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Notice of Rulemaking Hearing

Hearings will be conducted in the manner prescribed by the Uniform Administrative Procedures Act, Tennessee Code Annotated, Section 4-5-204. For questions and copies of the notice, contact the person listed below.

Agency/Board/Commission:	Environment and Conservation
Division:	Water Pollution Control
Contact Person:	Monte Pennington
Address:	6 th Floor, L & C Annex 401 Church Street Nashville, Tennessee 37243-1531
Phone:	615-532-0645
Email:	Monte.Pennington@tn.gov

Any Individuals with disabilities who wish to participate in these proceedings (to review these filings) and may require aid to facilitate such participation should contact the following at least 10 days prior to the hearing:

ADA Contact:	ADA Coordinator
Address:	12 th Floor L&C Tower 401 Church Street Nashville, Tennessee 37243
Phone:	1-866-253-5827 (toll free) or (615) 532-0200 Hearing impaired callers may use the TN Relay Service at 1-800-848-0298.
Email:	Beverly.Evans@state.tn.us

Hearing Location(s) (for additional locations, copy and paste table)

Address 1:	17 th Floor Conference Room, L & C Tower		
Address 2:	401 Church Street		
City:	Nashville, TN		
Zip:	37243		
Hearing Date :	11/16/09		
Hearing Time:	2:00 PM	<input checked="" type="checkbox"/> CST	<input type="checkbox"/> EST

Address 1:	Fleming Training Center, James B. Blanton Auditorium		
Address 2:	2022 Blanton Drive		
City:	Murfreesboro, TN		
Zip:	37129		
Hearing Date :	11/16/09		
Hearing Time:	6:00 PM	<input checked="" type="checkbox"/> CST	<input type="checkbox"/> EST

Address 1:	Jackson Environmental Field Office		
Address 2:	1625 Hollywood Drive		
City:	Jackson, TN		
Zip:	38305		

Hearing Date :	11/17/09		
Hearing Time:	2:00 PM	<input checked="" type="checkbox"/> CST	<input type="checkbox"/> EST

Address 1:	Jackson Environmental Field Office		
Address 2:	1625 Hollywood Drive		
City:	Jackson, TN		
Zip:	38305		
Hearing Date :	11/17/09		
Hearing Time:	6:00 PM	<input checked="" type="checkbox"/> CST	<input type="checkbox"/> EST

Address 1:	Knoxville Environmental Field Office		
Address 2:	3711 Middlebrook Pike		
City:	Knoxville, TN		
Zip:	37921-5602		
Hearing Date :	11/19/09		
Hearing Time:	2:00 PM	<input type="checkbox"/> CST	<input checked="" type="checkbox"/> EST

Address 1:	Knoxville Environmental Field Office		
Address 2:	3711 Middlebrook Pike		
City:	Knoxville, TN		
Zip:	37921-5602		
Hearing Date :	11/19/09		
Hearing Time:	6:00 PM	<input type="checkbox"/> CST	<input checked="" type="checkbox"/> EST

Additional Hearing Information:

An initial set of draft rules has been prepared for public review and comment. Copies of these initial draft rules are available for review at the Tennessee Department of Environment and Conservation's (TDEC's) Environmental Field Offices located as follows:

Memphis Environmental Field Office
Suite E-645, Perimeter Park
2510 Mount Moriah Road
Memphis, TN 38115-1520
(901) 368-7939/1-888-891-8332

Cookeville Environmental Field Office
1221 South Willow Avenue
Cookeville, TN 38506
(931) 432-4015/ 1-888-891-8332

Jackson Environmental Field Office
1625 Hollywood Drive
Jackson, TN 38305
(731) 512-1300/1-888-891-8332

Chattanooga Environmental Field Office
Suite 550- State Office Building
540 McCallie Avenue
Chattanooga, TN 37402-2013
(423) 634-5745/1-888-891-8332

Columbia Environmental Field Office
2484 Park Plus Drive
Columbia, TN 38401
(931) 380-3371/ 1-888-891-8332

Knoxville Environmental Field Office
3711 Middlebrook Pike
Knoxville, TN 37921-5602
(865) 594-6035/1-888-891-8332

Nashville Environmental Field Office
711 R. S. Gass Blvd.
Nashville, TN 37243-1550
(615) 687-7000/1-888-891-8332

Johnson City Environmental Field Office
2305 Silverdale Road
Johnson City, TN 37601-2162
(423) 854-5400/1-888-891-8332

The "DRAFT" rules may also be accessed for review using <http://state.tn.us/environment/wpc/ppo>.

Draft copies are also available for review at the Nashville Central Office (see address below).

Tennessee Department of Environment and Conservation
 Division of Water Pollution Control
 6th Floor, L & C ANNEX
 401 Church Street
 Nashville, TN 37243-1534
 (615) 532-0633

Office hours for the Division's offices are from 8:00 AM to 4:30 PM, Monday through Friday (excluding holidays).

Oral or written comments are invited at the hearing. In addition, written comments may be submitted prior to or after the public hearing to: Division of Water Pollution Control; Tennessee Department of Environment and Conservation; Attention: Monte Pennington; 7th Floor, L & C ANNEX; 401 Church Street; Nashville, Tennessee 37243-1534; telephone 615-532-0645 or FAX 615-532-0686. However, such written comments must be received by the Division by 4:30 PM CDT, December, 7, 2009, in order to assure consideration. For further information, contact Monte Pennington at the above address or telephone number.

Revision Type (check all that apply):

- Amendment
 New
 Repeal

Rule(s) (ALL chapters and rules contained in filing must be listed here. If needed, copy and paste additional tables. Please enter only **ONE** Rule Number/RuleTitle per row.)

Chapter Number	Chapter Title
0400-40-17	Certification of Qualified Hydrologic Professionals
Rule Number	Rule Title
0400-40-17-.01	Minimum Qualifications
0400-40-17-.02	Application for Certification
0400-40-17-.03	Maintenance and Revocation of Certification
0400-40-17-.04	Requirements for Wet Weather Conveyance Determination Reports

Chapter Number	Chapter Title
1200-04-03	General Water Quality Criteria
Rule Number	Rule Title
1200-04-03-.04	Definitions
1200-04-03-.05	Interpretation of Criteria

Chapter Number	Chapter Title
1200-04-05	Permits, Effluent Limitations and Standards
Rule Number	Rule Title
1200-04-05-.02	Definitions
1200-04-05-.14	Animal Feeding Operations

Chapter Number	Chapter Title
1200-04-07	Aquatic Resource Alteration
Rule Number	Rule Title
1200-04-07-.03	Definitions
1200-04-07-.04	Permits

(Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to <http://state.tn.us/sos/rules/1360/1360.htm>)

New Rules

Chapter 0400-40-17 Certification of Qualified Hydrologic Professionals

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0400-40-17-.01 Minimum Qualifications

0400-40-17-.02 Application for Certification

0400-40-17-.03 Maintenance and Revocation of Certification

0400-40-17-.04 Requirements for Wet Weather Conveyance Determination Reports

0400-40-17-.01 Minimum Qualifications

- (1) Persons seeking to be certified by the department as Tennessee qualified hydrologic professionals must hold, at a minimum, a bachelor's degree in biology, geology, ecology, engineering, or related sciences, must have a minimum of five years relevant experience, and must successfully complete the Tennessee Hydrologic Delineation Class offered or accredited by the department.
- (2) Qualifying relevant experience is professional employment that includes regular, periodic fieldwork in biologic or hydrologic assessments of streams and wet weather conveyances. Every year of qualifying experience shall include at a minimum one wet weather conveyance determination.

0400-40-17-.02 Application for Certification

- (1) Persons may take the test offered for the certification program for qualified hydrologic professionals without seeking the certification; provided however, that if someone passes the test before they have the required experience and later wishes to use the results from that test to obtain certification, the date of that test or the latest refresher test may not be more than three years prior to the date of application for certification.
- (2) Persons seeking certification as a qualified hydrologic professional shall submit the following to the department's designee for the certification program prior to taking the test a fully completed form developed by the department and signed under penalty of perjury that contains all information showing their qualifications, including the details of their educational degrees and professional experience including documentation or description of at least five hydrologic determinations.
- (3) In determining years of experience, the work done to meet any requirement for a bachelors level degree program does not qualify toward the five years of professional experience required for certification. However, relevant work experience obtained on summer employment, work study, or other employment that is not a degree requirement does qualify for such purposes.

0400-40-17-.03 Maintenance and Revocation of Certification

- (1) Once a person has been certified by the department as a qualified hydrologic professional, he or she must successfully complete a refresher course offered by the department every three years in order to maintain such certification.
- (2) The department may revoke the certification of any qualified hydrologic professional if it is determined that there is cause. Cause for decertification includes, but is not limited to, failure to timely and successfully complete any required refresher courses, submission to the department of material false information, or repeated submission of reports in support of hydrologic determinations that contain significant failures to exercise the skills of a certified hydrologic professional in accordance with the rules and guidance established by the department. Such revocation shall be sent to the hydrologic professional by certified mail.

- (3) If a person's certification as a qualified hydrologic professional is revoked by the department, the person may appeal the revocation by filing a petition stating the reasons for disagreeing with the revocation with the board within 30 days of the date of receipt of the revocation.
- (4) When a person's certification as a qualified hydrologic professional has been revoked, he or she must again successfully complete the Tennessee Hydrologic Delineation Class offered or accredited by the department. However, the de-certified person may not re-apply to take the class for a period of one year after the certification has been revoked.

0400-40-17-.04 Requirements for Wet Weather Conveyance Determination Reports

- (1) A report regarding a wet weather conveyance determination submitted to the department by a person certified as a Qualified Hydrologic Professional (QHP) seeking to qualify for the treatment provided in section 5 of Public Chapter 464 shall so state in bold print on the first page of the document and shall be sent to the appropriate field office of the department accompanied by the following documentation.
 - (a) A written and an electronic copy of the report. The report should include the name, address, and phone number of the current property owner(s), and the person or applicant who proposes to alter the watercourse (if different from the owner), and the name, affiliation, and certification identification number of the QHP submitting the report.
 - (b) A statement, signed by the certified QHP attesting that all submitted information is true, accurate and complete.
 - (c) An explanation of the purpose and context of the hydrologic determination report, including any proposed alterations to wet weather conveyances, streams, wetlands, or other aquatic resources, or any other aspects of a project subject to regulation by the department.
 - (d) The identification of the starting and ending points along a watercourse of the areas determined to be a wet weather conveyance; such areas may not be larger than what is proposed to be altered by the proponent of project.
 - (e) A vicinity map, including the property boundaries or hydrologic determination review area (if different then property boundary). A color copy of the United States Geological Survey topographical map with an overlay of the property (development) boundary is preferred. On linear projects, start and terminus points are required. The map should clearly indicate the specific locations of all hydrologic features identified in the report. Specific latitude/longitude coordinates must be either be included on the map or included in the body of the hydrologic determination report.
 - (f) Color photographs of each of the hydrologic features to be altered or otherwise identified in the report; including the latitude and longitude, in decimal degrees of each photograph location and indicate the location and direction of each photographic view on the site map or plan. These photographs must be representative over the overall reach of water feature evaluated. At a minimum, include a photograph of the area to be altered, immediately upstream of the area to be altered, and immediately downstream.
 - (g) TDEC Hydrologic Evaluation Field Data Sheets, completed in conformance with the current TDEC-WPC Standard Procedures for Identification of Wet Weather Conveyances and Streams. At least one data sheet must be submitted for each watercourse to be altered or identified.
 - (h) Any previous assessments of hydrologic features on site known to the submitter.
 - (i) Any other information used in making the hydrologic determinations included in the report. Examples include NRCS Soil Maps, local geological data, recent and seasonal precipitation gauge records, benthic surveys, etc.

- (j) Recommended, but not required information includes:
1. Site development (concept) plans and project name (separate sheet(s), if available);
 2. Close-contour survey maps;
 3. An aerial photo with an overlay of the property boundary;
 4. Municipal jurisdiction of the project site; and
 5. Location, dimensions, and type of sewage/septic system proposed.
- (2) When a person desiring to alter a specific water of the state requests a determination from the commissioner that the watercourse is a wet weather conveyance and submits a report from a certified QHP conducted in accordance with all requirements of the rules and guidance adopted pursuant to sections 3 and 4 of Public Chapter 464 of the Acts of 2009 and containing all of the information required by paragraph (1) of this rule, then the determination made in the report shall be presumed to be correct, unless the department notifies such person in writing, or by electronic mail, within thirty (30) days of the submittal of the report, that the department has affirmatively determined that there is a significant question about whether the water of the state in question is a stream or wet weather conveyance and states the reason(s) for that determination.
- (3) If the department has made such a determination that there is a significant question regarding such a submittal, then the department shall, within thirty (30) days following the date of such notification, determine whether the water of the state in question is a stream or wet weather conveyance, and notify such person in writing, or by electronic mail, of that decision and the reasons for that determination.
- (4) If the department rejects the hydrologic determination submitted by a certified QHP on behalf of a person desiring to alter a specific water of the state who has requested a determination from the commissioner that the watercourse is a wet weather conveyance, that person may appeal the department's determination that the specific water is a stream by filing a petition for appeal with the board within thirty (30) days of receiving the department's rejection.

Authority: T.C.A. § 4-5-201 et seq., and § 69-3-105.

Chapter 1200-04-03
General Water Quality Criteria

Amendments

Rule 1200-04-03-.04 Definitions is amended by deleting it in its entirety and replacing it with the following so that, as amended, the rule shall read as follows:

1200-04-03-.04 Definitions

In addition to the meanings provided in the Water Quality Control Act (T.C.A. § 69-3-103), terms used in these rules shall mean the following:

- (1) Atypical consumers - Those persons in the vicinity of a stream or lake who due to physiological factors or previous exposure are more sensitive to specific pollutants than is the population in general. Examples of atypical consumers may include, but are not limited to: children; pregnant or nursing women; subsistence fishermen; frequent purchasers of commercially harvested fish; and agricultural, industrial, or military personnel who may have had previous occupational exposure to the contaminant of concern.
- (2) Conventional Water Treatment - Conventional water treatment as referred to in the criteria denotes coagulation, sedimentation, filtration, and chlorination or disinfection.
- (3) Degradation - The alteration of the properties of waters by the addition of pollutants or removal of habitat.
- (4) De Minimis – Alterations, other than those resulting in the condition of pollution or new domestic wastewater discharges, that represent either a small magnitude or a short duration shall be considered a de minimis impact and will not be considered degradation for purposes of implementing the antidegradation policy. Discharges other than domestic wastewater will be considered de minimis if they are temporary or use less than five percent of the available assimilative capacity for the substance being discharged. Water withdrawals will be considered de minimis if less than five percent of the 7Q10 flow of the stream is removed (the calculations of the low flow shall take into account existing withdrawals). Habitat alterations authorized by an Aquatic Resource Alteration Permit (ARAP) are de minimis if the division finds that the impacts are offset by a combination of impact minimization and/or insystem mitigation. If more than one activity has been authorized in a segment and the total of the impacts uses no more than ten percent of the assimilative capacity, available habitat, or 7Q10 low flow, they are presumed to be de minimis. Where total impacts use more than ten percent of the assimilative capacity, available habitat, or 7Q10 low flow they may be treated as de minimis provided that the division finds on a scientific basis that the additional degradation has an insignificant effect on the resource and that no single activity is allowed to consume more than five percent of the assimilative capacity, available habitat or 7Q10 low flow.
- (5) Ecoregion - A relatively homogeneous area defined by similarity of climate, landform, soil, potential natural vegetation, hydrology, or other ecologically relevant variables.
- (6) Epilimnion – The upper layer of water in a thermally stratified lake or reservoir. This layer consists of the warmest water and has a fairly uniform (constant) temperature.
- (7) Hypolimnion - The lowest layer in a thermally stratified lake or reservoir. This layer consists of colder, more dense water, has a constant temperature and no mixing occurs. The hypolimnion of a eutrophic lake is usually low or lacking in oxygen.
- (8) Mixing Zone - That section of a flowing stream or impounded waters in the immediate vicinity of an outfall where an effluent becomes dispersed and mixed.
- (9) Multiple populations – Two or more individuals from each of two or more distinct taxa, in the context of obligate lotic aquatic organisms.

- (10) Obligate lotic aquatic organisms - Organisms that require flowing water for all or almost all of the aquatic phase of their life cycles.
- (11) Photic Zone - the region of water through which light penetrates and where photosynthetic organisms live.
- (12) Reference condition - A parameter-specific set of data from regional reference sites that establish the statistical range of values for that particular substance at least-impacted streams.
- (13) Reference Site - Least impacted waters within an ecoregion that have been monitored to establish a baseline to which alterations of other waters can be compared.
- (14) Stratification – The tendency in lakes and reservoirs for distinct layers of water to form as a result of vertical change in temperature and, therefore, in the density of water. During stratification, dissolved oxygen, nutrients, and other parameters of water chemistry do not mix well between layers, establishing chemical as well as thermal gradients.
- (15) Stream - A surface water that is not a wet weather conveyance.
- (16) Subecoregion - A smaller, more homogenous area that has been delineated within an ecoregion.
- (17) Thermocline – The middle layer in a thermally stratified lake or reservoir. In this layer there is a rapid decrease in temperature with depth. Also called the metalimnion.
- (18) Wadeable streams - Streams that can be sampled using a hand held, one meter square or smaller kick net without water and materials escaping over the top of the net.
- (19) Watercourse - A man-made or natural hydrologic feature with a defined linear channel which discretely conveys flowing water, as opposed to sheet-flow.
- (20) Wet weather conveyance - Man-made or natural watercourses, including natural watercourses that have been modified by channelization:
 - (a) That flow only in direct response to precipitation runoff in their immediate locality;
 - (b) Whose channels are at all times above the groundwater table;
 - (c) That are not suitable for drinking water supplies; and
 - (d) In which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow there is not sufficient water to support fish, or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months.
- (21) Wet weather conveyance determination - The decision based on site specific information of whether a particular watercourse is a stream or a wet weather conveyance. It is synonymous with “stream determination” and “hydrologic determination.”

Rule 1200-04-03-.05 Interpretation of Criteria is amended by adding a new paragraph so that the new paragraph (9) shall read as follows:

- (9) Wet weather conveyance determinations
 - (a) General
 - 1. Because a primary purpose of the Water Quality Control Act is to protect the waters of the state for the public, and since streams receive a higher level of protection than wet weather conveyances, if a person desiring to alter a

watercourse wishes to avoid unnecessary expense and delay, the department may process a permit application or issue an authorization under a general permit without a full wet weather conveyance determination under these rules.

2. The purpose of an investigation of a watercourse to determine if it is a stream or a wet weather conveyance is to determine how the definition of “wet weather conveyance” applies to the conditions of the watercourse. The definition in Rule 1200-04-03-.04 has four elements connected by “and.” Therefore, if it is determined that any one of the four elements does not apply to a watercourse, the watercourse is a stream.
 3. The fourth element of the wet weather conveyance definition states, “in which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow there is not sufficient water to support fish, or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months”. There are conditions in which a stream may be dry for a period of weeks or even months, but supports multiple populations of lotic aquatic organisms or fish at other times during a year. In such conditions, a hydrologic determination could appropriately indicate that there is sufficient water on an annual basis to support such populations even though there were not any present on a particular date. Therefore, the absence of lotic aquatic organisms for short periods of time at certain times of year cannot be the sole basis for a determination that a watercourse meets the fourth element of the definition.
 4. Watercourses in which flow is solely a result of process or wastewater discharge or other non-natural sources shall not be regulated as streams even though they may exhibit characteristics of a stream rather than a wet weather conveyance.
 5. Because natural variation and human activities can alter hydrologic conditions over time, hydrologic determinations will only be considered valid for a maximum of three years.
- (b) Standard procedures for making wet weather conveyance determinations.
1. Stream and wet weather conveyance determinations shall be made by taking into consideration all relevant and necessary information on the biology, geology, geomorphology, precipitation, hydrology, and other scientifically based principles. Staff of the department and certified hydrologic professionals not employed by the department shall follow the detailed guidance for making hydrologic determinations adopted pursuant to subsection 4(1) of Public Chapter 464 of the Acts of 2009 as well as the following:
 - (i) Prior to conducting a field evaluation, the investigator should review recent precipitation patterns for the local area, the longer-term seasonal precipitation trends, and any other available information such as historic land use, regional geology and soil types, or previous hydrologic determinations near the site to be investigated.
 - (ii) Field investigations for hydrologic determinations should not be conducted if a significant rain event has occurred in the area of investigation within 48 hours prior.
 - (iii) Because there can be considerable variability within a given reach of a watercourse, wet weather conveyance determinations should not be made on a single point without also investigating up- and downstream.
 - (iv) All available field characteristics necessary to make an accurate determination shall be evaluated, and all evidence utilized in making a

determination shall be documented using the Hydrologic Evaluation Field Data Sheet.

- (v) Any of the primary field indicators contained in the department's detailed guidance for wet weather conveyance determinations may be considered conclusive after consideration of appropriate background information on recent weather and precipitation.
 - (vi) Since hydrologic determinations are required to be made at all times of year, secondary indicators of hydrologic status will be used, in accordance with the division's detailed guidance, as determinant evidence in the absence of primary indicators, such as direct observation of continuous flow or the documented presence of multiple taxa of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months.
2. Indigenous members of the benthic macroinvertebrate taxa groups listed below are obligate lotic aquatic organisms and thus are primary indicators that a watercourse is a stream.
- (i) Gastropoda: Pleuroceridae, Viviparidae, Valvatidae
 - (ii) Bivalvia: Unionidae
 - (iii) Coleoptera: Dryopidae, Elmidae, Psephenidae, Ptilodactylidae, Staphylinidae
 - (iv) Diptera: Athericidae, Blephariceridae, Chironomidae (*except* : Chironomini or red midges), Empididae, Ptychopteridae, Tanyderidae, and some Tipulidae (Antocha, Rhabamostix, Dicranota, Hexatoma, Limnophila, Perithemis, Tipula)
 - (v) Ephemeroptera: all members, except: Siphonuridae, and some Ephmereidae (Hexagenia)
 - (vi) Megaloptera: all members, except: Chauliodes
 - (vii) Odonata: Aeshnidae, Calopterygidae, Cordulegastridae, Gomphidae, some Coenagrionidae (Argia, Chormagion, Amhiagrion), and some Corduliidae (Epitheca, Helocordulia, Neurocordulia)
 - (viii) Plecoptera: all members
 - (ix) Trichoptera: all members, except: Molannidae, some Leptoceridae (Nectopsyche, Triaenodes), and some Limnephilidae (Ironoquia, Limnephilus, Hesperophylax)
 - (x) Oligochaetes

Authority: T.C.A. § 4-5-201 et seq., and § 69-3-105.

Chapter 1200-04-05
Permits, Effluent Limitations and Standards

Amendments

Rule 1200-04-05-.02 Definitions is amended by deleting it in its entirety and replacing with the following so that, as amended, the rule shall read as follows:

1200-04-05-.02 Definitions

All terminology not specifically defined herein shall be defined in accordance with the Water Quality Control Act, Tennessee Code Annotated (T.C.A.) §§ 69-3-101 through 69-3-137. When used in Rules 1200-04-05-.01 through .14, the following terms have the meanings given below unless otherwise specified:

- (1) "Act" means the Water Quality Control Act, T.C.A. §§ 69-3-101 et seq.
- (2) "Administrator" means the administrator of the United States Environmental Protection Agency, or an authorized representative.
- (3) "Ammonia (as N)" means ammonia reported as nitrogen.
- (4) An "Animal Feeding Operation" (AFO) is a facility that (1) stables, confines and feeds or maintains animals (other than aquatic animals) for a total of 45 days or more in any 12-month period and (2) does not sustain crops, vegetation, forage growth, or post-harvest residues in the normal growing season over any portion of the facility. Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining the number of animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes.
- (5) An "AFO overflow" means the discharge of manure or process wastewater resulting from the filling of wastewater or manure storage structures beyond the point at which no more manure, process wastewater, or storm water can be contained by the structure.
- (6) An "AFO production area" includes the animal confinement area (open lots, barns, houses), the manure storage area (i.e., lagoons, ponds, compost piles), the raw materials storage area (feed silos) and the waste containment areas that separate contaminated stormwater from uncontaminated stormwater.
- (7) "Animal Waste Management System" means any system used for the collection, storage, treatment, handling, transport, distribution, land application, or disposal of agricultural wastes, animal waste/wastewater, waste product, and dead animals generated by an AFO that meets or exceeds NRCS technical standards and guidelines.
- (8) "Area-wide waste treatment management plan" means a plan that has been approved by the administrator pursuant to § 208 (33 U.S.C. § 1288) of the CWA, Public Law 92-500.
- (9) The term "BATEA" (or "BAT") means the best available technology economically achievable as defined by EPA regulations. Effluent limitations established by this designation shall be effective in accordance with the requirements of Section 301(B)(2)(A), Federal Water Pollution Control Act, PL 92-500.
- (10) The term "biological monitoring" shall mean the determination of the effects on aquatic life, including accumulation of pollutants in tissue, in receiving waters due to the discharge of pollutants (a) by techniques and procedures, including sampling of organisms representative of appropriate levels of the food chain appropriate to the volume and the physical, chemical, and biological characteristics of the effluent, and (b) at appropriate frequencies and locations.
- (11) "Board" means the Water Quality Control Board. "BOD₅" means 5-day biochemical oxygen demand.

- (12) The term "BPTCA" means the best practicable control technology currently available, as defined by EPA regulations.
- (13) A "bypass" is defined as the intentional diversion of waste streams from any portion of a treatment facility.
- (14) A "calendar day" is defined as the 24-hour period from midnight to midnight or any other 24-hour period that reasonably approximates the midnight to midnight time period.
- (15) "CBOD₅" means 5-day carbonaceous biochemical oxygen demand.
- (16) A "closure plan" is a description of the steps taken after a permittable activity has ceased to prevent contamination of surface waters from the inactive site.
- (17) "Commencement of construction" is the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.
- (18) "Commissioner" means the commissioner of the Department of Environment and Conservation or the commissioner's duly authorized representative and, in the event of the commissioner's absence or a vacancy in the office of commissioner, the deputy commissioner.
- (19) A "composite sample" is a combination of not less than 8 influent or effluent portions, of at least 100 ml, collected over a 24-hour period. Under certain circumstances a lesser time period may be allowed, but in no case, less than 8 hours.
- (20) A "Comprehensive Nutrient Management Plan (CNMP)" is a conservation plan that is unique to animal feeding operations. It is a grouping of conservation practices and management activities which, when implemented as part of a conservation system, will help to ensure that both production and natural resource protection goals are achieved. Guidance for developing a CNMP is located in USDA-NRCS's National Planning Procedures Handbook.
- (21) A "concentrated animal feeding operation" (CAFO) is an AFO that either meets the large (Class I) CAFO size criteria of Rule 1200-04-05-.14(3), the medium (Class II) criteria of Rule 1200-04-05-.14(4) or has otherwise been designated as a CAFO by the director.
- (22) "Construction" means any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises.
- (23) The "daily maximum amount" is a limitation on the total amount of any pollutant in the discharge by weight during any calendar day.
- (24) The "daily maximum concentration" is a limitation on the average concentration, in units of mass per volume, of the discharge during any calendar day. When a proportional-to-flow composite sampling device is used, the daily concentration is the concentration of that 24-hour composite; when other sampling means are used, the daily concentration is the arithmetic mean of the concentrations of equal volume samples collected during any calendar day or sampling period.
- (25) The meaning of "Degradation" shall be the same as defined in Rule 1200-04-03-.04.
- (26) "Department" means the Department of Environment and Conservation.
- (27) "Director" means the director of the Division of Water Pollution Control.
- (28) "Discharge" or "discharge of a pollutant" refers to the addition of pollutants to waters from a source. "Division" means the Division of Water Pollution Control.
- (29) A "dry weather overflow" is a type of sanitary sewer overflow and is defined as one day or any

portion of a day in which unpermitted discharge of wastewater from the collection or treatment system other than through the permitted outfall occurs and is not directly related to a rainfall event. Discharges from more than one point within a 24-hour period shall be counted as separate overflows.

- (30) "Effluent limitation" means any restriction, established by the board or the commissioner, on quantities, rates or concentrations of chemical, physical, biological, or other constituents which are discharged into waters or adjacent to waters.
- (31) "Fecal coliform" means fecal coliform bacteria, an indicator of pathogenic organisms.
- (32) The "geometric mean" of any set of values is the n^{th} root of the product of the individual values where n is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For the purposes of calculating the geometric mean, values of zero shall be considered to be one.
- (33) A "grab sample" is a single influent or effluent sample collected at a particular time.
- (34) "Hydrologic connection" means the interflow and exchange between surface impoundments or containment structures and groundwater or surface water through an underground corridor or pathway. In the context of this chapter, the purpose of prevention/reduction of hydrologic connection is to prevent/ reduce groundwater flow contact resulting in the transfer of pollutants into groundwater.
- (35) "IC₂₅" refers to the inhibition concentration in which at least a 25% reduction in reproduction and/or growth in test organisms occurs.
- (36) "Industrial user" means those industries identified in the standard industrial classification manual, Bureau of the Budget, 1987, as amended and supplemented, under the category "Division D - Manufacturing" and such other classes of significant waste producers as the board or commissioner deems appropriate.
- (37) "Industrial wastes" means any liquid, solid, or gaseous substance, or combination thereof, or form of energy including heat, resulting from any process of industry, manufacture, trade, or business or from the development of any natural resource.
- (38) The "instantaneous maximum concentration" is a limitation on the concentration, in units of mass per volume (where appropriate), of any pollutant contained in the wastewater discharge determined from a grab sample taken of the discharge at any point in time.
- (39) The "instantaneous minimum concentration" is the minimum allowable concentration, in units of mass per volume (where appropriate), of a pollutant parameter contained in the wastewater discharge determined from a grab sample taken from the discharge at any point in time.
- (40) "Land application area" means the land under the control of an AFO owner or operator to which manure, litter or process wastewater from the AFO production area is or may be applied.
- (41) A "large CAFO" (Class I CAFO) is an AFO that confines greater than or equal to the number of animals specified in TABLE 1200-04-05-.14.1.
- (42) "LC₅₀" refers to the concentration that causes at least 50 % lethality of the test organisms.
- (43) "Major facility" refers to a municipal or domestic wastewater treatment plant with a design capacity of 1 million gallons per day or greater; or any other facility or activity classified as such by the commissioner.
- (44) The term "manure" is defined to include manure, bedding, compost and raw materials or other materials comingled with manure or set aside for disposal.

- (45) "Mature dairy cow" refers to a cow that has previously given birth to a calf.
- (46) A "medium CAFO" (Class II CAFO) is an AFO that confines greater than or equal to the number of animals specified in TABLE 1200-04-05-.14.1 and also meets the criteria of Rule 1200-04-05-.14(4).
- (47) "Minor facility" refers to any facility or activity that is not a major facility.
- (48) The "monthly average amount", is the arithmetic mean of all the measured daily discharges by weight during the calendar month when the measurements were made.
- (49) The "monthly average concentration", a limitation on the discharge concentration in units of mass per volume, of any pollutant, other than bacteria, is the arithmetic mean of all the composite or grab samples collected in a one calendar-month period.
- (50) "Multi-year phosphorus application" means phosphorus applied to a field in excess of the crop needs for that year. Subsequent phosphorus application is prohibited until the applied phosphorus has been removed via harvest and/or crop removal.
- (51) "National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the federal CWA. The term includes an "approved program."
- (52) A "natural riparian buffer" is a permanent strip of natural vegetation adjacent to a stream that contains dense vegetation made up of grass, shrubs and trees. The purpose of a natural riparian buffer is to maintain existing water quality by minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching adjacent surface waters and to further prevent negative water quality impacts by providing canopy over adjacent waters.
- (53) The term "new source" means any building, structure, facility, area or installation from which there is or may be a "discharge of pollutants," the construction of which commenced after the publication of state or federal regulations prescribing a standard of performance.
- (54) "Nitrate (as N)" means nitrate reported as nitrogen.
- (55) "Non-contact cooling water" in general practice, refers to cooling water that does not contact raw materials, materials being produced, finished product, by-products or process wastewater. For some industrial categories, other, more specialized definitions related to non-contact cooling water may also apply.
- (56) "Nonpoint source pollution" occurs when precipitation moves over and through the ground, picks up and carries away pollutants and deposits them into waters of the state.
- (57) "NRCS" means the Natural Resources Conservation Service, an agency within the U.S. Department of Agriculture.
- (58) The term "1-hour average maximum" is a limitation on the concentration in units of mass per volume, of a composite consisting of any three equal volume grab samples collected consecutively at thirty minute intervals.
- (59) A "one week period" (or "calendar-week") is defined as the period from Sunday through Saturday. For reporting purposes, a calendar-week that contains a change of month shall be considered part of the latter month.
- (60) "Owner or operator" means any person who owns, leases, operates, controls or supervises a source.
- (61) A "quarter" is defined as any one of the following three-month periods: January 1 through March

31, April 1 through June 30, July 1 through September 30, and/or October 1 through December 31.

- (62) "Permit" means an authorization, license, or equivalent control document issued by the Division of Water Pollution Control which implements the requirements of the TWQCA. "Permit" includes an NPDES "general permit."
- (63) "Permit action" refers to the issuance, reissuance, revocation, denial or modification of an individual permit. "Permit action" also refers to a determination of no potential to discharge as described in Rule 1200-04-05-.14(6).
- (64) "Point source" refers to any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.
- (65) "Person" means an individual, association, partnership, corporation, municipality, state or federal agency, or an agent or employee thereof.
- (66) "Pollutant" means sewage, industrial wastes, or other wastes.
- (67) "Pollution" means such alteration of the physical, chemical, biological, bacteriological, or radiological properties of the waters of this state including, but not limited to, changes in temperature, taste, color, turbidity, or odor of the waters that will:
- (a) Result or will likely result in harm, potential harm or detriment of the public health, safety, or welfare;
 - (b) Result or will likely result in harm, potential harm or detriment to the health of animals, birds, fish, or aquatic life;
 - (c) Render or will likely render the waters substantially less useful for domestic, municipal, industrial, agricultural, recreational, or other reasonable uses; or
 - (d) Leave or likely leave the waters in such condition as to violate any standards of water quality established by the board.
- (68) "Process wastewater" means water that comes in contact with a production process, its raw materials, products or byproducts. This includes spillage, wash-water, overflow from animal watering systems or contact-cooling water. In the case of AFOs, process water would include water that contacts manure, litter, feed, milk, eggs or bedding.
- (69) A "rainfall event" is defined as any occurrence of rain, preceded by 10 hours without precipitation that results in an accumulation of 0.01 inches or more. Instances of rainfall occurring within 10 hours of each other will be considered a single rainfall event. Ten -year, 24-hour rainfall event, 25-year, 24-hour rainfall event, and 100-year, 24-hour rainfall event are mean precipitation events with a probable recurrence interval of once in 10 years, or 25 years, or 100 years, respectively, as defined by the National Weather Service in Technical Paper No. 40, "Rainfall Frequency Atlas of the United States," May, 1961, or equivalent regional or state rainfall probability information developed from this source.
- (70) A "rationale" (or "fact sheet") is a document that is prepared when drafting an NPDES permit or permit action. It provides the technical, regulatory and administrative basis for an agency's permit decision.
- (71) A "sanitary sewer overflow (SSO)" is defined as an unpermitted discharge of wastewater from the collection or treatment system other than through the permitted outfall.
- (72) "Schedules of compliance" means a schedule of remedial measures including an enforceable

sequence of actions or operations leading to compliance with an effluent limitation, condition of a permit, other limitation, prohibition, standard, or regulation.

- (73) "Setback" means a specified distance from surface waters or potential conduits to surface waters where manure, litter, 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 wells.
- (74) "Severe property damage" when used to consider the allowance of a bypass or SSO means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass or SSO. Severe property damage does not mean economic loss caused by delays in production.
- (75) "Sewage" means water-carried waste or discharges from human beings or animals, from residences, public or private buildings, or industrial establishments, or boats, together with such other wastes and ground, surface, storm, or other water as may be present.
- (76) "Sewerage system" means the conduits, sewers, and all devices and appurtenances by means of which sewage and other waste is collected, pumped, treated, or disposed.
- (77) "Source" means any activity, operation, construction, building, structure, facility, or installation from which there is or may be the discharge of pollutants.
- (78) "Standard of performance" means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the commissioner determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.
- (79) "Stream" means a surface water that is not a wet weather conveyance.
- (80) "Total coliform" means all coliform bacteria.
- (81) "Total dissolved solids (TDS)" means nonfilterable residue.
- (82) "Toxic effluent limitation" means an effluent limitation on those pollutants or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of available information, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring.
- (83) "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (84) "Variance" means an authorization issued to a person by the commissioner, which would allow that person to cause a water quality standard to be exceeded for a limited time period without changing the standard.
- (85) "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.
- (86) The term, "washout" is applicable to activated sludge plants and is defined as loss of mixed liquor suspended solids (MLSS) of 30.00% or more from the aeration basin(s).

- (87) "Watercourse" means a man-made or natural hydrologic feature with a defined linear channel which discretely conveys flowing water, as opposed to sheet-flow.
- (88) "Waters" means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.
- (89) The term "water quality limited segment" means any segment where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after the application of the technology-based effluent limitations required by sections 301(b) and 306 of the federal CWA.
- (90) The "weekly average amount", is the arithmetic mean of all the measured daily discharges by weight during the calendar week when the measurements were made.
- (91) The "weekly average concentration", a limitation on the discharge concentration in units of mass per volume of any pollutant, is the arithmetic mean of all the concentrations measured in a calendar week.
- (92) "Wet weather conveyance" means, notwithstanding any other law or rule to the contrary, man-made or natural watercourses, including natural watercourses that have been modified by channelization:
- (a) That flow only in direct response to precipitation runoff in their immediate locality;
 - (b) Whose channels are at all times above the groundwater table;
 - (c) That are not suitable for drinking water supplies; and
 - (d) In which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow there is not sufficient water to support fish, or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months.
- (93) A "wet weather overflow" is a type of sanitary sewer overflow and defined as an unpermitted discharge of wastewater from the collection or treatment system other than through the permitted outfall that is directly related to a specific rainfall event. Discharges occurring from multiple locations within a single rainfall event are considered separate, wet-weather overflows.

Authority: T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.

Rule 1200-04-05-.14 Animal Feeding Operations is amended by deleting it in its entirety and replacing with the following so that, as amended the rule shall read as follows:

- (1) In addition to the applicable provisions of Rules 1200-04-05-.01 through 1200-04-05-.13, CAFOs are also subject to the provisions of this Rule.
- (2) All operations defined as CAFOs must seek permit coverage as follows:
 - (a) CAFOs that have discharged or are designed, constructed, operated or maintained such that a discharge could occur must obtain coverage under an NPDES permit.
 - (b) All other CAFOs must obtain coverage under a State Operating Permit.
 - (c) No CAFO is authorized to discharge unless authorized by an NPDES permit and only if discharge results from rainfall events exceeding the 25-year, 24-hour storm for existing

CAFOs or new dairy or cattle CAFOs; or rainfall events that exceed the 100-year, 24-hour storm for new swine or poultry CAFOs.

- (3) AFOs meeting or exceeding the size thresholds in column 1 of TABLE 1200-04-05-.14.1 are considered large (Class I) CAFOs.
- (4) AFOs within the range given in column 2 of TABLE 1200-04-05-.14.1 are considered medium (Class II) CAFOs if any of the following conditions are met:
 - (a) pollutants are discharged through a discrete, discernable conveyance to waters of the state; or
 - (b) pollutants are discharged to waters of the state that come into direct contact with the animals confined in the operation; or
 - (c) the AFO is located on a waterbody that has been identified by the department as being impaired for nutrients or pathogens; or
 - (d) the AFO began operation on or after May 1, 1999; or
 - (e) the AFO expanded its operation on or after the promulgation date of this regulation.

TABLE 1200-04-05-.14.1

Animal Type	Class I (Large CAFO)	Class II Medium CAFO
Dairy Cows	700+	200 – 699
Cattle	1,000+	300 – 999
Swine	2,500+ (≥ 55 lbs) 10,000+ < 55 lbs	750 – 2,499 (≥ 55 lbs) 3,000 – 9,999 < 55 lbs
Chickens (liquid waste management)	30,000+	9,000 – 29,999
Chickens (dry waste management)	125,000+ (non-layers) 82,000+ (layers)	37,500 -124,999 (non-layers) 25,000 – 81,999 (layers)
Horses	500+	150 – 499
Sheep/lambs	10,000+	3,000 – 9,999
Turkeys	55,000+	16,500 – 54,999
Ducks	5,000+ (liquid waste management) 30,000+ (dry waste management)	1,500 – 4,999 (liquid waste management) 10,000 – 29,999 (dry waste management)

- (5) Other AFOs may be designated as CAFOs at the discretion of the director. Factors to be considered in this determination include the AFO's size, the amount of waste reaching waters of the state, the location of the AFO and the means of waste conveyance to waters of the state.
- (6) All CAFOs must submit application information in accordance with Rule 1200-04-05-.05(2).
 - (a) All CAFOs must submit application information to the Tennessee Department of Agriculture and the Department of Environment and Conservation.
 - (b) In addition to the application requirements of Rule 1200-04-05-.05(2), CAFOs must submit, at the time of application:
 - 1. A closure/ rehabilitation plan for the waste system storage/treatment structure(s) that meets or exceeds NRCS technical standards and guidelines, and at a minimum, addresses maintenance of the facility until proper closure is completed and includes a proposed schedule for closure not to exceed 360 days; and

2. Either a comprehensive nutrient management plan or site-specific nutrient management plan as outlined in Rule 1200-04-05-.14(11)(b).

(7) The following deadlines apply for AFOs defined as CAFOs:

- (a) Operations that are defined as CAFOs prior to April 14, 2003, must have or seek coverage under a permit, as of April 14, 2003.
 - (b) Existing operations defined as CAFOs only as of April 14, 2003, or existing operations defined as CAFOs as of July 21, 2004, must seek coverage under a permit no later than February 13, 2006.
 - (c) CAFOs constructed after April 14, 2003, that are not subject to new source performance standards must seek coverage under a permit no later than 180 days prior to the time that the CAFO commences operation. CAFOs seeking coverage under a general permit must do so in accordance with the notice of intent timeframes established for the general permit.
 - (d) AFOs that make changes after April 14, 2003, to their operations that result in becoming defined as CAFOs for the first time, yet are not subject to new source performance standards must seek coverage under a permit no later than 90 days after becoming defined as a CAFO; unless the same change would not have resulted in the AFO being defined as a CAFO prior to April 14, 2003. In that case, the deadline for seeking permit coverage is April 13, 2006, or 90 days after becoming defined as a CAFO, whichever is later.
 - (e) New sources must seek to obtain coverage under a permit at least 180 days prior to the time that the CAFO commences operation. CAFOs seeking coverage under a general permit must do so in accordance with the notice of intent timeframes established for the general permit.
 - (f) AFOs designated as CAFOs by the director must seek to obtain coverage under a permit no later than 90 days after receiving notice of the designation.
- (8) CAFOs must comply with the permit reissuance requirements of Rule 1200-04-05-.05(4) and must maintain permit coverage until such time as the CAFO demonstrates to the satisfaction of the director that there is no remaining potential for a discharge of manure, litter or associated process wastewater, other than agricultural stormwater from land application areas.
- (9) CAFOs must have their nutrient management plans developed, approved and implemented by December 31, 2006.
- (10) CAFOs that seek permit coverage after December 31, 2006, must have a nutrient management plan developed, approved and have all measures, structures, etc., in place to fully implement upon the date of permit coverage.
- (11) Any permit issued to a CAFO must include:
- (a) For large CAFOs with liquid manure management systems, a requirement to develop, submit for state approval, implement and keep on site a comprehensive nutrient management plan that meets NRCS standards as found in the NRCS Field Office Conservation Practice Standards and/or the NRCS Animal Waste Handbook;
 - (b) For all other CAFOs (large, dry litter operations; medium operations and designated CAFOs), a requirement to develop, submit for state approval, implement and keep on site a site-specific nutrient management plan that:
 1. Includes best management practices and procedures necessary to implement applicable effluent limitations and standards;

2. Ensures adequate storage of manure, litter, and process wastewater including procedures to ensure proper operation and maintenance of the storage facilities;
 3. Ensures proper management of mortalities (i.e., dead animals) so that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities as outlined in NRCS Conservation Practice Standard 316, October 2002 (or most recent) and/or the NRCS Animal Waste Handbook;
 4. Ensures that clean water is diverted, as appropriate, from the production area;
 5. Prevents direct contact of confined animals with waters of the state;
 6. Ensures that chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants;
 7. Identifies appropriate site specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the state (these practices must meet minimum standards set in the NRCS Field Office Practice Standard and/or the NRCS Animal Waste Handbook);
 8. Identifies protocols for appropriate testing of manure, litter, process wastewater, and soil that are approved by the University of Tennessee testing lab for Tennessee conditions;
 9. Establishes protocols to land apply manure, litter or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater (dairy, cattle, swine, poultry and veal CAFOs that land apply manure, litter, or process wastewater must also comply with the provisions of Rule 1200-04-05-.14(12));
 10. Identifies specific records that will be maintained to document the implementation and management of the minimum elements described in parts 1 through 9 of this subparagraph; and
 11. Incorporates the requirements of Rule 1200-04-05-.14(12)(a).
- (c) CAFOs subject to subparagraph (b) of this paragraph may develop, implement and keep on site a comprehensive nutrient management plan in lieu of meeting the requirements of subparagraph (b) of this paragraph.
- (d) A requirement that the permittee must create, maintain for five years, and make available to the director, upon request, the following records:
1. All applicable records identified in part (b)10 of this paragraph;
 2. A copy of the CAFO's site-specific nutrient management plan;
 3. Records documenting the following visual inspections:
 - (i) Weekly inspections of all storm water diversion devices, runoff diversion structures and devices channeling contaminated storm water to the wastewater and manure storage and containment structure;
 - (ii) Daily inspections of water lines, including drinking or cooling water lines;

and

- (iii) Weekly inspections of the manure, litter, and process wastewater impoundments noting the liquid level in the impoundments;
 - 4. Weekly records of the depth of the manure and process wastewater in the liquid impoundment as indicated by the required depth marker which indicates the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event or in the case of swine or poultry CAFOS that are new sources indicate the runoff and direct precipitation from a 100-year, 24-hour rainfall event;
 - 5. Records documenting any corrective actions taken (if deficiencies are not corrected within 30 days of notice of deficiency, the records must include an explanation of the factors preventing immediate correction);
 - 6. Records of mortalities management and practices used to comply with the nutrient management plan;
 - 7. Records documenting the current design of any manure or litter storage structures, including volume for solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity;
 - 8. Records of the date, time, and estimated volume of any overflow;
 - 9. Expected and actual crop yields;
 - 10. The date(s) manure, litter, or process waste water is applied to each field;
 - 11. Weather conditions at time of application and for 24 hours prior to and following application;
 - 12. Test methods used to sample and analyze manure, litter, process waste water, and soil;
 - 13. Results from manure, litter, process waste water, and soil sampling;
 - 14. Explanation of the basis for determining manure application rates, as provided in the technical standards established by the NRCS or as otherwise approved by the director or the Tennessee Department of Agriculture;
 - 15. Calculations showing the total nitrogen and phosphorus to be applied to each field, including sources other than manure, litter, or process wastewater;
 - 16. Total amount of nitrogen and phosphorus actually applied to each field, including documentation of calculations for the total amount applied;
 - 17. The method used to apply the manure, litter, or process wastewater; and
 - 18. Date(s) of manure application equipment inspection and calibration;
- (e) A requirement that prior to transferring more than 100 tons of manure, litter or process wastewater to a 3rd party, CAFOs must provide the recipient of the manure, litter or process wastewater with the most current nutrient analysis (consistent with 40 CFR § 412), and ensure that the 3rd party signs the Agreement for the Removal of Litter, Manure and/or Process Wastewater from an AFO using the form in Appendix A of paragraph (15) of this Rule;
- (f) A requirement that CAFOs must retain for five years records of the date, recipient name

and address, and approximate amount of manure, litter or process wastewater transferred to a 3rd party using the form in Appendix B of paragraph (15) of this Rule;

- (g) A requirement that CAFOs submit to TDEC and TDA, an annual report between January 1 and February 15 that includes:
1. The number and type of animals on site whether in open confinement or housed under roof;
 2. Estimated amount of total manure, litter and process wastewater generated by the CAFO in the previous calendar year (tons/gallons);
 3. Estimated amount of total manure, litter and process wastewater transferred to a 3rd party by the CAFO in the previous calendar year (tons/ gallons);
 4. Total number of acres for land application covered by the nutrient management plan;
 5. Total number of acres under control of the CAFO that were used for land application of manure, litter and process wastewater in the previous calendar year;
 6. A summary of all manure, litter and process wastewater discharges to waters of the state from the production area that have occurred in the previous calendar year, including date, time, and approximate volume; and
 7. A statement indicating whether the current version of the CAFO's nutrient management plan was developed or approved by a certified nutrient management planner.
- (12) All dairy, cattle, swine, poultry and veal CAFOs that land apply manure, litter, or process wastewater, must do so in accordance with the following best management practices (BMPs) that are implemented through a nutrient management plan (either comprehensive or site-specific) that incorporates 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 production goals, while minimizing nitrogen and phosphorus movement to surface waters:
- (a) Application rates for manure, litter, and other process wastewater applied to land under the ownership or operational control of the CAFO must minimize phosphorus and nitrogen transport from the field to surface waters in compliance with technical standards for nutrient management that:
1. Include a field-specific assessment of the potential for nitrogen and phosphorus transport from the field to surface waters, and address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters, that employs the Tennessee Phosphorus Index (a tool developed by the University of Tennessee Extension Service and the NRCS to assess the risk of phosphorus movement from the application area to waters of the state); and
 2. Include appropriate flexibilities for any CAFO to implement nutrient management practices to comply with the technical standards, including consideration of multi-year phosphorus application on fields that do not have a high potential for phosphorus runoff to surface water, phased implementation of phosphorus-based nutrient management, and other components, as determined appropriate by the director;
- (b) Annual manure analysis for nitrogen and phosphorus content, using procedures outlined in NRCS Conservation Practice Standard 590, and soil analysis at a minimum of once every

five years for phosphorus content (the results of these analyses are to be used in determining application rates for manure, litter, and other process wastewater);

- (c) Periodic inspection of equipment used for land application of manure, litter and other process wastewater;
 - (d) Application of manure, litter, and process wastewater that:
 - 1. Is applied no 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 unless,
 - (i) The CAFO substitutes the 100-foot setback with a 35-foot wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited; or
 - (ii) The CAFO demonstrates that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent to or better than the reductions that would be achieved by the 100-foot setback;
 - 2. Is applied in accordance with setbacks established in NRCS Conservation Practice Standard 590 for any potable well, public or private; and
 - (e) For new CAFOs that are located adjacent to high quality streams (as identified by the department), leave in place a minimum 60-foot natural riparian buffer between the stream and the land application area.
- (13) For CAFOs with applicable federal effluent guidelines, technology-based effluent limitations and standards in accordance with those guidelines shall be applied.
- (14) No CAFO liquid waste management system shall be constructed, modified, repaired, or placed into operation after April 13, 2006 unless it is designed, constructed, operated, and maintained in accordance with final design plans and specifications which meet or exceed standards in the NRCS Field Office Technical Guide and other guidelines as accepted by the Departments of Environment and Conservation, or Agriculture. Specifically, plans must contain the following:
- (a) Any new or additional confinement buildings, waste/wastewater handling system, waste/wastewater transport structures, waste/wastewater treatment structures, settling basins, lagoons, holding ponds, sumps, or pits, and other agricultural waste containment/treatment structures constructed after April 13, 2006 shall be located in accordance with NRCS Conservation Practice Standard 313.
 - (b) A subsurface investigation for earthen holding pond, pit, sump, treatment lagoon, or other earthen storage/ containment structure suitability and liner requirements shall be a component of the system design. The subsurface investigation will include a detailed soils investigation with special attention to the water table depth and seepage potential. The investigation must evaluate soils to a depth of two feet below the planned bottom grade of the storage structure. Deeper investigations may be required in karst regions. A soils/geologic investigation shall be performed by a soil scientist and qualified geologist. A qualified geologist is defined as an individual who is a Registered Professional Geologist licensed by the State of Tennessee or an individual who meets the requirements for the title of Certified Professional Geologist, as defined by the American Institute of Professional Geologists. Unless relevant information is available to the contrary, compliance with this provision during design and construction of the facility will normally demonstrate that the hydrologic connection does not exceed a maximum allowable specific discharge of 0.0028 ft/day (1×10^{-6} cm/sec).
- (15) Appendices

Appendix A

Agreement for the Removal of Litter, Manure and/or Process Wastewater from an AFO

The conditions listed below help to protect water quality. These conditions apply to litter, manure and/or process wastewater removed from an AFO. The material covered by this agreement was removed on _____ from the facility owned by _____ located at _____.

- A. The litter, manure and/or process wastewater must be managed to ensure there is no discharge of litter, manure and/or process wastewater to surface or groundwater.
- B. When removed from the facility, litter, manure and/or process wastewater should be applied directly to the field or stockpiled and covered with plastic or stored in a building.
- C. Litter, manure and/or process wastewater must not be stockpiled near streams, sinkholes, wetlands or wells.
- D. Fields receiving litter, manure and/or process wastewater should be soil tested at least every two or three years.
- E. A litter, manure and/or process wastewater nutrient analysis should be used to determine application rates for various crops.
- F. Calibrate spreading equipment and apply litter, manure and/or process wastewater uniformly.
- G. Apply no more nitrogen or phosphorus than can be used by the crop.
- H. A buffer zone is recommended between the application sites and adjacent streams, lakes, ponds, sinkholes and wells.
- I. Do not apply litter, manure and/or process wastewater when the ground is frozen or on steep slopes subject to flooding, erosion or rapid runoff.
- J. Cover vehicles hauling litter, manure and/or process wastewater on public roads.
- K. Keep records of locations where poultry litter will be used as a fertilizer.

I, _____ am the person receiving litter and do understand the conditions listed above.
(name)

(signature)

(date)

(address)

(phone)

Appendix B

Names of Persons and/or Firms That Remove Litter, Manure and/or Process Wastewater from an AFO

(name of AFO)

Name: _____
Address: _____

Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____

Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____

Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____

Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____

Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____

Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____

Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____

Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____

Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____

Phone No.: _____
Tons Removed: _____
Date: _____

Authority: T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.

Chapter 1200-04-07
Aquatic Resource Alteration

Amendments

Rule 1200-04-07-.03 Definitions is amended by deleting it in its entirety and replacing it with the following so that, as amended, the rule shall read as follows:

1200-04-07-.03 Definitions

As used in this rule chapter and in any ARAP permit issued, including General Permits, the following terms have these meanings:

- (1) "Act" means The Tennessee Water Quality Control Act of 1977, as amended, T.C.A. §69-3-101 et seq.
- (2) "Activity" means any and all work or acts associated with the performance, or carrying out of a project or a plan, or construction of a structure.
- (3) "Adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the State by man-made dikes or barriers, natural river berms and the like are "adjacent wetlands".
- (4) "Aquatic Resource Alteration Permit" means a permit pursuant to §69-3-108 of the Tennessee Water Quality Control Act of 1977, which authorizes the alteration of properties of waters of the State which result from activities other than discharges of wastewater through a pipe, ditch or other conveyance. Such a permit shall impose conditions, including standards and terms of periodic review, as are necessary to accomplish the purposes of the Act.
- (5) "Background Conditions" means the biological (plant and animal species), chemical and physical conditions of the wetland or water body prior to the proposed activity. If the water body is disturbed, it may be necessary to use the biological, chemical and physical conditions of a similar water body as a reference condition.
- (6) "Best Management Practices" means a schedule of activities, prohibition of practices, maintenance procedures and other management practices to prevent or reduce the pollution of waters of the State. BMP's include methods, measures, practices, and design and performance standards.
- (7) "Certification" means an Aquatic Resource Alteration Permit under the Tennessee Water Quality Control Act of 1977, as required by §401 of the Federal Water Pollution Control Act, which certifies, either unconditionally or through imposition of terms under which the activity must be carried out, that the activity will comply with applicable provisions of §§301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act and Chapter 1200-4-1 of the Rules of the Water Quality Control Board and the Department of Environment and Conservation and the Act.
- (8) "Channelization" means the alteration of stream channels including but not limited to straightening, widening, or enlarging.
- (9) "Cofferdam" means an enclosure from which water can be pumped to expose the bottom of a body of water or a barrier constructed to divert the flow of water to allow construction work.
- (10) "Commence Construction" means the physical initiation of on-site structural or earthmoving work.
- (11) "Constructed Wetland" means intentionally designed, built and operated on previously nonwetland sites for the primary purpose of wastewater treatment or stormwater retention; such wetlands are not created to provide mitigation for adverse impacts or other wetlands.
- (12) "Clearing and Grubbing" means the removal of vegetation by cutting and digging up roots and stumps.
- (13) "Cumulative Impacts" means the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. A cumulative

impact to a wetland can be the loss of the variety of the natural wetland types, wetland acreage, functions and classified uses.

- (14) "Debris" means woody materials, trash, flotsam, dislodged vegetation, and other potentially mobile materials which may, when located within a stream channel, contribute to flow blockage. This does not include gravel, sand, soil or its constituents such as silt, clay or other sediments.
- (15) "Ditch" means a man-made excavation for the purpose of conveying water. Ditches do not include streams, modified streams or canals.
- (16) "Dredging" (sand and gravel dredging) means the removal of sand, gravel and similar sediments or deposits from a stream, river, or lake bed or wetland by any method.
- (17) "Earthmoving" means any construction or other activity, which disturbs the surface of the land including, but not limited to, excavation, embankment, fill, and cut of soil, rock, or earth.
- (18) "Emergency" means a situation where life or substantive improvements to real property is in immediate danger.
- (19) "Erosion" means the process by which the land surface is worn away by the action of water, wind, gravity, chemicals, or a combination thereof.
- (20) "Excavation" (a) means a cavity formed by digging, quarrying, uncovering, displacing, or relocating soil or rock; or, (b) means to dig or remove soil, rocks, or other materials resulting in a change in all or part of the elevation of a site.
- (21) "General Permit" means a permit issued under the Act and this Rule authorizing an alteration to state waters within the state for a specified category of activities that are substantially similar in nature.
- (22) "Hydrogeomorphic System" means a classification system for wetlands based on geomorphic setting, water source, and hydrodynamics; used to identify and group functionally similar wetlands.
- (23) "Individual Permit" means a permit issued by the Division of Water Pollution Control to a specified person to conduct specified activities at a specified location. This type of permit does not authorize an activity by a class of persons or the public in general.
- (24) "In the Dry" means in such a manner that no equipment or dredged material is in contact with the stream or wetland and that the soil water boundary is not disturbed by equipment or that no infiltration is pumped to the stream from the dredge site.
- (25) "Minimal Impacts" means an activity for which the scope is very limited in area, the impact is very short in duration, and has no impact to waters just downstream of the location of the activity. Examples of activities with 'minimal impacts' include, but are not limited to, (1) minor channel changes associated with bank stabilization; and (2) an activity typically authorized by General Permit, but which requires an Individual Permit because the project falls under one of the listed exclusions.
- (26) "Minor Road Crossing" is a bridged or culverted roadway fill across a stream or river which results in the alteration of 200 linear feet or less of stream bed or shoreline.
- (27) "Mitigation" means compensating for impacts in regulated areas as provided by Rule 1200-04-07-.04(7).
- (28) "Multiple populations" means two or more individuals from each of two or more distinct taxa, in the context of obligate lotic aquatic organisms.
- (29) "Obligate lotic aquatic organisms" means organisms that require flowing water for all or almost all of the aquatic phase of their life cycles.
- (30) "Practicable alternative" is an alternative that is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

- (31) "Resource Values" are the benefits provided by the water resource. These benefits include, but are not limited to, the ability of the water resource to:
- (a) filter, settle and/or eliminate pollutants;
 - (b) prevent the entry of pollutants into downstream waters;
 - (c) assist in flood prevention;
 - (d) provide habitat for fish, aquatic life, livestock and water fowl;
 - (e) provide drinking water for wildlife and water fowl;
 - (f) provide and support recreational uses; and
 - (g) provide both safe and adequate quality and quantity of drinking water.
- (32) "Sediment" means soil or its constituents that has been deposited in water, is in suspension in water, is being transported, or has otherwise been removed or disturbed from its site of origin.
- (33) "Sedimentation or Siltation" means the process by which sediment is deposited in or by the waters of the State.
- (34) "Settling Basin" means a prepared storage area constructed to trap and store sediment from erodible areas in order to protect any streams below the construction areas from excessive siltation; an impoundment that accumulates transported sediment and has provisions for a principal spillway; a reservoir which retains high flows sufficiently to cause deposition of transported sediment.
- (35) "Stabilize" means the proper placing, grading, and/or covering of soil, rock, or earth to insure their resistance to erosion, sliding or other movement.
- (36) "Stream" means a surface water that is not a wet weather conveyance.
- (37) "Structure" means any building, pier, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, mooring structure, moored floating vessel, piling, aid to navigation, bridge, culvert or any other obstacle or obstruction.
- (38) "Utility Line" means any pipe or pipeline for the transportation of any gaseous, liquid, liquefiable or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone and telegraph messages, and radio and television communication.
- (39) "Watercourse" means a manmade or natural hydrologic feature with a defined linear channel which discretely conveys flowing water, as opposed to sheet-flow.
- (40) "Water Dependent" describes an activity that requires location in or adjacent to surface waters or wetlands in order to fulfill its basic purpose.
- (41) "Wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.
- (42) "Wetland Dependent" means that the location of a project or conducting an activity in a wetland is essential to fulfill the purpose of the project. Examples of such projects are fish and wildlife management, nature trails, wildlife observation points, etc.
- (43) "Wet Weather Conveyances" are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality, whose channels are at all times above the groundwater table, that are not suitable for drinking water supplies, and in which hydrological and biological analyses indicate that, under normal

weather conditions, due to naturally occurring ephemeral or low flow there is not sufficient water to support fish, or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months.

- (44) "Wet weather conveyance determination" means the decision based on site specific information of whether a particular conveyance is a stream or a wet weather conveyance. It is synonymous with "stream determination" and "hydrologic determination."
- (45) Terminology not specifically defined herein shall be defined in accordance with the Tennessee Water Quality Control Act of 1977, T.C.A. §69-3-101 et seq., and the rules adopted thereunder.

Rule 1200-04-07-.04 Permits is amended by adding the following new paragraph so that the new paragraph (10) shall read as follows:

- (10) Alteration of wet weather conveyances
 - (a) The alteration of wet weather conveyances, as defined in §69-3-103, by any activity is permitted by this subsection and shall require no notice to or approval by the department, provided it is done in accordance with the following conditions:
 - 1. The activity may not result in the discharge of waste or other substances that may be harmful to humans or wildlife;
 - 2. Material may not be placed in a location or manner so as to impair surface water flow into or out of any wetland area; and
 - 3. Sediment shall be prevented from entering other waters of the state.
 - (i) Erosion and sediment controls shall be designed according to the size and slope of disturbed or drainage areas to detain runoff and trap sediment and shall be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices.
 - (ii) Erosion and sediment control measures shall be in place and functional before earthmoving operations begin, and shall be constructed and maintained throughout the construction period. Temporary measures may be removed at the beginning of the work day, but shall be replaced at the end of the work day.
 - (iii) Checkdams shall be utilized where runoff is concentrated. Clean rock, log, sandbag or straw bale checkdams shall be properly constructed to detain runoff and trap sediment. Checkdams or other erosion control devices are not to be constructed in stream. Clean rock can be of various type and size depending on the application. Clean rock shall not contain fines or other wastes or contaminants.
 - 4. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the state, All spills shall be reported to the appropriate emergency management agency and to the department. In the event of a spill, measures shall be taken immediately to prevent pollution of waters of the state, including groundwater.
 - 5. There shall be no additional conditions upon a person's activity within a wet weather conveyance. This provision does not apply to National Pollutant Discharge Elimination System Permits.

Authority: T.C.A. § 4-5-201 et seq., § 69-3-105, and § 69-3-108.

I certify that the information included in this filing is an accurate and complete representation of the intent and scope of rulemaking proposed by the agency.

Date: _____

Signature: _____

Name of Officer: _____

Title of Officer: _____

Subscribed and sworn to before me on: _____

Notary Public Signature: _____

My commission expires on: _____

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Tre Hargett
Secretary of State