the final permit. Issuance of a temporary permit shall be final agency action for the purposes of section 24-4-106, C.R.S.

(6) Repealed.

CO Rev Stat § 25-8-503. Permits – when required and when prohibited – variances.

(1)

(a) The division shall issue a permit in accordance with regulations promulgated under this article when the division has determined

that the provisions of this article and the federal act and regulations thereunder have been met with respect to both the application and proposed permit.

(b) When necessary for compliance with the federal act for the achievement of technology-based effluent limitations, the division may exercise best professional judgment in establishing effluent limitations on a case-by-case basis for permits as granted pursuant to paragraph (a) of this subsection (1). Technology-based effluent limitations based on best professional judgment shall be made only for good cause and in the absence of federally promulgated effluent guidelines or effluent limitation regulations promulgated by the commission and shall be subject to review as provided for in paragraph (c) of this subsection (1). Any effluent limitations established according to this paragraph (b) shall be made after considering the availability of appropriate technology, its economic reasonableness, the age of equipment and facilities involved, the process employed, and any increase in water or energy consumption.

(c) Review by a hearing officer or an administrative law judge of the department of personnel of technology-based effluent limitations based on best professional judgment shall be on request of the permit applicant or permittee or any aggrieved person and shall take place in an adjudicatory hearing to be held pursuant to section 24-4-105, C.R.S. The necessity of effluent limitations based on best professional judgment, as well as the reasonableness of the effluent limitation, considering all factors enumerated in paragraph (b) of this subsection (1), must be supported by substantial evidence. If such hearing is requested, it shall be held as part of a hearing requested to challenge the conditions of the permit.

(d) Repealed.

(2) No permit shall be issued which is inconsistent with any duly promulgated and controlling state, regional, or local land use plan or any portion of an approved regional wastewater management plan which has been adopted as a regulation pursuant to this article, unless all other requirements and conditions of this act have been met or will be met pursuant to a schedule of compliance or a variance specifying treatment requirements as determined by the division.

(3) No permit shall be issued which allows a violation of a control regulation unless the waste discharge permit contains effluent limitations and a schedule of compliance or a variance specifying treatment requirements as determined by the division.

(4) No permit shall be issued which allows a discharge that by itself or in combination with other pollution will result in pollution of the receiving waters in excess of the pollution permitted by an applicable water quality standard unless the permit contains effluent limitations and a schedule of compliance specifying treatment requirements. Effluent limitations designed to meet water quality standards shall be based on application of appropriate physical, chemical, and biological factors reasonably necessary to achieve the levels of protection required by the standards.

(5) Activities such as diversion, carriage, and exchange of water from or into streams, lakes, reservoirs, or conveyance structures, or storage of water in or the release of water from lakes, reservoirs, or conveyance structures, in the exercise of water rights shall not be considered to be point source discharges of pollution under this article. Water quality standards may apply to discharges from such activities only if the commission has adopted appropriate control regulations pursuant to section 25-8-205. Nothing in this article shall supersede the provisions of articles 80 to 93 of title 37, C.R.S.

(6) Nothing in subsection (5) of this section shall exempt any point source discharger which generates wastewater effluent from the requirement of obtaining a permit pursuant to this article. All permits for such discharges shall apply at the point where wastewater effluent is released from the control of the discharger. All permits for discharges into ditches or other man-made conveyance structures shall contain such provisions as are necessary for the protection of agricultural, domestic, industrial, and municipal beneficial uses made of the waters of the ditch or other man-made conveyance structures, which use or uses were decreed and in existence prior to the inception of the discharge.

(7) Repealed.

(8) Where a permit requires treatment to levels necessary to protect water quality standards and beyond levels required by technology-based effluent limitation requirements, the division must determine whether or not any or all of the water-quality-standard-based effluent limitations are reasonably related to the economic, environmental, public health, and energy impact to the public and affected persons, and are in furtherance of the policies set forth in sections 25-8-102 and 25-8-104. The division's determination shall be based upon information available to it including information provided during the public comment period on the draft permit or in response to specific requests for information. Such determinations shall be included as a part of the written record of the issuance of the final permit, whether or not a

variance is available under subsection (9) of this section to alter the water quality standard based effluent limitations.

(9) The division may grant a variance from otherwise applicable requirements only to the extent authorized in the federal act or implementing regulations. Variances may be granted for no longer than the duration of the permit. Variances shall be granted or renewed according to the procedure established in section 25-8-401 (5). Any variances granted prior to June 4, 1985, which were validly granted under the provisions then in effect shall be valid according to their original terms.

CO Rev Stat § 25-8-504. Agricultural wastes.

(1) Neither the commission nor the division shall require any permit for any flow or return flow of irrigation water into state waters except as may be required by the federal act or regulations. The provisions of any permit that are so required shall not be any more stringent than, and shall not contain any condition for monitoring or reporting in excess of, the minimum required by the federal act or regulations.

(2)

(a) Neither the commission nor the division shall require any permit for animal or agricultural waste on farms, ranches, and horticultural or floricultural operations, except as may be required by the federal act or regulations. The provisions of any permit that are so required shall not be any more stringent than, and shall not contain any condition for monitoring or reporting in excess of, the minimum required by the federal act or regulations.

(b) Nothing in paragraph (a) of this subsection (2), as amended by House Bill 05-1180, as enacted at the first regular session of the sixty-fifth general assembly, shall be construed as changing the property tax classification of property owned by a horticultural or floricultural operation.

(3) No permit or fee shall ever be required pursuant to this part 5 for the diversion of water from natural surface streams.

(4) Nothing in this section shall be construed to affect the requirement of permits for housed commercial swine feeding operations pursuant to section 25-8-501.1.

5 CO Code Regs 1002-61 § 13. Housed Commercial Swine Feeding Operations.

61.13(1) **SCOPE AND PURPOSE**

(a) The provisions in this section 61.13 implement the provisions of section 25-8-501.1, C.R.S. This section also includes permit regulations required by the federal concentrated animal feeding operation (CAFO) regulations as revised effective July 24, 2007 and December 22, 2008.

(b) The purpose of these regulatory provisions is to ensure that the storage and land application of waste from housed commercial swine feeding operations is done in a responsible manner so as not to adversely impact Colorado's valuable water resources.

61.13(2) **SPECIFIC APPLICABILITY**

(a) Housed commercial swine feeding operations have a duty to seek coverage under an individual discharge permit. No person shall operate, construct, or expand a housed commercial swine feeding operation without first having obtained an individual discharge permit from the Division.

(b) Housed commercial swine feeding operations shall comply with the relevant sections of Regulation #61, not superseded by this section 61.13, which shall be incorporated in the permit.

(c) Land Application Discharges from a housed commercial swine feeding operation - The discharge of residual solids or swine feeding process wastewater to surface water from a housed commercial swine feeding operation (HCSFO) as a result of the application of that residual solids or swine feeding process wastewater by the HCSFO to land areas under its control is a discharge from that HCSFO subject to permit requirements, except where it is an agricultural storm water discharge. For purposes of this section 61.13, where the residual solids or swine feeding process wastewater has been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the residual solids or swine feeding process wastewater, as specified in those parts of the swine waste management plan that address subsections 61.13 (viii), (ix), (x) and (xvi), a precipitation-related discharge of residual solids or swine feeding process wastewater from land areas under the control of a HCSFO is an agricultural stormwater discharge.

61.13(3) **APPLICATIONS AND REQUIRED PLANS**

(a) All new housed commercial swine feeding operations shall submit to the Division, at least one hundred eighty (180) days prior to beginning construction of facilities for such operations, a completed permit application on a form obtained from the Division. Provided, that the permit application may be submitted at a later date, that is not less than 180 days prior to swine

being placed on the operation, with the approval of the Division following a pre-application meeting.

(b) Application requirements for New Operations - New housed commercial swine feeding operations shall provide the following information to the Division as set forth in the permit application;

(i) Relevant information pursuant to provisions of subsections 61.4(1), (2), and (7);

(ii) Calculations which identify the maximum proposed animal capacity in accordance with the definition of a housed commercial swine feeding operation;

(iii) A construction plan, as described in subsection 61.13 ;

(iv) An operations plan as described in subsection 61.13(3)(e);

(v) A swine waste management plan as described in subsection 61.13(3)(f);

(vi) A monitoring plan as described in subsection 61.13(3)(g); and

(vii) A financial assurance plan, consistent with the requirements of subsection 61.13(3)(h); and

(viii) For non-land-application facilities, documentation that the operations will meet the definition of "non-land-application facility" for the term of the requested permit.

(ix) The following information:

(A) The name of the owner or operator;

(B) The facility location and mailing addresses;

(C) Latitude and longitude of the production area (entrance to production area);

(D) A topographic map of the geographic area in which the housed commercial swine feeding operation is located showing the specific location of the production area;

(E) Specific information about the number and type of housed swine (for example, boars, sows, feeders, nursery pigs);

(F) The type of containment and storage for residual solids and swine feeding process wastewater (for example, anaerobic lagoon, roofed storage shed, storage ponds, underfloor pits,

above ground storage tanks, below ground storage tanks, concrete pad, impervious soil pad, stockpiles, composting), and total capacities for residual solids and swine feeding process wastewater (tons/gallons);

(G) The total number of acres under the control of the applicant available for land application of residual solids or swine feeding process wastewater;

(H) Estimated amounts of residual solids and swine feeding process wastewater generated per year (tons/gallons); and

(I) Estimated amounts of residual solids and swine feeding process wastewater transferred to other persons per year.

(c) Application Requirements for Existing Operations - Existing housed commercial swine feeding operations shall provide the following information to the Division as set forth in the permit application:

(i) Relevant information pursuant to provisions of subsection 61.4(1), (2), and (7);

(ii) Calculations which identify the maximum proposed animal capacity in accordance with the definition of a housed commercial swine feeding operation;

(iii) A construction plan, as described in subsection 61.13(3)(d). If the construction plan indicates that any provision of subsection 61.13 , or of the water quality setbacks established in subsection 61.13 , is not currently being met, then the application shall include a plan for making necessary modifications to the facilities by July 1, 2000 such that the applicable requirement(s) will be met;

(iv) Readily available information regarding the existing swine waste management practices of the operation, including any information related to the swine waste management plan elements identified in subsection 61.13(3)(f); and

(v) For non-land-application facilities, documentation that the operations will meet the definition of "non-land-application facility" for the term of the requested permit.

(vi) A swine waste management plan as described in subsection 61.13(3)(f);

(vii) The following information:

(A) The name of the owner or operator;

(B) The facility location and mailing addresses;

(C) Latitude and longitude of the production area (entrance to production area);

(D) A topographic map of the geographic area in which the housed commercial swine feeding operation is located showing the specific location of the production area;

(E) Specific information about the number and type of housed swine (for example, boars, sows, feeders, nursery pigs);

(F) The type of containment and storage for residual solids and swine feeding process wastewater (for example, anaerobic lagoon, roofed storage shed, storage ponds, underfloor pits, above ground storage tanks, below ground storage tanks, concrete pad, impervious soil pad, stockpiles, composting), and total capacities for residual solids and swine feeding process wastewater (tons/gallons);

(G) The total number of acres under the control of the applicant available for land application of residual solids or swine feeding process wastewater;

(H) Estimated amounts of residual solids and swine feeding process wastewater generated per year (tons/gallons); and

(I) Estimated amounts of residual solids and swine feeding process wastewater transferred to other persons per year.

(d) Construction Plan Requirements - The construction plan shall contain documentation which demonstrates that each applicable provision of subsection 61.13 has been or will be met and which also demonstrates compliance with the water quality setbacks established in subsection 61.13 . In addition to such documentation, the plan shall include the following information:

(i) A description of the confined swine feeding operation site(s) and vicinity including a site plan(s) prepared on one or more 7.5' USGS topographic quadrangle maps or a high quality reproduction(s). The site plan(s) shall show:

(A) All swine feeding process wastewater collection systems in housed units and any swine feeding process wastewater conveyance, treatment, storage, and land application

facilities and contiguous property for each site presently owned or utilized by the housed commercial swine feeding operation;

(B) The 100-year floodplain in the vicinity of the swine waste management aspects of the operation, which may be based on designations by the Colorado Water Conservation Board, where available; and

(C) The location of occupied dwellings, public or private schools, incorporated municipalities, private and community domestic water wells, wetlands, streams, and reservoirs which are within 200% of the setback distances specified in subsection 61.13(4)(f) of these regulations.

(ii) Design calculations, which document that applicable provisions of subsection 61.13 have been met, for all swine feeding process wastewater collection systems in housed units and any swine feeding process wastewater conveyance, treatment, storage, and land application facilities.

(iii) For new facilities, construction plans and specifications for the waste collection systems in the housed units and the waste conveyance, storage, treatment, and land application systems consistent with the design calculations described in (ii), above. These shall also include the method that will be used to convey or transport the swine waste to the land application sites. The plans and specifications submitted with the application shall include sufficient detail to demonstrate compliance with the requirements of subsection 61.13 . If not included in the information submitted with the application, the following information shall be submitted prior to permit issuance or in accordance with a compliance schedule included in the permit:

(A) Construction and installation procedures;

(B) Assurances that testing will be conducted to assure that materials used in impoundments for the treatment, storage, or evaporation of swine feeding process wastewater meet the requirements of subsection 61.13(4)(c)(iii) of this regulation;

(C) Operating and performance characteristics of mechanical equipment and materials associated with the swine feeding process wastewater and residual solids collection/conveyance, storage, treatment, and land application systems.

(iv) For existing facilities, as-built construction plans and specifications, or other documentation as approved by the Division, for swine feeding process wastewater and residual solids collection systems in housed units and the waste conveyance, storage, treatment, and land application systems. These documents shall, to the degree practicable, be modified or supplemented such that the information in subsection (iii), above, is provided.

(v) For operations located on state trust lands, information sufficient to demonstrate that the provisions of subsection 61.13(4)(g)(ii)(C) are met.

(e) Operations Plan - The operations plan shall provide for compliance with the provisions of subsection 61.13 . The plan shall also include a description of necessary operation and maintenance procedures, including, but not limited to, the following:

(i) Procedures for the operation and maintenance of swine feeding process wastewater collection systems in housed units and swine feeding process wastewater and residual solids conveyance, treatment, storage, and land application systems to ensure their continued functionality, including periodic inspection procedures to ensure their physical and mechanical integrity;

(ii) Procedures to address spills and prevention of contamination due to equipment or structural failure and power outages. Such procedures shall not apply to spills that qualify as "de minimis" relative to the site-specific conditions, in accordance with a site-specific interpretation of "de minimis" proposed by the permittee, approved by the Division and included in the permit;

(iii) Procedures to ensure that surface and ground water quality is not impacted as a result of storage or disposal of dead animals.

(f) Swine Waste Management Plan - Any permit issued to a housed commercial swine feeding operation ("HCSFO") must require compliance with the terms of the HCSFO's site-specific swine waste management plan. The terms of the swine waste management plan are the information, protocols, best management practices, and other conditions in the swine waste management plan determined by the Division to be necessary to meet the requirements of subsections 61.13 , 61.13 and 61.13 . A HCSFO shall develop and implement a complete swine waste management plan as of the date of permit coverage. The plan shall be prepared under the supervision of a professional engineer registered in the State of Colorado, by the Natural Resources Conservation Service, by a qualified Cooperative Extension Agent, by a

certified crop advisor certified by the American Society of Agronomy or by an independent crop consultant certified by the National Alliance of Independent Crop Consultants. The plan shall include sufficient site-specific hydrologic and agronomic information, supplemented by other scientifically supported information, to document that land application of all residual solids and swine feeding process wastewater will be conducted and sustained at or below the agronomic rate of application for crops or vegetation to be grown on the application site(s). The plan shall quantify the disposition of all residual solids and swine feeding process wastewater produced at the facility whether put to beneficial use through land application on-site or transported off-site. The swine waste management plan must identify and address the following:

(i) Daily, seasonal, and annual quantities and/or flow rates of residual solids and swine feeding process wastewater to be applied to the land area;

(ii) Concentrations of specific constituents including, but not limited to, nitrogen, phosphorus, heavy metals, and salts present in the residual solids or swine feeding process wastewater as a result of the housed commercial swine feeding operation;

(iii) Climatic conditions, including temperature and precipitation regime, as they may seasonally affect the plants' ability to uptake nutrients and other constituents present in the wastewater;

(iv) Soil types in the land application sites;

(v) Documentation which supports any post-treatment reduction in waste concentration(s) prior to land application;

(vi) Identify the crops to be planted in each field, or any other uses such as pasture or fallow fields. Identify alternative crops that are not in the planted crop rotation for each field. Identify the realistic yield goal for each crop and alternative crop for each field.

(vii) The specific land parcels and acreage to receive the residual solids and swine feeding process wastewater and a demonstration that adequate and suitable land is available upon which to land apply the residual solids and swine feeding process wastewater in accordance with the agronomic rate of application;

(viii) Identify the constituents in residual solids, swine feeding process wastewater, and soils that will be analyzed, and the testing protocols that will be used for the analyses, to ensure the provisions of subsection 61.13(4)(e) are met;

(ix) Identification and a description of the methods for determining application rates and setbacks, and the potential for nitrogen and phosphorus transport from land application sites that will ensure the provisions of subsection 61.13(4)(e) and 61.13(4)(f)(iii) are met;

(x) A description of the planned method of residual solids and swine feeding process wastewater land application, disposal, or other usage, land application equipment leak inspection protocols, and surface water runoff controls and setbacks that will be implemented to prevent wastes from being discharged to waters of the state or beyond the property boundary of the land application site;

(xi) A description of how the permittee will ensure adequate storage of residual solids and swine feeding process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities;

(xii) A description of how animal mortalities will be managed to ensure that they are not disposed of in any liquid residual solids or swine feeding process wastewater system that is not specifically designed to treat animal mortalities, and are handled in such a way as to prevent the discharge of pollutants to surface waters;

(xiii) Indicate how the permittee will ensure that clean water is diverted, as appropriate, from the production area;

(xiv) Indicate how swine will be prevented from having direct contact with surface water;

(xv) A description of how chemicals and other contaminants handled on-site are not disposed of in any residual solids or swine feeding process wastewater storage or treatment system unless specifically designed to treat such chemicals and other contaminants;

(xvi) Identify specific records that will be maintained to document the implementation and management of the elements required in subsections 61.13(3)(f)(vi) through (xv), above;

(xvii) Feed management practices employed, if any, to reduce nutrient concentrations in swine feeding process wastewater or residual solids;

(xviii) If swine waste is to be applied on property not owned by the permittee, written agreements with landowners for off-site land application must be included in the plan. Agreements entered into after March 30, 1999, with landowners for land application shall allow the Division or its agent to assume the rights of the permittee

under the agreement in the event that a facility must be brought to final closure by the state unless alternative treatment and disposal are provided for under the financial assurance plan, subsection 61.13 . The permittee shall provide notice to each landowner of property on which off-site land application occurs of the Division's authority to enter and inspect premises pursuant to section 25-8-306, C.R.S. The permittee shall provide evidence that any agreement with the landowner entered into after March 30, 1999, provides a right of entry to the Division to monitor for compliance with the permit, either directly in the agreement or by assignment of the permittee's rights under the agreement. The Division may require that the permittee cease land application on any off-site lands to which the Division is denied entry; and

(xix) Changes to Swine Waste Management Plan

(A) Any permit issued to a HCSFO must require the following procedures when a HCSFO owner or operator makes changes to the swine waste management plan previously submitted to the Division:

(I) The HCSFO owner or operator must provide the Division with the most current version of the HCSFO's swine waste management plan and identify changes from the previous version, except that the results of calculations made in accordance with the requirements of paragraph 61.13 are not subject to the requirements of this section.

(II) The Division must review the revised swine waste management plan to ensure that it meets the requirements of this section and applicable effluent limitations and standards, including those specified in 61.13(4) below, and must determine whether the changes to the swine waste management plan necessitate revision to the terms of the swine waste management plan incorporated into the permit issued to the HCSFO.

1. If revision to the terms of the swine waste management plan is not necessary, the Division must notify the HCSFO owner or operator and upon such notification the HCSFO may implement the revised swine waste management plan.

2. If the Division determines that the changes to the terms of the swine waste management

plan are necessary, the Division must notify the public and make the proposed changes and the information submitted by the HCSFO owner or operator available for public review and comment. The process for public comments, hearing requests, and the hearing process if a hearing is held must follow the procedures applicable to draft permits set forth in 61.5. Once the Division incorporates the changes to the terms of the swine waste management plan into the permit, the Division must notify the owner or operator and inform the public of the final decision concerning changes to the terms and conditions of the permit.

(III) Changes to any terms of the swine waste management plan are incorporated as terms and conditions of the permit. Such changes include, but are not limited to:

1. Addition of new land application areas not previously included in the HCSFO's swine waste management plan;

2. Any changes to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop, as set forth in paragraph 61.13(4)(e) of this section;

3. Addition of any crop or other uses not included in the terms of the HCSFO's swine waste management plan and corresponding field-specific rates of application expressed in accordance with paragraph 61.13(4)(e) of this section: and

4. Changes to site-specific components of the HCSFO's swine waste management plan, where such changes are likely to increase the risk of nitrogen and phosphorus transport to surface water.

(g) Monitoring Plan

(i) The monitoring plan shall describe monitoring methods which demonstrate compliance with subsections 61.13(4)(e) and 61.13 . Where the plan does not include quarterly sampling of ground water beneath each land application site, soils within the agronomic root zone, or

soils within the monitoring zone, the plan shall include documentation that this sampling frequency is not practicable.

(ii) Where residual solids or swine feeding process wastewater are to be stored in lined earthen impoundments or land applied, the plan shall include a geo-hydrologic report for each such site prepared by a qualified professional geologist or ground water hydrologist that includes:

(A) A description of the lithology of the stratigraphic column from the surface down to the uppermost aquifer(s) encountered at the site(s), which may be taken from existing geologic maps for the site, if available;

(B) The depth to ground water and ground water flow direction at the site(s);

(C) The vertical and horizontal conductivity and gradients at the site(s);

(D) The amount of annual ground water recharge from precipitation and irrigation;

(E) Established baseline ground water quality at locations and for parameters to be determined in consultation with the Division;

(F) The locations and uses of all existing wells and springs within a one (1) mile radius of the proposed site(s); and

(G) Information which establishes whether there is a direct hydrologic connection between the ground water under the site(s) and adjacent surface waters.

(H) Map(s) and narrative descriptions of the proposed ground water monitoring wells, including locations, depths, and perforated intervals.

Provided, that the Division may waive the requirements for site-specific information regarding vertical and horizontal conductivity and/or the amount of annual ground water recharge based upon documented site-specific conditions such as great depth to ground water or presence of an impervious layer between the surface and the uppermost aquifer.

(iii) For operations located on state trust lands:

(A) Information which establishes concentrations of nitrogen, phosphorus, heavy metals and salts in the agronomic root

zone and monitoring zone of each land application site, and in the ground water;

(I) For existing operations, baseline concentrations shall be established.

(II) For existing operations where the permit has expired, lapsed, or otherwise has not been valid for two years or more, or where housed commercial swine feeding operation activities have not occurred for two years or more, new baseline concentrations shall be established.

(III) For new land application sites at existing operations that have never received swine feeding process wastewater or residual solids, background concentrations shall be established from the immediate vicinity of the housed commercial swine feeding operations on state lands but which have not been impacted by such operations.

(IV) For new operations, background concentrations shall be established from the immediate vicinity of housed commercial swine feeding operations on state lands.

(B) Background information which describes the existing plant communities (i.e., species composition, relative abundance, cover density) in the immediate vicinity of housed commercial swine feeding operations but which have not been impacted by such operations;

(C) Sampling, analysis and interpretive assessment methods and procedures to allow for a demonstration by the owner/operator of a housed commercial swine feeding operation that soil within the monitoring zone and ground water have not been contaminated above the established baseline or background conditions established pursuant to subsection 61.13(3)(g)(viii)(A), above.

(h) Financial Assurance Plan - The owner or operator of the housed commercial swine feeding operation shall provide a financial assurance plan which addresses the final closure of the housed commercial swine feeding operation and the conduct of any necessary post-closure activities. Post-closure activities would include, but not be limited to, continuing maintenance or monitoring activities. The extent of closure and post closure activities, and hence the cost estimate for such activities, shall take into account site-specific risk factors including, but not limited to, soils composition, hydrology, vegetation, climatic conditions and ambient levels of constituents of concern.

(i) Where required by the Division the permittee shall include in the financial assurance plan the undertaking of any corrective action made necessary by contamination caused by the housed commercial swine feeding operation or clean-up of any spill or breach.

(ii) The financial assurance plan shall provide for compliance with the provisions of subsection 61.13 and shall contain written itemized cost estimates for hiring a third party to close a housed commercial swine feeding operation and to conduct any necessary post-closure activities assuming, at the time of closure, that the operation is operating at the maximum capacity anticipated during the term of the permit as identified in the permit application. The cost estimates shall be prepared under the supervision of a professional engineer registered in the State of Colorado and shall include, but not be limited to: removal and proper disposal of residual solids and swine feeding process wastewater from collection systems in housed units and conveyance, treatment and storage facilities; removal and proper disposal of any stockpiles; revegetation of the site and other actions necessary to assure long-term protection of water quality.

(iii) For operations located on state trust lands, written itemized cost estimates for hiring a third party to perform closure and post-closure activities for the housed commercial swine feeding operation, including revegetation of the site in a manner that prevents erosion.

(iv) The Division may reject the proposed form(s) of financial assurance upon a determination of insufficiency. The Division shall notify the permittee of the decision to accept or reject the proposed forms of financial assurance.

61.13(4) **REQUIREMENTS FOR HOUSED COMMERCIAL SWINE FEEDING OPERATIONS**

(a) Plan Submission and Compliance Requirements for Existing, New Existing Source, and New Source Facilities - Existing, new existing source, and new source housed commercial swine feeding operations shall submit the following information to the Division, by the dates identified below, for approval:

(i) A complete operations plan, as described in subsection 61.13 , shall be submitted no later than July 1, 1999;

(ii) Except for non-land application facilities, a complete swine waste management plan, as described in subsection 61.13 , shall be submitted no later than September 30, 1999. By December 31, 2006 the owner or operator of an existing source housed commercial swine feeding operation, which includes an operation that existed as of June 30,

2004, shall develop and implement a complete swine waste management plan in accordance with subsection 61.13 , as revised effective June 30, 2004. A new source operation, and an animal feeding operation that becomes a housed commercial swine feeding operation after June 30, 2004, shall develop and implement a complete swine waste management plan as of the date of permit coverage. A housed commercial swine feeding operation that was issued a permit by June 30, 2004, including non-land application operations, shall submit to the Division for approval by May 30, 2006 a swine waste management plan that meets the requirements of subsection 61.13 , including the elements of subsections 61.13 , which were either revised or added effective June 30, 2004. Until such a plan is approved, an operation that was issued a permit by June 30, 2004 shall comply with its currently approved swine waste management plan.

(iii) A complete monitoring plan, as described in subsection 61.13 , shall be submitted no later than December 31, 1999; and

(vi) A complete financial assurance plan, as described in subsection 61.13, shall be submitted no later than December 31, 1999.

The Division may, with accompanying justification, request additional information from the permittee for any of these plans. Failure to provide such information, or justification acceptable to the Division as to why the plan meets the requirement of the respective section, will be grounds for revocation of the permit.

(b) Review and Approval of Plans for Existing Facilities.

(i) Plans submitted pursuant to subsection 61.13 shall be available for public review. Any person may submit written comments regarding the submitted plans within 30 days following the deadlines set forth in that subsection.

(ii) The permittee shall comply with the provisions of the plans submitted and approved under subsection 61.13 . The Division may amend or reissue the permit to include all or part of any approved plan as a condition of the permit.

(c) Facility Design and Construction Requirements.

(i) Evaporation impoundments shall be of sufficient capacity to retain any planned volume of liquid residual solids and the maximum design volume of swine feeding process wastewater produced during the continuous ten (10) year period of minimum net evaporation based

on the entire period of record. Such impoundments shall also be capable of containing any planned volume of liquid residual solids and swine feeding process wastewater, including the runoff resulting from a 25-year, 24-hour storm, or if a new source facility, be capable of meeting the requirements set forth in 61.13(4)(d)(xvi)(B) below. The permittee shall confirm that these conditions have been met by conducting a water budget analysis and submitting that analysis with the design calculations. For purposes of the water budget analysis, pan evaporation rates should be utilized.

(ii) Open surface impoundments and tanks which are used to treat, store, or evaporate swine feeding process wastewater shall have at least two feet of freeboard above the working liquid level.

(iii) Swine feeding process wastewater collection systems in housed units, swine feeding process wastewater conveyance systems, and impoundments and tanks which are used to treat, store, or evaporate swine feeding process wastewater shall be constructed and maintained such that the seepage rate from any such system, tank, or impoundment does not exceed 1 X 10-6 cm/sec.

(iv) Facilities for storage of swine feeding process wastewater and liquid residual solids shall be provided to account for periods during which land application cannot occur in accordance with subsection 61.13 , and to be capable of containing liquid residual solids and swine feeding process wastewater, including the runoff resulting from a 25-year, 24-hour storm or, if a new source facility, be capable of meeting the requirements set forth in 61.13(4)(d)(xvi)(B) below. For existing source facilities, the volume of storage to be provided may be based on a site-specific analysis. This analysis shall account for: the peak volume and concentration of swine feeding process wastewater that will be generated during the identified period; seasonal plant uptake rates; and on-site climatic data or off-site published climatic data. In lieu of such analysis, the permittee shall provide capacity to store the peak volume of swine feeding process wastewater that will be generated during a six-month period.

(v) Facility designs for new housed commercial swine feeding operations shall be prepared under the supervision of a professional engineer registered in the State of Colorado.

(I) Any reduction in swine feeding process wastewater pollutant concentrations as a result of treatment shall be supported by site-specific data or applicable published engineering or

agricultural waste management principles and shall include consideration of any applicable odor control requirements.

(vi) Depth markers shall be installed in all open-surface impoundments and tanks to indicate the design volume (pursuant to subsection 61.13 and clearly indicate the two-foot freeboard elevation, and the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour storm event. At a minimum, depth markers should be clearly marked in one (1) foot increments.

(d) Operation and Maintenance Requirements

(i) Accumulations of solids shall be removed from the swine feeding process wastewater treatment, storage, and evaporation impoundments and tanks as necessary to ensure sufficient capacity to retain all swine feeding process wastewater produced during periods when land application or disposal operations cannot be conducted due to conditions which may preclude land application in accordance with subsection 61.13(4)(e).

(ii) Residual solids stockpile areas shall be constructed to ensure that all precipitation which comes in contact with the stockpiles is captured and diverted to appropriate swine feeding process wastewater treatment or evaporation facilities.

(iii) Swine feeding process wastewater collection systems in housed units and swine feeding process wastewater conveyance systems shall be operated and maintained to collect and convey peak flows without overflowing.

(iv) No land application of residual solids or swine feeding process wastewater shall occur on lands which are saturated or on land with a snow depth of greater than one inch.

(v) No land application of residual solids or swine feeding process wastewater shall occur on lands which are frozen unless a site-specific analysis demonstrates that runoff will not occur.

(vi) Land application of residual solids and swine feeding process wastewater shall not occur:

(A) More than 30 days prior to or subsequent to the normal growing season for the crop to which the wastewater is being applied; or

(B) Outside of the period March 1 through October 31; whichever is less restrictive, except pursuant to approved odor management, swine waste management, and monitoring plans.

(vii) Removal of solids or swine feeding process wastewater from an impoundment shall be accomplished in a manner that does not damage the integrity of the liner.

(viii) Operations shall be conducted in a manner that does not result in contamination of ground water or a discharge to surface water not specifically authorized by the permit.

(ix) Non-land-application facilities must identify a method of disposal of residual solids and swine feeding process wastewater other than by on-site or off-site land application. Such facilities shall also demonstrate that no discharge to surface waters shall occur.

(x) Weekly inspections shall be made in the production area of all freshwater run-on diversion devices, devices channeling contaminated stormwater to impoundments or tanks, runoff diversion structures, and impoundments and tanks. Such inspections of impoundments and tanks shall note the level of swine feeding process wastewater as indicated by the depth marker required under subsection 61.13(4)(c)(vi), above.

(xi) Daily inspections shall be made of water lines in the production area, including drinking water or cooling lines.

(xii) Any deficiencies found as a result of the daily and weekly inspections identified in subsections 61.13 , above, shall be corrected as soon as possible, but no later than 30 days of such a deficiency having been identified, unless factors preventing correction within 30 days have been documented.

(xiii) The owner or operator shall periodically inspect equipment used for land application of residual solids or swine feeding process wastewater.

(xiv) Mortality Handling - Mortalities must not be disposed of in any liquid residual solids or swine feeding process wastewater system, and must be handled in such a way as to prevent the discharge of pollutants to surface water, unless an alternative performance standard is approved by the Division that includes a technology designed to handle mortalities.

(xv) General Pretreatment Standards - Operations that introduce swine feeding process wastewater pollutants into publicly owned treatment works (POTW) must comply with 40 CFR 403.

(xvi) Effluent Limitations for housed commercial swine feeding operations (HCSFOs)

(A) Existing source operations

(I) Production areas - Except as provided in subsections 61.13 below, there shall be no discharge of residual solids or swine feeding process wastewater into surface water from the production area. Operations shall attain the limitations and requirements of this subsection 61.13 as of the date of permit coverage.

(1) Whenever precipitation causes an overflow of residual solids or swine feeding process wastewater, pollutants in the overflow may be discharged into surface water provided:

1) the production area is designed, constructed, operated, and maintained to contain all residual solids and swine feeding process wastewater, including the runoff and direct precipitation from a 25-year, 24-hour storm, at minimum;

2) the production area is operated in accordance with the production area best management practices specified in subsections 61.13 and 61.13 , and (xii), and the records specified in subsections 61.13(4)(j)(i), (ii), and (iii); and

3) the production area is operated and maintained in accordance with the provisions of subsection 61.13 not pertaining to land application.

(2) Where an operation has requested and the Division has approved effluent limitation based upon a site-specific alternative technology, pursuant to section 61.13(4)(d)(xvii)(A), below.

(II) Land application areas - Discharges from land application areas are subject to the following requirements.

(1) Develop and implement the swine waste management plan specified in section 61.13 and in accordance with the provisions of subsection 61.13 , and the best management practices specified in subsections 61.13(3)(f), 61.13(4)(e), and 61.13(4)(f).

(2) Maintain a complete copy of the information for the best management practices required at subsections 61.13 (ii)(B), (e)(ii)(C), and (e)(ii)(D), subsections 61.13 and 61.13 , and the records specified at subsections 61.13(4)(j), (j)(i), and (j)(iv).

(3) Comply with the land application provisions of subsection 61.13 . Operations shall attain the limitations and requirements of this subsection 61.13 as of the date of permit coverage.

(B) New source operations

(I) Production areas - Except as provided in subsections 61.13 of this section, there shall be no discharge of residual solids or swine feeding process wastewater into surface water from the production area. Operations shall attain the limitations and requirements of this section 61.13 as of the date of permit coverage.

(1) Best management practice effluent limitations included in the permit must address the HCSFO's entire production area. In the case of any HCSFO using open surface impoundments or tanks that are used to treat, store or evaporate swine feeding process wastewater for which the Division establishes such effluent limitations, "no discharge of manure, litter, or process wastewater pollutants," as used in this section, means that the storage structure is designed, operated, and maintained in accordance with best management practices established by the Division on a site-specific basis after a technical evaluation of the storage structure. The technical evaluation must address the following elements:

a. Information to be used in the design of the open surface impoundments or tanks including, but not limited to, the following: minimum storage periods for rainy seasons, additional minimum capacity for chronic rainfalls, applicable technical standards that prohibit or otherwise limit land application to frozen, saturated, or snow-covered ground, planned emptying and dewatering schedules consistent with the HCSFO's Swine Waste Management Plan, additional storage capacity for swine feeding process wastewater intended to be transferred to another recipient at a later time, and any other factors that would affect the sizing of the open surface impoundments or tanks.

b. Open surface impoundments or tanks must be designed using procedures and/or software approved by the Division.

c. All inputs used in the open surface impoundment or tank design including actual climate data for the previous 30 years consisting of historical average monthly precipitation and evaporation values, the number and types of animals, anticipated animal sizes or weights, any added water and residuals, any other process wastewater, and the size and condition of outside areas exposed to rainfall and contributing runoff to the open surface impoundments or tanks. If actual climate data is not available, the best available data from the most proximate weather station(s), such as those utilized by the Colorado State University Colorado Climate Center or the National Oceanic and Atmospheric Administration should be used.

d. The planned minimum period of storage in months including, but not limited to, the factors for designing an open surface impoundment or tank as listed in

paragraph (I)(1)(a) of this section. Alternatively the HCSFO may determine the minimum period of storage by specifying times the storage pond will be emptied consistent with the HCSFO's Swine Waste Management Plan.

e. Site-specific predicted design specifications including dimensions of the storage facility, residual solids and daily swine feeding process wastewater additions, the size and characteristics of the land application areas, and the total calculated storage period in months.

f. Evaluation of the adequacy of the designed open surface impoundments or tanks must use evaluations and simulations approved by the Division. The evaluation must include all simulation inputs including, but not limited to, daily precipitation, temperature, and evaporation data for the previous 100 years, user-specified soil profiles representative of the HCSFO's land application areas, planned crop rotations consistent with the HCSFO's Swine Waste Management Plan, and the final modeled result of no overflows from the designed open surface impoundments or tanks. For those HCSFOs where 100 years of local weather data for the HCSFO's location is not available, HCSFOs may use a simulation with a confidence interval analysis conducted over a period of 100 years. The Division may approve equivalent evaluation and simulation procedures.

g. The Division may waive the requirement of (I)(1)(f) for a site-specific evaluation of the designed open surface impoundments or tanks and instead authorize a HCSFO to use a technical evaluation developed for a class of specific facilities within a specified geographical area.

h. Waste management and storage facilities designed, constructed, operated, and maintained consistent with the analysis conducted in paragraphs (I)(1)(a) through (I)(1)(g) of this section and operated in accordance with the additional measures and records required in section 61.13 and 61.13 , will fulfill the requirements of this section.

i. The Division has the discretion to request additional information to support a request for effluent limitations based on a site-specific open surface impoundment or tank.

(2) The production area must be operated in accordance with the additional measures and recordkeeping required in section 61.13(4)(d) and 61.13(4)(e).

(3) Provisions for upset/bypass, as provided in 61.8(3)(i) & (j), apply to a new source subject to this provision.

(II) Land application areas - Discharges from land application areas are subject to the following requirements.

(1) Develop and implement the swine waste management plan specified in subsection 61.13 and in accordance with the provisions of subsection 61.13, and the best management practices required in subsections 61.13 , 61.13 , and 61.13(4)(f). Operations shall attain the limitations and requirements of this subsection 61.13 as of the date of permit coverage.

(2) Maintain a complete copy of the information for the best management practices required by subsections 61.13 , and (e)(ii)(B), (e)(ii)(C), and (e)(ii)(D), subsections 61.13 and 61.13 , and the records specified at subsections 61.13 (i), and (j)(iv). Operations shall attain the limitations and requirements of this subsection 61.13 as of the date of permit coverage.

(3) Comply with the land application provisions of subsection 61.13 . Operations

shall attain the limitations and requirements of this subsection 61.13 (d)(xvi)(B)(II)(3) as of the date of permit coverage.

(xvii) Voluntary Alternative Performance Standards

The owner or operator of a housed commercial swine feeding operation may voluntarily request the Division to establish alternative Colorado Discharge Permit System effluent limitations based upon the operation's proposed use of site-specific alternative technologies. The request shall include the information specified below. The operator shall attain the limitations and requirements of subsection 61.13 , as of the date of permit coverage.

(A) Existing Source Housed Commercial Swine Feeding Operations - A supporting technical analysis and any other relevant information and data that would support such site-specific effluent limitations within the time frame provided by the Division. The supporting technical analysis and other relevant information and data shall consist of, but not be limited to, the following.

(I) Information about the proposed innovative technology that includes, but is not limited to, the following:

(1) A description of the technology, manufacturer's name and contact information;

(2) How swine feeding process wastewater and residual solids will be treated using the proposed innovative technology;

(3) The reason for and goal of using the technology;

(4) A summary and supporting documents of any research and non-research results that document the performance of the technology;

(5) Information about any deviation from research and non-research conditions, and the anticipated impacts of such deviations on the performance of the proposed innovative technology;

(II) Results from use of an appropriate technical analysis that calculates the following for discharges from the existing facility, unless an alternative evaluation

method is approved by the Division. The calculations shall be based on a site-specific analysis of a storage system designed, constructed, operated, and maintained to contain all residual solids and swine feeding process wastewater, including runoff from a 25-year, 24hour storm. The calculations shall also be based on all daily inputs to the storage system, including residual solids, all swine feeding process wastewater, direct precipitation, and runoff, and all daily outputs from the storage system, including losses due to evaporation, sludge removal, and the removal of swine feeding process wastewater for use on cropland at the operation or transported off site.

(1) A calculation determining the predicted median annual overflow volume from the production area based on a 25-year period of actual rainfall data applicable to the site.

(2) Site-specific pollutant data for the housed commercial swine feeding operation, including colonies of fecal coliform and Escherichia coli , and the mass of ammonia, phosphorus, biological oxygen demand (BOD 5), total suspended solids (TSS), chemical oxygen demand (COD), total organic carbon (TOC), temperature, pH, total dissolved solids (for discharges to the Colorado River System only), and other constituents required by the Division, The pollutant data shall be the result of representative sampling and analysis of all sources of input to the storage system, or other appropriate pollutant data.

(3) A predicted annual average discharge of the pollutants identified in subsection 61.13 above, expressed where appropriate as a mass discharge on a daily basis (lbs/day), and calculated considering paragraphs 61.13 and 61.13(4)(d)(xvii)(A)(II) (1) and (2), above.

(III) Results from an appropriate analysis that provides the following for the proposed innovative technology:

(1) A prediction of the median annual discharge volume of swine feeding process

wastewater that will occur over the same 25-year period identified in subsection 61.13(4)(d)(xvii)(A)(II), above.

(2) A prediction of the annual average discharge of pollutants identified in subsection 61.13 above that will be associated with the discharges specified in subsection 61.13(4)(d)(xvii)(A)(III)(1), above.

(3) A demonstration that the proposed innovative technology will achieve a quantity of pollutants discharged from the production area equal to or less than the quantity of pollutants calculated pursuant to subsection 61.13(4)(d)(xvii)(A)(II)(3), above.

(IV) Documentation that provides the rationale and justification for the models and analysis that were used to address subsections 61.13 above, and for conclusions made. The Division may, with accompanying justification, request additional information from the operation for the proposed innovative technology, which may include an on-site inspection.

(V) A plan for implementing the innovative technology, including quality assurance practices that the permittee will use to ensure the proper functioning of the innovative technology, and an approach for monitoring performance.

(B) Where the frequency of discharges to surface waters under alternative performance standards is greater than that from a 25-year, 24-hour storm, as applicable, water quality standards-based effluent limits for pollutants in such discharges shall be set pursuant to the requirements of subsection 61.8(2)(b).

(C) Where the frequency of discharges to surface waters under alternative performance standards is greater than that from a 25-year, 24-hour storm, as applicable, discharges shall be monitored, recorded, and reported pursuant to the requirements of subsection 61.8(4).

(e) Swine Waste Management Land Application Requirements

(i) The disposal or land application of all residual solids and swine feeding process wastewater produced at the facility, whether put to beneficial use on-site or transported off-site, must minimize

phosphorus and nitrogen transport from the land application sites to surface waters and shall be in accordance with the approved swine waste management plan.

(ii) The owner or operator of a housed commercial swine feeding operation shall ensure that no residual solids or swine feeding process wastewater generated by it shall be applied to land by any person at a rate that exceeds, in amount or duration, the agronomic rate of application. The agronomic rate of application shall be as specified by the most current published fertilizer suggestions of Colorado State University Cooperative Extension for the plants, or most closely related plant type, to which the nutrients are applied and:

(A) No application of residual solids or swine feeding process wastewater shall be made to lands if the soil nitrate level and other appropriate nitrogen credits (as specified by Colorado State University Cooperative Extension) in the agronomic root zone exceed the agronomic rate of nitrogen application for the crop to be grown;

(B) Application rates of residual solids and swine feeding process wastewater shall be based on a field-specific assessment of the potential for nitrogen and phosphorus transport from the field and that addresses the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic yield goals, while minimizing nitrogen and phosphorus movement to surface waters.

(C) Residual solids, swine feeding process wastewater, and soils shall be sampled and analyzed quarterly for nitrogen and phosphorus content, in accordance with the monitoring requirements specified in subsection 61.13 . The results of these analyses are to be used in determining application rates for residual solids and swine feeding process wastewater.

(D) Assessments shall be made for each land application site of the potential for phosphorus and nitrogen transport from the site to surface waters and that address the form, source, amount, timing, and method of application of nitrogen and phosphorus to achieve realistic yield goals, while minimizing nitrogen and phosphorus movement to surface water. Phosphorus transport risk assessments shall be made using a transport risk-screening tool approved by the Division and that is current, readily available, peer-reviewed, and appropriate for use in

Colorado. The screening tool shall provide for off-site transport risk scores of either low, medium, high, or very high. An initial assessment of the potential for nitrogen transport to surface water shall be made prior to residual solids or swine feeding process wastewater being applied to an application site after the operator implements the swine waste management plan that meets the requirements of subsection 61.13 , as revised effective June 30, 2004.

(I) After an initial assessment is made of the potential for phosphorus an/or nitrogen transport from a land application site to surface water, additional assessments shall be made at the following frequency, whichever is sooner:

(1) Of both phosphorus and nitrogen transport risk, every five (5) years; or

(2) Where a crop management change has occurred, assess phosphorus transport risk within one (1) year after a crop management change would reasonably result in an increase in the phosphorus transport risk assessment score, and assess nitrogen transport risk within one (1) year after such a change would reasonably result in the nitrogen transport to surface water not being minimized; or

(3) Where the top one foot of soil on an application site exceeds 80 mg/kg of sodium bicarbonate extractable phosphorus and the phosphorus transport risk assessment score was very high, assess phosphorus transport risk within six (6) months of intending to apply residual solids or swine feeding process wastewater.

(4) Where a nitrogen transport risk assessment reveals that nitrogen transport to surface waters is not minimized, assess nitrogen transport risk within six (6) months of intending to apply residual solids or swine feeding process wastewater.

(II) No application of swine feeding process wastewater or residual solids shall be made to a land application site if the sodium bicarbonate extractable

phosphorus in the top one-foot of soil exceeds 80 mg/kg, unless the off-site phosphorus transport risk score for the site is high or less.

(III) No application of residual solids or swine feeding process wastewater shall be made to a land application site where the risk of off-site nitrogen transport is high or very high.

(IV) Where a multi-year phosphorus application was made to a land application site, no additional residual solids or swine feeding process wastewater shall be applied to the same site in subsequent years until the applied phosphorus has been removed from the site via harvest and crop removal.

(E) If the soil nitrate-nitrogen level in the four- to six-foot or six- to eight-foot increment within the monitoring zone exceeds the comparative concentration, established in accordance with subsection 61.13 , by greater than ten milligrams per kilogram, the permittee will be presumed to have exceeded the agronomic rate of application and shall notify the Division in writing of this exceedance within 30 days of discovering it.

(I) The permittee shall, in consultation with the Division, develop and submit to the Division within ninety (90) days of discovering the exceedance an approvable intervention protocol, unless an extension of time is granted by the Division. The intervention protocol shall describe adjustments to the swine waste management plan that provide for strict minimization of future nitrogen loading within the monitoring zone. The Division may specify that appropriate measures for the purpose of remediating excessive nitrogen within the monitoring zone be included in the protocol.

(II) The protocol shall be implemented by the permittee within 30 days of it being approved by the Division. If remediation measures in an approved intervention protocol are not being implemented in accordance with the protocol, application of swine feeding process wastewater and/or residual solids to the applicable land application site shall immediately cease.

(III) The agronomic rate of application shall not be presumed to have been exceeded and the intervention protocol shall not be required if the results of confirmation sampling pursuant to a procedure approved by the Division demonstrate that the comparative concentration has not been exceeded by greater than ten milligrams per kilogram, or if the permittee submits to the Division a report that adequately documents that a force majeure was the cause of the nitrate-nitrogen exceedance. This report shall be submitted for approval no later than 30 days after discovering an exceedance caused by a force majeure event.

(IV) Status of intervention protocol activities shall be documented in quarterly monitoring reports.

(iii) All land application activities at housed commercial swine feeding operations shall be conducted in a manner that does not result in impairment of existing beneficial uses of state waters or exceedances of applicable water quality standards for surface water or ground water.

(iv) Where land application sites are not supporting active plant growth:

(A) Applications of swine feeding process wastewater and residual solids shall not at any time cause soil nitrate levels and other appropriate nitrogen credits in the agronomic root zone to exceed the agronomic rate for the upcoming growing season for the crop for which the solids or wastewater is applied.

(B) Swine feeding process wastewater and residual solids shall not be applied to land not supporting active plant growth except as provided under an approved Swine Waste Management Plan that includes appropriate best management practices for such applications. Best management practices shall be specified in a guidance document cooperatively developed by the Division and stakeholders, and presented in a public hearing before the Water Quality Control Commission.

(v) Swine feeding process wastewater and residual solids produced at housed commercial swine feeding operations which are applied to land shall not exceed the cumulative pollutant loading limits for heavy metals as set forth in Table 1, below. Cumulative metal loading limits shall be calculated as the product of the total elemental analysis (concentration) of the residual solids and swine feeding process wastewater and the quantity of residual solids and volume of swine feeding

process wastewater applied, respectively. Compliance with cumulative pollutant loading limits shall be documented by the permittee in reports submitted in accordance with subsection 61.13 . Documentation shall consist of data which quantifies cumulative loadings of the heavy metals to each land application site. If the cumulative loading limit specified in Table 1 is reached, no further residual solids or swine feeding process wastewater will be applied to the application site.

TABLE 1. CUMULATIVE POLLUTANT LOADING LIMITS, kg/ha (lbs/ac)

Arsenic	41 (37)
Cadmium	39 (35)
Copper	1500 (1339)
Lead	300 (268)
Mercury	17 (15)
Nickel	420 (375)
Selenium	100 (89)
Zinc	2800 (2499)

(vi) Any reduction in swine feeding process wastewater concentrations as a result of losses subsequent to swine feeding process wastewater treatment and prior to land application shall be supported by site-specific data or applicable published engineering or agricultural waste management principles and shall be in accordance with the approved odor management plan.

(vii) Land application practices shall be managed to ensure that no residual solids or swine feeding process wastewater are discharged to waters of the state or beyond the property boundary of the application site.

(f) Water Quality Setbacks - Water quality setbacks shall be established for housed commercial swine feeding operations such that swine feeding process wastewater collection systems in housed units, swine feeding process wastewater conveyance, treatment, storage, and evaporation structures, land application sites, and residual solids stockpiles and impoundments, shall not be located:

(i) Within ten feet vertically of the seasonally high ground water level as determined in the monitoring plan;

(ii) Up-gradient and within 300 feet of a reservoir classified for Class I Recreational Use by the Water Quality Control Commission;

(iii) For land application systems only, within 200 feet of any body of surface water, including intermittent streambeds when standing or running water is present in the streambed, unless land application is made by either subsurface injection, or by surface application which is followed by incorporation within 48 hours, weather permitting, or the swine waste management plan describes measures which will be implemented to prevent runoff from the application site into the water body;

(iv) Within 50 feet of any body of surface water, including intermittent streambeds when standing or running water is present in the streambed;

(v) Within 150 feet of a private domestic water supply well or within 300 feet of a community domestic water supply well; and

(vi) For treatment, storage, and evaporation impoundments and residual solids stockpiles, only, within a 100-year floodplain as identified in accordance with subsection 61.13 , unless proper flood proofing measures (structures) are designed and constructed.

(vii) An existing housed commercial swine feeding operation may obtain a variance from one or more of these setback requirements for aspects of the operation that were constructed as of March 10, 1999, other than land application sites, if the permittee demonstrates to the satisfaction of the Division that its facilities or structures do not pose a risk to the quality of waters of the state that bears a reasonable relationship to the cost of compliance with the setbacks requirements.

(g) State Trust Lands

(i) In accordance with the mandate in the Colorado Constitution, Article IX, Section 10, that state land board trust lands be held in trust and be protected and enhanced to promote long-term productivity and sound stewardship, the construction, operation and waste management plans approved for housed commercial swine feeding operations on such lands shall not permit the degradation of the physical attributes or value of any state trust lands.

(ii) In order to prevent degradation of the physical attributes or value of any state trust lands relating to water quality:

(A) For new facilities and for new land application sites at existing operations that have never received swine feeding process wastewater or residual solids concentrations of nitrogen, phosphorus, heavy metals and salts in the soil within the

agronomic root zone and monitoring zone, and the ground water below state trust lands shall not exceed levels identified as background conditions pursuant to subsection 61.13(3)(g)(iii)(A);

(B) For existing facilities where the permit has expired, lapsed, or otherwise has not been valid for two years or more, or where housed commercial swine feeding operation activities have not occurred for two years or more, concentrations of nitrogen, phosphorus, heavy metals and salts in the soil within the agronomic root zone and monitoring zone, and the ground water beneath state trust lands shall not exceed levels identified as baseline conditions pursuant to subsections 61.13(4)(j)(i) and 61.13(3)(g)(ii)(E), respectively;

(C) Swine feeding process wastewater collection systems in housed units, swine feeding process wastewater conveyance systems, and impoundments which are used to treat, store, or evaporate swine feeding process wastewater shall be constructed and maintained such that the seepage rate from any such system or impoundment does not exceed 1 X 10 -7 cm/sec;

(D) Closure of operations on state trust lands shall include revegetation of the site in a manner that prevents erosion; and

(E) Monitoring conducted shall be sufficient to demonstrate compliance with subparagraphs (A) and (B), above.

(iii) The Division shall provide an adequate opportunity for the State Land Board to review and comment upon all construction, operations, swine waste management, monitoring, and financial assurance plans submitted for housed commercial swine feeding operations on state trust lands.

(iv) The Division shall consider any comments received from the State Land Board in its review and consideration of these plans. The Division shall not approve any plan if the State Land Board determines that the plan would permit the degradation of the physical attributes or value of any state trust lands.

(h) Financial Assurance Requirements - Valid financial assurance shall be a condition of conducting a housed commercial swine feeding operation. However, nothing in these regulations shall relieve the permittee of liability for closure, post-closure, and corrective action costs. Violation of any of the financial assurance requirements of these regulations shall be cause for the denial or revocation of the permit.

(i) The applicant or permittee shall provide financial assurances for the final closure of the housed commercial swine feeding operation and the conduct of any necessary post-closure activities, such that any contamination resulting from actions after the effective date of this regulation is remediated and future contamination is avoided.

(ii) If required by the Division, based on evidence that conditions create a reasonable potential for the housed commercial swine feeding operation to cause contamination, the applicant or permittee shall provide financial assurances for any corrective action made necessary by such contamination.

(iii) The financial assurance instruments shall be in the amounts determined in the approved financial assurance plan, or as otherwise required by the Division in accordance with subsection 61.13(4)(h)(vi)(B-C).

(iv) A financial assurance instrument shall meet the requirements of subsection 61.13 and of Regulation No. 66, as applicable to the instrument.

(v) Financial assurance instruments for new housed commercial swine feeding operations must be approved by the Division before the permit will be issued, and shall meet the requirements of subsections 61.13(4)(h)(iii-iv).

(vi) The permittee of an existing housed commercial swine feeding operation shall provide a financial assurance instrument(s) within 90 days following the Division's approval of a new or revised financial assurance plan as described in subsection 61.13 within 90 days following the Division's approval of a new or revised financial assurance plan as described in subsection 61.13 . Such a financial assurance instrument(s) shall meet the requirements of subsections 61.13(4)(h)(iii-iv).

(A) Failure to provide the approved amount of financial assurance shall be a violation of the permit and may be cause for revocation of the permit.

(B) Where the Division has found a financial assurance plan to be incomplete, and the permittee is either not working in good faith to submit an approvable plan or does not respond to the Division's comments regarding the plan within a reasonable time, the Division may require that interim financial assurance be provided until such time as the financial assurance plan is approved.

(C) Before requiring interim financial assurance, the Division shall provide the permittee written notice of the deficiencies and an opportunity to cure those deficiencies within ninety (90) days of the written notice. If the period to cure expires without the permittee resolving the deficiencies, and an extension of time has not been granted by the Division, the amount of interim financial assurance required shall be established by the Division, based on relevant information related to the permittee.

(vii) The permittee shall review and update its approved financial assurance instruments each year in accordance with a schedule established in the permit. The amount of the financial assurance for closure and post-closure, and for any applicable corrective action, shall be recalculated annually by the permittee, as required in the permit, and shall account for inflation or deflation by using the most recent Implicit Price Deflator for Gross Domestic Product or its successor as published by the U.S. Department of Commerce. The recalculated amount shall also reflect any changes in the operation pertinent to the cost of closure, post-closure or required corrective action to address contamination. Provided, that for any year in which there have been no changes in the operation pertinent to the cost of closure, post-closure, or required corrective action and cumulative inflation as calculated above does not exceed 5% since the last update of the financial assurance instruments, no further update of the financial assurance instruments is required.

(A) In accordance with the schedule established in the permit, the permittee shall submit to the Division a report that, at minimum, documents that the review and update required above was conducted, explains how the review and update was done, informs who conducted the review and update, informs what the calculated cumulative inflation value is, and informs whether calculated cumulative inflation value exceeded 5% since the last update of the financial assurance instruments.

(B) The permittee shall have 90 days to provide a financial assurance instrument(s) for any increased amount of financial assurance, as required, after receipt of notification that the revised cost estimates have been approved by the Division. Such a financial assurance instrument(s) shall meet the requirements of subsections 61.13(4)(h)(iv).

(C) Failure to provide any increased amount of financial assurance, as required, shall be a violation of the permit and may be cause for revocation of the permit.

(viii) If at any time the Division determines that a permittee has insufficient financial assurance it shall notify the permittee.

(A) The permittee shall have 90 days, after receipt of the notification by the Division, to recalculate its financial assurance and provide a financial assurance instrument(s) for any increased amount of financial assurance, as required. Such a financial assurance instrument(s) shall meet the requirements of subsections 61.13(4)(h)(iii-iv).

(B) Failure to provide any increased amount of financial assurance, as required, shall be a violation of the permit and may be cause for revocation of the permit.

(ix) All financial assurance instruments shall be approved by the Division before being accepted.

(x) Subject to approval by the Division, the applicant or permittee shall use one or more of the following financial instruments to satisfy assurance requirements:

(A) One or more of the following instruments that meet the provisions of Regulation No. 66: irrevocable standby letter of credit; trust fund; surety bond; insurance; financial test; and/or written guarantee.

(B) Other instruments approved by the Division that meet the following requirements, except where the Division determines that the requirements of subsections (I) and/or (IV) are not applicable:

(I) An alternative instrument provides for the establishment of a standby trust that meets the requirements of Regulation No. 66.

(II) The issuing institution of an alternative instrument must have the authority to issue that instrument, and its operations shall be regulated and examined by a federal or state agency.

(III) The issuing institution of an alternative instrument must waive all rights and set off or liens against that instrument.

(IV) An alternative financial assurance instrument must contain a term that provides that the instrument cannot be cancelled by the issuer of the instrument, unless 90 days prior written notice is given to the Division and the Division gives written consent.

(V) Uses wording approved by the Division.

(xi) The permittee shall immediately notify the Division of any notice received or action filed alleging the insolvency or bankruptcy of an institution that issued to the permittee a financial assurance instrument, or alleging any violations of regulatory requirements that could result in suspension or revocation of the issuing institution's charter or license to do business.

(A) In the event the permittee becomes aware that an issuing institution is unable to fulfill its obligations under a financial assurance instrument for any reason, notice shall immediately be given to the Division.

(B) The permittee shall have 90 days from the date of providing notice to the Division as required under subsection 61.13 to submit a financial assurance instrument(s) that replaces the required amount of financial assurance.

(C) Failure to provide any substitute or replacement financial assurance, as required, shall be a violation of the permit and may be cause for revocation of the permit.

(xii) Release of an approved financial assurance instrument - The Division will give written consent that a permittee or an institution that issued an instrument may, prior to closure, post-closure, and corrective action activities beginning at a permitted facility(ies), terminate an approved financial assurance instrument(s) when subsections (A) and (B) below have been satisfied, and/or the applicable provisions of Regulation No. 66 for the instrument(s) have been satisfied:

(A) A permittee or institution that issued an instrument gives to the Division 90 days prior written notice of its request that a financial assurance instrument(s) be released.

(B) The permittee has provided a substitute financial assurance instrument(s) for the same amount of financial assurance that was provided by the instrument(s) requested to be released. Such a substitute instrument(s) must meet the requirements of subsections 61.13(4)(h)(iii)-(iv).

(xiii) Release of the Permittee from the Requirements for Financial Assurance - When closure, post-closure, and corrective actions required by a permit are complete or partially complete, financial assurance shall be released by the Division as follows:

(A) When the Division determines that initial closure activities have been completed for an operation, financial assurance, less identified retainages, shall be released.

(B) A sufficient amount of financial assurance shall be retained to pay for estimated costs of post-closure remediation activities. This portion of the financial assurance shall be held for a period of at least three (3) years after initial housed commercial swine feeding operation closure activities are completed, unless the Division determines that a shorter period of time is appropriate.

(C) The Division may release portions of the corrective action financial assurance for remediation of residual soil contamination, remediation of ground water contamination, or clean-up of any spill or breach when it determines that identified phases of required corrective action have been satisfactorily completed, less any retainages for completion of remaining requirements, such as confirmatory monitoring. Any amount remaining following final satisfactory completion of corrective action shall be released to the permittee.

(D) Release of any amounts of financial assurance shall not release the permittee or other responsible person from any responsibility for meeting closure or corrective action requirements.

(E) When the Division determines that the provisions of Regulation No. 66 that address reimbursement of financial assurance have been satisfied, as applicable to the permittee's approved financial assurance instrument(s).

(xiv) Forfeiture of Bond or Other Form of Financial Assurance.

(A) The Division may initiate financial assurance forfeiture after notice to the permittee and any surety that the permit has been violated and that there is a reasonable likelihood that the closure, post-closure, or corrective action obligations of the permittee will not be met.

(B) The Division will direct the expenditure of forfeited funds to remedy and abate the circumstances for which any financial assurance was required.

(C) Use of all financial assurance shall not relieve the permittee or other responsible parties from responsibility and liability for closure, post-closure, and corrective action costs. The Colorado Attorney General may bring suit to recover any costs incurred by the state for closure, post-closure or corrective actions not covered by collected financial assurance monies.

(i) Spills and Contamination

(i) Any spill or contamination by a housed commercial swine feeding operation shall be reported immediately by the permittee to the Division and the county health department for the county in which the housed commercial swine feeding operation is conducted, by telephone, electronic facsimile or other means as specified by the Division in the permit.

(ii) A written report shall be submitted by the permittee so that it is received by the Division and the county health department for the county in which the housed commercial swine feeding operation is conducted within 24 hours after the spill or contamination occurs.

(iii) The permittee shall take immediate action to clean-up all spills so that impacts to soils, surface water or ground water are minimized to the greatest extent practicable. The permittee shall submit a report to the Division which describes the nature of the spill, any initial action taken to clean-up the spill, and any additional action that may be necessary to ensure that the spill does not result in permanent contamination of soils, surface water, or ground water. This report shall be submitted to the Division for approval no later than five working days after the spill occurs.

(iv) If it is determined that remediation of any spill or contamination by a housed commercial swine feeding operation cannot be completed within sixty days, the permittee may be required to undertake corrective action as specified by the Division. In such an instance,

the Division may require adjustment of financial assurance as required in subsection 61.13(4)(h)(ii).

(v) The requirements of this subsection 61.13 shall not apply to spills that qualify as "de minimis" relative to the site-specific conditions, in accordance with a site-specific interpretation of "de minimis" proposed by the permittee and approved by the Division.

(j) Recordkeeping

Housed commercial swine feeding operations shall maintain on-site a copy of its most current swine waste management plan and make it available to the Division or its designee, upon request. In addition, the operation shall create, and maintain on-site for five years from the date they are created, and make available to the Division or its designee, upon request, the following complete records:

(i) All applicable records identified in the swine waste management plan, pursuant to subsection 61.13(3)(f)(xvi);

(ii) The completed permit application required pursuant to subsection 61.13(3);

(iii) The following complete records for the production area:

(A) Records documenting the visual inspections required under subsections 61.13(4)(d)(x) and (xi);

(B) Weekly records of the depth of residual solids and swine feeding process wastewater in liquid impoundments and terminal storage tanks as indicated by the depth marker required under subsection 61.13(4)(c)(vi);

(C) Records documenting any actions taken to correct deficiencies required under subsection 61.13 . Deficiencies not corrected within 30 days shall be accompanied by an explanation of the factors preventing immediate correction;

(D) Records of mortalities management and practices used to meet the requirements of subsection 61.13(4)(d)(xiv);

(E) Records documenting the current design of any residual solids or swine feeding process wastewater storage structure, including volume of residual solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity; and

(F) Records of date, time, and estimated volume of any overflow.

(iv) The following complete records for land application sites:

(A) Expected crop yields;

(B) The date(s) residual solids or swine feeding process wastewater is applied to each field;

(C) Weather conditions at the time of land application and for 24 hours prior to and following land application;

(D) Test methods used to sample and analyze residual solids, soils, and swine feeding process wastewater;

(E) Results from residual solids, swine feeding process wastewater, and soil sampling and analysis;

(F) Explanation of the basis for determining residual solids and swine feeding process wastewater application rates, as provided in the swine waste management plan required under subsection 61.13(3)(f);

(G) Calculations showing the total nitrogen and phosphorus that will be applied to each land application site, including sources other than residual solids or swine feeding process wastewater;

(H) Total amount of nitrogen and phosphorus actually applied to each field, including documentation of calculations for the total amount applied;

(I) The method used to apply the residual solids or swine feeding process wastewater; and

(J) Date(s) of inspections of residual solids and swine feeding process wastewater land application equipment.

(k) Monitoring and Reporting for Impoundments and Land Application Activities

(i) Housed commercial swine feeding operations shall provide baseline information which establishes concentrations of nitrate-nitrogen and ammonium-nitrogen in the soils within the agronomic root zone and monitoring zone in each land application site identified in the swine waste management plan. Information shall also be provided which establishes the concentrations of phosphorus in the top one-foot increment of soil in each land application area identified in the swine waste management plan. Baseline concentrations shall be

reestablished by an existing operation where the permit has expired, lapsed, or otherwise has not been valid for two years or more, or where housed commercial swine feed operation activities have not occurred for two years or more.

(ii) For the purposes of subsection 61.13 , the comparative concentration shall be equal to the lesser nitrate-nitrogen concentration value of the following:

1) the baseline concentration determined pursuant to subsection (i), above; or,

2) the concentration found within the respective four- to six-foot or six- to eight-foot soil increment, as applicable, in the soil sample just prior to the most recent soil sample that was taken from below the land application site. Where the nitrate-nitrogen concentration in the most recent soil sample exceeds the comparative concentration by greater than ten milligrams per kilogram (as provided in subsection 61.13) as the result of the agronomic rate of application having been exceeded, the succeeding comparative concentration for the applicable land application site shall be equal to the most recent comparative concentration plus 10 milligrams per kilogram, or the baseline nitrate-nitrogen concentration, whichever is less.

(iii) Housed commercial swine feeding operations shall provide baseline information representative of normal operating conditions which establishes concentrations of specific constituents including, but not limited to, nitrogen species, phosphorus, heavy metals, and salts present in the residual solids or swine feeding process wastewater as a result of the housed commercial swine feeding operation. Existing operations shall provide this information as a part of their initial swine waste management plan. New operations shall provide this information in accordance with a schedule of compliance established in their permit. The permittee shall provide a new assessment of these constituents whenever changes to the operation occur that could significantly change the concentrations of these constituents in the residual solids or swine feeding process wastewater;

(iv) Housed commercial swine feeding operations are subject to the monitoring, recording, and reporting conditions found at subsections 61.8(4)(a)-(d), (f)-(m) and (p).

(v) Housed commercial swine feeding operations shall submit, to the Division and the county health department, the following reports:

(A) Quarterly comprehensive monitoring reports and agronomic analyses that demonstrate that the operation has land applied residual solids and swine feeding process wastewater at no greater than agronomic rates. The reports shall include, but not limited to, the results and underlying data for all soil, residual solids, swine feeding process wastewater, ground water quality, and vegetative nutrient analyses as required by the permit or Monitoring Plan. The report shall include results and underlying data for impoundment seepage monitoring and soil nitrogen intervention protocol activities as required by the Division. The reports, except for intervention protocol activity information, shall be prepared on the latest version of forms supplied by the Division.

(B) Annually, one of the quarterly reports, as specified by the Division, shall include the following additional information:

(I) The maximum number of swine that have been housed at each site during the previous twelve (12) months;

(II) The estimated amount of total residual solids and swine feeding process wastewater generated in the previous twelve (12) months (tons/gallons);

(III) The estimated amount of total residual solids and swine feeding process wastewater permittee transferred to third parties in the previous twelve (12) months (tons/gallons);

(IV) The total number of acres for land application covered by the current swine waste management plan;

(V) The total number of acres of land application sites that were used for application of residual solids and swine feeding process wastewater in the previous twelve (12) months;

(VI) A summary of all residual solids and swine feeding process wastewater discharges from the production area that have occurred in the previous twelve (12) months, including date, time, and approximate volume;

(VII) A statement indicating whether the current version of the swine waste management plan was developed or approved by a certified nutrient management planner.

(vi) The permittee shall sample and monitor chemical and appropriate biological parameters identified by the Division as necessary to protect the quality and existing and future beneficial uses of ground water including, at a minimum, nitrogen species, phosphorus, heavy metals, and salts. At a minimum, the monitoring program shall include analysis and reporting of parameters in the ground water, soils within the agronomic root zone and monitoring zone within each land application site, swine feeding process wastewater, and residual solids. The nitrogen species monitored in soils shall be nitrate-nitrogen and ammonium-nitrogen within the agronomic root zone and nitrate-nitrogen within the monitoring zone.

(A) Monitoring of soils shall be on a quarterly basis, except when this frequency is not practicable due to:

1) physical conditions (e.g., frozen or saturated ground);

2) the potential for excessive damage to crops; or

3) when applications of swine feeding process wastewater or residual solids to specific land sites will not be made for at least three consecutive quarters. If a quarterly soil sample was not taken of a land application site for any of these three reasons, the permittee shall inform the Division of this fact in their quarterly report, and specify the reason for the sample not having been taken. When application of swine feeding process wastewater or residual solids has not been conducted for three consecutive quarters, soil monitoring shall occur within 90 days after the crop to which applications were made is harvested or goes dormant, and for subsequent quarters as required by the Division, based on the nitrogen values observed in the post-harvest soil tests. The permittee shall timely notify the Division in their quarterly reports of their intention not to apply solids or wastewater to specific land application sites for at least three consecutive quarters.

(B) The Division may waive monitoring requirements for salts and sodium bicarbonate extractable phosphorus below the one foot soil depth and in ground water if it is demonstrated by

the permittee, based upon such information as requested by the Division, that there is no reasonable potential of contamination from such constituents at the permitted facility.

(C) The Division may waive monitoring requirements for any of the constituents identified in Table 1 in subsection 61.13 if it is demonstrated by the permittee, based upon such information as requested by the Division, that there is no reasonable potential of contamination from such constituents at the permitted facility.

(D) The program shall also include monitoring to ensure that no seepage occurs from any waste impoundments in excess of those rates established in subsection 61.13(4)(c)(iii) or 61.13(4)(g)(ii)(C), as applicable.

(E) Monitoring of ground water beneath each land application site shall be accomplished by sampling and analyzing on a quarterly basis the ground water in monitoring wells that are in locations identified in the monitoring plan, subsection 61.13 . Such monitoring shall not be required for land application sites for which the permittee submits, and the Division approves:

1) information documenting that ground water does not exist beneath a land application site;

2) information documenting that an impermeable geological layer exists beneath a land application site, and above the shallowest aquifer located beneath the land application site; or

3) a completed analysis of one-dimensional transport of water within the vadose zone of the land application site, using a transport model, mathematical calculation, or other Division-approved methods. The mathematical analysis shall be prepared by, or certified by, a professional engineer registered in the State of Colorado, a qualified professional geologist, or groundwater hydrologist. In addition, the analysis must conclude that water that annually passes below the root zone of the land application site will not reach ground water within one hundred years. Approval of the analysis does not remove the Division's authority to require at any time, as the result of soil monitoring information or for other reasons, the installation of new or additional wells for the

purpose of monitoring ground water beneath a land application site. Immediately upon approval of the analysis, the permittee shall proactively protect ground water by implementing the following requirements:

I. Quarterly sample the two one-foot increments of soil below the monitoring zone for each land application site, in addition to other soil sampling requirements indicated in subsection 61.13 , except when this frequency is not practicable due to one of the three scenarios presented in subsection 61.13 . The Division may require quarterly monitoring of soils at depths beneath two feet below the monitoring zone based on a nitrogen loading trend analysis of the monitoring zone or below the monitoring zone.

II. Analyze the two one-foot increments of soil for nitrate-nitrogen.

III. Notify the Division in writing within 30 days of discovering that the cumulative soil nitrate-nitrogen concentration level in any two foot increment within the monitoring zone, or in any one foot increment below the monitoring zone, exceeded the comparative concentration by greater than ten milligrams per kilogram.

IV. In consultation with the Division, develop and submit an approvable intervention protocol within ninety (90) days of the permittee discovering that the cumulative soil nitrate-nitrogen concentration level in any two foot increment within the monitoring zone, or in any one foot increment below the monitoring zone, exceeds the comparative concentration by greater that ten milligrams per kilogram, unless an extension of time is granted by the Division. The intervention protocol shall provide for strict minimization of future nitrate-nitrogen loading within the monitoring zone and below the monitoring zone. The Division may specify that appropriate measures be included in the protocol for the purpose of remediating

excessive nitrogen within the monitoring zone and below the monitoring zone.

V. The protocol shall be implemented by the permittee within 30 days of it being approved by the Division. If remediation measures in an approved intervention protocol are not being implemented in accordance with the protocol, application of swine feeding process wastewater and/or residual solids to the applicable land application site shall immediately cease.

VI. The intervention protocol shall not be implemented if the permittee submits to the Division a report that adequately documents that a force majeure was the cause of soil nitrate-nitrogen concentrations exceeding the comparative concentration by greater than ten milligrams per kilogram.

VII. Document the status of intervention protocol activities in applicable quarterly monitoring reports.

(vii) Where the permittee has installed double liners with leak detection mechanisms, ground water monitoring around all such impoundments shall not be required.

(viii) The provisions of subsections 61.13 , and (v), above, shall not apply to non-land-application facilities.

61.13(5) **PERMIT FEES**

(a) Each housed commercial swine feeding operation covered by a single permit shall pay permit fees in accordance with the schedule set forth in 25-8-502(1)(b)(I), C.R.S., and in accordance with section 61.15 of this regulation.

61.13(6) **ENFORCEMENT**

(a) The Division shall enforce the provisions of this section 61.13 in accordance with the provisions of Part 6 of the Act.

(b) The Division shall take immediate enforcement action against any housed commercial swine feeding operation that has exceeded the agronomic rate limit of subsection 61.13(4)(e).

5 CO Code Regs 1002-61 § 17. Concentrated Animal Feeding Operations.

61.17(1) **SCOPE AND PURPOSE**

(a) The provisions in this section 61.17 provide permit regulations for concentrated animal feeding operations as the result of the revised federal concentrated animal feeding operation (CAFO) regulations that became effective on April 14, 2003, and as revised effective July 24, 2007, and December 22, 2008.

(b) The purpose of these regulatory provisions is to ensure that CAFOs take appropriate actions to manage manure and process wastewater effectively in order to protect surface waters.

61.17(2) **SPECIFIC APPLICABILITY**

(a) The provisions in this section 61.17 are applicable to all new and existing CAFOs and to animal feeding operations that are designated as CAFOs by the Division, except any CAFO defined as a housed commercial swine feeding operation under section 61.2 of these regulations.

(b) Any discharge from a CAFO requires a permit except those that are agricultural storm water discharges as defined in section 61.17 . The owner or operator of a CAFO must seek coverage under a permit if the CAFO discharges to surface water. Specifically, the CAFO owner or operator must either apply for an individual permit or submit a notice of intent for coverage under a general permit.

(c) Land Application Discharges from a CAFO - The discharge of manure or process wastewater to surface water from a CAFO as a result of the application of that manure or process wastewater by the CAFO to land areas under its control is a discharge from that CAFO subject to permit requirements, except where it is an agricultural storm water discharge. For purposes of this section 61.17 , where the manure or process wastewater has been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure or process wastewater, as specified in those parts of the nutrient management plan that address section 61.17 , a precipitation-related discharge of manure or process wastewater from land areas under the control of a CAFO is an agricultural stormwater discharge.

(d) CAFOs shall comply with the relevant sections of Regulation #61, not superseded by this section 61.17 , which shall be incorporated in the permit, where appropriate.

61.17(3) **DEFINITIONS**

As used in this subsection, the following definitions of terms apply.

(a) "25-YEAR, 24-HOUR STORM" means a storm of a 24-hour duration which yields a total rainfall of a magnitude which has a probability of recurring once every 25 years.

(b) "CHRONIC STORM" means a series of storms that occur during a 10-day period which yield a total precipitation of a magnitude that has a probability of recurring once every ten (10) years.

(c) "CLOSED FACILITY" means a concentrated animal feeding operation that has ceased operation and for which a permit is not in effect.

(d) "FREEBOARD" means the vertical distance measured from the liquid surface level (elevation) in an impoundment or tank to the top elevation of the impoundment or tank (for example, berm or wall).

(e) "LAND APPLICATION SITE" means land under the control of a CAFO operator, whether it is owned, rented, or leased by the CAFO, to which manure or process wastewater from the production area is or may be applied, or where cropping or nutrient budget decisions for the site are made by the CAFO.

(f) "MAN-MADE DRAINAGE SYSTEM" means a drainage ditch, flushing system, or other drainage device that was constructed by man and is used for the purpose of transporting manure or process wastewater.

(g) "MANURE" means feces, litter, and/or urine and materials, such as bedding, sludge, compost, feed waste, dry harvested forage, and any raw material used in or resulting from the operation of an animal feeding operation, that have been commingled with feces, litter, and/or urine.

(h) "MULTI-YEAR PHOSPHORUS APPLICATION" means phosphorus applied to a field in excess of the crop needs for that year. In multi-year phosphorus applications, no additional manure, residual solids, process wastewater, or swine feeding process wastewater is applied to the same land in subsequent years until the applied phosphorus has been removed from the field via harvest and crop removal.

(i) "OPERATOR" means any person who owns, leases, operates, controls, or supervises an animal feeding operation or concentrated animal feeding operation.

(j) "OVERFLOW" means the discharge of manure or process wastewater resulting from the filling of an impoundment or tank beyond the point at which no more manure or process wastewater can be contained by the structure.

(k) "PROCESS WASTEWATER" means water directly or indirectly used in the operation of a CAFO for any or all of the following: spillage or

overflow from animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other CAFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Process wastewater also includes any water which comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, eggs, or bedding.

(l) "PRODUCTION AREA" means that part of a CAFO that includes the animal confinement area, the manure and residual solids storage area, the raw materials storage area, and waste containment areas. The animal confinement area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milk rooms, milking centers, cow yards, barnyards, medication pens, walkers, animal walkways, and stables. The manure and residual solids storage area includes but is not limited to lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments and tanks, static piles, and composting piles. The raw materials storage area includes but is not limited to feed silos, silage bunkers, and bedding materials. The waste containment area includes but is not limited to settling basins, and areas within berms and diversions which separate uncontaminated storm water. Also included in the definition of production area is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities.

(m) "SETBACK" means a specified distance from surface waters, or potential conduits to surface waters, where manure, residual solids, swine feeding process wastewater, and process wastewater may not be land applied. Examples of conduits to surface waters include but are not limited to: open tile line intake structures, sinkholes, and agricultural well heads.

(n) "TANK OVERFLOW" means livestock drinking water in constant-flow cattle watering troughs that overflows into in-trough drain pipes and is retained separately from process wastewater storage.

(o) "VEGETATED BUFFER" means a narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching surface waters.

61.17(4) **DESIGNATION OF AN ANIMAL FEEDING OPERATION AS A CONCENTRATED ANIMAL FEEDING OPERATION**

The Division may designate any AFO as a CAFO upon performing an on-site inspection and determining that it reasonably could be a significant contributor of pollutants to surface water.

(a) The following criteria shall be considered to determine if an AFO will be designated as a CAFO:

(i) The size of the AFO and the amount of wastes reaching surface water;

(ii) The location of the AFO relative to surface water;

(iii) The means of conveyance of animal wastes and process wastewater into surface water;

(iv) The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of manure and process wastewater into surface water; and

(v) Other relevant factors.

(b) No AFO with animal numbers below those established for a Medium CAFO shall be designated as a CAFO unless:

(i) Pollutants from the animal feeding operation are discharged into surface water through a manmade ditch, flushing system, or other similar manmade device; or

(ii) Pollutants from the animal feeding operation are discharged directly into surface water that originate outside of the facility and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

(c) Where an AFO is at risk of being designated a CAFO, the AFO operator shall submit to the Division, within 60 days of receiving written notice by the Division of such a risk, one of the following:

(i) In consultation with the Division, an approvable work plan and associated timeline for reducing actual or potential environmental impacts such that the Division would not designate the AFO as a CAFO. The operator shall implement the plan within 30 days of it being approved by the Division; or

(ii) A written statement indicating the operator's intention to operate as a CAFO and submit a complete application to be covered under a CAFO discharge permit within 180 days of the date of such statement.

(d) Where an operator does not complete and implement a work plan pursuant to section 61.17 , or does not submit a written statement

pursuant to section 61.17 , the AFO may be designated a CAFO by the Division and be required to submit a complete application to be covered under a CAFO discharge permit within 90 days of receiving written notice by the Division of such a designation and permit application requirement.

61.17(5) **PERMIT APPLICATIONS**

(a) Application Deadlines

(i) The operator of an operation that was defined as a CAFO under regulations that were in effect prior to June 30, 2004, and continues to be defined as a CAFO under subsection 61.2 , must submit a complete application for a permit immediately where the operation discharges.

(ii) The operator of an operation that became defined as a CAFO after June 30, 2004, but which is not a new source, must submit a complete application for a permit as follows where the operation discharges:

(A) For newly constructed operations not subject to effluent limitations guidelines, 180 days prior to the time the CAFO places animals on the operation; or

(B) For other operations (e.g., resulting from an increase in the number of animals), as soon as possible, but no later than 90 days after becoming defined as a CAFO.

(iii) The operator of a new source CAFO must apply for a permit at least 180 days prior to the time that the operator places animals on the operation.

(iv) The operator of an animal feeding operation that is designated a CAFO pursuant to subsection 61.17 , must submit a complete application for a permit no later than 90 days after receiving notice of the designation.

(b) Permit Renewal

The operator of a CAFO that seeks to continue with permit coverage shall submit a new permit application consistent with section 61.17 at least 180 days before the existing permit expires.

(c) Permit Application Requirements (Individual and General Permits)

All new and existing CAFOs shall provide the following to the Division, at minimum, using the application form provided by the Division:

(i) The name of the owner(s) and operator(s) of the operation;

(ii) The contact information of the operator, including mailing address, electronic mail address, facsimile phone number, and office and cell phone numbers;

(iii) The facility location (including section, township, and range) and mailing addresses;

(iv) Latitude and longitude at the entrance to the production area;

(v) A location map (USGS topographic map with 1:24,000 or 1:50,000 scale, or other topographic map of similar accuracy) that illustrates the following:

> (A) Location and outline of production areas and land application sites;
>
> (B) Drainage patterns from the production areas;
>
> (C) Location and depths of functional wells, including monitoring wells, within a one-half mile radius of the center of the production areas;
>
> (D) Name and location of public roads located within 1.0 mile of the production areas; and
>
> (E) Name and location of surface waters that will receive discharges from impoundments or terminal storage tanks.

(vi) Specific information about the type and number of animals, whether in open confinement or housed under roof;

(vii) The type of containment and storage for manure and process wastewater (for example, anaerobic lagoon, roofed storage shed, storage ponds, underfloor pits, above ground storage tanks, below ground storage tanks, concrete pad, impervious soil pad, stockpiles, composting), and total capacities for manure and process wastewater storage;

(viii) A site plan of production areas that includes locations of and, where appropriate, names of buildings, manure storage areas, composting areas, impoundments and tanks, piping to impoundments and tanks, transfer piping between impoundments, tanks, manure separation systems, pens, lift stations, berms, process wastewater conveyances, 100-year flood plains (in whole or in part within production areas), and location after each impoundment or terminal tank where permitted discharges to surface waters will occur.

(ix) Design calculations, drawings, specifications, tables, and other documents prepared by or reviewed by a professional engineer registered in Colorado, that document and certify the following. Such documents prepared by a professional engineer shall contain the professional engineer's seal. Such documents reviewed by a professional engineer shall have an accompanying letter indicating what was reviewed and what is being certified by the professional engineer.

(A) The volume of process wastewater runoff generated by portions of the production area that are tributary to each impoundment during applicable storm events;

(B) Drawings for each impoundment that consist of a plan view and cross-sectional views (one each way). The cross sectional views shall include the location of piping, splash pads, chutes, bracing, and spillways. Label in a cross-sectional view, elevations of:

1) the basin floor;

2) manure and process wastewater storage volume (at maximum operating level);

3) precipitation volume from the storm event that is applicable to the permit for which coverage is being requested;

4) process wastewater volume from the storm event that is applicable to the permit for which coverage is being requested;

5) two feet of freeboard, or other freeboard level approved by the Division pursuant to section 61.17 ; and

6) the top of berms;

(C) That a properly designed and constructed spillway is, or will be, in place at each discharging impoundment, unless the Division has approved that a spillway is not required;

(D) That accurate, permanent depth markers are, or will be, in place that indicate the depth of process wastewater in each open surface liquid impoundment and tank, that are clearly marked in one (1) foot increments, and that clearly indicate the two-foot freeboard elevation (or other freeboard level approved by the Division) and the minimum capacity necessary to

contain the required rainfall event, plus two feet of freeboard (or other freeboard level approved by the Division);

(E) That two feet of freeboard, or other freeboard level approved by the Division pursuant to section 61.17 (iii)(A), exists in each open surface impoundment and terminal tank, above the precipitation amount of the storm event that will be specified in the permit, plus associated process wastewater runoff volume, plus manure and other process wastewater storage volume.

(F) That clean water is diverted, as appropriate, from the production areas, manure stockpiles, and composting areas;

(G) That structures used to divert process wastewater from the production areas are sized to carry the flow expected from the storm event that will be specified in the permit for which coverage is being requested; and

(H) That all impoundments, tanks, manure stockpiles, or composting areas located within a 100-year floodplain are protected from inundation and damage from 100-year or smaller flood events.

(x) The total number of acres under control of the applicant available for application of manure or process wastewater;

(xi) A standard operating procedure for measuring and recording precipitation;

(xii) Estimated amounts of manure and process wastewater generated per year (tons/gallons);

(xiii) Estimated amounts of manure and process wastewater transferred to other persons per year (tons/gallons);

(xiv) A nutrient management plan that, at a minimum, satisfies the requirements specified in section 61.17(8)(b);

(xv) Where alternative performance standards are being requested, the information required in subsection 61.17 , and any additional information requested by the Division pursuant to subsection 61.4(1)(k);

(xvi) Other information required by the Division; and

(xvii) Signature of the application form in accordance with the requirements of subsection 61.4(1).

(d) Permit Review and Processing

CAFO owners or operators must submit a notice of intent (i.e., permit application) when seeking authorization to discharge under a general permit in accordance with 61.17(5)(a). The Division will review these submittals to ensure that the notice of intent includes the information required by 61.17(5)(c), including a nutrient management plan that meets the requirements of 61.17(8)(b) and applicable effluent limitations and standards, including those specified in 61.17(6). 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 owner or operator. 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 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 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 . 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 owner or operator under the general permit, the terms of the nutrient management plan as specified in 61.17(8)(b)(xii) become incorporated as terms and conditions of the 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.

(i) The incorporation of the terms of a CAFO's nutrient management plan into the terms and conditions of a general permit when a CAFO obtains coverage under a general permit in accordance with 61.17(5), is not cause for modification to the general permit pursuant to the requirements of section 61.17(8)(b)(xv).

1.17(6) **EFFLUENT LIMITATION REQUIREMENTS FOR CONCENTRATED ANIMAL FEEDING OPERATIONS**

Except where a variance has been granted pursuant to section 61.12 , CAFOs must achieve the following effluent limitations:

(a) All Existing CAFOs

(i) Effluent Limitations for existing Large Horse and Sheep CAFOs - There shall be no discharge of process wastewater into surface water except as follows: whenever precipitation causes an overflow of process wastewater from a production area designed, constructed, operated, and maintained to contain all manure and process wastewater, including the runoff and direct precipitation from a 25-year, 24-hour storm, at minimum, any process wastewater pollutants in the overflow may be discharged into surface water.

(ii) Effluent Limitations for existing duck CAFOs - Discharges resulting from production areas at dry lot and wet lot duck CAFOs with 5,000 or more ducks shall achieve the following effluent limitations:

Regulated Parameter	Maximum Daily[1]	Maximum Monthly Average[1]	Maximum Daily[2]	Maximum Monthly Average[2]
BOD5	3.66	2.0	1.66	0.91
Fecal coliform	(3)	(3)	(3)	(3)

[1] Pounds per 1000 ducks.

[2] Kilograms per 1000 ducks.

[3] Not to exceed MPN of 400 per 100 ml at any time.

(iii) Effluent Limitations for existing Large Dairy Cow, Cattle, Swine, Poultry, and Veal Calf CAFOs

(A) Production areas - Except as provided in paragraphs (iii)(A)(I) and (iii)(A)(II) of this section, there shall be no discharge of manure or process wastewater into surface water from the production area. These Large CAFOs shall attain the limitations and requirements of this section 61.17 as of the date of permit coverage.

(I) Whenever precipitation causes an overflow of manure or process wastewater, pollutants in the overflow may be discharged into surface water provided:

1) The production area is designed, constructed, operated, and maintained to contain all manure and process wastewater, including the runoff and direct precipitation from a 25-year, 24hour storm, at minimum; and,

2) The production area is operated in accordance with the production area best management practices specified in section 61.17 , and the records specified in section 61.17(8)(c), below.

(II) Where a CAFO has requested and the Division has approved effluent limitation based upon site-specific alternative technologies, pursuant to section 61.17(7)(a), below.

(B) Land application areas - Discharges from land application areas are subject to the following requirements. Existing Large Dairy Cow, Cattle, Swine, Poultry, and Veal Calf CAFOs shall attain the limitations and requirements of this section 61.17 or upon the date of permit coverage.

(I) Develop and implement the nutrient management plan specified in section 61.17 , and the best management practices specified in section 61.17.

(II) Maintain a complete copy of the information for the best management practices required by section 61.17(8)(b)(x), and the records specified at sections 61.17(8)(c), (c)(i), and (c)(iv).

(iv) Small and Medium CAFOs - Effluent limitations for these CAFOs shall be determined by the Division using Best Professional Judgment.

(b) New Source CAFOs

The following CAFOs that commenced construction after April 14, 2003 are considered new sources and are subject to the following effluent limitations, as applicable.

(i) Effluent Limitations for new source Large Horse and Sheep CAFOs - There shall be no discharge of process wastewater into surface water except as follows: whenever precipitation causes an overflow of process wastewater from a production area designed, constructed, operated, and maintained to contain all manure and process wastewater, including the runoff and direct precipitation from a 25-year, 24-

hour storm, at minimum, any process wastewater pollutants in the overflow may be discharged to surface water.

(ii) Effluent Limitations for new source duck CAFOs

(A) There shall be no discharge of process wastewater into surface water from dry lot and wet lot duck CAFOs with 5,000 or more ducks except as follows: whenever precipitation causes an overflow of process wastewater from a production area designed, constructed, operated, and maintained to contain all manure and process wastewater, including the runoff and direct precipitation from a 25-year, 24-hour storm, at minimum, any process wastewater pollutants in the overflow may be discharged into surface water.

(B) Pretreatment standards - There shall be no introduction of process wastewater to a publicly owned treatment works (POTW) by a new source Duck CAFO with 5,000 or more ducks, except as follows:

(I) As provided in 40 CFR 403.7; or

(II) Whenever rainfall events cause an overflow of process wastewater from a facility designed, constructed, operated, and maintained to contain all manure and process wastewater, including the runoff and direct precipitation from a 25-year, 24-hour storm, at minimum, any process wastewater pollutants in the overflow may be introduced to a POTW.

(iii) Effluent Limitations for new source Large Dairy Cows and Cattle other than Veal Calves

(A) Such a CAFO that commenced construction after April 14, 2003 shall attain the same limitations and requirements as specified in section 61.17 above, except that the limitations and requirements for land application areas shall be attained as of the date of permit coverage.

(B) Such a CAFO that commenced discharging as a new source after April 14, 1993, and prior to April 14, 2003, shall be subject to the effluent limitation provisions specified in section 61.17(6)(a)(iii), above.

(iv) Effluent Limitations for new source Large Swine, Poultry, and Veal Calf CAFOs that commenced construction after April 14, 2003

(A) Production areas - Except as provided in paragraphs (iv)(A)(I) and (iv)(A)(II) of this section, there shall be no discharge of manure or process wastewater into surface water from the production area. These CAFOs shall attain the limitations and requirements of this section 61.17 as of the date of permit coverage.

(I) Any CAFO subject to this subpart may request that the Division establish best management practice effluent limitations designed to ensure no discharge of manure, litter, or process wastewater based upon a site-specific evaluation of the CAFO's open surface manure storage structure. Best management practice effluent limitations included in the permit must address the CAFO's entire production area. In the case of any CAFO using an open surface manure storage structure for which the Division establishes such effluent limitations, "no discharge of manure, litter, or process wastewater pollutants," as used in this section, means that the storage structure is designed, operated, and maintained in accordance with best management practices established by the Division on a site-specific basis after a technical evaluation of the storage structure. The technical evaluation must address the following elements:

(1) Information to be used in the design of the open manure storage structure including, but not limited to, the following: minimum storage periods for rainy seasons, additional minimum capacity for chronic rainfalls, applicable technical standards that prohibit or otherwise limit land application to frozen, saturated, or snow-covered ground, planned emptying and dewatering schedules consistent with the CAFO's Nutrient Management Plan, additional storage capacity for manure intended to be transferred to another recipient at a later time, and any other factors that would affect the sizing of the open manure storage structure.

(2) Open manure storage structures must be designed using procedures and/or software approved by the Division.

(3) All inputs used in the open manure storage structure design including actual climate data for the previous 30 years consisting of historical average monthly precipitation and evaporation values, the number and types of animals, anticipated animal sizes or weights, any added water and bedding, any other process wastewater, and the size and condition of outside areas exposed to rainfall and contributing runoff to the open manure storage structure. If actual climate data is not available, the best available data from the most proximate weather station(s), such as those utilized by the Colorado State University Colorado Climate Center or the National Oceanic and Atmospheric Administration should be used.

(4) The planned minimum period of storage in months including, but not limited to, the factors for designing an open manure storage structure listed in paragraph (A)(I)(1) of this section. Alternatively the CAFO may determine the minimum period of storage by specifying times the storage pond will be emptied consistent with the CAFO's Nutrient Management Plan.

(5) Site-specific predicted design specifications including dimensions of the storage facility, daily manure and wastewater additions, the size and characteristics of the land application areas, and the total calculated storage period in months.

(6) Evaluation of the adequacy of the designed manure storage structure must use evaluations and simulations approved by the Division. The evaluation must include all simulation inputs including, but not limited to, daily precipitation, temperature, and evaporation data for the previous 100 years, user-specified soil profiles representative of the CAFO's land application areas, planned crop rotations consistent with the CAFO's Nutrient Management Plan, and the final modeled result of no overflows from the designed open manure storage structure. For those CAFOs where 100 years of

local weather data for the CAFO's location is not available, CAFOs may use a simulation with a confidence interval analysis conducted over a period of 100 years. The Division may approve equivalent evaluation and simulation procedures.

(7) The Division has the discretion to request additional information to support a request for effluent limitations based on a site-specific open surface manure storage structure.

(8) The Division may waive the requirement of (A)(I)(6) for a site-specific evaluation of the designed manure storage structure and instead authorize a CAFO to use a technical evaluation developed for a class of specific facilities within a specified geographical area.

(9) Waste management and storage facilities designed, constructed, operated, and maintained consistent with the analysis conducted in paragraphs (A)(I)(1) through (A)(I)(7) of this section and operated in accordance with the additional measures and records required in section 61.17 and 61.17 below, will fulfill the requirements of this section.

(II) The production area must be operated in accordance with the additional measures and recordkeeping required in section 61.17(8)(c) and 61.17(8)(f) below.

(III) Provisions for upset/bypass, as provided in 61.8(3)(i) & (j), apply to a new source subject to this provision.

(B) Land application areas - New source Large Swine, Poultry, and Veal Calf CAFOs shall attain the limitations and requirements of this paragraph (B) as of the date of permit coverage.

(I) Develop and implement the nutrient management plan specified in section 61.17 , and the best management practices specified in section 61.17.

(II) Maintain a complete copy of the information for the best management practices required by section

61.17(8)(b)(x), and the records specified at sections 61.17(8)(c).

(v) Effluent Limitations for Large Swine, Poultry, and Veal Calf CAFOs that commenced discharging as a new source after April 14, 1993, and prior to April 14, 2003 - Such CAFOs shall be subject to the effluent limitation provisions specified in section 61.17(6)(a)(iii), above.

(c) General pretreatment standards - CAFO permittees that introduce process wastewater pollutants into a publicly owned treatment works (POTW) must comply with 40 CFR 403.

61.17(7) **VOLUNTARY ALTERNATIVE PERFORMANCE STANDARDS**

Pursuant to sections 61.17 and 61.17 above, a Large Dairy Cow, Cattle, Swine, Poultry, or Veal Calf CAFO, may voluntarily request the Division to establish alternative Colorado Discharge Permit System effluent limitations based upon the operation's proposed use of site-specific alternative technologies. The request shall include the information specified below. The owner or operator shall attain the limitations and requirements of subsection 61.17 , as applicable, as of the date of permit coverage.

(a) Large Dairy Cow, Cattle, and Existing Source Swine, Poultry, and Veal Calf CAFOs - A supporting technical analysis and any other relevant information and data that would support such site-specific effluent limitations within the time frame provided by the Division. The supporting technical analysis and other relevant information and data shall consist of, but not be limited to, the following.

(i) Information about the proposed innovative technology that includes, but is not limited to:

(A) A description of the technology, manufacturer's name and contact information;

(B) How process wastewater and manure will be treated using the proposed innovative technology;

(C) The reason for and goal of using the technology;

(D) A summary and supporting documents of any research and non-research results that document the performance of the technology;

(E) Information about any deviation from research and non-research conditions, and the anticipated impacts of such deviations on the performance of the proposed innovative technology;

(ii) Results from use of an appropriate technical analysis that calculates the following for discharges from the existing facility, unless an alternative evaluation method is approved by the Division. The calculations shall be based on a site-specific analysis of a storage system designed, constructed, operated, and maintained to contain all manure and process wastewater, including runoff from a 25-year, 24-hour storm. The calculations shall also be based on all daily inputs to the storage system, including manure, all process wastewater, direct precipitation, and runoff, and all daily outputs from the storage system, including losses due to evaporation, sludge removal, and the removal of process wastewater for use on cropland at the CAFO or transported off site.

(A) A calculation determining the predicted median annual overflow volume from the production area based on a 25-year period of actual rainfall data applicable to the site.

(B) Site-specific pollutant data for the CAFO, including colonies of fecal coliform and Escherichia coli, and of the mass of ammonia, phosphorus, biological oxygen demand (BOD5), total suspended solids (TSS), chemical oxygen demand (COD), total organic carbon (TOC), temperature, pH, total dissolved solids (for discharges to the Colorado River System only), and other constituents required by the Division. The pollutant data shall be the result of representative sampling and analysis of all sources of input to the storage system, or other appropriate pollutant data.

(C) A predicted annual average discharge of the pollutants identified in subsection 61.17 above, expressed where appropriate as a mass discharge on a daily basis (lbs/day), and calculated considering subsections 61.17(7)(a)(ii) and 61.17(7)(a)(ii)(A) and (B), above.

(iii) Results from an appropriate analysis that provides the following for the proposed innovative technology:

(A) A prediction of the median annual volume of process wastewater that will occur over the same 25-year period identified in section 61.17(7)(a)(ii), above.

(B) A prediction of the annual average discharge of pollutants identified in subsection 61.17 , above, that will be associated with the discharges specified in subsection 61.17(7)(a)(iii)(A), above.

(C) A demonstration that the proposed innovative technology will achieve a quantity of pollutants discharged from the production area equal to or less than the quantity of pollutants calculated pursuant to subsection 61.17(7)(a)(ii)(C), above.

(iv) Documentation that provides the rationale and justification for the models and analysis that were used to address subsections 61.17 above, and for conclusions made. The Division may, with accompanying justification, request additional information from the operation for the proposed innovative technology, which may include an on-site inspection.

(v) A plan for implementing the innovative technology, including quality assurance practices that the permittee will use to ensure the proper functioning of the innovative technology, and an approach for monitoring performance.

(b) Where the frequency of discharges to surface waters under alternative performance standards is greater than that from a 25-year, 24-hour storm, as applicable, water quality standards-based effluent limits for pollutants in such discharges shall be set pursuant to the requirements of subsection 61.8(2)(b).

(c) Where the frequency of discharges to surface waters under alternative performance standards is greater than that from a 25-year, 24-hour storm, as applicable, discharges shall be monitored, recorded, and reported pursuant to the requirements of subsection 61.8(4).

61.17(8) **ADDITIONAL REQUIREMENTS FOR CONCENTRATED ANIMAL FEEDING OPERATIONS**

(a) Production Area Design and Construction Requirements.

(i) Process wastewater Storage Capacity Requirements - Concentrated animal feeding operations, except existing dry lot and wet lot duck CAFOs with 5,000 or more ducks, shall meet one of the following design and construction standards regarding process wastewater storage capacity. Precipitation data used to comply with design and construction requirements for storage capacity shall be from a document approved by the Division.

(A) Small and Medium CAFOs - Process wastewater storage capacity requirements shall be determined by the Division using Best Professional Judgment.

(B) Baseline Impoundment and Tank Storage Capacity Requirement for Large CAFOs - Impoundments and tanks

for production areas of Large CAFOs (except existing duck CAFOs with 5,000 or more ducks) shall be designed and constructed so that they are capable of storing, at minimum, the volume of all liquid manure and process wastewater, including the runoff resulting from a 25-year, 24-hour Storm, or the runoff volume resulting from a Chronic Storm whichever is larger. Prior to rebuilding or constructing a new impoundment or tank, the operator or owner is strongly advised to contact the Division for the purpose of determining the required storage capacity standard for permitting purposes.

(I) New Source Swine, Poultry, or Veal Calf Operations - Impoundments and tanks for production areas of these new source CAFOs shall be designed and constructed so that these structures meet the requirements set forth in 61.17(6)(b)(iv).

(II) Other New Sources, including Duck CAFOs with 5,000 or More Ducks - New source CAFOs that are not swine, poultry, or veal calf operations shall meet the same baseline storage capacity requirement as specified in subsection 61.17(8)(a)(i)(B) above.

(C) Evaporation Storage System Standard - Evaporation impoundment systems shall be designed and constructed to withstand a consecutive 10-year period of maximum recorded rainfall, as determined by a water budget analysis process which includes manure and process wastewater loading during that period and provides sufficient capacity to retain all rainfall and process wastewater from the applicable design storm event without overflow. For purposes of determining the consecutive 10-year period of maximum recorded rainfall, the entire period of record shall be utilized. Such impoundments shall also be capable of containing any planned volume of liquid manure and process wastewater, including the runoff resulting from a 25-year, 24-hour storm. If a new source Swine, Poultry or Veal Calf Operation, such impoundments shall be capable of meeting the requirements set forth in 61.17(6)(b)(iv).

(ii) Spillways - An impoundment shall have a spillway that is designed and maintained to prevent erosion of the structural integrity of the impoundment, except where the operator requests and the Division approves that a spillway is not required.

(A) An impoundment that holds 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, shall be exempt from this requirement.

(B) An operator may request approval from the Division that no spillway is required for an impoundment where the operator demonstrates that structural integrity of the impoundment will be maintained without a spillway in the event of an overflow.

(iii) For new source Large CAFOs and newly constructed CAFOs - designs of diversion structures and impoundments for process wastewater, and of structures that divert clean water from running onto production areas, manure stockpiles, and composting areas shall be prepared and certified by a professional engineer registered in the State of Colorado.

(iv) Clean water shall be diverted, as appropriate, from running onto feedlots, holding pens, manure and process wastewater storage systems, manure stockpiles, composting areas, and the like. Structures used to divert clean water from running onto new source Large Swine, Poultry, and Veal Calf CAFOs, shall be capable of meeting the requirements set forth in 61.17(6)(b)(iv).

(v) Structures used to divert process wastewater from production areas to impoundments or tanks shall be sized such that they can carry the flow expected from a 25-year, 24-hour storm. For new source Large Swine, Poultry, and Veal Calf operations, such structures shall be capable of meeting the requirements set forth in 61.17(6)(b)(iv).

(b) Nutrient Management Plan Requirements

(i) Any permit issued to a CAFO must include a requirement to implement a nutrient management plan that, at a minimum, contains best management practices and procedures necessary to meet the requirements of this section and applicable effluent limitations and standards.

(ii) The permittee shall develop and implement a nutrient management plan upon the date of permit coverage for existing and new source CAFOs.

(iii) Ensure adequate storage of manure and process wastewater, including procedures to ensure proper operation and maintenance

of the impoundments and tanks. The procedures shall include, but not be limited to:

> (A) Except during the designed storm event, manure and process wastewater stored in impoundments and terminal tanks shall be removed as necessary to maintain a minimum of two (2) feet of freeboard, except where the operator requests and the Division approves an alternative freeboard level. The request shall include documentation that the alternative level will protect structural integrity of impoundments and terminal tanks and be functionally equivalent to two feet of freeboard in preventing overflows caused by factors such as wind and receiving direct precipitation.
>
> (B) For operations that land apply process wastewater, whenever the design capacity of impoundments and tanks is less than the volume required to store runoff from the designed storm event, the structures shall be dewatered to a level that restores the required capacity once soils on a land application site has the water holding capacity to receive process wastewater.

(iv) Ensure proper management of animal mortalities (that is, dead animals) to prevent discharge of pollutants to surface waters. Mortalities shall remain on the production area until disposal and shall 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;

(v) Ensure that clean water is diverted, as appropriate, from the production area;

(vi) Prevent direct contact of confined animals with surface waters;

(vii) 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;

(viii) Site-specific conservation practices that have been identified and will be implemented, including as appropriate, buffers or equivalent practices, to control runoff of pollutants to surface water. Such practices shall include, but are not limited to:

> (A) 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.

(B) Process wastewater to furrow- or flood-irrigated land application sites shall be applied in a manner that prevents any process wastewater runoff into surface waters.

(C) When process wastewater is sprinkler-applied, the soil water holding capacity of the soil shall not be exceeded.

(D) Process wastewater shall not be applied to either frozen or flooded land application sites.

(E) Manure or process wastewater shall not be land-applied within 150 feet of domestic water supply wells, and within 300 feet of community domestic water supply wells.

(ix) Identify protocols for appropriate sampling and testing of manure, process wastewater, and soil;

(x) 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. Such protocols shall include, but are not limited to:

(A) No application of manure or process wastewater shall be made to a land application site at a rate that will exceed the capacity of the soil and the planned crops to assimilate nitrate-nitrogen within twelve (12) months of the manure or process wastewater being applied.

(B) Manure and process wastewater shall be applied as uniformly as possible with properly calibrated equipment.

(xi) Identify specific records that will be maintained to document the implementation and management of the minimum nutrient management plan elements described in subsections 61.17(8)(b)(i) through (x), above.

(xii) Terms of the Nutrient Management Plan

(A) Any permit issued to a CAFO must require compliance with the terms of the CAFO's site-specific nutrient management plan. The terms of the nutrient management plan are the information, protocols, best management practices, and other conditions in the nutrient management plan requested by the Division

for clarification or justification in order to meet the requirements of paragraph 61.17(8)(b) of this section.

(B) The terms of the nutrient management plan, with respect to protocols for land application of manure, litter, or process wastewater required by paragraph 61.17(8)(b)(x) of this section and, as applicable, 61.17(8), must include:

(I) The fields available for land application;

(II) Field-specific rates of application properly developed, as specified in paragraph 61.17(8)(b)(xii)(B)(IV) below, to ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater; and

(III) Any timing limitations identified in the nutrient management plan concerning land application on the fields available for land application;

(IV) Description of the rates of application of manure, litter, and process wastewater to be land applied, according to the following specifications:

(1) Maximum amounts of nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the nutrient management plan, in chemical forms determined to be acceptable to the Division, in pounds per acre, for each field;

(2) The outcome of field-specific assessment of potential for nitrogen and phosphorus transport to surface water for each field, using the USDA, NRCS Colorado Phosphorus Index Risk Assessment tool or other Division-approved method;

(3) The crops to be planted in each field or any other uses such as pasture of fallow fields (including alternative crops identified in accordance with paragraph 61.17(8)(b)(xii)(B)(IV)(7) of the section);

(4) The realistic yield goal for each crop or use identified for each field;

(5) The nitrogen and phosphorus recommendation for each crop or use identified for each field from a method approved by the Division. Such

methods may include, but are not limited to, the most current published fertilizer suggestions of the Cooperative Extension in Colorado or adjacent states, or the most current nutrient management planning guidelines for Colorado as published by the USDA, NRCS.

(6) The methodology by which the nutrient management plan accounts for the following factors when calculating the amounts of manure, litter, and process wastewater to be land applied:

a) Results of soil tests conducted in accordance with protocols identified in the nutrient management plan, as required by paragraph 61.17(8)(b)(ix) of this section;

b) Credits for all nitrogen in the field that will be plant available;

c) The amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied;

d) Consideration of multi-year phosphorus application;

e) Accounting for all other additions of plant available nitrogen and phosphorus to the field;

f) The form and source of manure, litter and process wastewater;

g) The timing and method of land application; and

h) Volatilization of nitrogen and mineralization of organic nitrogen.

(7) For alternative crops identified in the CAFO's nutrient management plan that are not in the planned crop rotation:

a) The crops must be listed by field, in addition to the crops identified in the planned crop rotation for that field;

b) The nutrient management plan must include realistic crop yield goals and the nitrogen and phosphorus recommendations from sources specified in 61.17(8)(b)(xii)(B)(IV)(5) above;

c) 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 paragraph 61.17(8)(b)(xii)(B)(IV)(6) of this section.

(C) 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 requirements of 61.17(8)(b)(xiii).

(xiii) The following projections must be included in the nutrient management plan submitted to the Division, but are not terms of the nutrient management plan:

(A) The CAFO's planned crop rotations for each field for the period of permit coverage;

(B) The projected amount of manure, litter, or process wastewater to be applied;

(C) Projected credits for all nitrogen in the field that will be plant available;

(D) Consideration of multi-year phosphorus application;

(E) Accounting for all other additions of plant available nitrogen and phosphorus to the field;

(F) The predicted form, source, and method of application of manure, litter, and process wastewater for each crop.

(xiv) CAFOs must calculate maximum amounts of manure, litter, and process wastewater to be land applied at least once each year using the methodology required in paragraph 61.17(8)(b)(xii)(B)(IV)(6) of this section before land applying manure, litter, and process wastewater and must rely on the following data:

(A) 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 required by paragraph 61.17(8)(b)(xii)(B)(IV)(6) of this section, and for phosphorus, the results of the most recent soil test conducted in accordance with soil testing requirements approved by the Division; and

(B) 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.

(xv) Changes to a Nutrient Management Plan

(A) Any permit issued to a CAFO must require the following procedures when a CAFO owner or operator makes changes to the CAFO's nutrient management plan previously submitted to the Division.

(I) The CAFO owner or operator must provide the Division with the most current version of the CAFO's nutrient management plan and identify changes from the previous version, except that the results of calculations made in accordance with the requirements of paragraph 61.17(8)(b)(xiv) of this section are not subject to the requirements of paragraph 61.17(8)(b)(xv) of this section.

(II) The Division must review the revised nutrient management plan to ensure that it meets the requirements of this section and applicable effluent limitations and standards, including those specified in 61.17(6) above, and must determine whether the changes to the nutrient management plan necessitate revision to the terms of the nutrient management plan incorporated into the permit issued to the CAFO. If revision to the terms of the nutrient management plan is not necessary, the Division must notify the CAFO owner or operator and upon such notification the CAFO may implement the revised nutrient management plan. If revision to the terms of the nutrient management plan is necessary, the Division must determine whether such changes are substantial changes as described in paragraph 61.17(8)(b)(xv)(A)(III) of this section.

(1) If the Division determines that the changes to the terms of the nutrient management plan are not substantial, the Division must make the revised nutrient management plan publicly available and include it in the permit record, revise the terms of the nutrient management plan incorporated into the permit, and notify the owner or operator and inform the public of any changes to the terms of the nutrient management plan that are incorporated into the permit.

(2) If the Division determines that the changes to the terms of the nutrient management plan are substantial, the Division must notify the public and make the proposed changes and the information submitted by the CAFO owner or operator available for public review and comment. The process for public comments, hearing requests, and the hearing process if a hearing is held must follow the procedures applicable to draft permits set forth in 61.5. Once the Division incorporates the changes to the terms of the nutrient management plan into the permit, the Division must notify the owner or operator and inform the public of the final decision concerning changes to the terms and conditions of the permit.

(III) Substantial changes to the terms of a nutrient management plan incorporated as terms and conditions of a permit include:

(1) Addition of new land application areas not previously included in the CAFO's nutrient management plan. Except that if the land application area that is being added to the nutrient management plan is covered by terms of a nutrient management plan incorporated into an existing permit in accordance with the requirements of paragraph 61.17(8)(b)(xii) of this section, and the CAFO owner or operator 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, such addition of new land would be a change to the new CAFO owner or operator's nutrient management plan but not a substantial change for purposes of this section;

(2) Any changes to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop, as set forth in paragraph 61.17(8)(b)(xii)(B)(IV) of this section;

(3) 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 expressed in accordance with paragraph 61.17(8)(b)(xii) of this section; and

(4) Changes to site-specific components of the CAFO's nutrient management plan, where 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) Recordkeeping Requirements

The permittee shall maintain on site a copy of its most current nutrient management plan and make it available to the Division or its designee, upon request. In addition, the permittee must create, maintain on-site for five years from the date they are created, and make available to the Division or its designee, upon request, the following records:

(i) All applicable records identified in the nutrient management plan, pursuant to subsection 61.17(8)(b)(xi) above.

(ii) The completed permit application required pursuant to subsection 61.17(5)(c), above.

(iii) The following complete records:

(A) Records documenting the visual inspections of the production area required under subsection 61.17(8)(f)(ii)(A) and (B);

(B) Weekly records of the depth of the manure and process wastewater in the liquid impoundment and terminal

storage tank as indicated by the depth marker required under subsection 61.17(8)(f)(ii)(D);

(C) Records documenting any actions taken to correct deficiencies required under subsection 61.17 . Deficiencies not corrected within 30 days shall be accompanied by an explanation of the factors preventing immediate correction;

(D) Records of mortalities management and practices used by the large CAFO to meet the requirements of subsection 61.17(8)(b)(iv);

(E) Records documenting the current design of any manure storage structures, including volume of solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity;

(F) Records of date, time, and estimated volume of any overflow.

(iv) For permitted Large Dairy, Beef, Cattle, Swine, Poultry, and Veal Calf CAFOs, the following complete records for land application sites:

(A) Expected crop yields;

(B) The date(s) manure or process wastewater is applied to each land application site;

(C) Weather conditions at the time of land application and for 24 hours prior to and following application;

(D) Test methods used to sample and analyze manure, process wastewater, and soil;

(E) Results from manure, process wastewater, and soil sampling and analysis;

(F) Explanations of the basis for determining manure and process wastewater application rates, in accordance with the nutrient management plan;

(G) Calculations showing the total nitrogen and phosphorus that will be applied to each land application site, including sources other than manure or process wastewater;

(H) The total amount of nitrogen and phosphorus actually applied to each land application site, including documentation of calculations for the total amount applied;

(I) The method used to apply the manure and process wastewater;

(J) Date(s) of manure application equipment inspection.

(d) Transfer of Manure or Process Wastewater to Third Parties

Prior to transferring manure or process wastewater to other persons, Large CAFOs must provide the recipient of the manure or process wastewater with the most current nutrient analysis. The analysis provided must be consistent with the requirements of the nutrient management plan (subsection 61.17 . Large CAFOs must retain for five years records of the date, recipient name and address, and approximate amount of manure or process wastewater transferred to another person.

(e) Annual Reporting Requirements

The permittee must submit an annual report to the Division that shall include the following:

(i) The number and type of animals, whether in open confinement or housed under roof;

(ii) The estimated amount of total manure and process wastewater generated by the CAFO in the previous 12 months (tons/gallons);

(iii) Estimated amount of total manure and process wastewater transferred to other persons by the CAFO in the previous 12 months (tons/gallons);

(iv) The total number of acres for land application covered by the nutrient management plan developed pursuant to subsection 61.17(8)(b);

(v) The total number of acres of land application sites that were used for application of manure and process wastewater in the previous 12 months;

(vi) 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;

(vii) A statement indicating whether the current version of the CAFO's nutrient management plan was developed or approved by a certified nutrient management planner;

(viii) 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 paragraph 61.17(8)(b)(xii) of this section, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and

(ix) 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 paragraph 61.17(8)(b)(xii) of this section, and the amount of any supplemental fertilizer applied during the previous 12 months.

(f) Operation and Maintenance Requirements.

(i) Accumulations of manure shall be removed from impoundments and tanks as necessary to maintain the capacity of the structures to retain the storage volume from the designed storm event.

(ii) Production Area Best Management Practices - The following best management practices shall be established and properly maintained by permitted Large Dairy, Beef Cattle, Swine, Poultry, and Veal Calf CAFOs:

(A) 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.

(B) Perform daily inspections of water lines, including drinking water or cooling water lines.

(C) 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 depth marker required under section 61.17(8)(f)(ii)(D), below.

(D) 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 event, as applicable, and to clearly indicate the two-foot freeboard elevation, or other approved freeboard elevation. At minimum, depth markers should be clearly marked in one (1) foot increments.

(E) Correct any deficiencies found as a result of daily and weekly inspections as soon as possible, but no later than 30 days of such a deficiency having been identified, unless factors preventing correction within 30 days have been documented.

(iii) Inspect Land Application Equipment - The permittee must periodically inspect for leaks from equipment used for land application of manure or process wastewater. At minimum, such inspection shall be made annually and within the six month period prior to the first application of manure or process wastewater, and at least once daily when process wastewater is being applied.

(iv) Setback Requirements - Unless the permittee exercises one of the alternatives provided for in 61.17(8)(f)(iv)(A) and (B) below, manure and process wastewater shall not 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.

(A) As a setback alternative, the permittee may substitute the 100-foot setback with a 35-foot wide vegetated buffer where applications of manure or process wastewater are prohibited.

(B) As a setback alternative, the permittee may demonstrate that a setback 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.

(g) Closure Requirements - A permittee shall demonstrate to the satisfaction of the Division that there is no remaining potential for a discharge of manure or process wastewater that was generated while the operation was a CAFO.