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Rulemaking Hearing Rule(s) Filing Form

Rulemaking Hearing Rules are rules filed after and as a result of a rulemaking hearing (Tenn. Code Ann. § 4-5-205).

Pursuant to Tenn. Code Ann. § 4-5-229, any new fee or fee increase promulgated by state agency rule shall take effect on July 1, following the expiration of the ninety (90) day period as provided in § 4-5-207. This section shall not apply to rules that implement new fees or fee increases that are promulgated as emergency rules pursuant to § 4-5-208(a) and to subsequent rules that make permanent such emergency rules, as amended during the rulemaking process. In addition, this section shall not apply to state agencies that did not, during the preceding two (2) fiscal years, collect fees in an amount sufficient to pay the cost of operating the board, commission or entity in accordance with § 4-29-121(b).

Agency/Board/Commission:	Board of Water Quality, Oil and Gas
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Revision Type (check all that apply):

X Amendment
X New
___ Repeal

Rule(s) (**ALL** chapters and rules contained in filing must be listed here. If needed, copy and paste additional tables to accommodate multiple chapters. Please make sure that **ALL** new rule and repealed rule numbers are listed in the chart below. Please enter only **ONE** Rule Number/Rule Title per row.)

Chapter Number	**Chapter Title**
0400-40-05	Individual National Pollutant Discharge Elimination System (NPDES) Permits
Rule Number	**Rule Title**
0400-40-05-.01	General
0400-40-05-.02	Definitions
0400-40-05-.03	Exclusions
0400-40-05-.04	Prohibitions
0400-40-05-.05	Permit Application, Issuance
0400-40-05-.06	Notice and Public Participation
0400-40-05-.07	Terms and Conditions of Permits
0400-40-05-.08	Effluent Limitations and Standards
0400-40-05-.09	Technology-Based Effluent Limitations
0400-40-05-.10	Water Quality-Based Permitting
0400-40-05-.11	Duration and Reissuance of Permits
0400-40-05-.12	Appeals
0400-40-05-.13	Adoption of EPA-Issued Permits
0400-40-05-.14	Animal Feeding Operations

0400-40-05-.15	Municipal Separate Storm Sewer Systems

Place substance of rules and other info here. Please be sure to include a detailed explanation of the changes being made to the listed rule(s). Statutory authority must be given for each rule change. For information on formatting rules go to https://sos.tn.gov/products/division-publications/rulemaking-guidelines.

Chapter 0400-40-05
Permits, Effluent Limitations and Standards

Amendments

Chapter 0400-40-05 Permits, Effluent Limitations and Standards is amended by deleting it in its entirety including its title and substituting instead the following:

Individual National Pollutant Discharge Elimination System (NPDES) Permits

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0400-40-05-.01 General

(1) Purpose

A permit is designed to allow the holder thereof to conduct activities listed in T.C.A. § 69-3-108 only after strict compliance with conditions and applicable effluent limitations. T.C.A. § 69-3-108 explicitly state when a permit is required, and what activities shall be unlawful without a permit. This chapter governs individual National Pollutant Discharge Elimination System (NPDES) permits only.

(2) Electronic Reporting

This chapter requires the submission of forms developed by the Commissioner in order for a person to comply with certain requirements, including, but not limited to, making reports, submitting monitoring results, and applying for permits. The Commissioner may make these forms available electronically and, if submitted electronically, then that electronic submission shall comply with the requirements of Chapter 0400-01-40.

Electronic submission is required when available unless waived by the Commissioner in accordance with 40 C.F.R. § 127.15.

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

0400-40-05-.02 Definitions.

All terminology not specifically defined herein shall be defined in accordance with the Water Quality Control Act, T.C.A. Title 69, Chapter 3, Part 1. When used in this chapter and in permits issued pursuant to this chapter, the following terms have the meanings given below unless otherwise specified:

(1) "Act" or “TWQCA” means the Water Quality Control Act, T.C.A. Title 69, Chapter 3, Part 1.

(2) "Administrator" means the administrator of the United States Environmental Protection Agency, or an authorized representative.

(3) An “Agricultural stormwater discharge” refers to a precipitation-related discharge of manure, litter or process wastewater from land areas under the control of a AFO where the manure, litter, 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, litter, or process wastewater, as specified in parts (10)(a)7 through 10 of Rule 0400-40-05-.14.

(4) "Ammonia (as N)" means ammonia reported as nitrogen.

(5) An "Animal Feeding Operation" or “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.

(6) 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 stormwater can be contained by the structure.

(7) An "AFO production area" includes the animal confinement area, the manure storage area, the raw materials storage area and the waste containment areas.

(a) 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, cowyards, barnyards, medication pens, walkers, animal walkways associated with barns or barnyards, and stables.

(b) The manure storage area includes but is not limited to lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. If an AFO stores manure in the field (i.e., manure or litter piled for more than several days before land application occurs), the field storage is considered to be a production area. Note that manure or litter stored uncovered for more than two weeks is not considered to be short-term or temporary storage, and is included in the definition of production area.

(c) The raw materials storage area includes but is not limited to feed silos, silage bunkers, and organic bedding materials.

(d) The waste containment area includes but is not limited to settling basins and areas within berms and diversions which separate uncontaminated stormwater.

(e) The production area also includes any on-farm egg washing or egg processing facility, and any area used in the storage, handling, treatment, or on-farm disposal of mortalities.

(8) "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 USDA-NRCS technical standards and guidelines.

(9) "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 Clean Water Act (CWA), Public Law 92-500.

(10) 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.

(11) 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.

(12) "BOD_5" means 5-day biochemical oxygen demand.

(13) The term "BPTCA" means the best practicable control technology currently available, as defined by EPA regulations.

(14) A "bypass" is the intentional diversion of waste streams from any portion of a treatment facility.

(15) A "calendar day" is the 24-hour period from midnight to midnight or any other 24-hour period that reasonably approximates the midnight to midnight time period.

(16) "$CBOD_5$" means 5-day carbonaceous biochemical oxygen demand.

(17) 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.

(18) A ‘combined sewer overflow” (CSO) means a discharge from a combined sewer system (CSS) at a point prior to the publicly owned treatment works (POTW) treatment plant headworks.

(19) “Combined sewer system” (CSS) means a wastewater collection system owned by a State or municipality which was originally designed to convey sanitary wastewaters (domestic, commercial, and industrial wastewaters) and stormwater through a single-pipe system into a publicly owned treatment works (POTW) treatment plant headworks.

(20) "Commencement of construction" is the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.

(21) "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 for Environment.

(22) A "composite sample" is a combination of not less than 8 influent or effluent portions (aliquots), collected over a 24-hour period. Under certain circumstances a lesser time period may be allowed, but in no case, less than 8 hours. A sufficient volume of sample to perform all required analyses plus any additional amount for quality control must be obtained. For automatic samplers that use a peristaltic pump, a minimum 100 ml aliquot must be obtained.

(23) A "concentrated animal feeding operation" (CAFO) is an AFO that either meets the large (Class I) CAFO size criteria of paragraph (2) of Rule 0400-40-05-.14, the medium (Class II) criteria of paragraph (3) of Rule 0400-40-05-.14, or has otherwise been designated as a CAFO by the Director.

(24) "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.

(25) The "daily maximum amount" is the total amount of any pollutant in the discharge by weight during any calendar day.

(26) The "daily maximum concentration" is the average concentration, in units of mass per volume 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.

(27) The meaning of "degradation" shall be the same as defined in Rule 0400-40-03-.04.

(28) "Department" means the Department of Environment and Conservation.

(29) "Director" means the director of the Division of Water Resources.

(30) "Discharge" or "discharge of a pollutant" refers to the addition of pollutants to waters from a source.

(31) "Division" means the Division of Water Resources.

(32) A "dry weather overflow" is a sanitary sewer overflow that is not directly related to a rainfall event.

(33) "Effluent limitation" means any restriction, established by the Board or the Commissioner, on quantities, discharge rates or concentrations of chemical, physical, biological, or other constituents which are discharged into waters or adjacent to waters.

(34) "Fecal coliform" means fecal coliform bacteria, an indicator of pathogenic organisms.

(35) 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.

(36) A "grab sample" is a single sample collected at a particular time.

(37) "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.

(38) "IC_{25}" refers to the inhibition concentration in which at least a 25% reduction in reproduction and/or growth in test organisms occurs.

(39) "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.

(40) "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.

(41) The "instantaneous maximum concentration" is the concentration, in units of mass per volume, of any pollutant in a grab sample taken at any point in time.

(42) The "instantaneous minimum concentration" is the minimum concentration, in units of mass per volume, of a pollutant parameter in a grab sample taken at any point in time.

(43) "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.

(44) A "large CAFO" (Class I CAFO) is an AFO that confines greater than or equal to the number of animals specified in TABLE 0400-40-05-.14.1.

(45) "LC_{50}" refers to the concentration that causes at least 50% lethality of the test organisms.

(46) "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.

(47) The term "manure" is defined to include manure, bedding, compost and raw materials or other materials comingled with manure or set aside for disposal.

(48) "Mature dairy cow" refers to a cow that has previously given birth to a calf.

(49) A "medium CAFO" (Class II CAFO) is an AFO that falls within the size threshold for the animals specified in column 3 of TABLE 0400-40-05-.14.1 and also meets the criteria of paragraph (3) of Rule 0400-40-05-.14.

(50) "Minor facility" refers to any facility that is not a major facility.

(51) The "monthly average amount" is the arithmetic mean of all the measured daily samples by weight during the calendar month when the measurements were made.

(52) The "monthly average concentration" is the arithmetic mean of all samples collected in a one calendar-month period, expressed in units of mass per volume of any pollutant other than bacteria.

(53) "Multi-year phosphorus application" means phosphorus applied to a field in excess of crop needs and/or crop removal rates when there is no soil test recommendation for phosphorus and the Tennessee Phosphorus Index indicates manure, litter or process wastewater should be applied at the crop phosphorus removal rate. Subsequent phosphorus application is prohibited until the applied phosphorus has been removed via harvest and/or crop removal or a subsequent soil test indicates phosphorus is required. Crop phosphorus removal rates are set by University of Tennessee Extension technical guidance documents for nutrient management.

(54) “Municipal separate storm sewer system” or “MS4” means a municipal separate storm sewer system as defined in the Clean Water Act, compiled in 33 U.S.C. § 1251 et seq., and the rules promulgated thereunder.

(55) "National Pollutant Discharge Elimination System” or “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."

(56) A “new or increased discharge” is a new discharge of pollutants to waters of the state or an increase in the authorized loading of a pollutant above either (1) numeric effluent limitations established in a National Pollutant Discharge Elimination System permit for that discharge, or (2) if no such limitations exist, the actual discharges of that pollutant.

(57) 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.

(58) "Nitrate (as N)" means nitrate reported as nitrogen.

(59) "Non-contact cooling water" 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.

(60) "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.

(61) A "1-hour average maximum" is the concentration in units of mass per volume, of a composite consisting of any three equal volume grab samples collected consecutively at 30-minute intervals.

(62) A "one week period" (or "calendar-week") is 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.

(63) "Owner or operator" means any person who owns, leases, operates, controls, or supervises a source.

(64) 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.

(65) "Permit" means an authorization, license, or equivalent control document issued by the Division of Water Resources which implements the requirements of the TWQCA.

(66) "Permit action" refers to the issuance, reissuance, revocation, denial or modification of an individual permit.

(67) "Point source" means 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 stormwater runoff.

(68) "Person" means an individual, association, partnership, corporation, municipality, state or federal agency, or an agent or employee thereof.

(69) "Pollutant" means sewage, industrial wastes, or other wastes.

(70) "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.

(71) "Process wastewater" for operations other than AFOs means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

(72) “Process wastewater” for AFOs means water directly or indirectly used in the operation of the AFO 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 AFO 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.

(73) A "rainfall event" is 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. For purposes of Rule 0400-40-05-.14, “rainfall event” also includes, a 10-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 Precipitation-Frequency Atlas of the United States. Atlas 14. Volume 2. Version 3.0. U.S. Department of Commerce. National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Springs, Maryland or its digital product equivalent.

(74) 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.

(75) A “release” is the flow of sewage from any portion of the collection or transmission system owned or operated by a publicly owned treatment works or a domestic wastewater treatment plant other than through permitted outfalls that does not reach waters. In addition, a “release” includes a backup into a building or private property that is caused by blockages, flow conditions, or other malfunctions originating in the collection or transmission system owned or operated by the permittee. A “release” does not include:

(a) ~~backups~~ Backups into a building or private property caused by blockages or other malfunctions originating in a private lateral;

(b) Events caused by vandalism;

(c) Events caused by lightning strike;

(d) Events caused by damage due to third parties working on other utilities in the right of way, e.g., cross bore from telecommunications line; or

(e) Events that are directly incidental to planned, preventative, or predictive maintenance provided the site is under the direct control of a certified operator or contractor, public access is restricted, and the site is disinfected.

(76) A "sanitary sewer overflow (SSO)" is an unpermitted discharge of wastewater from the collection or treatment system of a publicly owned treatment works or a domestic wastewater treatment plant other than through a permitted outfall.

(77) "Schedule 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. This term includes, but is not limited to, schedules authorized by a national effluent limitations guideline or by Tennessee's water quality standards.

(78) "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.

(79) "Severe property damage" when used to consider the allowance of a bypass 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. Severe property damage does not mean economic loss caused by delays in production.

(80) "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.

(81) "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.

(82) "Source" means any activity, operation, construction, building, structure, facility, or installation from which there is or may be the discharge of pollutants.

(83) "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.

(84) "Stormwater control measure" or "SCMs" are permanent practices and measures designed to reduce the discharge of pollutants from new development projects.

(85) "Stream" means a surface water that is not a wet weather conveyance.

(86) "Total dissolved solids" or TDS" means nonfilterable residue.

(87) "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.

(88) "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.

(89) "USDA-NRCS" means the Natural Resources Conservation Service, an agency within the U.S. Department of Agriculture.

(90) "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.

(91) "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 waters. A vegetated buffer may also be referred to as a filter strip.

(92) 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).

(93) "Watercourse" means a man-made or natural hydrologic feature with a defined linear channel which discretely conveys flowing water, as opposed to sheet-flow.

(94) "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.

(95) A "water quality riparian buffer" is a permanent strip of natural perennial vegetation adjacent to a stream, river, wetland, pond, or lake that contains dense vegetation made up of grass, shrubs, and/or trees. The purpose of a water quality riparian buffer is to maintain existing water quality by minimizing the risk of any potential sediments, nutrients or other pollutants reaching adjacent surface waters and to further prevent negative water quality impacts by providing canopy over adjacent waters.

(96) 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.

(97) The "weekly average concentration" is the arithmetic mean of all the concentrations expressed in units of mass per volume of any pollutant measured in a calendar week.

(98) "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.

(99) A "wet weather overflow" is a sanitary sewer overflow that is directly related to a specific rainfall event.

(100) A “wet weather release” is a release that is directly related to a specific rainfall event.

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

0400-40-05-.03 Exclusions.

(1) The following discharges do not require NPDES permits:

(a) Any introduction of pollutants from non point-source agricultural and silvicultural activities, including stormwater runoff from orchards, cultivated crops, pastures, range lands, and forest lands; and

(b) Return flows from irrigated agriculture.

(2) Discharges into a septic tank connected only to a subsurface drain field do not require a state issued permit under T.C.A. § 69-3-108.

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

0400-40-05-.04 Prohibitions.

No permits shall be issued authorizing any of the following discharges:

(1) The discharge of any radiological, chemical, or biological warfare agent;

(2) The discharge of radioactive waste into waters (though this does not prohibit radioactivity from authorized discharges provided such discharge is in accordance with state water quality standards);

(3) Any discharge that the Secretary of the Army, acting through the chief of engineers, finds would substantially impair anchorage and navigation;

(4) Any discharge to which the regional administrator has objected in writing in a timely fashion according to Section 402(d)(2), federal Clean Water Act (CWA);

(5) Any discharge from a source with effluent limitations less stringent than those included in an approved area-wide waste treatment management plan;

(6) When the conditions of the permit do not provide for compliance with the applicable requirements of either the federal CWA or the Tennessee Water Quality Control Act (TWQCA); or

(7) To a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards.

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

0400-40-05-.05 Permit Application, Issuance.

(1) Any person who plans to engage or is engaging in any of the activities outlined in T.C.A. § 69-3-108(b) or (c) shall make application in writing to the Commissioner for a permit, or for modification of an existing permit; except where a person discharges into a publicly owned sewerage system or into a septic tank connected only to a subsurface drain field.

(2) Applicants shall complete and submit standard application forms supplied by the Commissioner together with such engineering reports, plans, and specifications as are required. The Commissioner may subsequently request additional reasonable information as required to make the permit decision. If an environmental impact statement is required by federal regulation, the Commissioner may require the applicant to pay for its preparation. Processing of an application shall not be completed until all requested information has been supplied. The applicant will be provided notice of completeness of the application and re-submitted material within 30 days of a determination that such material constitutes a complete application. This provision does not preclude the Commissioner from later requesting additional material that after the notice of completeness is determined to be necessary for permit processing.

(3) Applicants proposing a new or increased discharge of pollutants to surface waters shall include in the application a consideration of alternatives, including, but not limited to, land application, beneficial reuse of the wastewater, and, for proposed increased discharges, reduction of inflow and infiltration.

(4) Completed applications for new or increased discharges, or for substantial changes in the nature, or frequency of existing permitted discharges, shall be submitted no later than 180 days in advance of the date on which the discharge is to commence or change, unless permission for a later application date has been granted by the Commissioner in writing. Persons proposing a new discharge are encouraged to submit their applications well in advance of the 180-day requirement to avoid delay.

(5) All permittees with currently effective permits shall submit a new application 180 days before the existing permit expires, except that the Commissioner may grant written permission to submit an application later than the deadline for submission otherwise applicable, but no later than the permit expiration date.

(6) Applications shall be submitted and signed in accordance with the following:

(a) For a corporation:

1. By a responsible corporate officer, i.e., a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation;

2. By a manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility to assure long term environmental compliance with environmental laws and regulations; or

3. By a person in a corporate position to which signatory authority has been delegated by a corporate officer.

(b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.

(c) For a municipality, state, federal, or other public agency:

1. By a principal executive officer (i.e., the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency); or

2. By ranking elected official.

(7) The Commissioner may agree with the regional administrator on the exchange of completed applications and other information.

(8) The Commissioner will not authorize the construction, installation, or modification of any treatment works, or part thereof, or any extension or addition thereto until after the end of the public comment period as outlined in Rule 0400-40-05-.06.

(9) The Commissioner shall issue permits only to a person or persons. Private corporations, limited liability companies, or limited liability partnerships must be in good standing with the Tennessee Secretary of State to be eligible for permit coverage. Out-of-state corporations, limited liability companies, or limited liability partnerships must be registered with the Tennessee Secretary of State to be eligible for permit coverage.

(10) The Commissioner shall not issue a permit or renewal of a permit to an applicant unless all fees required by T.C.A. Title 68, Chapter 203 have been paid in full.

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

0400-40-05-.06 Notice and Public Participation.

(1) For an individual application for a new or increased discharge, the applicant shall notify the public of the application by posting a sign near the point of entrance to such facility and within view of a public road. The sign shall contain provisions as specified by the Commissioner. The sign shall be of such size that is clearly visible from the public road. Also, the sign shall be maintained for at least 30 days following submittal of the application to the Division.

(2) Each completed application (or request for permit action) shall be evaluated and a tentative determination of whether to issue or deny a permit action shall be made. If a tentative determination is made to issue a permit, then a draft permit shall be prepared that includes, as applicable, proposed effluent limitations, a proposed schedule of compliance, including interim dates and requirements, and a brief description of

any other proposed conditions. A rationale, as defined in paragraph (3) of this rule, shall also be provided along with the draft permit. The Commissioner may attach other relevant information as necessary.

(3) For each application, the Commissioner shall prepare a rationale that includes or considers as appropriate:

(a) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged;

(b) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and relevant facts or data;

(c) Reasons why any requested variances or alternatives to required standards do or do not appear justified;

(d) The location of the discharge or activity described in the application;

(e) A quantitative and qualitative description of the discharge described in the application which includes at least the following:

1. The rate or frequency of the proposed discharge; if the discharge is continuous, the average and maximum daily flow in gallons per day or million gallons per day;

2. For thermal discharges subject to limitation, the average and maximum summer and winter temperature;

3. The average and maximum daily discharge in pounds per day and/or concentrations in units of mass per volume of any pollutants which are present in significant quantities or which are subject to limitations or prohibition under described provisions of T.C.A. Title 69, Chapter 3, Title 1 or this rule; and

4. Other parameters for which control may be required by the Commissioner;

(f) Any calculations or other necessary explanation of the derivation of specific effluent limitations and conditions including a citation to the applicable effluent limitation guideline, performance standard, reasons why they are applicable or an explanation of how the alternate effluent limitations were developed;

(g) Identification of outfalls, pollutants, and the amount of pollutants disclosed by the permit applicant and within the Department’s reasonable contemplation;

(h) When the draft permit contains any of the following conditions, an explanation of the reasons why such conditions are applicable:

1. Technology-based limitations to control toxic pollutants;

2. Limitations on internal waste streams;

3. Limitations on indicator pollutants; or

4. Limitations set on a case-by-case basis;

(i) The tentative determination regarding the discharge;

(j) A brief citation, including a brief identification of the uses for which the receiving waters have been classified, of the water quality standards and effluent standards and limitations applied to the proposed discharge;

(k) A fuller description of the procedures for the formulation of final determinations than that given in the public notice including:

1. The beginning and ending dates of the 30-day comment period required by this rule;

2. The address where comments will be received;

3. Procedures for requesting a public hearing and the nature thereof; and

4. Any other procedures by which the public may participate in the formulation of the final determinations;

(l) Name and telephone number of a person to contact for additional information;

(4) The Commissioner shall ensure that the public is notified that the following actions have occurred:

(a) A permit application has been tentatively denied;

(b) A draft permit has been prepared;

(c) A hearing has been scheduled; or

(d) An appeal has been granted.

(5) No public notice is required:

(a) When a request for permit modification, revocation and reissuance, or termination is denied based on the Commissioner's determination that the request was not justified (written notice of that denial shall be given to the requester and to the permittee); or

(b) For minor permit modifications which include corrections of typographical errors, requiring more frequent monitoring or reporting, changing an interim compliance date or allowing a change of ownership.

(6) Public notices may describe more than one permit or permit actions.

(7) Public notice of the preparation of a draft permit (including a notice of intent to deny a permit application) required under this rule shall allow at least 30 days for public comment.

(8) Public notice of a public hearing shall be given at least 30 days before the hearing. Public notice of the hearing may be given at the same time as public notice of the draft permit, and the two notices may be combined.

(9) In order to inform interested and potentially interested persons of the proposed discharge and of the tentative determinations regarding it, public notice shall be circulated within the geographical area of the proposed discharge by the following means:

(a) For major NPDES permits and public hearings, publishing in local daily or weekly newspapers and periodicals, or, if appropriate, in a daily newspaper of general circulation;

(b) For all permits, by mailing (either electronically and/or physically) a copy of the notice to the following persons:

1. The applicant;

2. Any other agency which the Director knows has issued, or is required to issue other permits for the same facility or activity;

3. Federal and state agencies with jurisdiction over fish and wildlife resources and historic preservation;

4. Any affected states and Indian Tribes;

5. Any state agency responsible for plan development under CWA section 208(b)(2), 208(b)(4) or 303(e) and the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service;

6. Any user identified in the permit application of a privately owned treatment works;

7. Persons on a mailing list developed by:

(i) Including those who request in writing to be on the list;

(ii) Soliciting persons for ‘‘area lists’’ from participants in past permit proceedings in that area;

(iii) Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press, newsletters, environmental bulletins, or state law journals. The Commissioner may update the mailing list from time to time by requesting written indication of continued interest from those listed. The Commissioner may delete from the list the name of any person who fails to respond to such a request;

8. To any unit of local government having jurisdiction over the area where the facility is proposed to be located;

9. To each state agency having any authority under state law with respect to the construction or operation of such facility; and

(c) If determined necessary by the Commissioner, any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases, website postings, signs, or any other forum or medium to elicit public participation.

(10) Public notice of draft permits or proposed permit denials shall include the following:

(a) Name and address of the Division, and the phone number and electronic mail address of the assigned permit writer;

(b) Name and location address of each applicant;

(c) Brief description of each applicant's activities or operations which result in the discharge described in the application or are adjacent to waters (e.g., municipal waste treatment plant, steel manufacturing, drainage from mining activities);

(d) Name of waterway to which each discharge is made and a short description of the location of each discharge on the waterway indicating whether such discharge/activity is new or existing;

(e) A statement of the tentative determination to issue or deny a permit for the discharge described in the application;

(f) A brief description of the procedures for the formulation of final determinations, including the minimum 30-day comment period required by this rule and any other means by which interested persons may influence or comment upon those determinations;

(g) Instructions for finding additional information online;

(h) Address and phone number of the premises at which interested persons may obtain further information, request a copy of the draft permit, request a copy of the rationale and inspect and copy forms and related documents; and

(i) Any other information that the Commissioner deems necessary.

(11) Interested persons may submit written comments on the tentative determinations within either 30 days of public notice or such greater period as the Commissioner allows in writing. All written comments

submitted shall be retained and considered in the final determination. The Commissioner shall give any state or interstate agencies whose waters will be affected a written explanation of the decision not to incorporate any written recommendation made by that state or agency.

(12) Interested persons may request in writing that the Commissioner hold a public hearing on any application. The request shall be filed as soon as practicable within the period allowed for public comment and shall indicate the interest of the party filing it and the reasons why a hearing is warranted. If there is a significant public interest in having a hearing to address water quality concerns, the Commissioner shall hold one in the geographical area of the proposed discharge. Instances of doubt should be resolved in favor of holding the hearing.

(13) Special provisions regarding public notices for public hearings

(a) In addition to the public notice procedures of paragraph (9) of this rule, notice of public hearing shall be sent to all persons who received a copy of the notice or rationale for the application, any person who submitted comments on the draft permit action, all persons who requested the public hearing, and any person who specifically requests a copy of the notice of hearing.

(b) Each notice of a public hearing shall include at least the following contents:

1. Name, address, and phone number of the Division;

2. Name and address of each applicant whose application will be considered at the hearing;

3. Name of waterway to which each discharge is made or to which each activity is adjacent and a short description of the location of each discharge on the waterway indicating whether such discharge/activity is new or existing;

4. A brief reference to the public notice issued for each application, including identification number and date of issuance;

5. Information regarding the time and location for the hearing;

6. The purpose of the hearing;

7. A concise statement of the issues raised by the persons requesting the hearing;

8. Address and phone number of premises at which interested persons may obtain further information, request a copy of each draft permit, request a copy of each fact sheet, and inspect and copy forms and related documents;

9. A brief description of the nature of the hearing, including the rules and procedures to be followed; and

10. Any other information deemed necessary by the Commissioner.

(14) Public Notice of Commissioner’s Decision to Issue or Deny a Permit

The Commissioner shall notify the applicant in writing of the final permit decision. The Commissioner shall provide public notice of the final permit decision by posting a notice on the Division’s website including a copy of the final permit. The Commissioner may also distribute the notice by any other means reasonably calculated to inform interested persons, including any person who participated in the public comment period, of the final permit decision.

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

0400-40-05-.07 Terms and Conditions of Permits.

(1) When a permit is granted it shall be subject to the provisions of the Act, these regulations, and any special terms or conditions the Commissioner determines are necessary to fulfill the purposes or enforce the provisions of that section.

(a) The terms and conditions of each permit shall ensure compliance with applicable effluent limitations, including schedules of compliance, promulgated by the Board. If more stringent effluent limitations are necessary to implement applicable water quality standards, to avoid conflict with an approved area-wide waste treatment management plan, or to comply with other state or federal laws or regulations, then they should be imposed in the permit.

(b) If the permit is for the discharge of pollutants from a vessel or other floating craft, the permit shall insure compliance with any applicable regulations promulgated by the Secretary of the department in which the Coast Guard is operating, establishing specifications for safe transportation, handling, carriage, storage, and stowage of pollutants.

(c) In the application of effluent standards and limitations, water quality standards, and other legally applicable requirements, the Commissioner may, for each issued permit, specify average and maximum daily quantitative limitations for the level of pollutants in the authorized discharge in terms of weight (except pH, temperature, radiation, and any other pollutants not appropriately expressed by weight). The Commissioner may, in addition to the specifications of daily quantitative limitations by weight, specify daily average and daily maximum concentration limits for those pollutants subject to limitation. In addition, limitations expressed in other terminology may be required when necessary to protect water quality or to describe adequate operation of a treatment facility.

(2) The following standard conditions, where appropriate, apply to NPDES permits:

(a) Duty to comply.

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Water Quality Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

(b) Duty to reapply.

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit.

(c) Proper operation and maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances, including but not limited to collection and conveyance systems) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Low pressure pumps and tanks are integral to the treatment and conveyance of sewage in a low pressure system design, and shall be owned or under control of the municipality, other body of government, public utility district, or a privately-owned public utility demonstrating lawful jurisdiction over the service area. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

(d) Permit actions.

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. Causes for such permit action include but are not limited to the following:

1. Violation of any terms or conditions of the permit;

2. Obtaining a permit by misrepresentation or failure to disclose fully all relevant facts; and

3. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

(e) Property rights.

This permit does not convey property rights of any sort, or any exclusive privilege.

(f) Duty to provide information.

The permittee shall furnish to the Commissioner, within a reasonable time, any information which the Commissioner may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Commissioner, upon request, copies of records required to be kept by this permit.

(g) Inspection and entry.

The permittee shall allow the Commissioner, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Commissioner.

(h) Monitoring, records and reporting.

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

1. Records of monitoring information shall include:

   (i) The date, exact place, and time of sampling or measurements;

   (ii) The individual(s) who performed the sampling or measurements;

   (iii) The date analyses were performed;

   (iv) The individual(s) who performed the analyses;

   (v) The laboratory where the analyses were performed;

   (vi) The analytical techniques or methods used; and

   (vii) The results of such analyses.

2. Monitoring shall be conducted according to test procedures approved under 40 CFR part 136 (2021), unless another method is required under 40 C.F.R. Subchapters N or O (2021).

3. Regular reporting (at a frequency of not less than once per year) to assure that compliance is being achieved will normally be required of the discharger in any permit as indicated below:

(i) Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Commissioner.

(ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 (2021), or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or other reporting form specified by the Commissioner.

(iii) Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in the permit.

(i) Signatory requirement.

All reports or information submitted to the Commissioner shall be signed and certified by the persons identified in subparagraphs (6)(a) through (c) of Rule 0400-40-05-.05, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person identified in subparagraphs (6)(a) through (c) of Rule 0400-40-05-.05;

2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity or an individual or position having overall responsibility for environmental matters for the company; and

3. The written authorization is submitted to the Commissioner.

(j) Planned changes.

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

1. The alteration or addition to a permitted facility is considered a new source as defined in Rule 0400-40-05-.02;

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged; or

3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices.

(k) Transfers.

Individual permits are not transferable to any person except after notice to the Commissioner, as specified below. The Commissioner may require modification or revocation and reissuance of the permit to change the name of the permittee.

1. The permittee notifies the Commissioner of the proposed transfer at least 30 days in advance of the proposed transfer date.

2. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them.

3. The permittee shall provide the following information to the Commissioner in their formal notice of intent to transfer ownership:

(i) The permit number of the subject permit;

(ii) The effective date of the proposed transfer;

(iii) The name and address of the transferor;

(iv) The name and address of the transferee;

(v) The names of the responsible parties for both the transferor and transferee;

(vi) A statement that the transferee assumes responsibility for the subject permit;

(vii) A statement that the transferor relinquishes responsibility for the subject permit;

(viii) The signatures of the responsible parties for both the transferor and transferee pursuant to the signatory requirements of subparagraph (i) of this paragraph; and

(ix) A statement regarding any proposed modifications to the facility, its operations, or any other changes, which might affect the permit, limits and conditions contained in the permit.

(l) Bypass, as defined in Rule 0400-40-05-.02, is prohibited unless:

1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

3. For anticipated bypass, the permittee submits prior notice, if possible at least ten days before the date of the bypass; or

4. For unanticipated bypass, the permittee submits notice of an unanticipated bypass within 24 hours from the time that the permittee becomes aware of the bypass.

(m) A bypass that does not cause effluent limitations to be exceeded may be allowed only if the bypass is necessary for essential maintenance to assure efficient operation. The permittee must sample and report the discharge during each bypass to demonstrate that the bypass does not cause effluent limitations to be exceeded.

(n) 1. For publicly owned treatment works or domestic wastewater treatment plants, sanitary sewer overflows, including dry-weather overflows and wet weather overflows, are prohibited. Releases caused by improper operation and maintenance, which is to be determined by the Commissioner based on the totality of the circumstances, are prohibited.

2. For industrial dischargers, the discharge of pollutants from any location other than a permitted outfall is prohibited.

(o) Twenty-Four Hour Reporting.

In the case of any noncompliance, or any release (whether or not caused by improper operation and maintenance), which could cause a threat to human health or the environment, the permittee shall:

1. Report the noncompliance to the Commissioner within 24 hours from the time the permittee becomes aware of the circumstances. Such noncompliance includes, but is not limited to, any unanticipated bypasses exceeding any effluent limitation, any upset exceeding any effluent limitation, and violations of any maximum daily effluent limitation identified in the permit as requiring 24-hour reporting.

2. Submit a written report within five days of the time the permittee becomes aware of the noncompliance. The permittee shall provide the following information:

(i) A description of, and the cause of the noncompliance;

(ii) The period of noncompliance, including start and end dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue;

(iii) The steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance; and

(iv) For POTWs or domestic wastewater treatment plants, reporting any dry weather overflow, wet weather overflow, dry weather release, wet weather release, combined sewer overflow, or bypass, this written report must also include the following:

(I) Type of event;

(II) Type of sewer overflow, release or bypass structure (e.g., manhole, combined sewer overflow outfall);

(III) Estimated volume (gallons);

(IV) Types of human health and environmental impacts;

(V) Location (latitude and longitude);

(VI) Estimated duration (hours);

(VII) The next downstream pump station (for overflows and releases only); and

(VIII) The name of receiving water (if applicable).

Industrial dischargers shall comply with this subpart with respect to bypasses only.

(p) Other Noncompliance.

1. All permittees shall report each instance of noncompliance or any release (whether or not caused by improper operation and maintenance), not reported under subparagraph (n) of this paragraph at the time of submitting the next routine monitoring report, including all information required by subparts (n)2(i), (ii), and (iii) of this paragraph.

2. In addition to the information required by part 1 of this subparagraph, POTWs and domestic wastewater treatment plants shall, submit a written report containing the information required by subpart (n)2(iv) of this paragraph. If these events are caused by an extreme weather event, the Commissioner may provide a written waiver of some or all of these reporting requirements.

3. In addition to the information required by part 1 of this subparagraph, industrial dischargers shall submit a written report of bypasses containing the information required by subpart (n)2(iv) of this paragraph. This part does not relieve industrial dischargers from any applicable reporting requirements of 40 C.F.R. Part 117 (2021) and 40 C.F.R. Part 302 (2021).

(q) An upset shall constitute an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the permittee can identify the cause(s) of the upset;

2. The permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;

3. The permittee submitted information required under “Reporting of Noncompliance” within 24 hours of becoming aware of the upset (if this information is provided orally, a written submission shall be provided within five days); and

4. The permittee complied with any remedial measures required under “Adverse Impact.”

In any enforcement proceeding, the permittee seeking to establish the affirmative defense of an upset has the burden of proof.

(r) The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(s) Industrial/mining dischargers shall notify the Commissioner as soon as they know or have reason to believe:

1. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic substance(s) (listed at 40 CFR Part 122 (2021), Appendix D, Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:

   (i) 100 micrograms per liter (100 µg/l);

   (ii) 200 micrograms per liter (200 µg/l) for acrolein and acrylonitrile; 500 micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (1 mg/L) for antimony;

   (iii) 5 times the maximum concentration value reported for that pollutant(s) in the permit application; or

   (iv) The level established by the Commissioner.

2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:

   (i) 500 micrograms per liter (500 µg/l);

   (ii) 1 milligram per liter (1 mg/L) for antimony;

   (iii) 10 times the maximum concentration value reported for that pollutant in the permit application; or

   (iv) The level established by the Commissioner.

(t) If the permit is for a discharge from a publicly owned treatment works, the permittee shall provide notice to the Commissioner of the following:

1. Any new introduction of pollutants into such treatment works from a source which would be a new source subject to new source performance standards if such source were discharging pollutants;

2. Except as to such categories and classes of sources or discharges specified by the Commissioner, any new introduction of pollutants into such treatment works from a source which would be required to obtain a permit if such source were discharging pollutants;

3. Any substantial change in volume or character of pollutants being introduced into such treatment works by a source introducing pollutants into such works at the time of issuance of the permit; and

4. Such notice shall include information on:

   (i) The quality and quantity of effluent to be introduced into such treatment works; and

   (ii) Any anticipated impact of such change in the quantity or quality of effluent to be discharged from such publicly owned treatment works.

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

0400-40-05-.08 Effluent Limitations and Standards.

(1) Effluent standards and limitations shall be formulated in accordance with the following requirements:

(a) For existing sources, other than publicly owned treatment works, technology-based effluent limitations shall be designed to require application of the best practicable control technology currently available or application of the best available technology economically achievable, as applicable in accordance with requirements of Section 301 (b)(2)(A), Federal Water Pollution Control Act, PL 92-500.

(b) For new sources, technology-based effluent limitations shall require the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, which shall be new source performance standards, if available.

(c) (Reserved).

(d) Toxic effluent limitations shall be based on consideration of the toxicity of the pollutant, its persistence, its degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms.

(e) Pretreatment standards shall be designed to prevent the introduction into publicly owned treatment works of those pollutants that may interfere with, pass through, or otherwise be incompatible with such works.

(f) All effluent limitations or standards shall be at least as stringent as any minimum standards promulgated by the administrator and currently effective under the Federal Water Pollution Control Act, P.L. 92-500 as amended or any subsequent applicable acts.

(g) All pollutants shall receive treatment or corrective action to ensure compliance with effluent limitations established by the U.S. Environmental Protection Agency pursuant to Sections 301 and 302 and standards of performance for new sources pursuant to Section 306, effluent limitations and prohibitions and pretreatment standards pursuant to Section 307 of the Federal Water Pollution Control Act as amended, PL 92-500; also to ensure compliance with any approved water quality standard, or avoid conflict with an approved area-wide waste treatment management plan prepared according to Section 208 of the Federal Water Pollution Control Act as amended, PL 92-500.

(h) Any schedules of compliance under this rule shall require compliance as soon as possible, but not later than the applicable statutory deadline under the federal law. When the Division establishes a compliance schedule, it shall consider the technical and economic feasibility of waste treatment, recovery, or adjustment of the method of discharge. Any such schedule of compliance shall require compliance with an enforceable final effluent limitation as soon as possible and include a final compliance date. If compliance will take longer than one year, the schedule of compliance shall establish enforceable interim requirements, establish dates for compliance with these requirements that are no longer than one year apart, and require reporting of interim compliance actions within 14 days of the applicable deadline. If the time necessary for completion of any requirement is more than one year and the requirement is not readily divisible into stages for completion, the permit shall require, at a minimum, specified dates for annual submission of progress reports on the status of interim requirements.

(i) Best management practices to control or abate the discharge of pollutants when numeric effluent limitations are infeasible and the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of TWQCA.

(j) 1. When a permit is renewed or reissued, effluent limitations, standards or conditions shall be at least as stringent as the effluent limitations, standards, or conditions in the previous permit unless:

(i) The circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance;

(ii) Material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation;

(iii) Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance;

(iv) Technical mistakes or mistaken interpretations of law were made in issuing the permit;

(v) A less stringent effluent limitation is necessary because of events over which the permittee has no control and for which there is no reasonably available remedy; or

(vi) The permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous effluent limitations, in which case the limitations in the reviewed, reissued, or modified permit may reflect the level of pollutant control actually achieved.

2. In no event may a permit be renewed, reissued, or modified to contain an effluent limitation which is less stringent than required by effluent guidelines in effect at the time the permit is renewed, reissued, or modified.

3. In no event may a permit be renewed, issued, or modified to contain a less stringent effluent limitation if the implementation of such limitation would result in a violation of a water quality standard.

(k) All permit effluent limitations, standards, and prohibitions shall be established for each outfall or discharge point of the permitted facility, except as otherwise provided for BMPs where limitations on effluent or internal waste streams are infeasible.

(l) In the case of POTWs or domestic wastewater treatment plants, permit effluent limitations, standards, or prohibitions shall be calculated based on design flow.

(m) For continuous discharges, all permit effluent limitations, standards, and prohibitions shall be expressed as maximum daily, weekly average (for POTWs only), and monthly average, unless impracticable.

(n) Non-continuous discharges shall be limited in terms of frequency, total mass, maximum rate of discharge, and mass or concentrations of specified pollutants, as appropriate.

(o) Any permit limitations, standards, or prohibitions based on production shall be based upon a reasonable measure of actual production.

1. For new sources or dischargers, actual production shall be estimated from projected production.

2. The time period of the measure of production shall correspond to the time period of the resulting permit limits. For example, monthly production levels shall be used to calculate monthly average permit limits.

(p) All permit effluent limitations, standard, or prohibitions for a metal shall be expressed as “total recoverable metal” unless a promulgated effluent guideline or an applicable, water quality criterion specifies otherwise.

(q) When permit effluent limitations or standards imposed at the point of discharge are impractical or infeasible, effluent limitations or standards for discharges of pollutants may be imposed on internal waste streams before mixing with other waste streams or cooling water streams. In those instances, the monitoring required shall also be applied to the internal waste streams. Limits on internal waste streams will be imposed only when the rationale sets forth the exceptional circumstances which make such limitations necessary, such as when the final discharge point is inaccessible (for example, under water), the wastes at the point of discharge are so diluted as to make monitoring impracticable, or the interferences among pollutants at the point of discharge would make detection or analysis impracticable.

(r) Instantaneous maximum concentration or similar limitations may be imposed in permits when:

1. Toxic or harmful parameters are present in such significant amounts or concentrations as to represent a threat to the possibility of maintaining receiving waters in accordance with established classifications; and

2 The discharge is characterized as irregular, such as high peak, short duration flow.

(s) Any discharge or activity authorized by a permit which is not a minor discharge or activity, or the regional administrator requests, in writing, be monitored, or contains a toxic pollutant for which an effluent standard has been established shall be monitored by the permittee for the following:

1. Flow (in million gallons per day); and

2. Any of the following pollutants:

(i) Pollutants (either directly or indirectly through the use of accepted correlation coefficients or equivalent measurements determined to be applicable to the discharge to which they are applied) which are subject to reduction or elimination under the terms and conditions of the permit;

(ii) Pollutants which the Commissioner finds, on the basis of information available, could have a significant impact on the quality of waters;

(iii) Pollutants specified by the administrator, in regulations issued pursuant to the Federal Water Pollution Control Act, as subject to monitoring; and

(iv) Any pollutants, in addition to those identified in subparts (i) through (iii) of this part, which the regional administrator or the Commissioner request be monitored.

(t) If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the Commissioner shall revise or modify the permit in accordance with established procedure to include the toxic effluent standard or prohibition and so notify the permittee.

(u) The Commissioner may require flow monitoring in other situations where necessary to comply with the Act.

(v) If non-potable reuse of reclaimed wastewater is utilized in association with an NPDES-authorized discharge, the NPDES permit shall impose conditions in accordance with the requirements of Rule 0400-40-06-.10, unless the reuse is separately governed by a state operating permit.

(2) All discharges authorized by the permit shall be consistent with the terms and conditions of the permit. Facility expansions, production increases, or process modifications which result in new or increased discharges of pollutants shall be reported by submission of a new application or, if such discharge does not violate effluent limitations specified in the permit, by submission to the Commissioner of notice of such new or increased discharges of pollutants. The discharge of any pollutant more frequently than or at a level in excess of that authorized by the permit shall constitute a violation of the terms and conditions of the permit.

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

0400-40-05-.09 Technology-Based Effluent Limitations.

Permits shall impose the following technology-based effluent limitations, unless more stringent water quality-based effluent limitations are required for these pollutants:

(1) Municipal and domestic wastewater treatment plants shall be limited by application of monthly average concentrations, weekly average concentrations, daily maximum amounts, and daily maximum concentrations of the 5 day, 20°C biochemical or carbonaceous biochemical oxygen demand (BOD_5 or $CBOD_5$) and suspended solids. In some cases, the daily maximum amount may be replaced by a minimum daily percent removal requirement. Limitations on chlorine residual may be required to prevent harmful amounts of chlorine discharge to the receiving waters. In addition, where harmful materials are acquired in a collection system, effluent limitations applicable to the treatment system will be required for such parameters. The Commissioner may adjust these effluent limitations in accordance with 40 C.F.R. § 133.103(b) (2021).

(a) Conventional Secondary Treatment Plants

Parameter	Monthly Average (mg/l)	Weekly Average (mg/l)	Daily Maximum (mg/l)	Monthly Average % Removal
BOD_5 or $CBOD_5$	30/25	40/35	45/40	85
TSS	30	40	45	85

The concentration of settleable solids shall not exceed 1.0 ml/l as measured by the standard one-hour Imhoff cone test.

(b) Domestic waste stabilization lagoons

Parameter	Monthly Average (mg/l)	Weekly Average (mg/l)	Daily Maximum (mg/l)	Monthly Average % Removal
BOD_5 /$CBOD_5$	45/40	50/45	65/60	65
TSS	100	110	120	n/a

(2) Industrial discharges

(a) For industrial discharges with applicable federal effluent limitations guidelines, technology-based effluent limitations and standards in accordance with those guidelines shall be applied.

(b) For industrial discharges without applicable federal effluent limitations guidelines, best professional judgment should be employed to establish appropriate effluent limitations and standards.

(c) A combination of the limitations derived from subparagraphs (2)(a) and (b) of this rule may be established in a permit, as applicable.

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

0400-40-05-.10 Water Quality-Based Permitting.

(1) Water quality-based effluent limitations shall be required for pollutants that would otherwise cause, or have the reasonable potential to cause or contribute to, a violation of the criteria established by the General Water Quality Criteria, Chapter 0400-40-03, as applicable.

(2) Effluent limitations on toxic substances will be required in accordance with the General Water Quality Criteria, Chapter 0400-40-03, using the LC_{50} and/or IC_{25} criteria and appropriate application factor for each toxic parameter.

(3) Appropriate limitations on organic related and other oxygen demanding parameters will be required in any permit to insure adequate dissolved oxygen in the state's waters in accordance with the General Water Quality Criteria, Chapter 0400-40-03.

(4) Water quality-based effluent limitations may be required in any permits to ensure compliance with the Antidegradation Statement, Rule 0400-40-03-.06.

(5) Water quality-based effluent limitations shall be consistent with the assumptions and requirements of any applicable wasteload allocation for the discharge established in a total maximum daily load (TMDL) approved or issued by the administrator.

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

0400-40-05-.11 Duration and Reissuance of Permits.

(1) Each permit shall have a fixed term not to exceed five years, which shall be stated in the permit.

(2) Any permittee who wishes to continue to discharge or operate after the expiration date of the permit shall apply for reissuance in accordance with the provisions of Rule 0400-40-05-.05. Timely receipt of a completed application for an NPDES permit is necessary for permit continuance. However, the Commissioner, at his or her discretion, may accept alternative submittal materials.

(3) The Commissioner shall review the permit and other available information to insure:

(a) That the permittee is in compliance with or has substantially complied with all terms, conditions, requirements, and schedules of compliance of the expiring or expired permit;

(b) That the Commissioner has up-to-date information on the permittee's production levels, permittee's waste treatment practices, nature, contents, and frequency of permittee's discharge, pursuant to monitoring records and reports submitted to the Commissioner by the permittee; and

(c) That the permit is consistent with applicable effluent standards and limitations guidelines, water quality standards, and other legally applicable requirements including any additions to, or revisions or modifications of such effluent standards and limitations guidelines, water quality standards, or other legally applicable requirements during the term of the permit.

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

0400-40-05-.12 Appeals.

(1) Permittees, applicants for permits, and aggrieved persons meeting the criteria of paragraph (3) of this rule who disagree with the denial, terms, or conditions of a permit may seek review of the Commissioner's decision by the Board pursuant to T.C.A. § 69-3-105(i) and § 69-3-110.

(2) All petitioners shall specify the basis for their appeal, and state a claim for relief based on an alleged inconsistency with the Act or the rules promulgated thereunder. Permittees and applicants for permits shall specify what terms or conditions they are appealing in their petition. Only those terms or conditions specified in the petition will be considered subject to appeal. For permit modifications only those terms that were the subject of the modification may be appealed. Aggrieved persons shall specify facts sufficient to establish that they have satisfied the criteria of paragraph (3) of this rule and otherwise have standing to appeal.

(3) In order to be entitled to a review of the Commissioner's permit decision, aggrieved persons shall have:

(a) Submitted a written comment during the public comment period on the permit;

(b) Given testimony at a formal public hearing on the permit; or

(c) Attended a public hearing as evidenced by completion of a Department of Environment and Conservation Record of Attendance Card or other method as determined by the Commissioner.

(4) The basis for the appeal for aggrieved persons may only include issues that:

(a) Were provided to the Commissioner in writing during the public comment period;

(b) Were provided in testimony at a formal public hearing on the permit; or

(c) Arise from any material change to conditions in the final permit from those in the draft, unless the material change has been subject to additional opportunity for public comment.

(5) All petitions for permit appeals shall be filed within 30 days after the date that public notice of the Commissioner’s decision to issue or deny the permit is given in accordance with paragraph (14) of Rule 0400-40-05-.06.

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

0400-40-05-.13 Adoption of EPA-Issued Permits.

(1) The Commissioner may adopt and enforce permits that have been previously issued by the United States Environmental Protection Agency under the National Pollutant Discharge Elimination System established by Public Law 92-500. When such NPDES permit previously issued by the Environmental Protection Agency has been adopted by the State of Tennessee, any permit issued previously for the same discharge by the Commissioner shall become null and void. In any instance where the Commissioner has not adopted an existing NPDES permit and a discharge is not authorized by a Tennessee permit, the Commissioner may require the discharger to apply for a Tennessee permit and otherwise comply with Tennessee law. Permits previously issued pursuant to T.C.A. § 69-3-108 shall remain in full force and effect until replaced by an NPDES Permit transferred to the state or issued by the state.

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

0400-40-05-.14 Animal Feeding Operations.

(1) In addition to the applicable provisions of Rules 0400-40-05-.01 through 0400-40-05-.13, CAFOs are also subject to the provisions of this rule.

(2) AFOs meeting or exceeding the size thresholds in the second column of TABLE 0400-40-05-.14.1 are considered large (Class I) CAFOs.

(3) AFOs within the size thresholds given in the third column of TABLE 0400-40-05-.14.1 are considered medium (Class II) CAFOs if either of the following conditions are met:

(a) Pollutants are discharged into waters through a man-made ditch, flushing system, or other similar man-made device; or

(b) Pollutants are discharged directly into waters which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

TABLE 0400-40-05-.14.1

Animal Type	Large (Class I) CAFO	Medium (Class II) CAFO
Mature dairy cows (milked or dry)	700+	200 – 699
Veal calves	1000+	300 – 999
Cattle[1]	1000+	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+ (laying hens or broilers)	9,000 – 29,999
Chickens (dry waste management[2])	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 (liquid waste management)	5,000+	1,500 – 4,999
Ducks (dry waste management[2])	30,000+	10,000 – 29,999

[1] Other than mature dairy cows or veal calves. Cattle includes, but is not limited to, heifers, steers, bulls, and cow/calf pairs.

[2] Dry waste management refers to systems where continuously overflowing watering systems are not used and birds are raised in an enclosed building with earthen or concrete floors spread with layer of sawdust, wood shavings, rice hulls, or chopped straw.

(4) 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; the means of waste conveyance to waters of the state; and the slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes into waters of the state. The Director shall conduct an on-site inspection prior to determining that an operation should be regulated under the CAFO permit program. AFOs below the threshold for a medium CAFO (shown in the third column in TABLE 0400-40-05-.14.1) may not be designated as a CAFO unless:

(a) Pollutants are discharged into waters through a man-made ditch, flushing system, or other similar man-made device; or

(b) Pollutants are discharged directly into waters which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

(5) The following AFOs shall seek permit coverage as follows:

(a) Large, medium, and designated CAFOs that discharge shall obtain an individual NPDES permit and the permit shall be in effect prior to any discharge.

(b) Large AFOs, based on the animal numbers located in TABLE 0400-40-05-.14-1, which utilize liquid waste management systems, shall obtain coverage under a state permit.

(6) All AFOs seeking to obtain permit coverage shall submit application information in accordance with paragraph (2) of Rule 0400-40-05-.05.

(a) All AFOs seeking to obtain permit coverage shall submit application information to the Commissioner.

(b) In addition to the application requirements of paragraph (2) of Rule 0400-40-05-.05, AFOs seeking permit coverage shall submit, at the time of application, a nutrient management plan as outlined in paragraph (10) of this rule.

(7) Reserved

(8) AFOs seeking to maintain permit coverage shall comply with the permit reissuance requirements of paragraph (5) of Rule 0400-40-05-.05.

(9) AFOs obtaining permit coverage shall develop and maintain a current approved nutrient management plan and have all measures, structures, etc., in place to fully implement the plan upon the date of permit coverage. Any NPDES permit issued to a AFO shall require compliance with the terms of the AFO's site-specific nutrient management plan such that the plan is enforceable through the permit.

(10) Nutrient Management Plan (NMP) Requirements

(a) Any permit issued to an AFO shall include a requirement to develop, submit and obtain Commissioner approval of, 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, stormwater, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities as outlined in USDA-NRCS Conservation Practice Standard 316 (February 2016) and/or the USDA-NRCS Agricultural Waste Management Handbook (April 1992), and/or University of Tennessee Extension publications;

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 stormwater 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 shall meet minimum standards set in the USDA-NRCS National Engineering Handbook (May 2014) and/or the USDA-NRCS Agricultural Waste Management Handbook (April 1992)), as follows:

(i) Manure, litter, and process wastewater shall be 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 AFO substitutes the 100-foot setback with a 35-foot wide vegetated buffer or by leaving in place a 60-foot natural riparian buffer, where applications of manure, litter, or process wastewater are prohibited; or

(II) The AFO 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;

(ii) Manure, litter, and process wastewater shall be applied no closer than 100 feet for any potable well, public or private; and

(iii) AFOs that are located adjacent to exceptional Tennessee waters and outstanding national resource waters (as identified by the Department), leave in place a minimum 60-foot natural riparian buffer between the stream and the land application area.

8. Provides for annual manure analysis for nitrogen and phosphorus content, following University of Tennessee Extension guidelines, 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);

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. Application rates for manure, litter, and other process wastewater applied to land under the ownership or operational control of the AFO shall minimize phosphorus and nitrogen transport from the field to surface waters in compliance with technical standards for nutrient management that:

(i) 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 USDA-NRCS to assess the risk of phosphorus movement from the application area to waters of the state); and

(ii) Include appropriate flexibilities for any AFO 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, in consideration of recommendations from the University of Tennessee Extension and as determined appropriate by the Director;

10. Provides for periodic inspection of equipment used for land application of manure, litter, and other process wastewater.

11. Includes a closure/rehabilitation plan for the waste system storage/treatment structure(s) that meets or exceeds USDA-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.

(b) Nutrient management plan terms

The terms of the nutrient management plan are the information, protocols, best management practices, and other conditions in the nutrient management plan determined by the Director to be necessary to implement the nutrient management plan. The terms of the nutrient management plan, with respect to protocols that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater, shall include the fields available for land application; field-specific rates of application properly developed through either the linear approach or the narrative approach; and any timing limitations identified in the nutrient management plan concerning land application on the fields available for land application.

1. Linear approach

An approach that expresses rates of application as pounds of nitrogen and phosphorus, according to the following specifications:

(i) The terms include:

(I) Maximum application rates from manure, litter, and process wastewater for each year of permit coverage and for each crop identified in the nutrient management plan, in terms of total nitrogen and phosphorus, in pounds per acre, per year, for each field to be used for land application;

(II) The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field as described in subpart (a)9(i) of this paragraph;

(III) The crops to be planted in each field or any other uses of a field such as pasture or fallow fields; the realistic yield goal for each crop or use identified for each field;

(IV) The nitrogen and phosphorus recommendations as recommended by the University of Tennessee Extension for each crop or use identified for each field;

(V) Credits for all residual nitrogen in the field that will be plant available as recommended by the University of Tennessee Extension;

(VI) Consideration of multi-year phosphorus application in accordance with subpart (a)9(ii) of this paragraph;

(VII) An accounting of all other additions of plant available nitrogen and phosphorus to the field;

(VIII) The form and source of manure, litter, and process wastewater to be land-applied;

(IX) The timing and method of land application; and

(X) The methodology by which the nutrient management plan accounts for the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied as described in part (a)8 of this paragraph.

(ii) Large AFOs that use this approach shall calculate the maximum amount of manure, litter, and process wastewater to be land applied at least once each year using the results of the most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application.

2. Narrative rate approach

An approach that expresses rates of application as a narrative rate of application that results in the amount, in tons or gallons, of manure, litter, and process wastewater to be land applied, according to the following specifications:

(i) The terms include:

(I) Maximum amounts of nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the nutrient management plan, in terms of total nitrogen and phosphorus, in pounds per acre, for each field, and certain factors necessary to determine such amounts.;

(II) The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field as described in subpart (a)9(i) of this paragraph;

(III) The crops to be planted in each field or any other uses such as pasture or fallow fields (including alternative crops identified in subpart (iii) of this part;

(IV) The realistic yield goal for each crop or use identified for each field; and

(V) The nitrogen and phosphorus recommendations as recommended by the University of Tennessee Extension for each crop or use identified for each field for each crop or use identified for each field.

(ii) The terms include 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:

(I) Results of soil tests conducted in accordance with protocols identified in part (a)8 of this paragraph;

(II) Credits for all residual nitrogen in the field that will be plant available as recommended by the University of Tennessee;

(III) The amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied;

(IV) Consideration of multi-year phosphorus application in accordance with subpart (a)9(ii) of this paragraph;

(V) Accounting for all other additions of plant available nitrogen and phosphorus to the field;

(VI) The form and source of manure, litter, and process wastewater;

(VII) The timing, except as described in subpart (iv) of this part and method of land application; and

(VIII) Volatilization of nitrogen and mineralization of organic nitrogen.

(iii) The terms of the nutrient management plan include alternative crops identified in the AFO's nutrient management plan that are not in the planned crop rotation. Where an AFO includes alternative crops in its nutrient management plan, the crops shall be listed by field, in addition to the crops identified in the planned crop rotation for that field, and the nutrient management plan shall include realistic crop yield goals and the nitrogen and phosphorus recommendations as recommended by the University of Tennessee for each crop. Maximum amounts of nitrogen and phosphorus from all sources of nutrients and the amounts of manure, litter, and process wastewater to be applied shall be determined in accordance with the methodology described in items (ii)(I) through (VIII) of this part.

(iv) For AFOs using this approach, the following projections shall be included in the nutrient management plan submitted to the director, but are not terms of the nutrient management plan: The AFO's planned crop rotations for each field for the period of permit coverage; the projected amount of manure, litter, or process wastewater to be applied; projected credits for all nitrogen in the field that will be plant available; consideration of multi-year phosphorus application; accounting for all other additions of plant available nitrogen and phosphorus to the field; and the predicted form, source, and method of application of manure, litter, and

process wastewater for each crop. Timing of application for each field, insofar as it concerns the calculation of rates of application, is not a term of the nutrient management plan.

(v) AFOs that use this approach shall calculate maximum amounts of manure, litter, and process wastewater to be land applied at least once each year using the methodology required in subpart (ii) of this part before land applying manure, litter and process wastewater and shall rely on the following data:

(I) 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 subpart (ii) of this part, and for phosphorus, the results of the most recent soil test conducted in accordance with soil testing requirements approved by the Commissioner; and

(II) 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.

(c) Changes to a nutrient management plan

1. Any NPDES permit issued to an AFO shall require the following procedures when an AFO owner or operator makes changes to the AFO's nutrient management plan previously submitted to the Director:

(i) The AFO owner or operator shall provide the Director with the most current version of the AFO's nutrient management plan and identify changes from the previous version, except that the results of calculations made in accordance with the requirements of subparts (b)1(ii) and (b)2(v) of this paragraph are not considered to be changes to the nutrient management plan subject to the requirements of this paragraph.

(ii) The Director shall review the revised nutrient management plan to ensure that it meets the requirements of this paragraph and applicable effluent limitations and standards and shall determine whether the changes to the nutrient management plan include revision to the terms of the nutrient management plan as set forth in subparagraph (b) of this paragraph. If the terms of the nutrient management plan are not revised, the Director shall notify the AFO owner or operator and upon such notification the AFO may implement the revised nutrient management plan. If the terms of the nutrient management plan are revised, the Director shall determine whether such changes are substantial changes as described in part 2 of this subparagraph.

(iii) If the Director determines that the changes to the terms of the nutrient management plan are not substantial, the Director shall make the revised nutrient management plan publicly available and include it in the permit record and inform the public of any changes to the terms of the nutrient management plan.

(iv) If the Director determines that the changes to the terms of the nutrient management plan are substantial, the Director shall notify the public and make the proposed changes and the information submitted by the AFO owner or operator available for public review and comment. The process for public notice and participation shall follow the procedures applicable to draft permits set forth in Rule 0400-40-05-.06. The Director shall consider all significant comments received during the comment period and require the AFO owner or operator to further revise the nutrient management plan if necessary. Once the Director approves the revised terms of the nutrient management plan, the Director shall

issue a notice of determination that addresses all comments received and notifies the owner or operator and the public of the final decision concerning revisions to the nutrient management plan.

2. Substantial changes to the terms of a nutrient management plan incorporated as terms and conditions of a permit include, but are not limited to:

   (i) Addition of new land application areas not previously included in the AFO's nutrient management plan or in the terms of a nutrient management plan incorporated into an existing NPDES permit. If the AFO owner or operator applies manure, litter, or process wastewater on the newly added land application area in accordance with 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 AFO owner or operator's nutrient management plan but not a substantial change for purposes of this paragraph;

   (ii) Any changes to the field-specific maximum annual rates for land application- set in accordance with the linear approach or to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop set in accordance with the narrative approach;

   (iii) Addition of any crop or other uses not included in the terms of the AFO's nutrient management plan and corresponding field-specific rates of application; and

   (iv) Changes to site-specific components of the AFO's nutrient management plan, where such changes are likely to increase the risk of nitrogen and phosphorus transport to waters of the state.

3. AFOs covered by state permits are subject to the following procedures when the AFO owner or operator makes changes to the AFO's nutrient management plan previously submitted to the Director:

   (i) The AFO owner or operator shall provide the Director with the most current version of the AFO's nutrient management plan and identify changes from the previous version.

   (ii) The Director shall review the revised nutrient management plan to ensure that it meets the requirements of this paragraph and applicable effluent limitations and standards and shall determine whether the changes to the nutrient management plan include revisions to the terms of the nutrient management plan as set forth in subparagraph (b) of this paragraph. The Director shall advise the AFO owner or operator whether or not the changes meet the requirements of this paragraph and applicable effluent limitations and standards and upon such notification the AFO shall either make further revisions to the nutrient management plan or implement the revised nutrient management plan.

   (iii) Operational changes that require nutrient management plan revision, resubmittal and approval, include:

      (I) Additional confinement buildings, settling basins, lagoons, holding ponds, or pits, and other agricultural waste containment/treatment structures or handling systems;

      (II) The addition of new fields for land application of manure, or the removal of existing fields;

      (III) A substantial increase in the amount of manure produced by the operation such that the current nutrient management plan does not adequately account for the increase;

(IV) Alternative crops that were not mentioned in the previous nutrient management plan; or

(V) Increases in the total amount of nitrogen and phosphorus for each crop for a narrative plan.

(11) Recordkeeping and Reporting Requirements

Any NPDES permit issued to an AFO shall include:

(a) A requirement that the permittee shall create, maintain for five years, and make available to the Director, upon request, the following records:

1. Records documenting the implementation and management of the minimum elements described in subparagraph (10)(a) of this rule and all applicable records identified in parts 2 through 18 of this subparagraph;

2. A copy of the AFO's site-specific nutrient management plan;

3. Records documenting the following visual inspections:

(i) Weekly inspections of all stormwater diversion devices, runoff diversion structures, and devices channeling contaminated stormwater 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 any open surface 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. In the case of swine or poultry AFOs that are new sources, the depth marker shall indicate minimum capacity necessary to contain the runoff and direct precipitation associated with the 25-year, 24-hour rainfall event used for sizing the impoundment;

5. Records documenting any corrective actions taken (if deficiencies are not corrected within 30 days of notice of deficiency, the records shall 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 wastewater 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 wastewater, and soil;

13. Results from manure, litter, process wastewater, and soil sampling;

14. Explanation of the basis for determining manure application rates, as provided in the technical standards established by the University of Tennessee Extension or as otherwise approved by the Director or the Tennessee Department of Agriculture and consistent with applicable state and federal rules;

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.

(b) Recordkeeping for third-party waste transfers

A requirement that prior to transferring manure, litter, or process wastewater to a third party, all NPDES permitted AFOs shall provide the recipient of the manure, litter, or process wastewater with the most current nutrient analysis (consistent with 40 CFR Part 412 (2021) and approved by the University of Tennessee Extension). Large NPDES permitted AFOs shall ensure that the third party signs an agreement for the removal of manure, litter, or process wastewater for all transfers of manure, litter, or process wastewater. All other NPDES permitted AFOs shall ensure that the third party signs an agreement for the removal of manure, litter, or process wastewater only if the AFO transfers more than 100 tons of manure, litter, or process wastewater. The agreement for the removal of manure, litter, or process wastewater shall be retained for five years and shall include the following information, at a minimum:

1. The name and location of the facility that is exporting manure, litter, or process wastewater;

2. The type and amount of material that is removed from the AFO;

3. The date the material was removed from the AFO;

4. The following best management practice recommendations:

(i) The manure, litter, or process wastewater shall be managed to ensure there is no discharge of manure, litter, or process wastewater to surface or groundwater;

(ii) When removed from the facility, manure, litter, or process wastewater should be applied directly to the field or stockpiled and covered with plastic or stored in a building;

(iii) Manure, litter, or process wastewater shall not be stockpiled near streams, sinkholes, wetlands, or wells;

(iv) Fields receiving manure, litter, or process wastewater should be soil tested at least every 5 years;

(v) A manure, litter, or process wastewater nutrient analysis should be used to determine application rates for various crops;

(vi) Calibrate spreading equipment and apply manure, litter or process wastewater uniformly;

(vii) Apply no more nitrogen or phosphorus than can be used by the crop;

(viii) A buffer zone is recommended between the application sites and adjacent streams, lakes, ponds, sinkholes, and wells. The following non-application buffer

widths, based on the USDA-NRCS Conservation Practice Standard 590 (January 2013 version, or most recent version), should be used when applicable:

(I) 150 ft. from wells located upslope of the application site;

(II) 300 ft. from wells located downslope of the application site, if conditions warrant application;

(III) 30-100 ft. from waterbodies, depending on the amount and quality of vegetation and slope;

(IV) 300 ft. from all public use areas; and

(V) 300 ft. from all residences other than the third-party recipient's.

(ix) Do not apply manure, litter, or process wastewater when the ground is frozen, flooded, saturated, or on steep slopes subject to flooding, erosion, or rapid runoff;

(x) Cover vehicles hauling manure, litter, or process wastewater on public roads; and

(xi) Keep records of locations where manure, litter, or process wastewater will be land applied or used as a fertilizer.

5. A signed certification statement from the recipient of the material from the AFO, including the recipient's name, address, and phone number.

(c) A requirement that NPDES permitted AFOs submit to TDEC, 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 AFO in the previous calendar year (tons or gallons);

3. Estimated amount of total manure, litter, and process wastewater transferred to a third party by the AFO in the previous calendar year (tons or gallons);

4. Total number of acres for land application covered by the nutrient management plan;

5. Total number of acres under control of the AFO 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;

7. A statement indicating whether the current version of the AFO's nutrient management plan was developed or approved by a certified nutrient management planner;

8. The actual crop(s) planted and actual yield(s) for each field;

9. The actual nitrogen and phosphorus content of the manure, litter and process wastewater;

10. The results of calculations to determine the maximum amount of manure, litter, and process wastewater to be land applied and the data used in the calculations;

11. The actual amount of manure, litter, and process wastewater applied during the previous 12 months;

12. The results of any soil tests for nitrogen and phosphorus conducted in the previous 12 months; and

13. The amount of any supplemental fertilizer applied during the previous 12 months.

(12) For AFOs with applicable federal effluent guidelines, technology-based effluent limitations and standards in accordance with those guidelines shall be applied.

(13) For AFOs that are not subject to applicable federal effluent guidelines, the production area shall be designed, constructed, operated, and maintained so that no discharge will occur, except as authorized through the conditions of an NPDES permit.

(14) Permitted facilities placed into operation after April 13, 2006 must be designed, constructed, operated, and maintained in accordance with final design plans and specifications which meet or exceed standards in the USDA-NRCS Agricultural Waste Management Field Handbook (April 1992), the USDA-NRCS National Engineering Handbook (May 2014), or other defensible methodology approved by the Division. Specifically, plans shall 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 USDA-NRCS Conservation Practice Standard 313 (August 2018).

(b) Information to be used in the design of the open manure storage structure including, but not limited to, minimum storage for rainy seasons, minimum capacity for chronic rainfall events, the prohibition of land application to frozen, saturated, or snow-covered ground, the dewatering schedules set in the AFO's Nutrient Management Plan, additional storage capacity for any 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.

(c) The design of the open manure storage structure as determined by the most recent version of the USDA-NRCS's Animal Waste Management (AWM) software (version 2.4). AFOs may use equivalent design software or procedures as approved by the Director.

(d) 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.

(e) The planning minimum period of storage in months including, but not limited to, the factors for designing an open manure storage structure listed in subparagraph (b) of this paragraph. Alternatively, the AFO may determine the minimum period of storage by specifying times the storage pond will be emptied consistent with the AFO's Nutrient Management Plan.

(f) 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 shall 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 (as described in Rule 0400-48-01-.18) 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).

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

New Rule

Chapter 0400-40-05 Individual National Pollutant Discharge Elimination System (NPDES) Permits is amended by adding a new rule to read as follows:

0400-40-05-.15 Municipal Separate Storm Sewer Systems.

Permits issued to entities that operate a municipal separate storm sewer system (MS4) shall include the following effluent limitations to manage post-construction stormwater at all new development and redevelopment projects that disturb one or more acres of land, or less than one acre if part of a larger common plan of development, and discharge into the permittee's MS4:

(1) Permanent Stormwater Management Program.

(a) The permittee shall develop and implement a permanent stormwater management program to reduce pollutants in stormwater discharges through management practices, control techniques, and systems, design, and engineering practices implemented to the maximum extent practicable (MEP), as set forth herein.

(b) The permanent stormwater management program shall include plans review, site inspections, and a means to ensure that permanent stormwater control measures (SCMs) are adequately operated and maintained.

(c) The permittee must develop and implement, and modify as necessary, an ordinance or other regulatory mechanism to address permanent stormwater management at new development and redevelopment projects.

(d) The permittee must submit an implementation plan for its permanent stormwater management program not later than 90 days after the effective date of the first new or renewed permit issued after the effective date of this rule. The implementation plan shall include a brief description of the main components of the permittee's permanent stormwater management program, which should include: codes and ordinance development and implementation; procedures for plans review and criteria for approval; procedures for conducting and tracking site inspections; and SCM operation and maintenance policies. The implementation plan shall also include a timeline to develop and implement the program. If the permittee has implemented a permanent stormwater management program that complies with all requirements of the new or revised permit, the permittee may submit an implementation plan explaining how its program complies and identifying any new or modified elements of its program. The schedule must indicate completion as soon as feasible but no later than 24 months from the effective date of the first permit issued after the effective date of this rule. Further, if implementation will take longer than 12 months, the plan must include interim milestones. Implementation plans must be submitted to the Division.

(2) Permanent Stormwater Standards.

(a) The permanent stormwater management program must require new development ~~projects~~ and redevelopment projects to be designed to reduce pollutants to the ~~maximum extent practicable~~ MEP, as set forth herein. Compliance with permanent stormwater standards for new development and redevelopment projects is determined by designing and installing SCMs as established by this rule and complying with other requirements of this rule. For design purposes, total suspended solids (TSS) may be used as the indicator for the reduction of pollutants.

(b) SCMs must be designed to provide full treatment capacity within 72 hours following the end of the preceding rain event for the life of the new development or redevelopment project. The permittee shall identify a suite of SCMs to be used in various situations. Information relevant to identified SCMs should be made readily available. Application of innovative SCMs is encouraged. If the permittee decides to significantly limit the number of SCM options, it must be documented as part of the stormwater management program how the performance standards of this rule can be met with the limited set of control measures that are allowed.

(c) For the purposes of this paragraph, the water quality treatment design storm is a 1-year, 24-hour storm event as defined by Precipitation-Frequency Atlas of the United States. Atlas 14. Volume 2. Version 3.0. U.S. Department of Commerce. National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Springs, Maryland or its digital product equivalent. The water quality treatment volume (WQTV) is a portion of the runoff generated from impervious surfaces at a new development project by the design storm, as set forth below. Uncontaminated roof runoff may be excluded from the WQTV. SCMs must be designed, at a minimum, to achieve an overall treatment efficiency of 80% TSS removal from the WQTV. The quantity of the WQTV depends on the type of treatment provided, as established in the following table:

Water Quality Treatment Volume and the Corresponding SCM Treatment Type for the 1-year 24-hour design storm		
SCM Treatment Type	WQTV	Notes
infiltration, evaporation, transpiration, and/or reuse	Runoff generated from the first 1 inch of the design storm	Examples include, but are not limited to, bioretention, stormwater wetlands, and infiltration systems.
biologically active filtration, with an underdrain	Runoff generated from the first 1.25 inches of the design storm	To achieve biologically active filtration, SCMs must provide minimum of 12 inches of internal water storage
sand or gravel filtration, settling ponds, extended detention ponds, and wet ponds	Runoff generated from the first 2.5 inches of the design storm or the first 75% of the design storm	Examples include, but are not limited to, sand filters, permeable pavers, and underground gravel detention systems. Ponds must provide forebays comprising a minimum of 10% of the total design volume. Existing regional detention ponds are not subject to the forebay requirement.
Hydrodynamic separation, baffle box settling, other flow-through manufactured treatment devices (MTDs), and treatment trains using MTDs	Maximum runoff generated from the entire design storm	Flow-through MTDs must provide an overall treatment efficiency of at least 80% TSS reduction. Refer to subparagraph (2)(d) of this rule.
Alternative permanent stormwater standards that provide equal or equivalent reduction of pollutants to the above may be submitted to the Division for approval.		

(d) Treatment Train Calculations

1. Treatment trains using MTDs.

Treatment trains using MTDs must provide an overall treatment efficiency of at least 80% TSS reduction utilizing the following formula:

The calculation:

$R = A + B – (A \times B)/100$

Where:
R = total TSS percent removal from application of both SCMs,
A = the TSS percent removal rate applicable to the first SCM, and
B = the TSS percent removal rate applicable to the second SCM

TSS removal rates for MTDs must be evaluated using industry-wide standard.
TSS removal rates for other SCMs must be from published reference literature.

2. Treatment trains not using MTDs.

Treatment trains using infiltration, evaporation, transpiration, reuse, or biologically active filtration followed by sand of gravel filtration, settling ponds, extended detention ponds, or wet ponds may subtract the treated WQTV of the upstream SCMs from the WQTV of the downstream SCMs.

(e) The permittee may also develop a mitigation program and/or system of payment into a public stormwater fund as described in paragraph (3) of this rule.

(f) The permanent stormwater management program may allow for a reduction of the WQTV for a new development or redevelopment project up to 20% for any one of the following conditions, and up to a total maximum of 50% for a combination of the following conditions:

1. Redevelopment projects (including, but not limited to, brownfield redevelopment);

2. Vertical density (floor to area ratio of at least 2, or at least 18 units per acre); and

3. Incentives as identified by the permittee, submitted to the Division and approved by the Division in writing, and documented as part of the stormwater management program.

(3) Stormwater Mitigation and Public Stormwater Fund.

(a) A permittee may choose to develop an offsite mitigation program and/or payment in lieu into a public stormwater fund to offset the portion of the WQTV that cannot be treated on site to the MEP. The program must ensure that off-site stormwater mitigation will be accomplished within the same USGS 12-digit hydrologic unit code watershed as the new development or redevelopment project, if practicable, and will treat a minimum of 1.5 times the portion of the WQTV not treated on site. The permittee may identify priority areas within the watershed in which stormwater mitigation projects are to be completed. The program must have a mitigation project approval procedure, and all projects must meet all requirements in this permit. Procedures and requirements in the offsite mitigation and payment in lieu programs should be documented as part of the stormwater management program and available for review.

(b) If the permittee allows payment into a public stormwater fund, the permittee assumes responsibility to provide the required mitigation projects. The public stormwater fund should be used to fund public mitigation projects. The payment amount into a public stormwater fund must be sufficient to design, install, and maintain the stormwater mitigation measures.

(4) Water Quality Riparian Buffers.

Permittees shall develop and implement a set of requirements to establish, protect, and maintain permanent water quality riparian buffers to provide additional water quality treatment in riparian areas of new development and redevelopment projects that contain streams, including wetlands, ponds, and lakes. Riparian buffers must meet the following minimum standards:

(a) Stormwater discharges should enter the water quality riparian buffer as sheet flow, not as concentrated flow, where site conditions allow.

(b) Water quality riparian buffers must have the following minimum widths, unless site-specific conditions necessitate alternative widths, as described later in this subpart:

	Average buffer width (feet)	Minimum buffer width (feet)	Notes
Waters with available parameters for siltation or habitat alteration or	30	15	The criteria for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the
Exceptional Tennessee			

Waters or waters with unavailable parameters for siltation or habitat alteration	60	30	buffer zone is more than the required minimum width at any measured location. If the construction site encompasses both sides of a stream, buffer averaging can be applied to both sides, but must be applied independently.

The predominant vegetation within the minimum buffer area should be trees. The remaining riparian buffers may be composed of herbaceous cover or infiltration-based SCMs.

(c) Permittees may establish permissible land uses or activities within the buffer, such as biking and walking trails, infiltration-based SCMs, selective landscaping, habitat improvement, road and utility crossings or other limited uses as determined by the permittee. The permittee must have a process to review proposed activities within buffers to ensure the pollutant removal function of the buffer will be retained. Trails constructed within the buffer should prevent or minimize the generation of pollutants. If trails are constructed from impervious materials, runoff must either be directed to infiltration-based SCMs or the buffer width must be increased by the width of the trail.

(d) Permittees may authorize alternative buffer widths for new development and redevelopment projects where averaged water quality riparian buffers cannot be fully implemented on-site. In order to allow alternative widths, the permittee must develop and apply criteria for determining the circumstances under which required buffer widths cannot be achieved based on the type of project, existing land use, and physical conditions that restrict the use of water quality riparian buffers. Any such procedures and criteria for alternative buffer widths must ensure that implementing full buffer widths would be impracticable and that the maximum practicable buffer widths are required. Procedures and criteria for alternative buffer widths must be submitted to the Division, approved by the Division in writing, and documented as part of the stormwater management program.

(e) Water quality riparian buffer widths are measured from the top of bank also referred to as the “ordinary high water mark.”

(f) Ordinances and local requirements adopted prior to November 13, 2018, and that mandate a minimum 30 foot water quality riparian buffers for drainage areas less than one square mile, and a minimum 60 foot water quality riparian buffers for drainage areas of greater than one square mile (with provisions for buffer averaging down to a minimum 30-foot width), are deemed to satisfy the conditions of this paragraph.

(5) Codes and Ordinances Review and Update.

(a) Within one year of obtaining initial permit, newly permitted programs shall review local codes and ordinances using the EPA Water Quality Scorecard. A completed copy of the Scorecard shall be submitted with the subsequent annual report. Permittees who have completed the Scorecard in the past are not required to repeat this review.

(b) Newly permitted programs shall update codes and ordinances or other legal instruments as necessary to comply with the permit within 24 months of permit effective date. Current permittees shall continue to implement the existing permanent stormwater management program and update legal instruments according to the compliance schedule in subparagraph (1)(d) of this rule.

(6) Development Project Plan Review, Approval, and Enforcement.

The permittee shall develop and implement project plan review, approval, and enforcement procedure applicable, at a minimum, to all new development and redevelopment projects, which shall include:

(a) Procedures for review and approval of development site plans, including inter-departmental consultations and a re-submittal process when modifications to the project require changes to an approved site development design plan;

(b) A plans review process that requires SCMs to be properly designed, installed, and maintained to meet the performance standards established in this rule. The process must also include incentives adopted by the permittee as authorized by paragraph (2) of this rule, along with water quality buffers as required by paragraph (4) of this rule; and

(c) A verification process to document that SCMs have been installed per design specifications within 90 days of installation. Verification shall include submission of as-built plans to the permittee, permittee inspection, or inspection by a qualified design professional. The verification process shall include enforcement procedures to bring noncompliant projects into compliance, which shall be detailed in the enforcement response plan.

(7) Maintenance of Permanent Stormwater Control Measure Assets.

(a) Permanent SCMs, including SCMs used at mitigation projects, must be installed, implemented, and maintained to meet the performance standards of paragraph (2) of this rule, and provide full treatment capacity within 72 hours following the end of the preceding rain event.

(b) The permittee must develop and implement a program to require implementation of appropriate SCM maintenance procedures to sustain pollutant reduction-efficiency for the life of the new development or redevelopment project. All procedures, reports, and documented as part of the stormwater management program. The program must include at a minimum:

1. The development and documentation of maintenance and inspection procedures and frequencies for approved SCMs which shall require all SCMs to be inspected at least once every five years by the permittee, a licensed professional engineer, a licensed landscape architect, or other qualified professional familiar with applicable SCM design and maintenance requirements or submit an alternative schedule to the Division for approval;

2. The development and documentation of the procedure the permittee will use to verify that SCMs are being inspected and maintained including any written reports from the responsible party;

3. A clear, documented, legally binding agreement assigning SCM maintenance responsibility to the owner/operator, a third party, or the permittee as appropriate. For SCMs designed to manage stormwater from multiple properties, appropriate deed restrictions shall be recorded; and

4. An allowance or agreement for permittee personnel to access the SCMs for inspections and provide for enforcement action for failure to maintain SCMs according to agreement.

(8) Inventory and Tracking of Permanent Stormwater Control Measure Assets.

(a) Existing permittees must continue to implement and maintain a system to inventory and track the status of all public and private SCMs installed on new development and redevelopment projects. New permittees must implement the system within 24 months of permit effective date.

(b) The inventory and tracking system must be a searchable database, either paper or electronic, that retrieves SCM information by location or other similar identification. The system must be made available to the Division or to members of the public upon request. Other than the basic information of location and project identification, the system should include information and records the permittee will use to demonstrate that SCMs are properly maintained, including but not limited to:

1. A brief description of the type of SCM and basic design characteristics;

2. The responsible party contact information;

3. Inspection schedules (both permittee and responsible party);

4. A brief description of or reference to maintenance procedures and frequency;

5. Photographs of the installed SCMs; and

6. Maintenance and inspection records.

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

* If a roll-call vote was necessary, the vote by the Agency on these rulemaking hearing rules was as follows:

Board Member	Aye	No	Abstain	Absent	Signature (if required)
Dr. Gary G. Bible (Oil and Gas Industry)	X				
Elaine Boyd (Commissioner's Designee, Department of Environment and Conservation)	X				
James W. Cameron III (Small Generator of Water Pollution representing Automotive Interests)	X				
Mayor Kevin C. Davis (Counties)	X				
Dodd Galbreath (Environmental Interests)	X				
Brent Galloway Oil or Gas Property Owner	X				
Charlie R. Johnson (Public-at-large)				X	
Judy Manners (Commissioner's Designee, Department of Health)	X				
Sam Marshall (Commissioner's Designee, Department of Agriculture)				X	
Frank McGinley (Agricultural Interests)	X				
Neal Whitten (Manufacturing Industry)	X				
Terry Wimberley (Municipalities)	X				

I certify that this is an accurate and complete copy of rulemaking hearing rules, lawfully promulgated and adopted by the Board of Water Quality, Oil and Gas on 04/20/2021, and is in compliance with the provisions of T.C.A. § 4-5-222.

I further certify the following:

Notice of Rulemaking Hearing filed with the Department of State on: 05/02/2019

Rulemaking Hearing(s) Conducted on: (add more dates). 07/15/2019

Date: APRIL 20, 2021

Signature: James W. Cameron III

Name of Officer: James W. Cameron III

Title of Officer: Chairman

Agency/Board/Commission: Board of Water Quality, Oil and Gas

Rule Chapter Number(s): Chapter 0400-40-05

All rulemaking hearing rules provided for herein have been examined by the Attorney General and Reporter of the State of Tennessee and are approved as to legality pursuant to the provisions of the Administrative Procedures Act, Tennessee Code Annotated, Title 4, Chapter 5.

Herbert H. Slatery III
Attorney General and Reporter

Date

Department of State Use Only

Filed with the Department of State on: _____

Effective on: _____

Tre Hargett
Secretary of State

One copy of a document that satisfies T.C.A. § 4-5-222 must accompany the filing.

Rule Chapter 0400-40-05
National Pollutant Discharge Elimination System Individual Permits

Concise Statement of the Principal Reasons for Rulemaking

In accordance with Tennessee Code Annotated section 4-5-205(b), and in response to requests from commenters, the Tennessee Board of Water Quality, Oil and Gas ("Board") is providing this concise statement of the principal reasons for its amendments to Rule Chapter 0400-40-05.

This rule chapter removes state operating permits (SOPs) from its scope because such permits will be governed by new rule chapter 0400-40-06. This rule chapter now applies only to individual national pollutant discharge elimination system (NPDES) permits.

Rule 0400-40-05-.01 adds a provision for electronic reporting to facilitate compliance with federal reporting requirements. In the final rule, this provision has been moved from scattered sections of the chapter in the draft rules for the sake of clarity and consistency with other rule chapters.

Definitions have been added, removed, or modified in Rule 0400-40-05-.02 as needed to clarify substantive changes in other portions of the rule chapter.

Changes have been made in the application section, Rule 0400-40-05-.05, to incorporate existing legal requirements and current practice to promote transparency and ease of compliance.

Rule 0400-40-05-.06 concerning public notice has been amended to include information necessary for the public to evaluate the potential scope of the NPDES permit shield, which was recently added to the Act. Tenn. Code Ann. § 69-3-108(v)(2)(B). In addition, a provision has been added to this rule to clarify what constitutes public notice of the Commissioner's decision to issue or deny a permit. This will eliminate ambiguity about the trigger for the statutory deadline to appeal a permit.

Rule 0400-40-05-.07 concerning terms and conditions of permits has been amended to incorporate federal requirements concerning signatory authority. The bypass provision has been amended to more closely track federal law, and to clarify that sampling must be conducted during a bypass to demonstrate compliance with effluent limitations. Reporting provisions have been added to incorporate recent changes in federal reporting requirements and to require reporting of releases that do not reach waters of the state. The rule also clarifies that industrial dischargers are not subject to provisions related to sanitary sewer overflows, but that the discharge of pollutants from any location other than a permitted outfall remains prohibited as it was under the previous version of this rule.

Requirements for effluent limitations and standards in Rule 0400-40-05-.08 have been revised to more fully incorporate federal requirements for granting compliance schedules in NPDES permits.

Rule 0400-40-05-.09 concerning technology-based effluent limitations has been simplified to better reflect the proper application of federal requirements in Tennessee NPDES permits.

Rule 0400-40-.10 has been amended to clarify the situations in which water quality-based effluent limitations are required in accordance with federal law and the overarching purpose of the Act to protect the public's right to unpolluted waters.

The appeal provision in Rule 0400-40-05-.12 has been amended to conform to the permit appeal provision in the Act, Tenn. Code Ann. § 69-3-105(i). In addition, this rule clarifies the bases on which an appeal may be filed.

Rule 0400-40-05-.14 has been amended to reflect recent changes in the Act concerning animal feeding operations. Tenn. Code Ann. § 69-3-108(b)(7) and (10).

Finally, this rulemaking adds Rule 0400-40-05-.15 to establish effluent limitations for permanent stormwater management for municipal separate storm sewer systems (MS4s). Adoption of this rule is necessary to comply with Tennessee Code Annotated section 69-3-108(s), which provides that "numeric or narrative effluent limitations to manage post-construction stormwater shall be adopted by the board as rules...." This rule adopts permanent stormwater requirements to comply with the minimum requirements of federal law, while allowing local governmental entities discretion in selecting measures to comply with these effluent limitations in accordance with Tennessee Code Annotated section 69-3-108(s) and (t).

Response to Comments

0400-40-05-.01 General

Comment 1: At the beginning of the 0400-40-05 redline, DWR should consider adding the following language: "Electronic reporting. This chapter requires the submission of forms developed by the Commissioner in order for a person to comply with certain requirements, including, but not limited to, making reports, submitting monitoring results, and applying for permits. The Commissioner may make these forms available electronically and, if submitted electronically, then that electronic submission shall comply with the requirements of Chapter 0400-01-40."
Response: The Board appreciates this suggestion. 0400-40-05-.01 has been modified to include the Purpose in paragraph (1) and Electronic Reporting in (2) in its entirety. An additional statement was added to provide for waivers to electronic submission in accordance with 40 C.F.R. § 127. Furthermore, other individual instances that required electronic reporting for specific programs or reports throughout the rule chapter been removed.

0400-40-05-.02 Definitions

Comment 2: Multiple commenters noted that for consistency, the term "Board" should remain a defined term in the definitions section, 0400-40-05-.02, and should not be defined in 0400-40-05-.12(1). Additionally, commenters requested clarification on if the deletion is anticipation of a change to the Tennessee Water Quality Control Act?
Response: As the term "Board" is defined in T.C.A. 69-3-104, it is not necessary to define the term in rules. Rule 0400-40-05-.02 specifies that terms not defined herein are defined as in the Act.

Comment 3: The proposed definition of "Composite Sample" would require a combination of not less than 8 influent or effluent portions of at least 100ml, collected over a 24-hr period. Where flow-based sampling is undertaken, the rule should not require a minimum quantity.

Response: Chapter 5 of EPA's NPDES Inspection Manual (2017) states, "Individual portions of a composite sample should be at least 100 milliliters to minimize sampler solids bias." The Board appreciates the comment that the intent to minimize sampler solids bias has resulted in confusion. The definition has been clarified. A "composite sample" is a combination of not less than 8 influent or effluent portions (aliquots), collected over a 24-hour period. Under certain circumstances a lesser time period may be allowed, but in no case less than 8 hours. A sufficient volume of sample to perform all required analyses plus any additional amount for quality control must be obtained. For automatic samplers that use a peristaltic pump, a minimum 100 ml aliquot must be obtained.

Comment 4: 0400-40-05-.02(78) - In the added sentence 'it' should be 'is.'
Response: The suggested correction has been made.

Comment 5: Multiple commenters commented on the definition of “discharge of a pollutant” and “discharge,” suggesting the following modifications: “Discharge of a pollutant” refers to the addition of any pollutant to navigable waters from a point source. "Discharge" when used without qualification includes a discharge of a pollutant. One commenter further suggested adding a definition for “navigable waters” that mirrors the definition of this term under Section 1362(7) of the CWA and deleting the definition for “waters.”
Response: The definition of “discharge” and “waters” in the rule are the same as the definitions established in the Tennessee Water Quality Control Act, T.C.A. § 69-3-103, and will be retained.

Comment 6: One commenter recommended the addition of a new term for "domestic wastewater" and a modification to the term "sewage." "Domestic wastewater'' means wastewater derived principally from dwellings, business buildings, or institutions, originating from plumbing fixtures and appliances such as sanitary (toilets), bath, laundry, dish washing, garbage disposal, and cleaning wastewater. "Sewage" means water-carried waste or discharges from human beings or animals that originates 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 and become mixed with the human or animal waste or discharges.
Response: The term “domestic wastewater” is not used in the rules as a standalone term and as such does not need to be defined. The words “domestic wastewater” are used as descriptive terms to identify the type of treatment facility. The definition of “sewage” will be retained in the rules because it is consistent with T.C.A. § 69-3-103(32).

Comment 7: Our current understanding of wetlands meets both of the following definitions. A "Stream" means a surface water that is not a wet weather conveyance. "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.
Response: A wetland is a surface water that is not a wet weather conveyance and is therefore a “stream.”

Comment 8: Multiple commenters addressed the term "washout." Some commenters suggested replacing “aeration basin(s)” with “treatment plant” (or “activated sludge system”) or that the definition be modified to clarify that the loss of mixed liquor suspended solids that does not leave the treatment plant into the receiving stream is not a washout.

Response: The definition has been retained. It is not necessary for the mixed liquor suspended solids to reach the receiving stream to indicate operational issues in the facility. Treatment systems utilize mixed liquor suspended solids to convert pollutants into solids that can be settled and ultimately removed from the wastewater. The reactor tank is sized as a function of mixed liquor suspended solids being in the reactor tank within a range of concentrations and detention times. Water quality is dependent on this proper and consistent operation of the reactor tank.

Comment 9: Multiple commenters offered opinions on the definitions of "Monthly Average Amount," "Monthly Average Concentration," "Weekly Average Amount," and "Weekly Average Concentration." The commenters state that the definitions are incorrectly premised on the assumption that there will be a discharge to measure each day. The rule should allow a permittee to include a zero in calculating its averages for those days in which it does not discharge. Such an approach, in essence, recognizes the fact that on a non-discharging day the permittee is meeting the most stringent effluent limit that EPA has applied to discharges. Commenters would suggest that the use of non-discharging results be allowed in the following two circumstances: (1) where the permittee has a daily sampling requirement or (2) where the permittee has a random or set sampling schedule which is not based upon consideration of anticipated non-discharging days. The following language was suggested:

> (51) The "monthly average concentration" is the arithmetic mean of all daily concentrations collected in one calendar-month period, expressed in units of mass per volume of any pollutant other than bacteria. and
>
> (97) The "weekly average concentration" is the arithmetic mean of all the daily concentrations expressed in units of mass per volume of any pollutant measured in a calendar week.

Response: The definitions have been retained. When limitations are based on a continuous discharge, utilizing the method described by the commenter would not be representative of the conditions that were used to establish the permit limits. Additionally, it would not be protective of the instream continuous criteria. Additionally, it would allow for the manipulation of data to give the appearance of compliance. Furthermore, the commenter's request is inconsistent with direction from the EPA as outlined in the NPDES permit writer training manual. The glossary of that manual states:

> Average Monthly Discharge Limitations—The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during that month divided by the number of days on which monitoring was performed (except in the case of fecal coliform).
>
> Average Weekly Discharge Limitation—The highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Comment 10: Subchapter 0400-40-05-.02(99). The word "of" should be changed to "a".
Response: The commenter is correct and the change has been made.

Comment 11: Two commenters asked to add the federal definitions for Publicly Owned Treatment Works (POTW) and POTW Treatment Plant because the terms are often confused.

Response: The Board appreciates this comment. The rules provide additional descriptions or alternative language when necessary to distinguish between the POTW as an entity and as the treatment plant, so the suggested change has not been incorporated. Additionally, the hyphen was removed from two instances of publicly-owned treatment works to maintain consistency throughout the rule chapter.

Comment 12: There were multiple comments related to the term "rainfall event." Municipalities requested the stricken sentence to be reinstated.
Response: The Board appreciates these comments. They illuminated an area of cross-program confusion that has been resolved in the final rule. The term "rainfall event" is used throughout the rules by three different program areas: animal feeding operations (AFOs), the MS4 program, and for wastewater treatment. The stricken language in the proposed rules comes from the federal rules related to the AFO program and was not applicable to either the MS4 program or wastewater treatment programs. However, the stricken language is still applicable to the AFO program. The definition of "rainfall event" has been revised to clearly delineate the AFO terminology. Furthermore, the AFO portion of the definition was updated to more clearly reference the current version of the precipitation frequency atlas. Additionally, to avoid further confusion, the term "design storm" has been removed from the AFO section and replaced with the specific precipitation references.

Comment 13: One commenter requested a definition of regional pond.
Response: Regional detention ponds provide detention on a watershed basis for multiple separate development projects rather than a single site.

Comment 14: Please explain the use and meaning of the term "effluent limitations" relating to MS4 NPDES stormwater permits as these generally relate to "end of pipe" permitted discharges? How are "effluent limitations" applicable to stormwater? How were the provisions of 0400-40-05-.15(2)(c) interpreted as "effluent limitations" given they do not pertain to MS4 NPDES permitted outfalls?
Response: These are effluent limitations because they require a reduction in the amount of pollutants that will be discharged through the MS4 to waters of the state. Effluent limitations are not limited to end-of-pipe permit limits. T.C.A. § 69-3-108(s) requires the establishment of "effluent limitations to manage post-construction stormwater" by rule. Because the rules impose requirements that limit the discharge of pollutants, these are effluent limitations. Accordingly, the term "effluent limitations" has been retained.

Comment 15: Section 0400-40-05.02(55) defines "natural riparian buffer" but the term "water quality riparian buffer" is not defined. In discussing the water quality riparian buffer, Section 0400-40-05-.15(4)(b) states the "predominant vegetation in the area adjacent to the stream should be trees" and Section 0400-40-05.15(4)(c) discusses "permissible land uses and activities within the buffer." For clarity it seems that the "water quality riparian buffer" should be defined in Section 0400-40-05.02 to clearly demonstrate it is not the same as a "natural riparian buffer" in terms of vegetation and allowable uses.
Response: The rule has revised definitions for vegetated buffer and water quality riparian buffer.

Comment 16: The definition of "new or increased discharge" is unnecessary, confusing, not required by state or federal law, and should be deleted to eliminate the potential for misapplication. Accordingly, Rule 0400-40-05-.05 should be revised to remove this term as well. Neither the federal NPDES permitting rules nor any other state NPDES regulatory program includes a similar term. In response to prior comments, TDEC provided some explanation regarding the intended application of

this definition. TDEC stated the following in response to comments 129 and 131 for Rule 0400-40-03-.04(19). For the sake of clarity, this definition is needed and will be retained to define the trigger for antidegradation review, particularly for increased discharges...Thus, antidegradation review only applies to new, increased or expanded activities, not to permit renewals for ongoing activities...This has always been the case, and is consistent with federal requirements. As an alternative approach to deleting the definition in its entirety, these clarifications should be included either in the definition itself or as a note to this definition in the rule. Without such a clarification a reasonable, plain language reading could interpret the clause "if no such limitation exist, the actual discharges of that pollutant" as a description of something that could be interpreted to mean that if there was no permit limit on the parameter and you increase the discharge of that parameter, then you potentially have a new (increased) discharge that a permit may be required for, or you're potentially discharging without a required permit.

Response: A NPDES permit is not a blanket authorization to discharge any amount of any pollutant. A NPDES permit is drafted to contain terms and conditions based on the permit application. The commenter is correct when stating ”if there was no permit limit on the parameter and you increase the discharge of that parameter, then you potentially have a new (increased) discharge that a permit may be required for, or you're potentially discharging without a required permit.” The permit shield provided by T.C.A. § 69-3-108(v)(2) only applies to discharges that were disclosed to the department as of the time of permit issuance.

In addition, Rule 0400-40-05.07(1)(j) is a standard condition appliable to all NPDES permits, and outlines when the permittee is required to give notice to the Director of any planned changes to the facility. It is at this time the Director will be able to provide additional direction to the permittee based on the proposed changes.

Comment 17: Multiple commenters expressed concerns with the revisions to the definition of “new or increased discharge.” A few suggested that the language “(2) if no such limitations exist, the actual discharges of that pollutant” is vague and should be deleted. Additional commenters suggested that the language should be revised to be consistent with the TWQCA. One commenter suggested the modifying the definition as follows:

A "new or increased discharge" is a new discharge of pollutants to waters of the state or an increase in the authorized loading of a pollutant above either (1) numeric effluent limitations established in a National Pollutant Discharge Elimination System permit for that discharge, or (2) if no such limitations exist, the actual discharges of that pollutant on a continuous basis that have the reasonable potential to cause or contribute to an excursion above any State water quality standard.

Response: The definition is the same as what the Board recently adopted in Tennessee’s Water Quality Criteria, Rule Chapter 0400-40-03, and has been retained. Also, when NPDES permits are issued, they do not allocate 100% of available assimilative capacity unless the permit applicant has demonstrated, in accordance with the provisions of the Antidegradation Statement, that there is no practicable alternative to that level of degradation.

Comment 18: Multiple commenters stated that the new or increased discharge provision impermissibly expands the alternatives analysis required under Tenn. Code Ann. 69-3-108(e), and that that all provisions in this subsection after the term "beneficial reuse of the wastewater" should be deleted.

Response: The definition is the same as what the Board recently adopted in Tennessee’s Water Quality Criteria, Rule Chapter 0400-40-03, and has been retained. The comment is addressed at the

Antidegradation Statement, which is contained in that rule chapter. In this chapter, the term “new or increased discharge” only results in the obligation to submit a revised alternatives analysis as required by T.C.A. § 69-3-108(e) (Rule 0400-40-05-.05(3)) and the need to disclose facility expansions (Rule 0400-40-05-.08(2)).

Comment 19: A "new or increased discharge" is proposed to be defined to include an increase in the authorized loading above either (1) numeric effluent limitations in the NPDES permit or (2) if no such limitations exist, above the actual discharges of that pollutant. This definition is pertinent to the anti-degradation analysis as set forth in Rule 0400-40-03-.06. The commenter agrees with the first criterion. If there is a numeric effluent limitation in a permit, that should serve as the basis for determining whether there is an increased discharge. Otherwise, the antidegradation standard would have the anomalous effect of encouraging discharges to discharge as close to their permit limit as possible. The second criterion, however, is problematic for several reasons. The lack of an effluent limitation for a pollutant parameter is often the result, as set forth in the permit rationale, of calculations determining that there was no reasonable potential to cause or contribute to an excursion above the State's water quality standard. We request that the second criterion be changed as follows:

“Where the permit rationale or other Department analysis indicates what the permit limit would have been in the prior permit, then the second criterion should be based upon what the permit limit would have been. This situation is really no different than the first criterion. b. If the data indicates that the discharge is increasing the assimilative capacity of the receiving water, then the increased discharge standard should not be triggered.”

Response: The definition is the same as what the Board recently adopted in Tennessee’s Water Quality Criteria, Rule Chapter 0400-40-03, and has been retained. The comment is addressed at the Antidegradation Statement, which is contained in that rule chapter. In this chapter, the term “new or increased discharge” only results in the obligation to submit a revised alternatives analysis as required by T.C.A. § 69-3-108(e) (Rule 0400-40-05-.05(3)) and the need to disclose facility expansions (Rule 0400-40-05-.08(2)). The challenge is when there is not a sufficiently robust set of discharge data upon which to determine current discharge levels, particularly given the inherent variability of discharge data. The Division will use appropriate statistical analysis based on application, DMR, and other available data to determine whether an application proposes a statistically significant increase in the discharge of a particular pollutant. The first proposed item will not be adopted because antidegradation review does not assume an allocation of 100% of available assimilative capacity for each facility. The Board agrees that there are situations in which increased effluent flow may increase available assimilative capacity, which would need to be considered when determining de minimis degradation.

Comment 20: Multiple commenters expressed opposition to adoption of the proposed rules based on the statutory authority of the Board to regulate releases under the proposed definition. Generally, the commenters wanted the definitions of "dry weather release," "release," and "wet weather release" to be deleted or the proposed amendment should be revised to clarify that such incidents are not violations of the Act or an NPDES permit issued thereunder.

Response: The definitions have been retained. The definitions do not address what constitutes a violation, which is addressed instead in Rule 0400-40-05-.07(2)(m), (n), and (o). A release must be reported, but does not constitute a violation unless it results from improper operation and maintenance of the collection system, which the Department has the authority to regulate through its permitting authority under T.C.A. § 69-3-108(b)(2) (a permit is required for the operation of any

treatment works or any extension of addition thereto) and T.C.A. § 69-3-108(c) (a permit is required for the operation of a sewerage system).

Comment 21: A commenter suggested the following language for the definition of new or increased discharge:

> Applicants proposing a new or increased discharge to surface waters shall be subject to the application requirements of Rule 0400-40-03-.06(1)(b).

Response: Although it is true that applicants proposing a new or increased discharge to surface waters are subject to the application requirements of Rule 0400-40-03-.06(1)(b), the requested change is unnecessary and has not been made. The Antidegradation Statement applies to new and increased discharges to surface water by its own terms. See Rule 0400-40-03-.06(1).

Comment 22: Multiple commenters stated that the definition of "wet weather overflow" and "wet weather release" should be revised to state that a "wet weather overflow" and "wet weather release" at a single location caused by a specific "rainfall event" shall be considered a single "wet weather overflow" or "wet weather release" as applicable.

Response: The substantive portion of the rule, and not this definition section, establishes reporting requirements. Consistent with federal requirements, this includes reporting of when the event begins and when it ends, which could cover a period of multiple days even if it is a single overflow. Nothing in these rules is tied to the number of overflows. However, the TWQCA provides that civil penalties are based on the number of days of violation, which is interpreted as each 24-hour period. T.C.A. § 69-3-115(a)(1). The requested change has not been made.

Comment 23: The new definition (76) “release” appears to limit this term to sewage. We encourage you to review all the uses of the term release in further portions of the rule and determine if all uses of “release” in fact do refer to sewage. If not, TDEC might consider revising this definition to “sanitary sewer release” and revise the rest of the rule with this clarified term, where the department intends to indicate a sewage release.

Response: The Board appreciates this comment and has retained the language as proposed.

Comment 24: 0400-40-05-.02(99) the word "of" should be changed to "a."

Response: The commenter is correct and the word "of" has been changed to "a."

Comment 25: Two commenters noted the definition of "waters" is so expansive that just about any feature could be labeled "waters." We also request that the term "waters" be replaced with "waters with classified uses."

Response: The definition of “waters” is established in the TWQCA and will be retained as-is in the rules. Discharges to wet weather conveyances, which are waters that do not have classified uses, are covered by the NDPES program. *See* T.C.A. § 69-3-108(q)(2) (alterations are permitted by statute, but this does not affect NPDES permits). The requested change has not been made.

Comment 26: The definition of waters of the State has not changed, but the interpretation appears to be changed based on the new classification of release. The phrase "any and all water" is already being interpreted to mean the moisture in vegetation and soil, thus a sewage spill on any soil with or without vegetation is an overflow to waters.

Response: The TWQCA prohibits the unpermitted placement of wastes in a location where they are likely to be washed into waters. T.C.A. § 69-3-108(b)(6). Unless an exterior sewage spill is promptly

cleaned up in advance of the next precipitation event, it should be reported as an SSO (reaching waters), not a release. The definition of “waters” in the rules is taken from the TWQCA.

0400-40-05-.04 Prohibitions

Comment 27: Two commenters asked whether a state permit would be needed if EPA objected to a discharge permit under the CWA, and if so, then the rule should clarify that either a state permit would be needed or if a federally issued permit would be recognized by the state.
Response: The Department has no record of EPA objecting to a Tennessee NPDES permit, so this situation is unlikely to arise. In practice, if EPA indicates it has a potential objection to a draft NPDES permit, the Department works with EPA to resolve that concern to avoid such an objection. However, if EPA were to object to a Tennessee NPDES permit, the Department would still issue a state discharge permit to satisfy the requirements of the TWQCA. The EPA NPDES permit would apply for purposes of the CWA.

Comment 28: Proposed Rule 0400-40-05-.04(2)(h)2 would provide for monitoring to be conducted pursuant to 40 C.F.R. Part 136 unless another method is required under 40 C.F.R. Chapters N or O. The commenter suggested the addition of the language, "or otherwise approved by the Department in writing."
Response: The proposed verbiage has not been incorporated. 40 C.F.R. Part 136.5 establishes the steps to be taken for limited use alternative testing procedures.

0400-40-05-.05 Permit Application, Issuance

Comment 29: The Antidegradation Statement in 0400-40-03-.06 requires alternatives analysis for increased discharges above the *de minimis* level. The 2018 revisions to Rule Chapter 0400-40-03 list the following alternatives to discharge: connection to an existing collection system, land application, water reuse, water recycling, or other treatment alternatives to reduce the level of degradation. Do these regulations meet the requirements of T.C.A § 69-3-108(e)? The proposed provision would apply to all increased discharges resulting in a regulatory burden for discharges that have little impact on water quality. Instead, this provision could refer specifically to the antidegradation requirements in Rule 0400-40-03-.06 and still be consistent with T.C.A. § 69-3-108(e).
Response: The statute is not limited to *de minimis* new or increased discharges. T.C.A. § 69-3-108(e). Moreover, the requirement in the statute and in Rule 0400-40-05-.05(3) differs substantially from the requirements of the Antidegradation Statement. The statute and this rule require only an analysis of alternatives. By contrast, the Antidegradation Statement requires a demonstration of a lack of practicable alternatives to degradation and that the proposed degradation is necessary for important social or economic development in the area. Accordingly, this provision has been retained in the final rule.

Comment 30: Multiple commenters noted that a reduction in the volume discharged to state waters would not be considered an alteration since the water as it is discharged is not considered state waters. The provision pertaining to reuse, in no event, should apply to new dischargers. Inasmuch as new dischargers, by definition, did not have prior discharge, the effect of any new discharge would only be to add flows to the receiving water. As such, the word "new" should be deleted. Furthermore, reuse may be necessary to meet stringent discharge permit limits for nutrients or other parameters. Additionally, multiple commenters expressed concern with the following, “If reuse is proposed, this

analysis shall consider potential impacts of flow reduction if reuse causes more than a five percent decrease in the 7Q10 flow of the receiving stream".
Response: The requirement referencing the 7Q10 has been removed from the final rule.

Comment 31: Proposed Rule 0400-40-05-.05(8) would prohibit not only the construction, but the installation, modification, or operation of any treatment works, or part thereof, of any extension or addition until after the end of the public comment period. This is overly broad and should not apply to anything but construction (as provided in the current rule). The permittee should be allowed to make changes to its operation of the plant to address site-specific issues that arise without having to go through a public comment period and await TDEC approval.
Response: The Board agrees that the paragraph should be modified to remove "operation" from the activities requiring public notice and the rule will be changed accordingly.

Comment 32: We recommend a revision to add the following language because TVA's status as a federal corporation more closely matches the organizational structure of a corporation than other federal or state agencies. "(6)(a): For a public, private or federal corporation" Because TVA is a federal corporation, it is not required to and does not register with the Tennessee Secretary of State. Accordingly, under subsection (9), TVA requests the following change to take account of the status of federal corporations like TV A: (9) The Commissioner shall issue permits only to a person or persons. No permit shall be issued to a corporation (except a federal corporation).
Response: The rule has been modified to apply to "private" corporations. The Board recognizes that TVA is a public corporation.

Comment 33: The provisions regarding issuance of permits to person(s) seems to indicate that the entities mentioned are no longer considered "persons" under the CWA. The provision should be revised to read as follows: (9) The Commissioner shall issue permits only to a person or persons subject to the following: (a) Corporations, limited liability companies, or limited liability partnerships must be in good standing with the Tennessee Secretary of State in order to be eligible for permit coverage and (b) Out-of-state corporations, limited liability companies, or limited liability partnerships must be registered with the Tennessee Secretary of State in order to be eligible for permit coverage.
Response: The Board agrees the commenter's proposed language is clearer. A version of the proposed change has been made.

Comment 34: The new definition of "new or increased discharge" is used in 0400-40-05-.05(3) and in 0400-04-05-.08. Changes to effluent discharge that do not exceed a permit's limitations should not trigger these Parts of the regulations, and therefore should not require a new application or modification of a permit. If the Department agrees, please affirm. If the department disagrees with this assessment, we submit the following additional question. Is it the department's position that a permittee may have a higher level of discharge within its permitted limits due to a temporary production increase or process modification, under 0400-04-05-.08 they shall submit a new application, then under 0400-40-05-.05 this application shall include a consideration of alternatives? Please explain how the department anticipates the previous scenario working for part two of the new of increased discharge definition "(2) if no such limitations exist, the actual discharges of that pollutant."
Response: In many situations of increased production or process changes, no notice or new application is required. However, if changes to the effluent discharge result in any of the conditions specified under "planned changes" in Rule 0400-40-05-.07(j), then notice is required even if the discharge would comply with effluent limitations. This is because the original permitting decision would have been

based on the information presented in the permit application, as well as prior DMRs and other sampling data. If a particular pollutant was not disclosed to the Department previously, or if the amount of that pollutant increases significantly, then it is possible a new effluent limitation would be required.

0400-40-05-.06 Notice and Public Participation

Comment 35: Numerous commenters from both municipalities and the private sector did not support 0400-40-05.06(3)(g), stating that attempting to set forth within the rationale every pollutant and other consideration that could be "within the Department's reasonable contemplation" at the time of permitting is unnecessary and beyond the appropriate scope of a rationale. A potential result of this provision will be that applicants generate, and the Department will be required to review and list in the permit rationale, voluminous and unnecessary information and data, leading to unnecessary increased costs and permit review time.
Response: This amendment is necessary to properly implement the new state permit shield, T.C.A. § 69-3-108(v). Including a list of pollutants properly disclosed and within the Department's reasonable contemplation provides needed clarity for both the permittee and the public of what the permit actually covers.

Comment 36: 0400-40-05-.06(3)(b) – The changed language should be revised to state "relevant facts, data or other information."
Response: The requested change has not been made. "Facts" and "data" are terms that include "information."

Comment 37: Consider rewording provision 0400-40-05-.06(12) as follows: Interested persons may request in writing that the Commissioner hold a public hearing on any application. The request shall be filed as soon as practicable within the period allowed for public comment and shall indicate the interest of the party filing it and the water quality reasons why a hearing is warranted. If there is a significant public interest in having a hearing to address water quality concerns or Tennessee Water Quality Control Act Requirements, the Commissioner shall hold one in the geographical area of the proposed discharge. Instances of doubt should be resolved in favor of holding the hearing. Such a hearing should be live-streamed and/or video-taped (when practical) for posting on TDEC website.
Response: The Board declines to amend the rule as requested because a mandatory requirement to live-stream or videotape would be unduly burdensome. The technical ability to live-steam or videotape depends on the venue. However, the Board encourages the Department to continue its practice of audio recording public hearings and posting these audio recordings on its website. In addition, the Board encourages the Department to continue its recent practice, adopted to address COVID-19, of providing the option to participate in public hearings by videoconference when practicable, in addition to providing an option to meet in person once it becomes safe to do so.

Comment 38: The department is maintaining the public notice requirement (9)(a) for major NPDES permits in newspapers and periodicals of general circulation and removing this requirement for new and general permits from this rule. Please clarify the intent of the Department over the dimensions and frequency of signs.
Response: Any signs posted to comply with Rule 0400-40-05-.06(9)(c) should be sized and spaced to be reasonably calculated to give actual notice of the proposed activity to members of the community.

Comment 39: The Department has improved its ability to provide public notice electronically to interested parties and stay up to date with its online notices. The commenter does ask that the Department preserve a priority order and the courtesy of informing the applicant of a final decision, posting a final permit decision online and then using "any other means reasonably calculated" to inform the public.
Response: The Board appreciates this comment and has retained the language as proposed.

Comment 40: The commenter encourages TDEC to consult with the Department of Economic Development (ECD) on the phrasing of these sentences. ECD is familiar with the minute details of economic development issues that arise when a new company sets itself up for operation in Tennessee. We do not want to place an unintentional hurdle to economic development.
Response: The Board appreciates this comment and the importance of economic development in the lives of the citizens of the state. The proposed changes of 0400-40-05-.06(9) are primarily formatting and do not significantly alter the current scope. Additionally, the public participation procedures outlined in the proposed rule are in accordance with the nationwide requirements established in 40 C.F.R. Part 25.

Comment 41: In the existing version of this rule, publication of a notice in a newspaper was required for "new, major NPDES … permits". In the proposed version, the word "new" has been deleted so it is assumed that a newspaper notice is required for all permit renewals for major dischargers. The existing rule gives no details about the number of days publication is required, etc. DWR should take this opportunity to provide details about publication requirements.
Response: Major NPDES Permits will continue to be public noticed in a newspaper of general circulation. Public notice publication will adhere to the requirements in 40 C.F.R. Part 25.

0400-40-05-.07 Terms and Conditions of Permits

Comment 42: Rule 0400-40-05-.07 has multiple references to the code of federal regulations are tied to a specific year, (2018). Is it the intent to tie this Tennessee Rule to a fixed federal rule?
Response: Yes, the rules incorporate the federal regulations as of the listed version. However, for each reference to an EPA rule, the year has been updated to 2021.

Comment 43: Multiple commenters expressed concern that there is not specific signatory requirement in the application section**.**
Response: The language in Rule 0400-40-05-.07(2)(i) is based on 40 C.F.R. § 122.22(b), which applies to reports. EPA's requirements for applications are more stringent, as set out in 40 C.F.R. § 122.22(a) and reflected in Rule 0400-40-05-.05(6). Accordingly, the term "applications" has been deleted from Rule 0400-40-05-.07(2)(i). Rule 0400-40-05-.05(6) outlines the requirements for who can submit an application. The language has been modified to more clearly reflect that this paragraph outlines the signatory requirement for applications.

Comment 44: Regarding Rule 0400-40-05-.07(2)(b), in the case of an AFO that has a "one-time" discharge where, as a consequence, they were required to obtain coverage under an NPDES permit, is it the Department's intent to require permit coverage indefinitely, or for a fixed time period (*e.g.*, a five-permit year term without incident, then termination)? The Department should consider this issue and modify the language accordingly.
Response: A discharge permit is required prior to any discharge. If an AFO chooses not to maintain NPDES permit coverage after the first permit term, that determination is at its own risk. If the AFO later

discharges without an NPDES permit, it would be subject to enforcement from the state and or through a citizen suit under the Clean Water Act.

Comment 45: Regarding rule 0400-40-05-.07(2)(b), we request clarification regarding AFOs that the "activity" referenced in this language is referring to discharges and not the operation of the AFO. An AFO that does not discharge but has an NPDES permit may opt not to reapply for a permit if the operator determines there is not a need for the permit. One example would be if the open waste lagoon subject to rainfall events was replaced with a covered holding pit. In this scenario the operation would no longer need the 25 year-24-hour storm event exemption allowed in an NPDES permit.
Response: This rule chapter regulates discharges. If the AFO in the above scenario will no longer discharge, it does not need to reapply for NPDES permit coverage.

Comment 46: For Rule 0400-40-05-.07(2)(h)2, please check 40 C.F.R. references. Please verify the references to 40 C.F.R. Chapters N or O (2018) to confirm those are chapters, as opposed to subchapters.
Response: The commenter is correct. The reference has been corrected in the final rule.

Comment 47: Is the intent of the changes to 0400-40-05-.07(2)(i) to provide additional flexibility to corporations and local governments by allowing senior officers to appoint "duly authorized representatives" to complete these duties, sign and submit the reports or information. Is that an accurate reading? Additionally, are multiple individuals allowed to serve as a duly authorized representative on a permit or permits? Does the department intend to keep records of "duly authorized representatives" for each permit? The use of the word "person" in the rule seems to disallow a specific staff position not identified in 0400-40-05-.05(6)(a) through (c). If so, how do they recommend permitted facilities update these records when staff changes occur?
Response: The modification is intended to more closely align Tennessee rules with the federal rules which allow for the duly authorized representative to sign and certify the documents described in the rule. Multiple individuals may be duly authorized for a single organization provided each one meets the requirements established by the rule. The current process for a change in representative is for the organization to submit a new authorization letter to the Division. This letter is stored in the permitting file which is available on the Division's data viewer. It is important to note that with the expansion of electronic reporting, an electronic signatory account must be owned by an individual instead of a position. When that individual is no longer the duly authorized representative, the new representative establishes a new account with unique credentials in order to retain CROMERR (40 C.F.R. Part 3) security standards.

Comment 48: The proposed Rule 0400-40-05-.07(2)(l) would modify the bypass rule by including a new paragraph recognizing that a bypass is not prohibited if it does not cause effluent limitations to be exceeded and is necessary for essential maintenance. While we agree with this addition, we believe that the Board, by including the word "and" after subsection 3., inadvertently provides the impression that all of the first three subsections and either the fourth or fifth subsection need to be met to qualify for a bypass. We request that the new subsection 3 remain in a stand-alone paragraph to avoid such confusion.
Response: The comment is well-taken and the rule has been corrected to be consistent with 40 C.F.R. § 122.41(m). Under that rule, a permittee may allow any bypass to occur that does not cause effluent limit exceedances if the bypass is necessary for essential maintenance to ensure efficient operation. If bypassed wastewater is not discharged, and thus does not reach waters, then it does not cause an effluent limit exceedance and sampling is not required. However, if a permittee bypasses under Rule

0400-40-05-.07(m) and discharges the bypassed wastewater, then it must sample during the discharge to demonstrate that the bypass actually does not violate effluent limitations. If a bypass meets all of the requirements for the exception of 40 C.F.R. § 122.41(m)(4)(i), as set out in Rule 0400-40-05-.07(l), then the bypass is not prohibited.

Comment 49: The bypass rule should recognize that blending is not a bypass. We request that the rules be modified to address another situation where effluent limitations would not be exceeded - i.e., when a facility blends during peak wet weather flows so that its biological system does not wash out. The bypass rule language should clarify that it does not apply to blending.
Response: The rules issued by the Board are consistent with the current federal rules specifically 40 C.F.R. § 122.41(m). As such, the Board will retain the proposed language.

Comment 50: One commenter requested to add a new subsection that states, "A bypass of a portion of the treatment system by use of a wet weather auxiliary treatment unit shall be allowed if such treatment system was designed, approved by the commissioner, installed and operated prior to the effective date of this rule and does not cause effluent limits to be exceeded."
Response: Tennessee is delegated responsibility to issue water quality permits in Tennessee on behalf of the federal Environmental Protection Agency (EPA). Accordingly, Tennessee water quality laws and regulations must be at least as stringent as those in federal law and rule. The bypass provisions in Tennessee rule are consistent with federal regulation 40 C.F.R. 122.41(m) and therefore will be retained without the requested amendment.

Comment 51: 0400-40-05-.07(2)(l) and 0400-40-05.07(2)(m)(2) conflict. Part (l) of this rule prohibits a bypass except in certain conditions (prevent loss of life, personal injury or severe property damage) included under this part. Subpart (m)(2) indicates that a bypass is prohibited under all circumstances. These concepts are in conflict, therefore we recommended preserving part (l) and deleting part (m)(2).
Response: The Board does not agree that the two provisions conflict. The bypass rule concerns whether wastewater is intentionally diverted from any part of the treatment system, not the location of a discharge. Moreover, NPDES permits must specify which discharges are authorized. This includes a specification of outfall locations. Given the statutory (both state and federal) prohibitions on discharging pollutants except in compliance with an NPDES permit, discharging from a point other than a permitted outfall is prohibited by statute. Subpart (m)(2) has been retained in the final rule to reflect this prohibition.

Comment 52: The last sentence of Rule 0400-40-05.07(2)(m) regarding 40 C.F.R. Part 112 requirements is unnecessary.
Response: The Board appreciates this comment and has revised the language accordingly.

Comment 53: Please clarify how TDEC intends to implement the new language in Subpart (2)(m) for individual industrial dischargers whose current NPDES permits contain sanitary sewer overflow language that now clearly is inapplicable to industrial dischargers and only applicable to POTWs and domestic wastewater treatment plants.
Response: Upon permit reissuance the language that is not applicable to the industrial discharger may be removed. It is important to note that some industrial users are permitted to treat and discharge both industrial and domestic wastes. In such cases, the sanitary sewer overflow language would still be applicable. Moreover, this rule change is mostly semantic: industrial dischargers remain subject to a prohibition on discharges from any point other than a permitted outfall even under the new rule. The

same event remains prohibited, even though it will be referred to as an unpermitted discharge instead of a sanitary sewer overflow.

Comment 54: The rule needs to avoid subjecting municipalities to huge liability for all releases. This concern is important because TWQCA only potentially addresses discharges into waters or "a location from which it is likely that the discharged substance will move into waters." T.C.A. § 69-3-108(b)(6). Clearly, this does not provide the authority to address building backups or other releases that are unlikely to move into waters. Not all overflows are due to improper operation and maintenance. At a minimum the following should be recognized as proper O&M: A) CMOM or MOM Program: If a municipality has a Capacity, Management, Operation and Maintenance ("CMOM") program or a Management, Operations and Maintenance Program ("MOM") approved by EPA or TDEC (e.g., as part of Consent Decree), then compliance with the CMOM or MOM program, as applicable, should be deemed to be proper O&M. If a municipality does not have an approved CMOM or MOM program, proper O&M can be shown by the City undertaking actions consistent with CMOM or MOM programs of other municipalities. B) Industry Standard: If a municipality can demonstrate that its number of overflows and/or releases, as applicable, per 100 miles of sewer is below the average in Region IV or the State of Tennessee, then the municipality is deemed to be properly operating and maintaining its collection system. Release: Proposed Rule 0400-40-05-.07(2)(m)1 would provide that "releases caused by improper operation and maintenance, which are determined by the Department based on the totality of the circumstances are prohibited" This raises two significant issues. a. releases which, by definition, do not reach receiving waters should not be prohibited, whether caused by improper O&M or otherwise. A number of Tennessee municipalities are subject to EPA and TDEC Consent Decrees. These consent decrees, although potentially requiring the municipality to respond to releases, do not impose liability for releases (as opposed to overflows reaching receiving waters). TDEC has historically recognized such distinction and the rules should not now be changing the practice to impose additional liability upon municipalities. We suggest that permit conditions related to releases be deleted. b. Without waiving the above argument, the quoted rule language "which are determined by the Department on the totality of the circumstances," should identify some of the circumstances. We suggest that the following parenthetical be included: (e.g., whether the City has and implemented a MOM or CMOM program, the average number of releases per 100 miles of sewer in EPA Region IV and/or Tennessee and whether the release was due to an extreme wet weather event such as the 10year, 24hr storm.)
Response: The rule does not change the liability of municipalities. In addition to addressing discharges, the TWQCA expressly requires the Department to regulate the operation of treatment works and extension thereof, as well as sewerage systems. T.C.A. § 69-3-108(b)(2) and (c). This includes the authority to regulate building backups that are caused by these facilities. The Board agrees that not all overflows are caused by improper operation and maintenance, but most are. Simply having a CMOM in and of itself is not sufficient to constitute proper operation and maintenance. The determination of improper operation and maintenance for releases is dependent on the site-specific conditions during the event. The requested changes have not been made. However, the definition of “release” has been changed to identify additional circumstances that do not constitute a release.

The Board further notes that “improper operation and maintenance” is used throughout this chapter as a singular term for one activity. It does not mean that a release must be caused by both improper operation and by improper maintenance to constitute a violation: one of these alone is sufficient.

Comment 55: Two commenters noted that inconsistencies exist as to how permittees report overflows and how TDEC staff enforce them. It is recommended that the Board instruct TDEC to work with the

regulated community to develop clear, understandable guidance on what constitutes an overflow, what is the proper response, and whether or not to establish a reporting threshold.
Response: The Board appreciates this suggestion. The rules do not provide for a reporting threshold. However, the Department may develop guidance in accordance with Bureau of Environment policy.

Comment 56: 0400-40-05-.07(2)(n)1. - A ")" should be added after the word "maintenance."
Response: The suggested correction has been made.

Comment 57: Subsection 1 of Proposed Rule 0400-40-05-.07(2)(n) refers to any unanticipated bypass and any upset exceeding and effluent limitation as noncompliance. These are instances were exceedances are excused and, as such, are not "noncompliance."
Response: The language of this rule tracks the federal rule, and has been retained. However, the commenter is correct that some bypasses do not constitute noncompliance. Similarly, if the permittee satisfies the elements of an affirmative upset defense, that event would not constitute noncompliance.

Comment 58: One commenter requested clarification which elements of 0400-40-05-.07(2)(n)(iv) are required to be reported for industrial dischargers with a bypass event.
Response: All elements listed are required for industrial dischargers reporting a bypass event. Rule 0400-40-05-.07(2)(n)2.(iv) has been clarified to include bypass structures.

Comment 59: Consider including the following definitions for combined sewer overflow and combined sewer systems as the non-compliance reporting requirements of 0400-40-05-.07(2)(n)(iv) refer to combined sewer overflows. “Combined sewer overflow (CSO)” means a discharge from a combined sewer system (CSS) at a point prior to the Publicly Owned Treatment Works (POTW) Treatment Plant. “Combined sewer system (CSS) means a wastewater collection system owned by a municipality which conveys sanitary wastewaters (domestic, commercial and industrial wastewaters) and stormwater through a single-pipe system to a POTW Treatment Plant.
Response: The Board appreciates this comment and has added the following definitions of Combined Sewer Overflow and Combined Sewer System to 0400-40-05-.02.

> Combined sewer overflow (CSO) means a discharge from a combined sewer system (CSS) at a point prior to the publicly owned treatment works (POTW) treatment plant headworks.
>
> Combined sewer system (CSS) means a wastewater collection system owned by a State or municipality (as defined by section 502(4) of the CWA) which was originally designed to convey sanitary wastewaters (domestic, commercial and industrial wastewaters) and stormwater through a single-pipe system into a publicly owned treatment works (POTW) treatment plant headworks.

Comment 60: In Rule 0400-40-05-.07(2)(n), a “)” should be added after the word “maintenance.”
Response: The commenter is correct and a “)” has been added after the word “maintenance.”

Comment 61: Rule 0400-40-05-.07(2)(n)2.(iv)a. is part of the reporting requirements for noncompliance that could cause a threat to human health or the environment, however it should be noted that permitted combined sewer overflows except for those that occur during dry weather are not violations. In Tennessee there are currently no known unpermitted CSOs. Additionally, bypasses

that receive partial treatment such as primary clarification and disinfection may not pose a threat to human health and the environment and thus would not be subject to these reporting requirements.
Response: The three municipalities with combined sewer systems in Tennessee (Nashville, Chattanooga, and Clarksville) have specific permit language developed in conjunction with their respective consent decrees to address reporting of CSO events. A bypass that meets the requirements of Rule 0400-40-05-.07(2)(l) is not prohibited. This subparagraph also outlines the reporting requirements. Prohibited bypasses would be required to be reported under Rule 0400-40-05.07(2)(l) if there could be a threat to human health or the environment. When this potential threat does not exist, the bypass event must be reported under Rule 0400-40-.05-.07(2)(l).

Comment 62: Proposed Rule 0400-40-05-.07(2)(n) purports to require 24-hour reporting of any release (whether or not caused by improper O&M) which would cause a threat to human health or the environment. This is a very subjective standard and cannot be reasonably be determined by operators working to minimize the effects of an overflow. This should be removed from the reporting requirements. In addition, we note that subsection 1 refers to the reporting of the "noncompliance." Even under the proposed rules, most releases would not be "noncompliance." Furthermore, as reflected above, we do not believe any releases should be considered noncompliant and expose the permittee to potential penalties.
Response: Rule 0400-40-05.07(2)(n) states “In the case of any noncompliance, or any release (whether or not caused by improper operation and maintenance), which could cause a threat to human health or the environment…”

The personnel do not have to determine if the event caused a threat to human health or the environment, only that it could do so. The Board appreciates the hard work and difficulty that municipal staff encounter in responding to events. Many permittees develop what is commonly called a Sewer Overflow Response Plan (SORP). A document such as this could be developed by the permittee to provide direction to staff to assist in making this determination based on specific considerations of the municipality.

A release must be reported, but does not constitute a violation unless it results from improper operation and maintenance of the collection system, which the Department has the authority to regulate through its permitting authority under T.C.A. § 69-3-108(b)(2) (a permit is required for the operation of any treatment works or any extension of addition thereto) and T.C.A. § 69-3-108(c) (a permit is required for the operation of a sewerage system). If the event could be a threat to human health or the environment it must be reported in accordance with Rule 0400-40-05.07(2)(n). If the event could not pose such a threat, it must be reported in accordance with Rule 0400-40-05-.07(2)(o).

The determination of a threat to human health or the environment is responsibility of the permittee. When the permittee is unsure of whether the event poses this threat, the permittee should contact the Department for assistance. However, the Department has the ultimate responsibility in assurance compliance. If the permittee exhibits a pattern of unreasonable determinations on the threat to human health or the environment, the permittee may be found in noncompliance with the rule or permit.

The Board disagrees that most releases would not constitute “noncompliance,” particularly given the revision to the definition of releases in this final rule..

Comment 63: Two commenters suggested substantially similar language for 0400-40-.05-.07(2)(n).The following wording is consistent with 40 C.F.R. § 122.(l)(6)) and is recommended [note that (v) would only apply if provisions related to releases were retained in the regulations]: iv) For POTWs or domestic wastewater treatment plants reporting any sanitary sewer overflows, the written report must include the overflow type (dry weather overflow or wet weather overflow), overflow structure (e.g., manhole, outfall, pump station), estimated volume (gallons), types of human health and environmental impacts, location (latitude and longitude), estimated duration (hours), and the name of receiving water.(v) For POTWs or domestic wastewater treatment plants reporting any releases subject to this provision, the written report must include the release type (dry weather release or wet weather release), release setting (building back-up, manhole, pump station, etc.), the estimated volume (gallons), types of human health and environmental impacts, and estimated duration (hours).

For POTWs with combined sewer systems reporting dry-weather combined sewer overflows or unpermitted combined sewer overflows, the written report must include the authorized outfall number (if available), estimated volume (gallons), types of human health and environmental impacts, location (latitude and longitude), estimated duration (hours), and the name of receiving water. (vii) For POTWs, domestic wastewater treatment plants or industrial dischargers reporting a bypass of treatment that poses a threat to human health or the environment, the written report must include the estimated volume (gallons), types of human health and environmental impacts, and estimated duration (hours). (viii) No later than December 21, 2020, written reports required by this subpart shall be submitted electronically, unless electronic submission is waived in writing by the Commissioner in accordance with the provisions of 40 C.F.R. § 127.15 (2018).
Response: The Board appreciates the comment. The subpart has been modified to include the itemized requirements in a bulleted list. With this formatting change the subpart is easier to read and itemizing the same list of reporting elements for all types of events under this subpart is unnecessary.

Comment 64: We request clarification of Subpart (2)(n)1. to include the word "specifically" as follows: " ... and violations of any maximum daily effluent limitation specifically identified in the permit as requiring 24-hour reporting." As the proposed rule currently reads, it could be interpreted as applying the 24-hour notification to any daily maximum limit violation.
Response: The Board agrees with this interpretation, but will not make the proposed change because the rule as drafted is clear.

Comment 65: When is 0400-40-05-.07(2)(n)(iv) applicable to industrial dischargers and what must be reported.
Response: For industrial users that treat domestic wastes, Rule 0400-40-05-.07(2)(n)(iv) is applicable for any noncompliant dry weather overflow, wet weather overflow, dry weather release, wet weather release, or bypass.

For industrial users that do not treat domestic waste, 0400-40-05-.07(2)(n)(iv) is applicable to bypasses or other unauthorized discharges. This information is required in addition to Rule 0400-40-05-.07(2)(i-iii).

Comment 66: Does “type of event” mean either overflow, bypass or release?
Response: “Type of Event” means a short narrative description of the event being reported for classification purposes. For the purposes of electronic reporting, it is intended that a select list of options will be provided.

Comment 67: Multiple commenters requested a "reasonable volumetric threshold" for reporting overflows and releases. Three specific numbers were posed for this request: 50 gallons, 500 gallons, and 1000 gallons. Surrounding states were cited as examples of implementation of these thresholds.
Response: The Board has not made the requested change. Based on the comments, it appears that the commenters were under the misimpression that other states do not require any event to be reported until a certain volume has left the system. Most often, North Carolina (1000 gallons) and South Carolina (500 gallons) were cited as examples of states with a volumetric threshold. However, further examination shows that these states do not use these thresholds for determining whether a violation occurred.

According to North Carolina's Department of Environmental Quality (NC-DEQ), the "1,000 gallon" reporting threshold is the point at which the permittee must notify the NC-DEQ within 24 hours and publish a press release of the event. Additionally, when an event reaches 15,000 gallons, public notice is required.[1] Smaller events are still violations.

In South Carolina, events that are a threat to human health or the environment, reach waters, and/or are greater than 500 gallons are to be reported to the DHEC within 24 hours and a follow up report is required within 5 days. Events that are less than 500 gallons and not a threat to human health or the environment and do not reach waters are documented by the permittee. These events are reviewed during inspections. Additionally, the South Carolina legislature passed a law several years ago dealing with what they termed "significant spills." Per section 48-1-95,[2] a "significant spill" means a net discharge from a wastewater utility of at least five thousand gallons of untreated or partially treated domestic sewage that could cause a serious adverse impact on the environment or public health. If a utility has more than 2 "significant overflows" per 100 miles of collection system in a 12 month period, the South Carolina Department of Health and Environmental Control must conduct formal enforcement.

Alabama Department of Environmental Management (ADEM) rules[3] define a "Notifiable Sanitary Sewer Overflow" as:

> an overflow, spill, release or diversion of wastewater from a sanitary sewer system that: 1) Reaches a surface water of the State; or 2) May imminently and substantially endanger human health based on potential for public exposure including, but not limited to, close proximity to public or private water supply wells or in areas where human contact would be likely to occur.

According to the ADEM municipal facilities engineer, in practice, most every event that is not contained behind a fence on property owned by the POTW is a notifiable SSO. Additionally, ADEM rules require immediate notification. The permittee shall report to the Director, the public, the county health department, and any other affected entity such as public water systems, as soon as possible upon becoming aware of any notifiable sanitary sewer overflow.

The volumetric threshold of reporting will not be included as presented by the commenters. However, the definition of release has been amended in the final rule to clarify events that would not be considered a release.

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[1] https://deq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/collection-systems/sewer-system-overflow-documents
[2] https://www.scstatehouse.gov/code/t48c001.php
[3] http://adem.alabama.gov/alEnviroRegLaws/default.cnt

Comment 68: A few commenters expressed opposition to the rules based on the assertion that the Board does not have authority over collection and conveyance systems, and were concerned that the added language in this section of the rule is above and beyond the federal rule requirements of 40 C.F.R.§ 122.41. The conveyance system is not utilized for treatment or compliance and should not subject to the same explicit requirements as the treatment plant. This general operation and maintenance provision sets up a situation where a prohibited release which is already a violation of the Water Quality Control Act is additionally a violation of the NPDES permit program and subject to compliance under two separate programs.
Response: The Clean Water Act is implemented in Tennessee through the Tennessee Water Quality Control Act. These two acts are the foundation of the NPDES program. The Department has the authority to regulate collection systems through its permitting authority under T.C.A. § 69-3-108(b)(2) (a permit is required for the operation of any treatment works or any extension of addition thereto) and T.C.A. § 69-3-108(c) (a permit is required for the operation of a sewerage system). Once an NPDES permit is issued, compliance with that permit is deemed to constitute compliance with the TWQCA. T.C.A. § 69-3-108(v).

Comment 69: We recommend that this sentence include the phrase “that reaches waters of the state” (or one similar). The phrase is necessary for the sentence to be technically correct and provides consistency with the definition of a “release.”
Response: The suggested language is unnecessary. The term “discharge” in the definition of SSO is defined in 0400-40-05-.02 as "... the addition of pollutants to waters from a source."

Comment 70: How is enforcement of releases authorized under the TWQCA? They specifically don't reach waters, otherwise they would be overflows. Does the Board contend that releases occur in locations from which it is likely that the discharged substance will move into waters? If so, it is unclear as to how building back-ups would be considered locations from which released sewage could potentially reach waters.
Response: If wastewater leaves the collection system at a location from which it is likely to move into waters and is not cleaned up prior to the next storm event, then it should be reported as an SSO, not a release. A building backup caused by the collection system, rather than by a problem in the building, is a reportable release. That release is a violation if it is caused by improper operation and maintenance. The TWQCA gives the Department the authority to regulate the operation of treatment works, collection systems, and sewerage systems, not merely the discharge of pollutants. T.C.A. § 69-3-108(b)(2) & (c).

Comment 71: Two commenters requested the addition of a sentence that states "An SSO is not a release."
Response: The requested change has not been made. By definition, an SSO is not a release because an SSO involves a discharge to waters and a release does not.

Comment 72: Multiple commenters requested clarification of proper operations and maintenance. One commenter suggested that the rule should include language such as “proper funding or budgeting of an adequate O&M program, including personnel, equipment and training.” Another commenter suggested, “a more direct and clearly understood definition should be considered; especially the phrase "adequate laboratory controls and appropriate quality assurance procedures." One commenter noted that proper operations and maintenance can result in the spilling of sewage. The removal and replacement of pumps, valves and other equipment can cause spillage, generally not a high volume,

but spillage can occur. Manhole and sewer pipeline cleaning can cause some spillage. Perhaps examples of what would be considered improper operations and maintenance could serve as a guide to permit holders and regulators.
Response: The requirement for proper operation and maintenance is a standard requirement in all NPDES programs across the country. The determination of proper operation and maintenance is dependent on the site-specific factors. The Board agrees that proper operation and maintenance includes “proper funding or budgeting of an adequate O&M program, including personnel, equipment and training” as well as "adequate laboratory controls and appropriate quality assurance procedures."

Specific to wastewater collection systems, the Board acknowledges that scheduled preventive or predictive maintenance activities are necessary to properly operate and maintain a collection system. During these activities some small amount of sewage could spill. As such, the definition of release has been modified to reflect when these activities would not fall under the definition of “release.” It is important to note that preventive and predictive maintenance procedures do not themselves provide a “free pass” from proper operation and maintenance. For example, it may be necessary to set up a diversion around a portion of a pipe to conduct work on a section of the system. If this diversion line becomes disconnected from the collection system releasing sewage, that release event could be a violation due to improper operation and maintenance.

Other examples of improper operation or maintenance of a collection system could include the failure to establish, implement or enforce a Fats, Oils, and Grease (FOG) program when the system has repeated events caused by FOG. Releases caused by industrial users may also be due to improper operation and maintenance if the municipality fails to establish, implement or enforce a pretreatment program. Not inspecting the collection system, not making repairs, lack of training, lack staff, lack of replacement parts, the list could go on. There is no way to provide an exhaustive list of all the examples of improper operation and maintenance. The Board does not expect every collection system in the state to be watertight. Offset joints, root intrusion, cracks, or general wear are tear are to be expected. However, when a municipality is properly operating and maintaining their collection system, such issues are remedied before they cause compliance issues.

The Department may develop further guidance concerning proper operation and maintenance in accordance with Bureau of Environment policy.

Comment 73: We agree that there is a difference between a sanitary sewer overflow ("SSO") and a release, and that only an SSO, which, by definition, would entail a discharge to receiving waters, is subject to a prohibition. A "release," in contrast, is not prohibited. "Sanitary Sewer Overflow": SSO is proposed to be defined as an unpermitted discharge of wastewater from the collection or treatment system. The words "treatment system" should be deleted. EPA has stated that an unpermitted discharge before the headworks is an overflow, whereas an unpermitted discharge after the headworks is a bypass. The definition of "SSO" in the Proposed Rule arguably would include a bypass since the "SSO" definition refers to the "treatment system." There is no reason to have two prohibitions (i.e., prohibition on SSOs and prohibitions on bypasses) apply to the same event. The words "treatment system" should be deleted, or the bypass defense should be extended to overflows to avoid subjecting an authorized bypass to overflow liability. Definition of "Release": Release is proposed to be defined to include "the flow of sewage from any portion of the collection or transmission system...other than through permitted outfalls that does not reach waters." This definition is so broad that it potentially includes exfiltration and may include the actual flows through

the sewer system and flows from a pump station, even when those flows are not exiting the WCTS. The definition of release needs to be narrowed.
Response: The Department will continue to use its enforcement discretion for spills at any point beyond the headworks of the treatment plant. For the purpose of compliance reporting, events that occur prior to the headworks will be typically considered overflows or releases. From the headworks through the remaining treatment units, events will typically be considered bypass of treatment or potentially an unpermitted discharge depending on the situation.

Sewerage systems are intended to transport wastewater to the wastewater treatment plant. It is problematic if that wastewater leaves the system prior to treatment be that above ground or below ground. The prohibition on releases is based on the Department's authority to regulate the operation of treatment plants and sewerage systems. Releases are only violations if they are caused by improper operation or maintenance.

Finally, the Board declines to extend the affirmative defense to other types of events such as overflows.

Comment 74: The regulation should provide an example of an extreme weather event. Suggested definitions include the 10-year, 24-hour and the 25-year, 24-hour design storm.
Response: There are only three municipalities with combined sewer systems (CSS) in the state. These municipalities are working under federal consent decrees to remedy threats to human health and the environment that a CSS poses. Utilizing an engineering design storm as an example of an extreme weather event can easily be misconstrued as allowing the development new CSS. As such the rule will not incorporate the requested change.

Some examples of an extreme weather events are tornados and blizzards. The noncompliance must be directly cause by that weather event. For example, if a tornado causes damage to the collection system infrastructure in City A, but dissipates without affecting City B in the same county, a waiver based upon an "extreme weather event" would only be issued to City A. An extreme weather event is likely to result in a federal disaster declaration. It is important to note that a federal disaster declaration is typically made on a county wide basis. In the above example, the county itself would be listed on the federal disaster declaration. A federal disaster declaration is an important indicator of an extreme weather event, however, these declarations may be issued weeks or months after the event. The rule does not require a disaster declaration for the commissioner to issue a waiver.

While flooding can be a result of an extreme weather event, it can be difficult to distinguish between flooding due to extreme weather and flooding expected as part of the water cycle. The May 2010 flood in the Nashville region is an example of flooding due to an extreme weather event. While a named hurricane is unlikely to directly impact Tennessee, it is possible for a residual system from a named hurricane to pass over the state which could also be considered an extreme weather event. However, flash floods would not typically be considered to be caused by an extreme weather event. Permittees should be aware of and mitigate for reasonably anticipated risks. Manholes near streams should be elevated so that the stream doesn't enter the manhole. Likewise, sewer lines near streams should be inspected regularly to identify problematic erosion so that it can be repaired before the line collapses. It is intended for the reporting waiver to allow staff to focus resources on restoring services. The totality of circumstances should be considered by the commissioner when exercising the authority to issue a waiver to reporting.

Comment 75: Some commenters questioned how small releases that do not reach waters pose a threat to human health or the environment and at what point a wet weather overflow poses a threat. Additionally, commenters requesting clarification about who has the authority, and what criteria is used, to make the determination of a threat to human health and the environment. Additionally, commenters question how the reporting of releases under the 24-hour notification requirement that were not due to improper operation and maintenance was in conflict with other aspects of the rules.
Response: The 24-hour reporting requirement is not unique to Tennessee as it originates in the federal rule (40 C.F.R. § 122.41(6)). The public has a right to know this information. The requirement for the 24-hour report and follow up detailed report are required when there could be a threat to human health or the environment. The determination that a noncompliance could be a threat to human health or the environment is dependent on site-specific and event-specific conditions. For example, a 50-gallon release at a lift station that is contained within the fence of a lift station is not likely to be considered a threat. However, a 50-gallon release at a manhole next to a playground would be considered a threat. For wet weather overflows, a 1000-gallon municipal overflow at an industrial site with restricted access traveling through 20 feet through a dense buffer into the Cumberland River likely wouldn't be a considered a threat. The same volume travelling through someone's yard or into a small stream would be considered a threat.

EPA's 2004 report to Congress on combined sewer overflows and sanitary sewer overflows provides detailed information on the risks posed by these events. It is important to remember that EPA does not use the term release in the same manner as the proposed rules. All events are referred to as overflows. This document can be found at https://www.epa.gov/npdes/2004-npdes-cso-report-congress

The Department may provide further guidance on what constitutes a threat to human health or the environment in accordance with Bureau of Environment policy.

Comment 76: Please clarify as to what type of permit authorization entities that only operate a satellite collection system would need and which entity (the satellite collection system or the receiving system) has the responsibility for the requirements set forth in the proposed rules**.**
Response: Entities that operate only a collection system, and that do not discharge, require coverage under a state operating permit. These entities are responsible for complying with applicable requirements within the portion of the collection system they operate. If the SOP permittee operates a satellite system conveying wastes into a collection system of an entity covered by an NPDES permit, the latter permittee is responsible for compliance within the portion of the collection system that it operates.

Comment 77: Several commenters stated that 0400-40-05-.07(2)(o) was confusing in its organization and suggested alternative formatting.
Response: The Board appreciates this comment and has reformatted this section to include a bulleted list of requirements.

Comment 78: Subchapter 0400-40-05-.07(p)1. the language should be changed by deleting the current language and substituting in lieu thereof: "An upset occurred and that the permittee can identify the cause(s) or if it cannot identify the cause(s), has taken reasonable efforts to identify the cause(s) of the upset." In some occasions the permittee may not be able to readily identify the source of the upset despite diligent efforts to do so. With such efforts the permittee should not be penalized.

Response: The upset provision is based on 40 C.F.R. § 122.41(n), which requires that the permittee establish the affirmative defense of an upset in part by showing that it "can identify the cause(s) of the upset." Therefore, this language has been retained.

Comment 79: Commenters requested clarification about how the proposed language in Rule 0400-40-05-.07(2)(p)4 regarding the burden of proof for an upset changed current practice and why the change was needed.
Response: This is not a change in practice. 40 C.F.R. § 122.41(n) governing upsets provides that the upset provision is an affirmative defense. The party seeking to raise an affirmative defense has the burden of proof. The proposed language was added to more clearly establish this requirement in rule.

0400-40-05-.08 Effluent Limitations and Standards

Comment 80: The Division may want to consider using a word different from "exceed" in rule 0400-40-05-.08(1)(f). Using "exceed" has the potential to add confusion because it generally means "be greater in number or size." The commenter has concerns over the change in status of an overflow from a narrative violation to a numeric violation, and that this change raises the profile of an overflow violation substantially especially in light of the increasing scope of electronic reporting and electronic availability of wastewater records. The concern is that this new high-profile status will result in unwarranted attacks from the world of electronic/social media from the misinformed or misled.
Response: Rule 0400-40-04-.08(1)(f) has been amended to clarify that "all effluent limitations or standards shall be at least as stringent as any minimum standards…." The rules establish a numeric effluent limitation for SSOs and for releases caused by improper operation and maintenance: a limit of zero. A release caused by improper operation and maintenance is a violation of the TWQCA. Bypasses that do not fall within the exceptions in Rule 0400-40-05-.07(l) or (m) are prohibited. None are allowed, so any such bypass is a permit violation. The Board appreciates the difficultly municipalities face from both traditional and modern media. However, the public has a right to know if a permit violation has occurred. Moreover, 40 C.F.R. § 122.41(l) requires reporting of overflows and bypasses (among other violations), including electronic reporting once applicable.

Comment 81: It is suggested that proposed rule 0400-40-05-.08(1)(h) section be clarified to reflect, consistent with CWA 402(s) (as enacted in the Water Infrastructure Improvement Act), that integrated planning may occur with the sequencing and prioritizing of projects. It was requested that both Chapter 5 and Chapter 10 rules recognize the availability of integrated planning.
Response: The Board acknowledges the reference to integrated planning in Section 402(s) of the Clean Water Act and its applicability to municipalities. The rule requires timely submission of an implementation plan that includes a timeline to develop and implement the program. The Department expects to review these plans in light of other Clean Water Act obligations of the municipality.

Comment 82: Multiple commenters stated that "sanitary sewer overflows" and "releases," and any prohibitions thereof, are not "Effluent Limitations." Therefore, the reporting required by the proposed amendment should not allow a numeric effluent limit for such incidents, NPDES permits should not assign any "Qualifier Value Unit" including "< 0" for such incidents, and reports of these should not be part of the monthly discharge monitoring reports. Additionally, one commenter noted that permits have changed from a single line of "overflow occurrences" to 8 lines of requirements and reporting, some of which are only subtly different from the others. This change adds cost and the possibility for confusion and errors in reporting and in enforcement and public perception.

Response: An SSO is an effluent limit violation because NPDES permits do not authorize any discharge to waters except from permitted outfalls. The effluent limit for SSOs is therefore zero discharge, which has been the case in Tennessee NPDES permits for quite some time. With EPA's implementation of its new eReporting requirements (40 C.F.R. part 127), the new online event reporting form is required to gather more detailed information in a standardized manner. As such, when the permittee is transitioned to the online event report, the DMR reporting requirements will be decreased. At the time of this rulemaking, EPA has yet not provided clear direction on how its Integrated Compliance Information System (ICIS) system will track violations on these online event report. Permits will continue to require reporting of SSOs as effluent violations until such time as EPA's electronic reporting system allows for violations to be generated from the electronic event reports. It the Department's intent that only one electronic system of generating violations is active at a time. Regardless of how SSOs are reported, they have always been, and continue to be, a violation of the permit and of the TWQCA. The separation of releases from overflows, and the addition of a "0" limit on sanitary sewer overflows increases transparency and accuracy of reporting by having the permit holder complete these calculations as opposed to having Department staff manually entering them.

Comment 83: The definition and use of the phrase "new or increased discharge" is concerning when applied in subsection 0400-40-05-.08(2). Do the phrase and subsection apply to stormwater discharges? If so, how will the subsection be applied to new and increased discharges resulting from development of land that discharges stormwater to a permitted MS4s?
Response: The definition and subsection apply to all discharges. However, NPDES permits for MS4s are broad and cover a wide range of activities, with the anticipation that land development will continue to occur that results in discharges to the MS4. Because the terms and conditions of the MS4 permit would apply to these new sites, there would be no need to provide the new application or written notice required by Rule 0400-40-05-.08(2).

Comment 84: The proposed rule provides that POTW permit effluent limits, standards, or prohibitions shall be calculated based on design flow. EPA has clarified that the use of design flow is only intended to apply to technology-based limits. It is suggested that the rule allow for "other flows, as appropriate."
Response: The Board disagrees this revision is needed or appropriate. The rule does not define "design flow." As written, the rule does not prohibit development of effluent limits on bases of design that utilize different flow rates or multipliers for weekly average and daily maximum than those traditionally used for minimum technology-based treatment levels. The rule also does not prohibit reevaluation of the basis of design in terms of actual pollutant removal performance (versus design). It is not the intent of rule to develop effluent limits on the basis of flow rate alone.

Comment 85: The proposed rule would require, among other things, weekly average effluent limits for POTWs. It is suggested that the rule put in the parenthetical ("if required by federal regulations"), recognizing that weekly average permit limits may not be deemed appropriate except for secondary treatment. In other words, it is suggested that flexibility be provided for addressing WQBELs.
Response: The Board disagrees this revision is needed or appropriate. The rule does not prevent consideration of establishing weekly average permit limits based on case-specific basis of design.

Comment 86: Two commenters stated that it is was inappropriate to include the provisions of 0400-40-06-.10 concerning non-potable reuse of reclaimed wastewater in Rule 0400-40-05-.08. Furthermore, one suggested removing the language from Rule 0400-40-06 and including it only in 0400-40-05.08, while another commenter suggested the opposite.

Response: Non-potable reuse of reclaimed wastewater can be authorized either through an individual NPDES permit or through a state operating permit, which will now be governed under two separate rule chapters. Rather than duplicate the rule in two different chapters, the Board prefers to retain the cross-reference.

0400-40-05-.09 Technology-Based Effluent Limitations

Comment 87: Two commenters noted agreement with the removal of obsolete language regarding technology-based requirements in proposed Rule 0400-40-05-.09. One commenter requested that the rule be amended to allow application of EPA's rule allowing for adjustment of secondary treatment limits when a POTW with a pretreatment program has a qualifying amount of industrial influent, 40 C.F.R. § 133.103(b).
Response: The Board appreciates this comment. The requested rule amendment has been made. This rule has been applied in NPDES permits in Tennessee, and appropriately reflects differences between sanitary and industrial wastewater.

Comment 88: Two commenters requested that Code 00545 for Settleable Solids be eliminated from NPDES reporting requirements. The main arguments for removal of the test were:

- solids violation will be reflected in the Total Suspended Solids test
- the test itself is outdated, misapplied and not representative
- the test has questionable quality assurance
- the test was developed for verification of primary clarification, not secondary treatment
- similar information can be obtained via a "quick visual of the effluent"
- the test is a waste of time and resources

Response: The Board disagrees there is a relationship between the identification of minimum technology treatment standards for wastewater and the costs of analytical testing. Identification of treatment standards is a function of treatment technology; cost is in part a function of test frequency. Test frequency is not set by rule, so the Department can establish a reduced monitoring frequency based on facility design and/or operational performance. The Board recognizes that the settleable solids test is largely a measure of primary treatment (i.e., settling), and therefore may seem unnecessary for well-maintained POTWs with well-maintained collection systems where tests will routinely result in values below measurable levels. However, not all POTWs in Tennessee pass the settleable solids test all the time due to various reasons including inflow and infiltration hydraulics, interference with biological processes by influent pollutants, operating at loadings in excess of treatment plant design, or poor operating practices in general. The parameter is retained for the benefit it provides in tracking treatment plant performance.

Comment 89: A commenter recommends that the current verbiage of "to determine" remain in the regulation 0400-40-05-.09(2)(b). The change in the current verbiage "to determine" to a proposed "to establish" is a significant shift in whose professional judgment is used on appropriate effluent limitations for industrial discharges without applicable effluent limits. Determine means to 'decide or ascertain' which would allow for a detailed process using the best professional judgment to decide or determine acceptable limitations for a facility and its location. On the other hand establish means to 'fix firmly or found,' implying an institutional permanence that in this context could only be done by the state, excluding private sector professionals.
Response: Effluent limitations are established under the authority of the Commissioner. Private sector professionals do not have, and have never had, the authority to establish effluent limits. That said, the

Department will consider data and calculations prepared by consultants, while retaining the authority to establish best professional judgment limits.

Comment 90: A commenter asked how the department believes 0400-40-05-.09(2)(c) will operate, since it is a combination of (a) "with applicable federal effluent limitations guidelines" and (b) "without applicable federal effluent limitations guidelines." An initial reading indicates that the state would establish limitation guidelines in a permit as needed.
Response: A single permit may include limitations for multiple wastewater streams. The limits for some wastewater streams may be based on applicable effluent limitations guidelines, while others may be based on best professional judgment because those wastewater streams are not subject to federal effluent limitations guidelines.

Comment 91: Grinder pumps and tanks are part of the public sewerage system, and should be clearly identified as such in the NPDES rules as they are in the SOP rules. Public utilities, rather than private landowners, should own, operate, and maintain these.
Response: The Board agrees, and has added the following to Rule 0400-40-05-.07(2)(c) concerning proper operation and maintenance, "Low pressure pumps and tanks are integral to the treatment and conveyance of sewage in a low pressure system design, and shall be owned or under the control of the municipality, other body of government, public utility district, or a privately-owned public utility demonstrating lawful jurisdiction over the service area." This permit condition is not applicable to pumps and appurtenances that are service lines to other than a low pressure public system. This condition applies to sewer projects or extensions that are approved for construction after the effective date of the permit.

While the Board encourages direct ownership of the low pressure pumps and tanks, it does recognize that in some cases, operational control without direct asset ownership may suffice. The Board acknowledges that operational control may be implemented collectively by multiple local agencies. Operational control for privately owned low pressure pumps and appurtenances appropriately includes the following:

- Legal mechanism e.g. local regulations, ordinance, plumbing codes, resolution etc. that Provides the authority to
  - Deny the use of low pressure pumps and tanks
  - Establish and enforce design standards
  - Access the site and equipment (including inspection)
  - Obtain remedies for non-compliance
  - Conduct an emergency response
- Plans review process to ensure compliance with the locally established design standards (including inspection of installation)
- Construction, inspection, and approval process
- Preventative and emergency maintenance program

In addition, all components of the sewerage system must be owned by a municipality, other body of government, public utility district, or a privately-owned public utility demonstrating lawful jurisdiction over the service area in accordance with Rule 0400-40-16-.02(8).

0400-40-05-.12 Appeals

Comment 92: Tenn. Code Ann. § 69-3-108(g) requires NPDES permits to be consistent with regulations promulgated under TWQCA. The first sentence of Rule 0400-40-05-.12(2) should be revised to be

consistent with Tenn. Code Ann. §§ 69-3-108(g) and 69-3-105(i). The language requiring a petitioner for appeal to state a claim based on a "violation" of the TWQCA or the rules promulgated thereunder is too restrictive.
Response: The provision has been changed to "inconsistency with the Act or the rules promulgated thereunder."

Comment 93: As currently drafted, 0400-40-05-.12(1) is not clear whether permittees and applicants have to comply with any of the provisions in paragraph (3); however, the language in paragraph (1) states they have to comply with the criteria. Assuming the proposed rules intend to clarify that permittees and applicants for permits need not comment, we would recommend Paragraph (1) be changed as follows:
Permittees and applicants for permits who disagree with the denial, terms, or conditions of a permit may seek review of the Commissioner's decision by the Board of Water Quality, Oil and Gas (the Board) pursuant to T.C.A. §§ 69-3-105(i) and 69-3-110. Aggrieved persons may likewise seek review of the Commissioner's decision provided they meet the requirements of paragraph (3) of this rule.
Response: The commenter is correct that permittees and applicants for permits are not required to comment on draft permits in order to appeal. See T.C.A. § 69-3-105(i). The revisions are intended to conform to the statute. Accordingly, Rule 0400-40-05-.12(3) has been amended to delete permittees and applicants from the list of persons who must meet the statutory preconditions to appeal. No additional changes are necessary.

Comment 94: The amendment requires a petitioner to state a claim for relief based on an alleged violation of the Act or rules promulgated thereunder. While the proposed change attempts to address frivolous appeals, it is overly restricted and the requirement to appeal on an alleged violation of the Act or rules should be removed or restated in accordance with Rule 11, Tn. R. Civ. Procedures as follows:
[G]ood faith allegations that support that the appeal is warranted by existing law or by a nonfrivolous argument for extension, modification, or reversal of existing law or the establishment of new law and that the allegations and other factual contentions have evidentiary support after reasonable opportunity for further investigation or discovery.
Response: The rule does not specify that the original petition state a claim for relief, only that the petitioner do so eventually. Appeal petitions are frequently amended with leave from an administrative law judge. However, at some point in the process, the petitioner needs to present allegations that a permit is inconsistent with the TWQCA or the rules.

The provision in T.C.A. § 69-3-105(i) for third parties to exhaust their administrative remedies does not mean that an appeal can be heard on any grounds that were commented upon. For example, just because a member of the public comments about traffic and noise during the public comment period does not mean that the Board has jurisdiction to address such issues in a permit appeal. The rule has not been amended to incorporate the rules of civil procedure – those are referenced in the contested case provisions of the UAPA.

Comment 95: The rules should provide a paragraph that clarifies that petitions for appeal may be filed by any medium which adequately conveys a clear content of the appeal, including through electronic means, U.S. Postal Service, postage pre-paid, overnight carrier, or hand delivery. The notices of permit issuance should clarify the email or other address.
Response: The rule is open-ended about how a petition for appeal may be filed, which allows any of the above-listed means. At the outset of the COVID-19 public emergency, the Department established

an email address to accept appeals: TDEC.Appeals@tn.gov. This email address is monitored by the Office of General Counsel, and is planned to be retained. In addition, the Department has issued guidance about how to file appeals. This guidance, *Filing Appeals and Petitions for Declaratory Order with TDEC*, can be found at https://www.tn.gov/environment/about-tdec/policy-and-guidance-documents/boe-final-guidance-documents.html.

Comment 96: Rule 0400-40-05-.12 provides rules of procedure for perfecting permit appeals. However, it applies only to individual NPDES Permits. No similar provisions are proposed in the amendments to Chapter 0400-40-10 for NPDES general permits such as the Construction General Permit and the Small MS4 General Permit. Existing rules in Chapter 0400-40-10 also do not provide procedures for appeal. The proposed rules should clarify appellate procedures for general permits, by either adding the language from chapter 05 or incorporating it by reference in chapter 10.
Response: The comment is well-taken. However, this rulemaking did not open the entirety of Rule Chapter 0400-40-10, so the appeal provisions cannot be added to that chapter at this time. However, the rule primarily restates the requirements of T.C.A. § 69-3-105(i) as well as current caselaw, both of which apply to Rule Chapter 0400-40-10. Therefore, Rule 0400-40-05-.12 should be used as guidance for appeals of general permits under Rule Chapter 0400-40-10 until such time as that chapter may be amended.

0400-40-05-.14 Animal Feeding Operations

Comment 97: The proposed rule contains a definition of "land application area" which refers to AFO requirements. To make it absolutely clear that the definition is only to be used for AFO requirements, and not for other purposes, it is suggested that after the word "means" the following be included: "for the purposes of 0400-40-05-.14 (Animal Feeding Operations)."
Response: As the term is used in this rule chapter, "land application area" applies only to AFOs.

Comment 98: NPDES permits for CAFOs must comply with all relevant sections of this chapter. Proposed Rule 0400-40-05-.14 deletes the first provision of the current rule, which notes that CAFO NPDES permits are also subject to applicable provisions of the rest of the NPDES chapter. No justification is given for this deletion. Because CAFOs are, in fact, subject to all applicable provisions of the state NPDES scheme, this deletion may generate confusion as to the regulatory requirements for CAFO NPDES permits. For example, CAFO NPDES permits also include the duty to provide information, and allow inspection and entry, as detailed in Tenn. Comp. R. & Regs. 0400-40-05-.07, and with the public notice provisions of Tenn. Comp. R.& Regs. 0400-40-05-.06. This provision should therefore not be deleted, or TDEC must explain why it should be deleted despite potentially generating confusion.
Response: The Board appreciates this comment, and has reinstated the first sentence that had been proposed for removal. Due to this change, all of the numbers in the final Rule 0400-40-45-.14 have changed from the draft. For the sake of clarity, the remaining comments and responses for Rule 0400-40-45-.14 will refer to the numbers in the final rule.

Comment 99: The term “animal feeding operations” (AFOs) should not be used when referring to “concentrated animal feeding operations” (CAFOs). The distinction between AFOs and CAFOs is legally significant. CAFOs are themselves point sources under the Clean Water Act and may not discharge to surface waters in any way without an NPDES permit. Some AFOs are by definition CAFOs (and therefore point sources). We suggest that this distinction be made clear in the final regulations.

Response: It is correct that a large animal feeding operation, based on the animal numbers table, is technically classified as a CAFO, irrespective of any discharges of pollutants. However, for clarity's sake, the Board has used the same language as in T.C.A. § 69-3-108(b)(10) regarding who is required to obtain permits.

Comment 100: In these rules, TDEC changed most instances of the term "CAFO" to "AFO," and explained that it would henceforth adhere to US EPA's classification of a CAFO as defined in Table 0400-40-05-.14(1). TDEC should more clearly explain the various parameters a farmer would use if s/he was trying to figure out if the operation requires a state permit and/or a NPDES permit.
Response: If an AFO meets the definition of a CAFO in the table, or is designated by the Department as such, it is required to obtain an NPDES permit. NPDES permitting will remain specific to animal feeding operations which discharge pollutants as stated in 0400-40-05-.14(5)(a).

Comment 101: Animal feeding operations of any size can create serious nutrient pollution problems. The recent legislative changes attempted to remove many operations in the "medium size" category from the state regulatory definition of CAFO, and therefore from permitting requirements. The potential for these facilities to discharge, however, has not decreased, and in fact will likely increase as these facilities no longer need to adhere to nutrient management plans and other best management practices to reduce their pollution impact.

Even if TDEC believes it may no longer require such facilities to apply for some permits, TDEC is still authorized to require these facilities to submit information about their size and location to facilitate monitoring and enforcement. TDEC has a duty to prevent pollution of the state's waters, and the authority to create and enforce regulations to that purpose. TDEC further has the authority to "[r]equire the submission of such plans, specifications technical reports, and other information as deemed necessary to carry out this part or to carry out the rules and regulations adopted pursuant to this part." Without knowing where slightly smaller AFOs are located, these facilities (which are still very large) cannot be adequately monitored, or their pollution impacts studied. Requiring "medium" and other AFOs to submit notices of operation is fully consistent with TDEC's existing authority, and would allow TDEC to better protect the state's waters and public health. It would also allow TDEC to recognize regional clustering patterns, which have been found to often result in degraded water quality.

For example, in TDEC's FY2018/2019 Surface Water Monitoring & Assessment Program Plan, sampling downstream of "CAFOs with individual permits or others in which water quality based public complaints have been received" was identified as a priority in order to monitor biointegrity and for nutrient and pathogen sampling. Relying solely on water quality complaints by citizens is not an effective or proactive way of ensuring the safety and health of the state's waters. AFOs of a size which makes it reasonable to suspect pollutant impacts, such as those in the medium size range, should also be considered for such monitoring and sampling.

Knowledge about where AFOs are located would also be helpful in calculating the quantity of non-point source pollution in particular waterbodies for the development of restoration goals (Total Maximum Daily Loads, or TMDLs). Without a database of where these facilities are located, this important work is not possible.
Response: The Board appreciates this comment, but elects not to impose a regulatory duty on TDEC to collect this information. TDEC may collect information to the extent of its regulatory authority.

Comment 102: Prior to this rulemaking, TDEC required an SOP with an NMP for AFOs/CAFOs not subject to NPDES permitting under the Clean Water Act and EPA rules, which implies that TDEC previously considered those AFOs/CAFOs to be a possible source of water pollution. Does TDEC believe medium AFOs/CAFOs are no longer a possible source of water pollution?
a. If so, based on what evidence?
b. If not, how does TDEC plan to compensate for this degradation of water quality near unregulated AFOs in the absence of the SOP requirement?
Response: The question of whether TDEC believes medium sized operations are a source of water pollution is irrelevant regarding the activities that are subject to regulation based on T.C.A. § 69-3-108(b)(10) as amended in 2018..

Comment 103: Former rule 0400-40-05-.14(2)(c), which allowed the consideration of the status of pollution in nearby waterways when determining AFO classification, was entirely deleted.
a. Does TDEC believe that factors such as existing dissolved oxygen or E. coli levels in nearby waterways should not be considered when regulating small or medium AFOs/CAFOs?
b. What role did science play in the redefined method of AFO/CAFO classification?
Response: This language was deleted to comply with T.C.A. § 69-3-108(b)(10) as amended in 2018.

Comment 104: Are all AFOs designated by the Director as CAFOs required to make application for an NPDES permit, or could the Director designate an AFO as a CAFO and require an AFO to apply for and obtain coverage under a state operating permit? If so, the proposed Rule 0400-40-06-.03(3) or 0400-40-06-.07 should be edited to clarify.
Response: Under the statute, the SOP is always voluntary. Therefore, the Director cannot require an application for an SOP.

Comment 105: Rule 0400-40-05-.14(4) provides "The Director shall conduct an on-site inspection prior to determining that an operation should be regulated under the CAFO permit program." Considering the Director has no discretion regarding whether an AFO requires an SOP (proposed Rule 0400-40-06-.03(3)) states that only "[n]on-discharging large AFOs, as defined by TABLE 0400-40-05-.14.1 of Rule 0400-40-05-.14, which utilize liquid waste management systems" need a permit), what information might be revealed in an onsite visit that would affect whether an operation should be regulated under the CAFO permit program?
Response: The on-site inspection that is referenced in 0400-40-05-.14(4) is specific to designating an operation as a CAFO due to discharging pollutants into waters, which is an activity that falls within the scope of the NPDES permitting program.

Comment 106: In Rule 0400-40-05-.14(5), consideration should be given to adding language to explicitly allow AFOs to voluntarily apply for an NPDES permit.
Response: Operations can voluntarily apply for NPDES permit coverage without it being explicitly stated here. This provision is specific to the types of operations that are required to apply for permit coverage.

Comment 107: Rule 0400-40-05-.14(5) lists two permit requirements for AFOs/CAFOs: 1) NPDES permits for "large, medium, and designated CAFOs that discharge" and 2) state permits for "large CAFOs that utilize liquid waste management systems." What about operations without a liquid manure handling system? According to US EPA, a large CAFO can have "at least 82,000 laying hens" or "at least 125,000 chickens" and still not have a liquid waste management system. Would either of those operations require a state permit? If not, does TDEC have evidence that dry waste from AFOs is not a

source of water pollution? If dry waste management is covered under different regulations, those regulations should be denoted here.
Response: Due to T.C.A. § 69-3-108(b)(10), the Board is unable to require dry waste operations to apply for permit coverage, unless a discharge of pollutants were to occur.

Comment 111: Please clarify the role that TDEC enforcement will have under the Rules regarding the improper storage, use, or disposal of animal waste from an unpermitted AFO/CAFO.
Response: Enforcement activity would be initiated as a result of water quality being impacted by discharges of pollutants. The escalation of enforcement activities would be determined on a case by case basis, based on what has occurred at a specific operation. Enforcement, however, is limited to activities that fall outside the agricultural exemption.

Comment 112: The inability of the Director to require an SOP for a medium AFO/CAFO notwithstanding, please confirm that the Director still has the authority classify a small or medium AFO/CAFO as a large CAFO according to federal guidelines.
Response: The Director still has the authority to classify an operation that discharges as a CAFO subject to NPDES permitting requirements as detailed in federal regulations.

Comment 113: Rule 0400-40-05-.14(6)(b) references paragraph (10) of the rule, but it should reference paragraph (9).
Response: The Board appreciates this comment. Given the renumbering of the final rule, the reference to paragraph (10) is now correct.

Comment 114: The proposed rule states that permittees are required to submit a Nutrient Management Plan (NMP), which TDEC must approve as part of the individual NPDES permitting process. However, it should be made explicit that the NMP is also subject to the public notice and comment requirements of the rest of the NPDES permit, because the terms of the NMP function as effluent limitations.
Response: All application related documents, including the NMP, are available on the dataviewer during the Public Notice period for individual permits. Members of the public that are interested in viewing the draft permit will also have access to the NMP via the dataviewer and may comment on it as part of the NPDES public notice process.

Comment 115: Although the definition of "CAFO" has been purportedly scaled back to a federal minimum and only discharging CAFOs are required to apply for individual NPDES permits per recent state law changes, TDEC still has both the authority and the duty to ensure that the permits themselves are sufficiently protective of the waters of the state. For example, as part of its exercise of best professional judgment, TDEC could require groundwater monitoring, or prohibitions on multiyear application of phosphorus. These more stringent requirements are even more necessary if so many other large facilities are operating without permits; the requirements on all point sources must be sufficient to prevent degradation of the state's waters. These more stringent requirements are even more necessary if so many other large facilities are operating without permits; the requirements on all point sources must be sufficient to prevent degradation of the state’s waters.
Response: The Department retains authority to require groundwater monitoring in appropriate circumstances.

Comment 116: Rule 0400-40-05-.14(8) references paragraph (4), but this should be paragraph (5).
Response: The commenter is correct and the change has been made.

Comment 117: In Rule 0400-40-05-.14(10)(a), the word "state" should be changed to "Commissioner'' or "Department" for consistency.
Response: The requested change to “Commissioner” has been made. It is the same phrasing that existed previously within this section.

Comment 118: Is the intent of the Department to have all CAFO permit applicants send the permit application to the Department, or remain consistent with the TDEC-TDA MOA to have applications sent to TDA?
Response: All NPDES permit applications should be submitted to TDEC.

Comment 119: Regarding Rule 0400-40-05-.14(10)(a), why was the word “implement” deleted here?
Response: The Division no longer has the ability to require that each section of the NMP be properly implemented for non-NPDES permitted operations. State law now only allows the Division to make sure that the NMP is accurate and approved. This does not allow the Division to have as much oversight as it previously had regarding the actual implementation of the NMP.

Comment 120: Regarding Rule 0400-40-05-.14(10), which AFO/CAFOs require an NMP?
Response: All permitted operations are required to develop and submit an NMP for approval.

Comment 121: Regarding the reference to specific documents in Rule 0400-40-05-.14(10)(a)3. And 7., what if the documents are updated?
Response: Ultimately, the rule would need to be updated to refer to the new documents. Until that time, the version of the documents referred to in the rule would apply. However, the revisions may be referenced as informal guidance.

Comment 122: Regarding the reference to specific documents in Rule 0400-40-05-.14(10)(a)3., the University of Tennessee Extension should be contacted to supply some specific publication numbers for their guidance on this subject.
Response: This information is available on the UT-Extension website. There is guidance there regarding large animal burial, as well as catastrophic mortality events.

Comment 123: The permit requirements for Nutrient Management Plans are out of date and far too vague. For example, the USDA-NRCS Animal Agricultural Waste Management Handbook (April 1992) fails to recognize the decade of severe precipitation events and the flooding which has released millions of gallons of animal waste into rivers and streams. This failure to have design standards that incorporate the lessons of severe weather from climate change further undercut the proposed distinction in types or causes of the release of pollutants from liquid waste ponds.

It is vague and improper to declare in “Nutrient Management Plan (0400-40-05-.14(10)(a)7(ii) that:

“Manure, litter, and process wastewater shall be applied no closer than 100 feet for any potable well, public or private, or as recommended by the University of Tennessee Extension;” A vague and unauthorized delegation of a well buffer size to a non-regulatory agency that has no legally specified role in water quality protection or permit regulation should be deleted.

The regulation of open manure store should be revised. For liquid waste storage minimum liner requirements should specified. TDEC has standards for liners for solid waste landfills and for waste discharges from oil and gas drilling. Please develop clear minimum standards for AFO ponds.

For liquid waste storage the pumping and volume reduction usual schedule should be supersede when there are obvious threats. Ponds should be pumped preemptively when storms approach and when the National Weather Service predicts heavy precipitation event that may cause flooding.

The observation that liquid ponds proposed to be located over karst may require "deeper investigation" is hopelessly inadequate. A waste pond break into an unidentified sinkhole pollute ground water including springs and well used for drinking water. TDEC has available experts on waste insolation in karst and their expert advice should be written in firm standards for the isolation of CAFO and AFO liquid waste in karst areas.

The 30 year average information for severe weather events and precipitation amounts is obviously inadequate in light of our ever more frequent severe storms and floods that we have experienced in the last 10 years. If fact, the week these comments are filed has seen Tennessee suffer flooding from hurricane residual.
Response: The language regarding setbacks from wells has been revised to remove the following statement "or as recommended by University of Tennessee Extension." Minimum design guidance standards for holding ponds are referenced in 0400-40-05-.14(14).

The Division agrees that holding ponds should be monitored closely, especially noting periods when freeboard levels are becoming a concern. However, care must also be taken not to land apply too closely to a rainfall event such that the wastewater could find its way into nearby waters. Permitted operations are aware that they can call Division staff to discuss emergency pump down procedures when they are proactively concerned about their freeboard levels prior to rainfall events. These situations are handled on a case by case basis, as necessary.

The Division relies on guidance documents from the National Weather Service as the basis for predictive rainfall estimate amounts and frequencies.

Comment 124: Regarding Rule 0400-40-05-.14(10)(c)1., the spreading of manure and bedding across the landscape perhaps is the largest environmental impact on residents and facilities within the "management" plan area. The details of the nutrient management plan should be fully described in notices for public participation.

Changes in nutrient management plans should be treated as major permit modifications and should be subject to public notice and comment. Once a permit has been issued, TDEC should notify the public and local officials of how to file a complaint under Section 118(a) of the TWQCA.

Additionally we urge:
(1) the records showing the actual distribution locations, times, amounts and weather conditions should be open to public inspect and copying during regular business hours at the AFO or should be duplicated and filed with the Department and open to public inspection.
(2) AFOs should be required to post large and readable signs telling their permit number and where inquiries or complaints about their operations may be filed with the nearest Environmental Field office.

(3) Assure that all Annual Reports are timely filed and posted to the dataviewer.
Response: For individual permits, the NMP is available for review on the dataviewer as part of the public notice process. While there is not a public notice associated with each Notice of Coverage issued under a general permit, the NMP is available for review on the dataviewer by the public.

The permitting process regarding changes to an NMP is described in 0400-40-05-.14(10)(c).

The mentioned records are required to be maintained at the operation and are reviewed during routine inspections. However, these records have not historically been made available on the dataviewer but were noted in the inspection report and/or letter, which are posted on the dataviewer.

New operations are required to post a sign visible to the public during the public notice period.

It is the Division's intent to ensure moving forward that annual reports are received in a timely manner from all required operations.

Comment 125: Rule 0400-40-05-.14(10)(c)3. should be deleted to keep consistency with Rule 0400-40-05-.01, and because this language is included (with some differences) in Rule 0400-40-06-.07.

Response: This part contains information specific to permitted AFOs, so it is appropriate to be included here as well.

Comment 126: Rule 0400-40-05-.14(10)(c)(iii) contains requirements that are consistent with 40 C.F.R. § 122.42(e)(1). We recommend a separate section be added to this proposed rule that outlines the nutrient management plan requirements that are applicable to an AFOs that does not meet the Large CAFO definition, who apply for an NPDES permit, or are designated as a CAFO by the Director. This will ensure consistency between this proposed rule and the applicable federal regulations.
Response: It is not the Board's intent to create separate NMP requirements for different sizes of AFOs, but only to update the permitting obligations of different types of operations to reflect the new state law.

Comment 127: We recommend the Department restructure Rule 0400-40-05-.14(10)(c)3. Our suggestion would be to organize this section in a similar manner to (b)(1) Linear approach and (b)(2) Narrative approach for initial nutrient management plans. We believe having a similar organizational structure for the requirements for changing or updating a nutrient management plan will lead to a better understanding of the information the regulations demand.
Response: The Board appreciates this suggestion. That would be an adequate way to structure the information as well. However, the way the content is currently structured is sufficient. Information regarding changes to an NMP is grouped together, with NMP changes specific to state permits as the final topic.

Comment 128: In Rule 0400-40-05-.14(11)(a)11., the language needs to be expanded and more specific than just "within 24 hours of a precipitation event that may cause runoff from fields." In addition, application practices will change this greatly as well. Surface applying 20,000 gallons per acre has a much higher risk than injecting 7,000 gallons per acre.
Response: This comment is referring more to the language within the NPDES CAFO permit template than to the language found within the rule. However, the referenced language within the permit

template is based upon the recordkeeping requirement established in Rule 0400-40-05-.14(11)(a)11. It would be difficult to specify an exact rainfall percentage on which to base when land application could occur. It is the intent of the rule and permit template that manure not be land applied during conditions when runoff is likely to occur. It is reasonable to expect that the weather conditions should be closely monitored during, 24 hours prior to, and 24 hours after land application. The Board agrees that manure that is responsibly injected would be less likely to runoff.

Comment 129: Proposed Rule 0400-40-05-.14(11) describes all specific recordkeeping requirements for the AFOs defined as Large CAFOs, as outlined in 40 C.F.R. § 122.42(e)(2). However, as referenced in 40 C.F.R. § 122.42(e)(2)(B), there are additional recordkeeping requirements specified in 40 C.F.R. § 412.37(b) and (c) and 40 C.F.R. § 412.47 (b) and (c), which specifically apply to CAFOs with animal numbers in the Large category. We recommend a separate section be added to this proposed rule that describes the recordkeeping requirements for AFOs that do not meet the large animal number thresholds, in order to be consistent with the federal regulations.
Response: This paragraph details recordkeeping requirements for NPDES permitted CAFOs. These requirements do not apply to large operations that obtain coverage under a state operating permit.

Comment 130: Rule 0400-40-05-.14(11)(a) states that "[a]ny NPDES permit issued to an AFO shall include: (a) a requirement that the permittee shall create, maintain for 5 years, and make available to the Director, upon request, the following…" and then proceeds to list 18 pieces of crucial information that factor into an AFO's/CAFO's waste management, such as inspection records, calculations for manure process and application, dates and amounts of waste applied to land, and sampling results for manure, wastewater and soil:

- TDEC should require these records to be submitted to TDEC and uploaded to the public DataViewer.
- How does TDEC ensure that the operation is in compliance other than when an onsite inspection is triggered by a water quality investigation (i.e., what would trigger an NOV based on noncompliance with the permit's NMP?)
- Is there an official TDEC inspection form for a NPDES-permitted CAFO that includes the viewing and analysis of NMP provisions? If so, can TDEC make a copy available?
- How many onsite inspections of NPDES-permitted CAFOs by TDEC occurred in 2018? Did TDEC cite any NPDES-permitted CAFO for lack of compliance with its NMP in 2018?

Response: This information is reviewed during routine inspections of NPDES-permitted CAFOs, which are typically conducted on an annual basis, if possible. Occasionally, these records are uploaded to the dataviewer if they are not available to be reviewed at the time of inspection.

There is not one required form that is mandatory to be used by staff across the Division. However, there is a form that has been in existence for a few years that has been routinely used. This form can be found on Waterlog as part of multiple uploaded inspection reports.

There were eight CAFO inspections (six of those were at NPDES permitted operations) conducted in 2018, with one of those operations cited for non-compliance with its NMP.

Comment 131: Regarding Rule 0400-40-05-.14(11)(b), commenters are concerned with the proper storage, use, and disposal of animal waste at or from AFOs/CAFOs feel that the process for 3rd party waste transfers should be more thorough and effective. One commenter asked about the unit of time for when an agreement is required for transferring more than 100 tons, and whether there were official recordkeeping forms for the requirements in this section.

Response: The 100-ton figure represents the annual amount. There is a manure transfer agreement and a transfer log sheet that has historically been included as an attachment to the permit.

There are recommended best management practices that are included on the transfer agreement form. However, these are not enforceable by TDEC. Recordkeeping requirements are not in place for third party recipients.

Comment 132: Rule 0400-40-05-.14(11)(b)4.(iii) refers to wetlands. A definition of wetlands is needed.
Response: A wetland is a surface water that is not a wet weather conveyance and is therefore a "stream." Reference may be made to the ARAP rules, Chapter 0400-40-07.

Comment 133: Regarding Rule 0400-40-05-.14(11)(b)4.(viii)(V) - if the material is transferred to a third-party, then the third-party is not the "producer." Therefore, this is extraneous.
Response: This language has been changed to "300 ft. from all residences other than the third-party recipient's."

Comment 134: A commenter requested that annual reports from NPDES-permitted AFOs and CAFOs be uploaded to TDEC's public DataViewer, and asked why the proposed rule requires a statement about whether the current version of the nutrient management plan was developed or approved by a certified nutrient management planner. Why would this statement be required if approved nutrient management plans are a permit requirement? We recommend changing the substance of the question from "was it approved?" to "was it implemented?" such that the AFO/CAFO must supply a statement indicating whether the current version of the AFO's approved nutrient management plan was implemented as planned within the NMP.
Response: Annual reports are currently available on the dataviewer. The mentioned statement was derived from the federal rule, 40 C.F.R. § 122.42(e)(4)(vii). This language is specific to the development of the NMP itself, and not to the implementation of the plan. These are separate topics.

Comment 135: We would like clarification that the language contained in 0400-40-05-.14(11) provides permit coverage for discharges occurring in a catastrophic rain event as described in federal rules.
Response: Rule 0400-40-05-.14(13)(b) has been updated to state "except as authorized through the conditions of an NPDES permit."

Comment 136: Regarding Rule 0400-40-05-.14(14)(c), please change the software reference to the "latest version" instead of using the version number.
Response: Tennessee rules can only be changed through rulemaking by Tennessee agencies under the UAPA. Allowing Tennessee rules to be automatically changed based on changes in software updating is impermissible.

Comment 137: Regarding Rules 0400-40-05-.14(14)(c), we recommend checking with USDA-NRCS, as AWM software may be scheduled for phase-out/replacement soon.
Response: The Board appreciates this comment. NRCS staff have previously been consulted regarding the AWM software and it is currently still in place.

Comment 138: According to the "Additional Hearing Information" the proposed regulations were drafted in light of T.C.A. § 69-3-108(b)(7)(B) and (C). The regulations in 0400-40-05-.14, Animal 1 Feeding Operations purport to implement T.C.A. § 69-3-108(b)(10).2 Thus the Individual Permit rules

must be designed to implement the Federal Clean Water Act and allow TDEC to remain a state agency with delegated authority to issue NPDES permits and eligibility for federal grants for the operation of an NPDES permitting program.
Response: The commenter is correct, and these rules have been drafted accordingly.

Comment 139: A threshold problem appears in the proposed definitions. TDEC's definition of "Animal Feeding Operation" (AFO) creates a loophole that allows operations to artificially reduce the size (number of animals) and thus escape the intended permit required of the larger CAFO operations. (This also applies to the SOP operations to artificially place them below the thresholds for CAFO Individual Permits.) TDEC should not reserve this loophole as it invites defeat of environmental permit requirements. The regulation need not refer to ostensibly separate legal ownership. Operations and all facilities which share any of the indication of unified operation and unified (single facility) environmental impact should be covered by a single comprehensive Individual NPDES permit.
Response: While the Division does not encourage operations to willfully attempt to avoid applying for a permit in the context mentioned above, it is unable to completely prevent this activity from occurring. The language mentioned within the referenced definition originates from the federal definition.

Comment 140: Is it the opinion of TDEC that the above rules are in accordance with the Agency's mission of "enhance[ing] the quality of life for citizens of Tennessee," "protecting and improving the quality of Tennessee's…water through a responsible regulatory system," and "protect and promote human health and safety?"
Response: Yes.

0400-40-05-.15 Municipal Separate Storm Sewer Systems

Comment 141: The prefatory paragraph to Proposed Rule 0400-40-05-.15 refers to "effluent imitations." it was suggested that the requirements be referenced as "performance standards."
Response: These are effluent limitations because they require a reduction in the amount of pollutants that will be discharged through the MS4 to waters. Effluent limitations are not limited to end-of-pipe permit limits, and can include both narrative and numeric requirements, including best management practices. The MS4 post-construction stormwater rule establishes effluent limitations as required by T.C.A. § 69-3-108(s). Accordingly, the term "effluent limitations" has been retained.

Comment 142: Regarding Rule 0400-40-05-.15(1)(a), after city's permit renewal/approval (in a municipality case), city has 90 days to develop a plan for implementing new rules. How can approval/renewal take place without plan of implementing new permit rules? Is it assumed that city will submit implementation plan in order to obtain renewal/approval? Or, is renewal/approval contingent upon receipt of implementation plan?
Response: The city will have 90 days to submit an implementation plan for development of the post construction program.

Comment 143: The proposed rule needs to be clarified as to what needs to be included in the implementation plan document. It would be unreasonable for a local government to develop an entirely new program within 90 days (if that is what is being envisioned). If the plan is expected to include detailed policies and procedures, then the timeframe should be extended to at least 12 months, subject to MS4's extensions on a case-by-case basis for good cause.

Response: The final rule has been changed to make it clear that permittees have up to 24 months to develop and implement the post-construction program. Only the implementation plan is required within 90 days. This implementation plan must identify what elements the post-construction program will include and a timeline for development and implementation of the actual program.

Comment 144: Multiple commenters requested that the word “remove” in Rule 0400-40-10-.04(1)(a) be changed to "treat for" or “reduce."
Response: The word “reduce” is consistent with the federal rule, and has been substituted for “remove” throughout the rule.

Comment 145: Permittees must develop plan review process. Is this planned process to be reviewed/approved by TDEC?
Response: The permittee is required to conduct appropriate oversight via the project plan and review process. TDEC will evaluate the permittee's process as part of audits and inspections.

Comment 146: New or redevelopment project definitions: It is suggested that the regulations separate define "new projects" and "redevelopment projects."
Response: For the sake of clarity, the definition has been changed to “new development or redevelopment project,” and the text of the MS4 rule has been changed accordingly. The permanent stormwater standards apply to new development and redevelopment.

Comment 147: 5) Summary: Permittee has one year after permit renewal/approval to evaluate existing codes/ordinances based on EPA scorecard and submit. Permittee has two years to update codes and ordinances to comply with new permit reg’s (This all takes place after final approval of permit by governing agencies–EPA and TDEC -I assume? Note again, it is understood that permittee has only 90 days after permit renewal to submit plan of implementation. Please clarify.) Not sure the difference between “newly permitted programs” and “current permittees”. Current permittees should continue to implement existing SWP and update according to schedule in 4.1.1? where is 4.1.1?
Response: The Board allows up to 12 months to develop the post construction program. Only the implementation plan is required within 90 days. The proposed rules deleted the following agreed language in Exhibit A of the Settlement Agreement in the fifth paragraph of 4.2.5.1. "The schedule must indicate completion as soon as feasible but no later than 24 months from the effective date of this permit. Further, if implementation will take longer than 12 months, the plan must include interim milestones. Implementation plans must be submitted to the Division." The reference to section 4.1.1 has been corrected to paragraph 1(d), which provides both existing and new permittees the same amount of time for implementation of the post construction stormwater program.

Comment 148: Rule 0400-40-05-.15(1)(d):“The implementation plan shall include a brief description of the main components of the permittee’s permanent stormwater management program, which should include: codes and ordinance development and implementation; procedures for plans review and criteria for approval; procedures for conducting and tracking site inspections; and SCM operation and maintenance policies”. TDOT does not have the capacity to develop or implement “codes and ordinances” like other traditional MS4s. While the prescriptive nature of the Implementation Plan requirements, including the 90 day schedule, may be reasonable for a Phase II size municipality, a non-traditional MS4 like TDOT that is implementing a large state-wide program that would include input from numerous internal organizations and the alteration of multiple internal plans and procedures, would find these requirements impractical and difficult to implement. TDOT respectfully requests that the proposed rule clearly state that it applies directly and only to traditional municipal

Phase II MS4s under the Tennessee general MS4 permit and specify that these requirements may be modified, or their application delayed, for a non-traditional MS4 and/or by an individual MS4 Permit. Additionally, T.C.A. 69-3-108(s)(t), clearly states that those subsections apply only to a "local government entity" (i.e. a traditional municipal MS4) and thus do not apply to a non-traditional MS4. TDOT respectfully requests that this point be made clear in this section and throughout the new rules.
Response: The Division acknowledges that TDOT is not a municipality and does not enact resolutions or ordinance. Other control mechanisms such as contracts and polices will be considered in TDOTs individual permit to meet this requirement. The Division concurs with the commenter T.C.A. § 69-3-108(s) and (t), clearly state that those subsections apply only to a "local government entity" (i.e. a traditional municipal MS4) and thus do not apply to a non-traditional MS4. While these rules will inform the minimum standard for post-construction stormwater water quality protection in the individual permit for TDOT, the unique nature of TDOT as an MS4 entity will dictate the specifics of their individual permit. The individual permit process involves an application, draft individual permit, public process, final draft, and appeal process.

Comment 149: Section 0400-40-05.15(1)(d) states, "The permittee must submit an implementation plan for its permanent stormwater management program not later than 90 days after issuance of the effective date of a new or renewed permit." It is recommended that additional time be provided, 180 days minimum.
Response: Applicants for individual permits can submit their implementation plans with their permit applications. Therefore, there is no reason to provide additional time.

Comment 150: Add TSS parenthetically after the phrase total suspended solids at the first occurrence.
Response: The suggested correction has been made.

Comment 151: Unless the final rule references some standards, such as NOAA Atlas 14, it appears that the rule is providing the MS4 flexibility in making such determination.
Response: The rule specifies a 1-year, 24-hour water quality design storm. The authoritative reference for the design storm is NOAA Atlas 14, Volume 2. Version 3.0. U.S. Department of Commerce. National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Springs, Maryland or its digital product equivalent, providing rainfall depth and intensities.

NRCS is replacing the use of its legacy rainfall distributions (Type I, Type IA, Type II, and Type III) with rainfall distributions based on NOAA Atlas 14 precipitation-frequency data. NEH 630 Chapter 4 rev August 2019:

> "Precipitation-frequency data and storm distribution are important components of the NRCS hydrologic modeling procedures. Different assumptions and procedures were used in preparation of precipitation frequency atlases TP–40 and NOAA Atlas 14 by the NWS and in preparation of storm distributions NRCS Type II and those based on NOAA Atlas 14 data. Understanding these differences will provide more background on why hydrologic results could be different when changing from TP–40 and the Type I, IA, II, or III storm distribution to NOAA Atlas 14 data and a locally derived storm distribution. With many more years of data, better quality control, and more short duration measurements, much more confidence can be placed in the NOAA Atlas 14 precipitation-frequency estimates and storm distributions based on the estimates."[4]

[4] https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=43924.wba

Comment 152: Multiple commenters referred to Rule 0400-40-05-.04(1)(b), and asked to replace "ensure" with "verify." The permittee cannot ensure that measures are adequately maintained. They can only develop programs to check and verify if it has been completed.
Response: The language in 1(b), 4(c), and 4(d) has not been changed. The Board acknowledges that the permittees often do not own or operate SCMs at new development and redevelopment sites, but they do have, and must exercise, oversight authority. The rule language has been changed in 6(b) and 7(b) from "ensure" to "require." The word "ensure" in 8(b) has been changed to "demonstrate."

Comment 153: One commenter recommended that the rule acknowledge that SWMP, which appears multiple times, be acknowledged as referring to the MS4's Stormwater Management Plan.
Response: The Board appreciates this comment. Throughout the rule the acronym SWMP has been replaced with the full term.

Comment 154: What was the basis of the decision to incorporate the exact same Phase II MS4 general permit appeal settlement language into the new Phase I individual permit rule vs. limiting the settlement language to the Phase II general permit rule to which it directly pertains - and then having a separate process for Phase I MS4 rule language formulation?
Response: While the Settlement agreement does not pertain to individual permits, the rule sets the same minimal level of post-construction water quality protection for individual permits as for the small general permit rule. MEP is not different for Phase I and Phase II MS4 communities, and therefore the rules should be consistent with each other. However, in the final rule for individual permits (which could apply either to a Phase I community, or a Phase II community that prefers an individual permit), the option to demonstrate equivalency of permanent stormwater standards has been added.

Comment 155: Given that the new rule language will become permit requirements in future Phase I Individual MS4 NPDES permits, it would seem Phase I MS4 permittee appeal rights for future permits have been negatively impacted by this "creating State rule language from the Ph II settlement language" process. Permit provisions based on State rule will seemingly not be subject to appeal by Phase I permittees - no matter what rationale the permittee might have justifying such an appeal (as would have been the case prior to this rule language). As such, how would a Phase I MS4 permittee address a future permit situation if it was determined over time that Phase I MS4 NPDES permit "rule language-based" requirements are not feasible and/or not a "best practice?"
Response: The Board believes that the rule-based requirements constitute MEP, and are therefore both feasible and constitute best practices. However, the Board appreciates the concern of the commenter. Although MEP does not differ between individual and general permits, the individual permit process provides the opportunity for tailored review, as well as public notice and comment. Therefore, the final rule has been amended to provide the option for the MS4 to demonstrate equivalency of alternative permanent stormwater standards. The burden of demonstrating equivalency rests with the MS4. Also, some MS4 communities may have post-construction standards that exceed the requirements of this rule. This is allowable in accordance with the procedures of T.C.A. § 69-3-108(t).

Comment 156: The rule should recognize as compliant programs that have, under a prior Phase I Individual MS4 NPDES permit, implemented permanent stormwater programs which require infiltration, evapotranspiration, and reuse and/or 80% TSS removal as equivalent to the program set forth in the rule. Possible Solution for rule: Insert the following sentence in subsection (2)(a) "Phase I individual MS4 NPDES permittees that have, under a prior permit, implemented programs which

require applicable developments to infiltrate, evapotranspire, and/or reuse or achieve 80% TSS removal for, at a minimum, the first 1-inch of rainfall are deemed to satisfy the permanent stormwater standards established in this subsection." Rationale: Metro's permanent stormwater management program - as required by EPA and TDEC in Metro's 2011 Phase I Individual MS4 permit (that went through the public notice process) - requires applicable developments to infiltrate, evapotranspire, or reuse the runoff generated by the first 1-inch of rainfall. If that is not feasible, stormwater controls must be designed to achieve 80% TSS removal of the 85% storm event (1.1 inches). Metro also has a robust policy for the use of manufactured treatment devices, again requiring the site to meet 80% TSS removal and relying on certain national testing standard results to determine the specific pollutant removal efficiency for the selected MTDs. Therefore, under the current Metro program, regardless of the type of SCM(s) chosen, the treatment volume is NEVER discharged from an applicable development site without meeting 80% TSS removal at a minimum. The standard is not met by requiring a larger WQTV dependent for SCMs that cannot, alone, meet an 80% TSS removal standard. Rather, multiple SCMs in sequence can be used as needed to meet the standard for the required 1.1 inches of rainfall. Therefore, while the Metro design criteria and methodology differ slightly from the draft standards expressed in (2)(b) and (2)(c) of the draft rule language, Metro requirements ultimately achieve the same goal of 80% TSS removal.

Response: The 2011 Metro Nashville permit currently does not specify design storm for water quality calculations. The rain event of 1.1 inches (85^{th} percentile storm event) mentioned by the commenter does not have published values for intensities and rainfall distribution in reference tables used in engineering literature. Rainfall distribution and return frequency for intensity calculations that are typically used for TSS removal calculations were not specified in Metro Nashville's 2011 individual permit. While the Board does not necessarily challenge Metro's assertion of comparable water quality protection, more specificity in terms of design storm and TSS removal values for various SCMs brings clarity beneficial to the designer and the regulated community. In response to the comment regarding Manufactured Treatment devices and treatment trains, row 4 of the table was modified to allow permittees to use an industry-wide standard for performance evaluation of Manufactured Treatment Devices. The current industry-wide standards include NJDEP certification and Washington DOE TAPE approval (GULD, basic). New industry-wide standards may be developed and accepted as well (e.g. ASTM). Manufactured treatment filter devices are typically a part of a treatment train. Treatment trains were added to the rule.

Comment 157: 0400-40-05-.15(2)(b), last sentence. What was the technical basis/rationale used to select the 1-year, 24-hour storm event as the design storm? Given that value varies by location, will a municipality be allowed to designate one value (across a large jurisdiction) as being the 1-year, 24-hour event amount?

Response: The design storm provides distribution of depth and intensity values as they vary across the state. The 1-year, 24-hour storm is the smallest design storm available in engineering reference literature in general, and in the NOAA Atlas 14 in particular. However, only a portion of the design storm is used in the calculation of the WQTV. Given the available spatial variability of data within a single jurisdiction, it is acceptable to designate a value from a single location within the jurisdiction to be used for the 1-year 24-hour design storm values.

Comment 158: Regarding Rule 0400-40-05-.15(2)(b), 4th sentence, it would seem the distribution type for the design (1-year, 24-hour) storm event needs to be defined. Possible Solution for Rule: Add "analyzed using an SCS Type II distribution." In general, the rule lacks sufficient specificity regarding rainfall information to allow permittees to ascertain TDEC's intent for the rainfall conditions/hydrology to be used for design purposes.

Response: The rule specifies the 1-year 24-hour water quality design storm. The rule has been updated to reflect that the design storm is defined by NOAA Atlas 14. NRCS is replacing the use of its legacy rainfall distributions (Type I, Type IA, Type II, and Type III) with rainfall distributions based on NOAA Atlas 14 precipitation-frequency data. NEH 630 Chapter 4 rev August 2019:

> "Precipitation-frequency data and storm distribution are important components of the NRCS hydrologic modeling procedures. Different assumptions and procedures were used in preparation of precipitation frequency atlases TP–40 and NOAA Atlas 14 by the NWS and in preparation of storm distributions NRCS Type II and those based on NOAA Atlas 14 data. Understanding these differences will provide more background on why hydrologic results could be different when changing from TP–40 and the Type I, IA, II, or III storm distribution to NOAA Atlas 14 data and a locally derived storm distribution. With many more years of data, better quality control, and more short duration measurements, much more confidence can be placed in the NOAA Atlas 14 precipitation-frequency estimates and storm distributions based on the estimates."[5]

Comment 159: T.C.A. § 69-3-108(s) provides, in part: Any national pollutant discharge elimination system (NPDES) permit issued pursuant to this section to a local governmental entity administering a municipal separate storm sewer system shall not impose post-construction stormwater requirements, except to the extent necessary to comply with the minimum requirements of federal law. There are no federal minimum requirements for post-construction. EPA has readily acknowledged that its regulations "do not include specific management practices or standards to be implemented." 74 Fed. Reg. 68620 (Dec 28, 2009). Furthermore, EPA recognizes that "stormwater permits leave a great deal of discretion to the regulated community to set their own standards..." Id. Inasmuch as there are no minimum federal post-construction requirements, any requirement promulgated by the State would not be "necessary to comply with the minimum requirements of federal law." Accordingly, the proposed stormwater rules should not be finalized. Without waiving the above argument, a determination of the minimum post construction requirements of federal law must be based upon a review of EPA-issued and other State-issued MS4 permits. The minimum requirement can be ascertained by a review of those permits to determine the last stringent requirement. Inasmuch as T.C.A. § 69-3-108(s) envisions flexibility and that requirements be no more stringent than the federal minimum, the MS4 regulations, to the extent they are adopted, should provide the permittee the alternative of implementing any requirement set forth in an EPA or State-issued MS4 NPDES permit.

Response: The Board does not agree with the comment. Although EPA rules do not include specific standards for post-construction stormwater management, these rules mandate the NPDES permitting authority to establish clear, specific, and measurable requirements. In other words, EPA has left it to each NPDES permitting authority to determine what constitutes MEP within its own jurisdiction. EPA has developed a helpful compendium of post construction stormwater standards from around the country, which demonstrates that states apply a range of approaches.[6]

This rule must be finalized in order to comply with Tennessee Code Annotated section 69-3-108(s), which requires the Board to establish narrative and numeric effluent limitations for post-construction stormwater by rule.

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[5] https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=43924.wba

[6] https://www.epa.gov/sites/production/files/2016-08/documents/swstdsummary_7-13-16_508.pdf.

The argument that the least stringent MS4 permit in the entire United States establishes MEP for post-construction stormwater in Tennessee is not tenable. MEP for post-construction stormwater in, for example, Arizona is not going to be the same as that for Tennessee. Rather, the appropriate analysis is to consider which post-construction stormwater measures are both practicable (i.e., capable of being put into practice) in Tennessee and maximize pollutant reduction: that is what federal law requires, and that is what TDEC has proposed and the Board has adopted through this rulemaking.

Moreover, the question of what constitutes MEP in a given state is technical and depends on locally based factors such as precipitation, land values, topography, etc. With respect to the infiltration measures established in this rule, it has been demonstrated that these are capable of implementation in Tennessee because a number of municipalities have adopted and successfully implemented this standard. The additional SCM types provide municipalities and developers substantial flexibility in determining the most appropriate measures for their specific situations. Accordingly, individual MS4 communities and developers may select from among these measures to determine what is practicable for their communities and development sites. With respect to water quality riparian buffers, these have been demonstrated to be practicable through their long-standing implementation in the construction stormwater general permit. Moreover, water quality riparian buffers maximize pollutant removal through contact of stormwater with vegetation, which both slows the discharge and removes pollutants. Vegetated buffers are particularly important for nutrient removal.

Comment 160: TDOT recommends that the new rule should address circumstances whereby a permittee may exempt a project from meeting all or part of the Permanent Stormwater Standards due to site restrictions, existence of karst features, or other adverse conditions. The rule should allow for a MS4 to develop a list of exemptions or limitations in its Implementation Plan. TDOT recommends that TDEC include the water quality benefits from the riparian buffers required under Rule 0400-40-10-.04(4) to be considered as part of the overall compliance with the Permanent Stormwater Standards. For example, recent TDOT sponsored research conducted by the Tennessee Technological University has found that roadside vegetated swales, which in many cases will be similar in configuration to the riparian buffers, may provide run-off reduction of as much 70%, thus effectively achieving much of the prescribed 80% TSS removal requirement, and for many storm events complying with the WQTV reduction requirements. If not included, TDOT requests that the rationale be documented. TDOT's statewide transportation network is constrained within its existing ROW. Requirements resulting in the need for additional ROW can significantly increase ROW acquisition and project development and maintenance costs.
Response: To provide equivalency of various treatment processes, the Water Quality Treatment Volume is graduated and an overall treatment efficiency of 80% TSS removal from the WQTV is set as the minimum design. As such, there is no need for the tiered system of the 2010 permit where SCMs not using infiltration, evapotranspiration and reuse had to provide technical justification of site limitations. With equivalent treatment options, designers will be able to select the optimum treatment for each site with respect to effectiveness, economics, and expediency. Individual permit application may include specifics regarding TDOT stormwater management program including post-construction treatment in vegetated swales and buffer protection as applied to linear road projects. TDOT also has the option to propose a mitigation program in its permit application.

Comment 161: Multiple commenters asked about the TSS removal as a performance standard and a proxy for nutrient and pathogens. If TSS is used as a proxy for nutrients and pathogens, how should permittees with TMDL "MS4 waste load allocation reduction" obligations for nutrients and pathogens reconcile those obligations with the 80% TSS reduction established by the rule? One commenter

recommended that the sentence “For design purposes, total suspended solids may be used as the indicator for the removal of pollutants (such as sediment, nutrients, and pathogens).” be removed from the rule.
Response: While not a surrogate, TSS has been used as an indicator pollutant across the nation. Reference to nutrients and pathogens has been removed from the rule. TMDL implementation and "MS4 waste load allocation reduction" will be addressed in the provisions of an individual permit.

Comment 162: Multiple commenters asked about the technical basis or rationale that was used to develop the four method categories described in Table (2)(c). How is this method superior to the past traditional method used to achieve 80% TSS removal using a static WQTV and prescribed SCM TSS removal efficiencies? One commenter proposed the addition of the following sentence to (2)(c): "Permittees may select and/or prioritize any of the SCM treatment type options in the table for use in their program or may establish equivalent methods to meet the 80% TSS removal standard."
Response: The permanent stormwater management program must require new development and redevelopment projects to be designed to reduce pollutants to the maximum extent practicable. For design purposes, total suspended solids may be used as the indicator for the removal of pollutants. To provide equivalency of various treatment processes, Water Quality Treatment Volume is graduated and an overall treatment efficiency of 80% TSS removal from the WQTV is set as the minimum design. The stormwater programs have the flexibility to set requirements specific to their community within the bounds of this rule. Larger volumes correspond to less efficient treatment processes (e.g. infiltration vs. settling) but provide equivalent overall treatment efficiency. The principle of the first flush is incorporated in the WQTV being defined as the first portion of the design storm. Singular WQTV disregards the lower efficiencies of treatment processes such as settling, gravel filtration, or hydrodynamic separators and does not provide treatment equivalent to the infiltration and evapotranspiration process. With equivalent treatment options, designers will be able to select the optimum treatment for each site with respect to effectiveness, economics, and expediency.

Comment 163: The review process “must include incentives as authorized by paragraph (3).” Paragraph (3) says the permittee “may choose” to develop incentives... which is it? Must or may? Is this saying if incentives are developed, they must be included in the review process? If so, should be better clarified.
Response: The incentives are optional for permittees to include in their Program and the correct reference is paragraph 2. If the permittee uses the option of incentives, those incentives are required in the plans review process.

Comment 164: The draft rule should explicitly recognize the value of green space SCMs, such as impervious area disconnection, reforestation, mature tree preservation, soil restoration, and/or buffer enhancements, to stormwater quality. A TSS removal percentage (or equivalent credit under an equivalent program) should be provided for green space SCMs. This commenter proposed addition of a subpart in (2) which states: "In accounting for full treatment of the WQTV, permittees may include the stormwater volume reduction provided by vegetated pervious areas, green roofs and nonstructural SCMs designed or preserved for purposes of stormwater management, such as reforestation and stream buffer restoration."
Response: The rule allows permittees to develop custom incentives. While green roofs and open space preservation do not typically receive runoff from an impervious surface, their inclusion in site design reduces the overall impervious surface and as such reduces the total WQTV required to be treated. Any green space receiving runoff intended for infiltration may be part of a treatment train for part or WQTV it infiltrates.

Comment 165: In table (2)(c), it is not clear how SCMs such as pervious/permeable pavements and pavers, engineered wetlands, and green roofs fit within the table
Response: Permeable pavement is a filtration- and/or infiltration-based SCM depending on the specific design and site conditions and as such is included in two of the four alternatives. While green roofs and open space preservation do not typically receive runoff from an impervious surface, their inclusion in site design reduces the overall impervious surface and therefore reduces the total WQTV required to be treated.

Comment 166: SCM pretreatment has been identified as a very important consideration in the long-term maintenance and functionality of SCMs. Design latitude in their inclusion on plans is very important to the sustainability and long-term effectiveness of SCM use. Forebays, stilling basins, rock aprons and other pretreatment devices are generally good options, depending on the situation. Clarifying the requirement for a forebay for only one type of SCM treatment type implies: 1) that forebays are the only pretreatment practice; and 2) that pretreatment is not required for other SCMs. As well, the sentence "Existing regional detention ponds are not subject to the forebay requirement." implies: 1) existing nonregional detention ponds are subject to the forebay requirement; and 2) the rule/permit pertains to existing SCMs and therefore has requirements for retrofits. Please clarify. The commenter suggested removing this clarification in its entirety and adding a general statement elsewhere in subpart (2)(c) as follows: "Pretreatment may be required for SCMs to remove trash, debris, and larger particulate matter prior to stormwater discharge to the SCM."
Response: Forebays are not the only pretreatment practice; detention ponds have been designed and built without them. To improve settling and resulting water quality, forebays are required for post-construction stormwater treatment ponds to meet the overall treatment efficiency of 80% TSS removal from the WQTV. Other SCMs require pretreatment as identified by their manufacturers or design specifications. Existing non-regional detention ponds would be subject to the forebay requirement if a new development or redevelopment uses the ponds for post-construction treatment.

Comment 167: One commenter requested more clarification for permittees on MTD selection, design, and compliance with an 80% TSS removal standard, or alternately must have some ability to set approval criteria for MTD approval in their jurisdiction based on the characteristics of the MTDs, not on prescribed flow rates set without regard to MTD characteristics. Further, the entire last row of the table as stated is insufficient in ensuring effective compliance with 80% TSS removal when using an MTD.
Response: Row 4 was modified where the rule requires the permittees to use an industry-wide standard for performance evaluation of Manufactured Treatment Devices. The current industry-wide standards include NJDEP certification and Washington DOE TAPE approval (GULD, basic). New industry-wide standards may be developed and accepted as well (e.g. ASTM). A provision was included in the revised rule to allow permittees to exclude uncontaminated roof runoff from the WQTV calculation.

Comment 168: Rule 0400-40-05-.15(2)(c) states, “SCMs must be designed, at a minimum, to achieve an overall treatment efficiency of 80% TSS removal from the WQTV.” The Rule should specify the TSS concentration baseline, or the applicable range of impacted TSS levels, for the calculation of the 80% TSS removal level to allow verification of compliance with this requirement. For example, if the level of TSS in a MS4’s post-construction stormwater discharge can be documented to be less than 50 mg/l, no SCM currently in existence would be able to achieve 80% TSS removal (i.e. removal of TSS to achieve a TSS level of 10 mg/l). However, a TSS level of no more than 50 mg/l in stormwater discharges would clearly be considered protective of water quality and achieve the goals of

this rule. It is also recommended that the 80% TSS removal level be specified as only required for post-construction stormwater discharges in which the subject stormwater discharge TSS levels have not been quantified or which have been demonstrated to exceed a TSS level of 150 mg/l, (which is the benchmark level for most sectors specified in the Tennessee Stormwater Multi-Sector General Permit for Industrial Activities, and thus presumed to be protective of water quality in Tennessee). Additionally, since TSS has been demonstrated to correlate with precipitation intensity, it is also recommended that the 80% TSS removal requirement not be applicable for rainfall events which exceed the 10-year 1-hour precipitation intensity for the subject location. Due to the linear nature and statewide area of TDOT's permit, this requirement is not feasible or fully supportable for the TDOT Individual Permit.

Response: A provision was included in the revised rule to allow permittees to exclude uncontaminated roof runoff from the WQTV calculation. The table provides the WQTV for engineering calculations (e.g. STAR model) to meet the standard of reducing pollutants to the MEP where TSS may be used as an indicator. TDOT's individual permit application may include specifics regarding its stormwater management program including post-construction treatment as applied to linear road projects.

Comment 169: There is no basis for sizing SCMs in the proposed rule. Flow-through SCMs should be sized according to the influent surface area loading rate (e.g., gpm/ft2) as opposed to a WQTV associated with a storm size (depth). Performance of SCMs is fundamentally based on the influent flow rate, not necessarily the storm size.

Response: Hydrodynamic separators and other Manufactured Treatment Devices are designed for a flowrate that is a function of rainfall intensity. The rule specifies 1-year, 24- hour water quality design storm. The authoritative reference for the design storm is NOAA Atlas 14 providing rainfall depth and intensities. NRCS is replacing the use of its legacy rainfall distributions (Type I, Type IA, Type II, and Type III) with rainfall distributions based on NOAA Atlas 14 precipitation-frequency data. NEH 630 Chapter 4 rev August 2019:

> "Precipitation-frequency data and storm distribution are important components of the NRCS hydrologic modeling procedures. Different assumptions and procedures were used in preparation of precipitation frequency atlases TP–40 and NOAA Atlas 14 by the NWS and in preparation of storm distributions NRCS Type II and those based on NOAA Atlas 14 data. Understanding these differences will provide more background on why hydrologic results could be different when changing from TP–40 and the Type I, IA, II, or III storm distribution to NOAA Atlas 14 data and a locally derived storm distribution. With many more years of data, better quality control, and more short duration measurements, much more confidence can be placed in the NOAA Atlas 14 precipitation-frequency estimates and storm distributions based on the estimates."[7]

Comment 170: Can TDEC clarify the difference, or give examples of the SCM Treatment Type practices listed? There is confusion of what category many SCM practices such as a bioretention, infiltration trench, water quality swale, etc., would fit into. For example, our interpretation would be that bioretention area would easily fit into both the first and second tier as it is both an "infiltration, evaporation, transpiration, and/or reuse" along with a "biologically active filtration, with an underdrain" practice. A list of generally accepted SCMs would greatly aid MS4's in understanding what practices are being proposed in each Tier.

[7] https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=43924.wba

Response: The vast majority of SCMs can be classified by the treatment process on which they rely. Retention and storage SCMs rely on infiltration and/or evapotranspiration. Stormwater control measures which drain to an outlet provide filtration. Where internal water storage is provided, the filtration is enhanced biologically by nitrogen removal and additional settling. Other SCMs rely on particle settling, either in quiescent conditions, baffled flow-paths or hydrodynamic separators. The SCMs are therefore sufficiently classified by their predominant treatment process. Local stormwater programs can provide list of specific SCMs in each category.

Comment 171: Multiple commenters asked for clarification of the maximum flow rate of the design storm and the first X inches of the design storm.
Response: Wording has been changed to: "runoff generated from the first X inch(es) of the design storm" and for the 4th category of SCMs, the WQTV is now specified as the maximum runoff generated by the design storm.

Comment 172: Regarding 0400-40-05.15(4)(b), if the predominant vegetation should be trees, should we assume this to mean over 50%? If so, should this be defined as canopy coverage? If so, mature tree canopy or as planted? If existing buffer isn't predominantly trees, should more be planted? Is there no objective or mandate to preserve existing riparian vegetation?
Response: The specifics of buffer vegetation are at the discretion of the local jurisdiction that has site specific knowledge or community-wide experience. Additionally the definition for water quality riparian buffer has been revised to state "A 'water quality riparian buffer' is a permanent strip of natural perennial vegetation adjacent to streams, rivers, wetlands, ponds, and lakes, that contains dense vegetation made up of grass, shrubs, and/or trees. The purpose of a water quality riparian buffer is to maintain existing water quality by minimizing the risk of any potential sediments, nutrients or other pollutants reaching adjacent surface waters and to further prevent negative water quality impacts by providing canopy over adjacent waters."

Comment 173: What is the State's rationale for defining MEP so specifically in section 0400-40-05-.15 given the various other viable options for meeting MEP? The draft rule and future draft permits should allow Individual MS4 NPDES permittees to define alternate programs to maintain the flexibility desired and intended by EPA in meeting the MEP standard as allowed by the administrative NPDES permitting process.
Response: The Board is required by statute to establish effluent limitations for post-construction stormwater. Given that MS4 permits are based on SCMs, the rule must establish what SCMs meet the MEP standard. However, the final rule has been amended to allow individual permit applicants to demonstrate that alternative SCMs would provide equivalent pollutant reduction.

Comment 174: A commenter recommended that the rule specify design storm precipitation intensity for the WQTV table to be meaningful and applicable for manufactured stormwater treatment devices. As related, the "Time of Concentration" is a site-specific design parameter which is based on specific drainage characteristics of each specific drainage site. Design factors such as drainage site size, shape, slope, and other factors of the drainage catchment flowing to the manufactured stormwater treatment device are site specific and recommended to not be arbitrarily assigned.
Response: Hydrodynamic separators and other Manufactured Treatment Devices are designed for flowrate that is a function of rainfall intensity. The rule specifies the 1-year, 24-hour water quality design storm. The authoritative reference for the design storm is NOAA Atlas 14 providing rainfall depth and intensities. NRCS is replacing the use of its legacy rainfall distributions (Type I, Type IA, Type II, and Type III) with rainfall distributions based on NOAA Atlas 14 precipitation-frequency data. NEH

630 Chapter 4 rev August 2019: "Precipitation-frequency data and storm distribution are important components of the NRCS hydrologic modeling procedures. Different assumptions and procedures were used in preparation of precipitation frequency atlases TP–40 and NOAA Atlas 14 by the NWS and in preparation of storm distributions NRCS Type II and those based on NOAA Atlas 14 data. Understanding these differences will provide more background on why hydrologic results could be different when changing from TP–40 and the Type I, IA, II, or III storm distribution to NOAA Atlas 14 data and a locally derived storm distribution. With many more years of data, better quality control, and more short duration measurements, much more confidence can be placed in the NOAA Atlas 14 precipitation-frequency estimates and storm distributions based on the estimates."[8]

Comment 175: One commenter proposed that the term "filters" be inserted in the bottom row of the table as another example of flow-through manufactured treatment devices under the "Clarifications" column. It is widely recognized that filtration technologies target 80% TSS removal from the WQTV and can be used as a standalone SCM. However, in practice, hydrodynamic separators typically target 50% TSS removal efficiency via NJCAT-verified laboratory testing. While a given hydrodynamic separator can achieve 80% TSS removal efficiency and obtain NJCAT verification via laboratory and/or field testing programs, the inclusion of "filters" clarifies examples of this aspect of the table.
Response: The rule requires the permittees to use an industry-wide standard for performance evaluation of Manufactured Treatment Devices. The current industry-wide standards include NJDEP certification and Washington DOE TAPE approval (GULD, basic). New industry-wide standard may be developed and accepted as well (e.g. ASTM). Emerging SCM technology in the form of modular bioretention uses retention and storage with or without an underdrain, similar to a built-on-site bioretention. Another SCM technology uses advanced media filtration. Manufactured treatment filter devices are typically a part of a treatment train. Treatment trains have been added to the rule.

Comment 176: Multiple commenters asked about the meaning of "biologically active filtration."
Response: The North Carolina State University Cooperative Extension provides a helpful explanation of bioretention/biologically active filtration, which "combine[] natural and engineered systems to manage stormwater from developed areas." [9] This system must provide 12 inches of internal water storage.[10]

Comment 177: Hydrodynamic separators? NJCAT verification? WQTV is a rate and not a volume? So, it seems the WQTV would be 100% and must accept/accommodate the peak rate, right?
Response: The WQTV is now specified as the maximum runoff generated by the design storm. In response to comments regarding Manufactured Treatment Devices and treatment trains, row 4 of the table was modified where the rule requires the permittees to use an industry-wide standard for performance evaluation of Manufactured Treatment Devices. The current industry-wide standards include NJDEP certification and Washington DOE TAPE approval (GULD, basic). New industry-wide standards may be developed and accepted as well (e.g. ASTM). Manufactured treatment filter devices are typically a part of a treatment train.

Comment 178: My view – based on years of familiarity with MS4 permit requirements and 10+ years of experience with SCMs at design and ground level – is that the design and performance standards set forth here (WQTV, etc.) do a fairly good job of generalizing performance of SCMs and so provide a

[8] https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=43924.wba
[19]http://chesapeakestormwater.net/wp-content/uploads/downloads/2014/03/Internal-Water-Storage-for-Bioretention-2009.pdf.
[110] *Id.*

reasonable set of standards. I say this considering that most MS4s will -in addition to the quality control set forth here – have quantity control requirements on development. So, for instance, treating 1.0 or 1.25 inches of the design storm might seem to be the preferred design, but if the project also must provide detention for control of quantity/discharge, then maybe an extended detention pond with forebay is a better option.
Response: The Board appreciates your supporting opinion of the flexibility this rule provides. The Division agrees that a site should be able to optimize design solutions for all pertinent requirements and not just water quality.

Comment 179: It is assumed that the intent of the table and its various flow depths (leaving off row 4 pertaining to a maximum flowrate) is for each numbered row to attain equivalent total pollution capture. However, the individual rows in the table do not obtain 80% TSS removal from each WQTV stated. Rather, they attain an equivalent volume of pollutant removal. Only the ability to efficiently remove pollutants changes with the SCM treatment types in each row. Thus, the amount of runoff treated increases to attain an equivalent volume, but the efficiency of each level of SCM treatment type goes down with each WQTV increase. As a result, the rows do not equivalently "achieve an overall an overall treatment efficiency of 80% TSS removal from the WQTV."
Response: The permanent stormwater management program must require new development and redevelopment projects to be designed to reduce pollutants to the maximum extent practicable. For design purposes, total suspended solids may be used as the indicator for the removal of pollutants. As the commenter noted, to provide equivalency of various treatment processes, Water Quality Treatment Volume is graduated and an overall treatment efficiency of 80% TSS removal from the WQTV is set as the minimum design. The stormwater programs have the flexibility to set requirements specific to their community within the bounds of this rule. Larger volumes correspond to less efficient treatment processes (e.g. infiltration vs. settling) but provide equivalent overall treatment efficiency. The principle of the first flush is incorporated in the WQTV being defined as the first portion of the design storm. Singular WQTV disregards the lower efficiencies of treatment processes such as settling, gravel filtration, or hydrodynamic separators and does not provide treatment equivalent to the infiltration and evapotranspiration process. The stormwater programs have the flexibility to set requirements specific to their community within the bounds of this rule and select any or all of the four equivalent alternatives. As such, there is no need for the tiered system of the 2010 permit where SCM not using infiltration, evapotranspiration, or reuse had to provide technical justification of site limitations. With equivalent treatment options, designers will be able to select the optimum treatment for each site with respect to effectiveness, economics, and expediency.

Comment 180: Subsection 0400-40-05-.15 establishes requirements pertaining to the control of a proxy indicator as opposed to an actual pollutant. Further, as described by TDEC staff during the July 15, 2019 draft rule public comment session, the control of stormwater volume (the WQTV) is either part or all of the permanent stormwater standard, as opposed to an effluent (waste or sewage) discharge. Permanent stormwater requirements are in conflict with the definition and traditional use of an effluent limitation. From a larger perspective this terminology conflict may result in unintended consequences for both TDEC and the permittee.
Response: T.C.A. § 69-3-108(s) requires the Board to establish effluent limitations for post-construction stormwater standards by rule.

Comment 181: The draft rule is clear that 80% TSS removal efficiency is the goal of design. However, within the table, volume is the goal apart from a pollutant. When questioned during the July 15, 2019 public comment/questioning session, replies from TDEC staff as to what, exactly, is the standard were

inconsistent (i.e., the standard is MEP, the standard is 80% TSS removal, the standard is the WQTV). Is it 80% TSS? Is it volume removal? Is it an array of targeted pollutants state-wide? Is it site or watershed specific pollutants? There has always been some question in making the standard a treatment volume, as is done by the part (2)(c) table, without directly associating it with an actual pollutant. In most places, the treatment volumes (termed the WQTV in the draft rule language) specified are tied to a pollutant removal standard and the water volume is used to measure the pollutant removed. This is a fine but important point. The table in part (2)(c) does not have a clear connection with pollution even though the 80% TSS requirement occurs above the table. It is recommended the table be changed or eliminated, and that the actual underlying science behind the table in the removal of an actual pollutant be referenced instead. Part (2) of the draft rule could be changed to state: "SCMs must be designed, at a minimum, to achieve an equivalent overall treatment efficiency of 80% TSS removal from the first 1.25 inches of the design storm," with reference to increasing WQTVs per the table. However, the gradual increasing of WQTV still incurs a larger issue, described in comment #3.

Response: As previously stated, 80% TSS removal is not the design standard and does not constitute MEP by itself. Rather, applying the SCM types in accordance with the table ensures compliance with the MEP standard. Moreover, the rule does not require flow reduction. The Division most certainly appreciates the complexities, history and science of post-construction stormwater management, treatment and design. With much consideration to the existing approach to stormwater treatment in Tennessee, the rules reflect an acceptable degree of complexity yet provide design specificity and management flexibility to achieve equitable implementation and protection of state's waters. While used in the past with many complications and without sufficient design standard specificity, a singular WQTV disregards the lower efficiencies of treatment processes such as settling, gravel filtration, or hydrodynamic separators and does not provide treatment equivalent to the infiltration and evapotranspiration process.

Comment 182: The use of a table with prescribed, increasing treatment volumes creates confusion when a designer is attempting to use the flexible advantages of green infrastructure in stormwater management. This is true in two ways:

1. By definition, the table in part (2)(c) (with the exception of row 4 for manufactured treatment devices) eliminates a large number of SCMs that, while not able to manage water quality from an entire project design alone, contribute significant ability to reduce pollutants when used in combination with other SCMs in a "treatment train" approach. There are significant advantages of a "treatment train" approach for capture and treatment of pollutants which incorporates very effective SCMs, just not those indicated in the table.
2. The table does not seem to support a combined SCM approach which includes green infrastructure.

This is a backward step in natural green treatment of stormwater runoff.

Response: The Board agrees with the commenter that treatment trains, including those that include a combined SCM approach, are appropriate measures. Moreover, this allows for greater flexibility in the broad range of site development scenarios. It was not the intent of the draft rule to eliminate the use of treatment trains. Accordingly, treatment trains were added as Rule 0400-40-05-.04(2)(d). While green roofs and open space preservation do not typically receive runoff from an impervious surface, their inclusion in site design reduces the overall impervious surface and as such reduces the total WQTV required to be treated. Any green space receiving runoff intended for infiltration may be part of a treatment train for the part of the WQTV it infiltrates.

Comment 183: The "instantaneous water volume capture" approach implied by the table is at odds with how nature itself works. Nature rarely captures the "first" anything except if there are shallow

depressions or large dry ponds. The goal, as mentioned above, must not be capture of a particular volume. It must be removal of pollution at a certain level – in this case equivalent to an 80% TSS removal. The permit is about acceptable pollution removal not instantaneous volume capture. The approach taken by Nashville and several other permittees recognizes the balance needed in pollutant removal from paved areas and the extraordinary benefit of preserving green spaces and of the non-compacted soil's ability to capture, treat, and process rainwater back into the ground where it does the most good. The vast majority of storms, on an annual basis, are small and easily handled by the green spaces within a development if they are wisely laid out and simply preserved. Thus, the approach employed by Nashville and others provides an equivalent instantaneous capture where required but stresses the great value of green spaces both for their rainfall absorbing capabilities and also for their co-benefits in making sites attractive and functional.

Response: The permanent stormwater management program must require new development and redevelopment projects to be designed to reduce pollutants to the maximum extent practicable. For design purposes, total suspended solids may be used as the indicator for the removal of pollutants. As the commenter noted, to provide equivalency of various treatment processes, Water Quality Treatment Volume is graduated. The stormwater programs have the flexibility to set requirements specific to their community within the bounds of this rule. Larger volumes correspond to less efficient treatment processes (e.g. infiltration vs. settling) but provide equivalent overall treatment efficiency. The principle of the first flush is incorporated in the WQTV being defined as the first portion of the design storm. Singular WQTV disregards the lower efficiencies of treatment processes such as settling, gravel filtration, or hydrodynamic separators and does not provide treatment equivalent to the infiltration and evapotranspiration process. The stormwater programs have the flexibility to set requirements specific to their community within the bounds of this rule and select any or all of the four equivalent alternatives. As such, there is no need for the tiered system of the 2010 permit where SCM not using infiltration, evapotranspiration, or reuse had to provide technical justification of site limitations. With equivalent treatment options, designers will be able to select the optimum treatment for each site with respect to effectiveness, economics, and expediency. The table has been reformatted and clarifications have been provided. The table classifies all SCMs by the type of treatment process on which they rely. The vast majority of SCMs can be classified in this way. Retention and storage SCMs rely on infiltration and/or evapotranspiration. SCMs that drain to an outlet provide filtration. Where internal water storage is provided, the filtration is enhanced biologically by nitrogen removal and additional settling. Other SCMs rely on particle settling, either in quiescent conditions, baffled flow-paths, or hydrodynamic separators. The SCMs are therefore sufficiently classified by the predominant treatment process on which they rely. Local stormwater programs can provide list of specific SCMs in each category. Emerging SCM technology in the form of modular bioretention uses retention and storage with or without an underdrain, similar to a built-on-site bioretention. Another SCM technology uses advanced media filtration. Manufactured treatment filter devices are typically a part of a treatment train. Treatment trains have been added to the rule. The terminology of "the first x inch(es) of design storm" provides a measure of timing and intensity. The specific characteristics of the 1-year 24-hour design storm are published in NOAA Atlas 14. Biologically Active Filtration has been clarified to provide 12 inches of internal water storage as referenced in the North Carolina State University design guidance.[11] The rule allows permittees to develop custom incentives. While green roofs and open space preservation do not typically receive runoff from an impervious surface, their inclusion in site design reduces the overall impervious surface

[11] http://chesapeakestormwater.net/wp-content/uploads/downloads/2014/03/Internal-Water-Storage-for-Bioretention-2009.pdf

and as such reduces the total WQTV required to be treated. Any green space receiving runoff intended for infiltration may be part of a treatment train for part or WQTV it infiltrates.

Comment 184: How are the design criteria for the non-infiltrative practices derived and what research was cited for determining these? Where else in the southeast or nation are these design criteria used?
Response: The performance of various treatment types has been evaluated and published in scientific literature (e.g. Schueler, T.R., Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs, Metropolitan Washington Council of Governments (MWCOG), Publication #87703, July 1987). Stormwater manuals used in Tennessee present removal rates along with scientific literature references. For example, the UT Permanent Stormwater Manual presents an excellent summary of literature findings of TSS removal efficiencies for various SCMs. Also, please refer to the 2016 updated Summary of State Post Construction Stormwater Standards issued by the EPA.[12]

Comment 185: When referring to treatment of 80% TSS, 80% of what? Please define particle size.
Response: This refers to 80% of the TSS in the stormwater prior to treatment. For design purposes, total suspended solids may be used as the indicator for the removal of pollutants. To provide equivalency of various treatment processes, Water Quality Treatment Volume is graduated and an overall treatment efficiency of 80% TSS removal from the WQTV is set as the minimum design as set forth in the SCM treatment type table.

Comment 186: Please define "full treatment capacity."
Response: Full treatment capacity within 72 hours following the end of the preceding rain event refers to the maximum drain time of the SCM.

Comment 187: The proposed rule references a compliance schedule. This paragraph recognizes that newly permitted programs have 24 months to update their codes, ordinances or other legal instruments. Existing permittees also need to be provided an adequate amount of time (i.e., 24 months) to update codes, ordinances or other legal instruments. While the proposed rule references section 4.1.1, the reference is unclear. This paragraph needs to be clarified and set forth the intended timeline applicable to existing permittees.
Response: The reference to section 4.1.1 has been corrected to paragraph 1(d) which provides both existing and new permittees the same amount of time for implementation of the post construction stormwater program.

Comment 188: Section 0400-40-05.15(6)(b) states, “The process must also include incentives as authorized by paragraph (3) of this rule, along with water quality buffers as required by paragraph (5) of this rule. ”Review the references to paragraphs. Incentives are authorized by paragraph (2) and water quality buffers are discussed paragraph (4). Paragraph (3) discusses stormwater mitigation or payment in lieu stormwater fund which municipalities may or may not choose to establish. If paragraph references are not corrected, the casual reader may think they “must” (not “may”) establish mitigation/fund.
Response: The rule has been revised to reflect that the development of a mitigation program or payment in lieu into a public stormwater fund are both at the discretion of the permittee. In the rule, the word "may" applies to both the mitigation program and the stormwater fund indicating both options are optional. The language of the rule has been revised to clarify this intent.

[12] https://www.epa.gov/sites/production/files/2016-08/documents/swstdsummary_7-13-16_508.pdf

Comment 189: The proposed rule addresses stormwater mitigation and public stormwater fund. Subsection (a) indicates that a "permittee may choose to develop an offsite mitigation program in lieu into a stormwater fund..." The rule should be clarified that the mitigation applies "in lieu of meeting the standard on-site." As written, it fails to identify what the words "in lieu" are referencing. Subsection (b) provides that if "the permittee allows payment into a public stormwater fund, the permittee assumes responsibility to provide the required mitigation projects." In no case should the developer's liability, associated with meeting its standards, be transferred to the MS4. Moreover, it is unclear what the term "public stormwater fund" means. The MS4 permittee should not be liable if it were to allow a developer to undertake off-site mitigation by one of these other entities.
Response: The rule has been revised to reflect that the development of an offsite mitigation program and/or payment in lieu into a public stormwater fund are both at the discretion of the permittee. In the rule, the word "may" applies to both the mitigation program and the stormwater fund indicating both are optional. The language of the rule has been revised to clarify this intent. However, if the MS4 community does allow payment into a fund, then it must provide the offsetting mitigation.

Comment 190: The rule should be clarified to specifically recognize that, when a public stormwater fund is used to fund public mitigation projects, grant funds or other types of local funding (utility revenue, bonding) can be added to this fund to pay for these projects. It would seem rare that such a fund limited to development off-site mitigation would be capable of funding all the required needs.
Response: The rule does not limit the types of revenue sources into a public stormwater fund.

Comment 191: Mitigation must be in same "12-digit hydrologic unit code watershed?" I presume this refers to TDEC mapping and website. This should be clarified.
Response: The commenter is correct; the mitigation must be in the same 12-digit hydrologic unit code watershed if practicable. The boundaries of watersheds delineated to the 12-digit hydrologic unit code are available on TDEC's map viewer.

Comment 192: Rule 0400-40-05.15(3)(a)(b) - We request that this rule be modified to allow that off-site mitigation must be performed within the same MS4 as the new development project, regardless of watershed boundaries, thus providing flexibility while still achieving the intent of the Rule. We recommend providing a description of the nature and structure of the stormwater mitigation program, or the methodology by which such a program would be developed.
Response: The rule allows for mitigation, so the permittee has the option to propose mitigation program in their permit application.

Comment 193: Section e.3 - incentives should be required to show their environmental benefit.
Response: Incentives identified by the permittee require Division approval.

Comment 194: Define "public mitigation project." Could it include buying floodplain for conservation purposes? Or planting riparian buffers?
Response: The rule allows for off-site mitigation where WQTV treatment is not practicable on site. The permittee has the option to develop a mitigation program or other incentives. TDEC will evaluate such proposals based on a reduction of pollutant loading.

Comment 195: In section 3(b), what is the time limit in which the permittee must complete the project associated with payment in lieu? Mitigation sites should be given a time limit in which to be installed.

Response: The rule does not establish a time frame for the completion of mitigation projects. The permittee has discretion to establish a reasonable time frame in its stormwater management program. The time frame may be addressed in the permit conditions.

Comment 196: The payment amount into a public stormwater fund must be sufficient to design, install, and maintain the stormwater mitigation measures… add "for the life of the development project" which is the same language used in section 2.b and 7.b.
Response: Any details on this time frame can be included in the permit.

Comment 197: The buffer provision says the predominant vegetation should be trees. Should assume this to mean over 50%? If so, should this be defined as canopy coverage? If so, mature tree canopy or as planted? If existing buffer isn't predominantly trees, should more be planted? Is there no objective or mandate to preserve existing riparian vegetation?
Response: The specifics of buffer vegetation are at the discretion of the local jurisdiction. Additionally, the definition for water quality riparian buffer has been revised to state " 'water quality riparian buffer' is a permanent strip of natural perennial vegetation adjacent to streams, rivers, wetlands, ponds, and lakes, that contains dense vegetation made up of grass, shrubs, and/or trees. The purpose of a water quality riparian buffer is to maintain existing water quality by minimizing the risk of any potential sediments, nutrients or other pollutants reaching adjacent surface waters and to further prevent negative water quality impacts by providing canopy over adjacent waters."

Comment 198: Multiple commenters stated that allowing infiltration-based SCMs inside the buffer would compromise the buffer, stream bank, and riparian cover, and the intent of the buffer. At a minimum, infiltration-based SCMs within the buffer should not be allowed. (Regarding 0400-40-05-.15 4b) The statement in (4)(b) "The remaining riparian buffers may be composed of herbaceous cover or infiltration-based SCMs." seems counter intuitive as it allows purposeful destruction of the existing vegetative buffer.
Response: While the rule does not prohibit infiltration-based SCMs in the buffer, the specifics of buffer use are at the discretion of the local jurisdiction to decide if infiltration-based SCMs in their buffer areas should not be allowed or if the designer evaluates the applicability of infiltration-based SCMs to the buffer areas on a specific site.

Comment 199: The rule uses the term "SCM," however this acronym does not appear to be defined. A definition of "SCM" in the context of this rule and MS4 permits should be provided, including a clear listing and description of what types of structures and systems are (or are not) included in this term, as it is used frequently in the subsequent rules.
Response: The terms "stormwater control measures" or "SCMs" are defined in the new Rule 0400-40-05-.02 as "permanent practices and measures designed to reduce the discharge of pollutants from new development projects." The WQTV chart in (2)(c) identifies categories of SCMs, which is sufficient information for regulatory purposes. The Department may provide further guidance concerning SCMs in conformance with Bureau of Environment policy.

Comment 200: Section 4(c) "ensure the pollutant removal function of the buffer will be retained." Is this to be quantified?
Response: No, while not quantified, the purpose of a water quality riparian buffer is to maintain existing water quality by minimizing the risk of any potential sediments, nutrients, or other pollutants reaching adjacent surface waters and to further prevent negative water quality impacts by providing canopy over adjacent waters.

Comment 201: Section 4(d) says, “Any such procedures and criteria for alternative buffer widths must ensure implementing full buffer widths would be impracticable and that the maximum practicable buffer widths are required.” This should say “required” or “installed.”
Response: The rule language has been changed in 6(b) and 7(b) from the word "Ensure" to "require." The language in 1(b), 4(c), and 4(d) has not been changed.

Comment 202: Section (4)(e) Should be moved to the order of (4)(a)
Response: This change has not been made.

Comment 203: Section (4)(f) “deemed to satisfy conditions of this paragraph”... which paragraph? Entirety of (4)? “satisfy” regardless of designation of received waters? Other conditions/requirements for buffers still apply? E.g., “predominant vegetation” to be trees, and other methods of attaining vegetative-type SCM’s?
Response: The provision for buffer averaging refers to the entirety of 0400-40-10-.04(4), Water Quality Riparian Buffers.

Comment 204: There is not a definition of Water Quality Riparian Buffer in the document.
Response: The rule chapter has been revised to include a following definition of a water quality riparian buffer.

Comment 205: There is no definition of “ordinary high water mark” in the document.” Most Water Quality Buffers are defined by ‘top of bank’ which is not the same as ‘ordinary high water mark’. Ordinary high water mark is a technical term with physical characteristics such as change in substrate, change in vegetation, development of a shelf, change in slope, presence/absence of litter, etc. Another commenter requested that the reference to ordinary high water mark be removed. Top of bank should be defined as the bankfull elevation or the incipient point of flooding, whichever is the greater width.
Response: The Department will consider defining the common term "top of bank" in the permit.

Comment 206: The 60’ buffer is for streams with unavailable parameters for ONLY siltation and habitat alteration. Why doesn’t the 60’ buffer width apply to ALL streams with unavailable parameters?
Response: Post-construction buffer requirements were revised to match temporary construction buffer requirements where the temporary buffers apply only under Exceptional Tennessee Waters and waters with unavailable parameters for siltation and habitat alteration. These parameters are associated with the discharge of sediment in stormwater.

Comment 207: Vegetation requirements in the buffer should reference native plants and require a canopy, subcanopy, and shrub species (Urban Riparian Handbook)
Response: The only purpose of the buffer is to provide pollutant removal. While the Board agrees that these habitat-related provisions would improve overall environmental quality, they are not targeted at pollutant removal and have not been adopted.

Comment 208: If a retrofit or redevelopment site had a buffer that was already impacted (parking lot, sidewalk, building, etc.) would it be permissible to place any type of SCM in the buffer?
Response: While the rule does not prohibit infiltration-based SCMs in the buffer, the specifics of buffer use are at the discretion of the local jurisdiction to decide if infiltration-based SCMs in their buffers

areas should not be allowed or if the designer evaluates the applicability of infiltration-based SCMs to the buffer areas on a specific site.

Comment 209: Please reference required minimum standards for water quality buffer revegetation to include restoring the buffer with native plants and minimum canopy standards. These items would assist in meeting biodiversity and habitat goals.
Response: The rule has been revised to include a definition of a water quality riparian buffer.

Comment 210: Remove the confusion between Natural Riparian Buffers, Water Quality Buffers, and Water Quality Riparian Buffers, by using one term with clear definition. Provide clear distinction between temporary construction buffers and permanent Water Quality Buffers, if both of these terms are still relevant.
Response: The rule has been revised to include a definition of a water quality riparian buffer.

Comment 211: Since buffer requirements are now consistent with the CGP requirements, we recommend that the phrase from the CGP also be incorporated: "The 30-foot criterion for the width of the
buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 15 feet at any measured location. If the site encompasses both sides of a stream, buffer averaging can be applied to both sides, but must be applied independently." This would allow the buffers to be established at the beginning of the site construction and remain undisturbed through post-construction.
We also recommend that the rule clearly state that SCMs may be allowed within the riparian buffers at the discretion of the MS4. For linear projects where the space between the new development and the water body may be limited, allowing the SCM within the buffer will be unavoidable. Proper design of the SCM would ensure that it in no way reduces the effectiveness of the buffer, and special provisions for the maintenance of SCMs located within buffers would have to be part of the MS4's Implementation Plan. If an individual MS4 chooses to prohibit the location of SCMs within the buffers in their jurisdiction, the MS4 could include that restriction in their ordinance and/or Implementation Plan.
Response: The proposed rule has been changed to include a minimum buffer width and that the criteria for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than the required minimum width at any measured location. If the construction site encompasses both sides of a stream, buffer averaging can be applied to both sides, but must be applied independently. This is consistent with the CGP requirement. While the rule does not prohibit infiltration-based SCMs in the buffer, the specifics of buffer use are at the discretion of the local jurisdiction that has site specific knowledge or community-wide experience, to decide if infiltration-based SCMs in their buffers areas should not be allowed or if the designer evaluates the applicability of infiltration-based SCMs to the buffer areas on a specific site.

Comment 212: The proposed rule requires the use of riparian buffers. The federal regulations, however, do not contain a minimum requirement for riparian buffers. Federal regulations merely provide guidance suggesting buffers, but not requiring buffers, for post-construction in new development and redevelopment. 40 CFR 122.34(b)(5)(ii). Furthermore, the guidance only suggests the use of riparian buffers for sensitive waters. Inasmuch as the riparian buffer requirements are more stringent than the federal minimum, such proposal is in contravention of TCA 69-3-108(s), as discussed above. Instead, the rule should recognize the discretion of the MS4 to impose riparian buffer requirements through its local program, as it deems appropriate.

Response: The Board does not agree that buffers are more stringent than federal minimum requirements. Where practicable, buffers are very effective at reducing pollution and thus are a required component of the MEP requirement.

Comment 213: It is conflicting to say in section (4(2) that the permittee is providing treatment to the MEP, and then in this section say that buffers "provide additional water quality treatment." The rule should be crafted to account for the benefit of water quality buffers in addition to an SCM in series to meet the 80% TSS reduction goal. To the extent buffers would be authorized to be included in the Rule or voluntarily implemented by MS4's, buffers are SCMs.
Response: The standard is to reduce pollutants to the MEP. Compliance with permanent stormwater standards for new development and redevelopment projects is determined by designing and installing SCMs as established by this rule and complying with other requirements of this rule. Buffers are other requirements of the rules and as such component of MEP.

Comment 214: The proposed rule provides that stormwater discharges should enter the water quality riparian buffer as sheet flow where site conditions exist. If the stormwater enters the riparian buffer as sheet flow it is not a "discharge from a point source" and is not subject to the NPDES program. Regardless, such provision should not be mandated but, instead, should at most be encouraged and left to the discretion of the MS4.
Response: This condition is not mandated as the site conditions often dictate how runoff enters riparian buffer zones. Moreover, the effectiveness of buffers to provide pollutant reduction is maximized where stormwater enters the buffer as dispersed sheet flow, thus allowing contact with plants to provide filtration. Where site conditions exist such that sheet flow is practicable, this condition represents pollutant reduction to the MEP from this element of permanent stormwater controls and has been retained.

Comment 215: A number of commenters noted that infiltration based SCMs in buffers may be problematic due to flooding, scouring, soil and vegetation loss, and the associated maintenance requirements. One commenter asked to remove the option to allow SCMs within the Buffer, adding that allowing SCMs within the Buffer encourages additional disturbance and bank exposure during the establishment phase of new plantings. Also, SCM vegetation and buffer vegetation have different performance standards, for example, SCM vegetation should have high evapotranspirative capacity, whereas the bank stabilization and filtration qualities would be prioritized within the stream buffer. Another commenter stated that infiltration based SCMs should not be placed in a mapped floodway or an active floodplain.
Response: While the rule does not prohibit infiltration-based SCMs in the buffer, the specifics of buffer use are at the discretion of the local jurisdiction to decide if infiltration-based SCMs in its buffer areas should be not allowed or if the designer evaluates the applicability of infiltration-based SCMs to the buffer areas on a specific site.

Comment 216: Proposed Rule 0400-40-05-.04(4)(a) provides that stormwater discharges should enter the water quality riparian buffer as sheet flow where site conditions exist. If the stormwater enters the riparian buffer as sheet flow it is not a "discharge from a point source" and is not subject to the NPDES program.
Response: The Board disagrees with this comment. Any stormwater that has entered the municipal storm sewer system and then reaches waters is subject to federal NPDES requirements.

Comment 217: Multiple commenters addressed stormwater discharges entering the water quality riparian buffer as sheet flow:

- Is it allowed for discharges to enter buffers as concentrated flow where site conditions do not allow entry as sheet flow. It is not clear whether local programs would be required to submit procedures and criteria used to determine site limitations to TDEC/local EFO in writing for approval prior to making any allowances for discharges to enter buffers as concentrated flow.
- As written, this statement is too vague to be enforceable. Sheet flow is needed to allow the sediment particles time to settle as the water spreads and flows across the land toward the stream. If diffuse flow is listed in the rule as a requirement, such as "Sheet flow is required on all buffered streams and must be achieved before stormwater enters the riparian buffer from any new development," then options should be given for how to achieve diffuse flow such as a level spreader or a variance from this rule.
- This provision should not be mandated but, instead, should be most be encouraged and left to the discretion of the MS4.
- Anecdotally, ninety-five percent of the water leaving a developed site is concentrated. As written, this regulation applies to the five percent or least commonly occurring situation. Therefore, in order to achieve this criterion, for almost every situation, water will need to be converted from concentrated flow to sheet flow. Given this, it would be more useful to describe the acceptable criteria for achieving this (e.g., level spreaders).
- This is part of a list of standards that the riparian buffer must meet. However, it uses permissive language (should as opposed to shall). We recommend the paragraph be changed to read: “Stormwater discharges shall enter the water quality riparian buffer as sheet flow where site conditions allow.”

Response: This condition is not mandated as the site conditions often dictate how runoff enters riparian buffer zones. Moreover, the effectiveness of buffers to provide pollutant reduction is maximized where stormwater enters the buffer as dispersed sheet flow, thus allowing contact with plants to provide filtration. Where site conditions exist such that sheet flow is practicable, this condition represents pollutant reduction to the MEP from this element of permanent stormwater controls and has been retained.

Comment 218: Add SCM after first occurrence of stormwater control measures.
Response: The rule has been revised to add SCMs after the first use of stormwater control measures.

Comment 219: Rule 0400-40-05.15(6) would require the permittee to have a project plan and review process that ensures SCMs are properly designed, installed, and maintained to meet performance standards. The burden should be on the developer, not on the MS4, to make sure that the developer's plans are properly designed. The City should not be responsible for approving a plan - especially if it turns out the plan does not appropriately work. In such case, the City would have compromised its ability to require changes in the plan that it approved. While the City can oversee what is being done, it should not be required to approve the plan.
Response: The permittee is required to conduct appropriate oversight via the project plan and review process. The developer is still responsible for submitting a plan that meets the performance standards.

Comment 220: Section (6)(c) required verification of properly constructed SCMs may be done by as-builts or by inspection? Is this as intended?
Response: The rule provides flexibility for verification. The permittee has the option for verification, which includes submittal of as-built plans, permittee inspection, or inspection by a qualified design

professional. The rules do not prohibit the permittee from establishing a process or policy that more clearly defines when a post construction SCM has completed installation.

Comment 221: The first sentence should omit the " ... within 90 days of installation." designation. As an MS4 that routinely inspects post-construction SCMs after installation, a 90 day timeframe - while perhaps a best practice in general - will be impractical in certain circumstances and even detrimental in others. This is in part due to the fact that SCMs should be checked/"as-built" at the end of longer-duration construction projects to verify they have not been impacted by subsequent, post-installation development activities.
Response: The 90-day period starts at the completion of the installation of the post construction SCMs. This is independent of building completion. The permittee has the option for verification, which includes submittal of as-built plans, permittee inspection, or inspection by a qualified design professional. The rules do not prohibit the permittee from establishing a process or policy that more clearly defines when a post construction SCM has completed installation.

Comment 222: Section (7)(b) - Permittee must develop maintenance plan of SCMs. Will a standard be provided so that all use the same? Or, is this at permittee's discretion.
Response: Yes, the permittee has the discretion to provide a maintenance plan for SCMs or provide a recommendation to adhere to the maintenance recommendations for manufactured treatment devices.

Comment 223: Section (7)(b)(3) provides that a legal document must be prepared to assign maintenance responsibilities, and item 4) addresses same for access. Will a standard be provided so that all use the same?
Response: No, the legal document is at the discretion of the permittee provided it meets the requirements of this rule. Many utilities and municipalities have established long-term maintenance agreements for SCMs and it is not the Board's intent to require a change from these existing agreements.

Comment 224: Section (8) requires the permittee to inventory and track performance/maintenance of all SCMs –public and private, and must implement this within 2 years of permit. Again, any standard for this, or at permittee's discretion?
Response: The inventory and tracking of SCM performance and maintenance is at the discretion of the permittee as long as it meets the requirements of this rule. Many utilities and municipalities have already established an inventory and tracking system for SCMs and it is not the Board's intent to require a change from these existing systems.

Comment 225: How are municipalities going to be able to inspect each SCMs every five years? The MS4s are not funded to support such practices or have the staff to do all the expected inspections while also completing the other responsibilities for their programs?
Response: The minimum inspection frequency of once every five years is reasonable and is retained in the rule. However, for individual permittees, a provision is made to submit an alternative schedule to the Division for approval.

Comment 226: The proposed rule would require the permittee to have a project plan and review process that ensures SCMs are properly designed, installed, and maintained to meet performance standards. The burden should be on the developer, not on the MS4, to make sure that the developer's plans are properly designed. The City should not be responsible for approving a plan - especially if it

turns out the plan does not appropriately work. In such case, the City would have compromised its ability to require changes in the plan that it approved. While the City can oversee what is being done, it should not be required to approve the plan.
Response: The permittee is required to conduct appropriate oversight via the project plan and review process. The developer is still responsible for submitting a plan that meets the performance standards.

Comment 227: The proposed rule addresses SCM maintenance procedures. The first sentence should be re-written to say, "The permittee must develop and implement a program to require on-going maintenance of SCMs consistent with industry standard practice, such as those maintenance practices described in the TN Permanent Stormwater and Design Guidance Manual or approved equivalent."
Response: Proposed Rule 0400-40-05-.04(7)(b) has been revised to change the term ensure to require.

Comment 228: Proposed Rule 0400-40-05-.15(2)(b) and (7)(b) impose stormwater control measures (SCMs) for the life of the project. It is not appropriate to impose a requirement in perpetuity. This concern is further exacerbated by the definition of "Stormwater control measure" proposed in Rule 0400-40-05-.02(85) which refers to "permanent practices and measures." The standard is impossible to meet. Instead, the regulation should provide for the imposition of SCMs in the five-year MS4 permit and reimposition of such requirement in a new permit, as deemed appropriate at such time. Inasmuch as this requirement is more stringent than federal regulations, the proposed rule conflicts with T.C.A. § 69-3-108(s), as discussed above. This provision should be modified to recognize that the appropriateness of continuing the requirement will be determined on a permit-by-permit basis.
Response: The term “permanent” refers to stormwater control measures that provide long-term treatment for the life of the project. As required by federal law, MS4 permits must impose conditions for maintenance of these measures. The use of the term “permanent” here does not mean that the effluent limitations established by rule will never change. However, per Tennessee Code Annotated section 69-3-108(s), effluent limitations must for post-construction stormwater must be established by rule, so these are unlikely to change with each five-year permit cycle.

Comment 229: Add MEP after first instance of maximum extent practicable.
Response: The rule has been revised to add MEP after the first use of maximum extent practicable.

Comment 230: A number of commenters requested a definition of Maximum Extent Practicable (MEP).
Response: MEP is a term that refers to the entirety of narrative requirements in the MS4 permits. It is not amenable to definition. However, for post-construction stormwater, the rules provide specific information about what technologies, buffer requirements, and other practices would comply with the MEP requirement.

Comment 231: Maximum Extent Practicable: Please clarify, is the intent here to provide: a. What is physically achievable on a given parcel or site? Or, is it b. What is financially achievable on a given parcel or site, based on a development pro forma?
Response: The definition of “practicable” is “capable of being put into practice or of being done or accomplished.” The question, then, is what is capable of being done on a particular site. The rules provide a range of options for stormwater control measures (SCMs) that are expected to be practicable at a full range of sites. Moreover, the rules provide for alternative buffer widths where site conditions do not allow for implementation of full buffer widths.

Comment 232: The proposed rule imposes a narrative Maximum Extent Practicable ("MEP") standard. These narrative requirements are imposed in addition to the other requirements which, in actuality,

are the requirements implementing MEP. MEP should not be imposed as a separate narrative requirement. The MS4 permit is intended to identify those activities that the permittee should implement that the parties agree comprise MEP. EPA regulations indicate that the imposition of MEP "must be expressed in clear, specific, and measurable terms." 40 CFR 122.34(a). Inasmuch as "MEP" not defined in the regulations so as to provide flexibility, imposing a requirement in the permit to undertake an activity to the "maximum extent practicable" fails to establish any clear, specific or measurable requirement. Accordingly, when EPA permitted the MS4 program in the District of Columbia, where EPA and the NPDES permitting authority, EPA did not include the MEP standard in the NPDES permit, indicating in its response to comments that the permit is supposed to identify what is MEP. To resolve this concern, it is suggested that either the refuses to MEP be deleted or that the permit state that "Compliance with the following requirements is deemed to be MEP.
Response: MEP is a term that refers to the entirety of narrative requirements in the MS4 permits. It is not amenable to definition. However, for post-construction stormwater, the rules provide specific information about what technologies, buffer requirements, and other practices would comply with the MEP requirement. Federal law requires NPDES permitting authorities to develop post-construction stormwater provisions that satisfy the MEP requirement. T.C.A. § 69-3-108(s) directs the Board to implement any effluent limitations for post-construction stormwater through rule, which the Board is doing through this rulemaking.

MEP for post-construction stormwater is not the same everywhere in the country, and neither other states nor the EPA have established standards for Tennessee. The rules are based on what maximizes pollutant reduction and is practicable in Tennessee.

Comment 233: Rule 0400-40-05-.15(5) and 0400-40-10-.04(5) – Codes and Ordinances Review and Update. These requirements may not be possible for non-traditional MS4s and TDOT recommends that a statement to that effect be added to this rule. T.C.A. § 69-3-108(s) & (t), which is thought to be driving these rule changes, clearly states that those subsections apply only to a “local government entity” (i.e. a traditional municipal MS4) and thus do not apply to a nontraditional MS4.
Response: The Board acknowledges that TDOT is not a municipality and does not enact resolutions or ordinance. Other control mechanisms such as contracts and polices will be considered in TDOT’s individual permits to meet this requirement. The Division concurs with the commenter T.C.A. § 69-3-108(s) & (t), clearly states that those subsections apply only to a “local government entity” (i.e. a traditional municipal MS4) and thus do not apply to a non-traditional MS4. While these rules will inform the minimum standard for post-construction stormwater water quality protection in the individual permit for TDOT, the unique nature of TDOT as an MS4 entity will dictate the specifics of their individual permit. The individual permit process involves an application, draft individual permit, public process, final draft, and appeal process.

Comment 235: Rule 0400-40-10-.04(6)(c) would require an enforcement response plan. An ERP should not be required. Federal regulations only require an ERP for a pretreatment program, not for an MS4 program. Compare, e.g., 40 CFR 403.8(f)(4) with 40 CFR 122.26 and 122.32-37. As such, when EPA was permitting the DC WASA MS4 facility, EPA deleted the proposed ERP requirement and replaced it with enforcement procedures for illicit dischargers. This is more stringent than the federal regulations and should be deleted.
Response: Federal law requires an enforcement mechanism as part of MEP for post-construction stormwater management, and this provision has been retained in the final rule. The enforcement response plan required by this rule is not the same as that required for pretreatment. This rule applies to post-construction stormwater, not illicit discharges.

Comment 236: Multiple commenters requested that the word “remove” in Rule 0400-40-05-.04(1)(a) be changed to "treat for" or “reduce."
Response: This change is consistent with the federal rule and the settlement, and has been made throughout the rule.

Comment 237: Proposed Rule 0400-40-10-.04(2)(b) provides that TSS may be used as the indicator for the removal of pollutants." However, Rule 0400-40-10-.04(2)(c) then provides that SCMs "must be designed, at a minimum, to achieve an overall treatment efficiency of 80%." These provisions are inconsistent as to whether TSS is an optional indicator or mandatory. The "must be designed" language in subsection (c) raises additional concerns. The rule should be clarified that if the developer implements a SCM treatment type set forth in the table, that it is deemed to have met the performance standard. Furthermore, it should be clarified that the MS4 is not required to independently undertake monitoring to confirm an 80% treatment efficiency.
Response: The use of TSS as an indicator pollutant is optional. Compliance with this rule constitutes MEP, so if a developer chooses any one of the SCMs in table (2)(c), or a combination of these in a treatment train as set out in Rule 0400-40-05-.15(2)(d), that complies with the SCM requirements of this rule. However, MTDs do require design verification to ensure that these meet the minimum overall 80% TSS removal standard. Permittees are not separately required to monitor discharges to confirm TSS removal because compliance is based on design standards.

Comment 238: We request that the permit recognize the standards that have been implemented by MS4 programs and allow for the continued use by inserting the following language: “For MS4 programs that have developed standards other than TSS, that are in compliance with the previous permit requiring Runoff Reduction, then this shall be considered equivalent and in compliance.”
Response: The permanent stormwater management program must require new development and redevelopment projects to be designed to reduce pollutants to the maximum extent practicable. For design purposes, total suspended solids may be used as the indicator for the removal of pollutants, but that is at the option of the permittee. To provide equivalency of various treatment processes, the Water Quality Treatment Volume is graduated. The stormwater programs have the flexibility to set requirements specific to their community within the bounds of this rule and select any or all of the four equivalent alternatives. As such, the tiered system of the 2010 permit where SCM not using infiltration, evapotranspiration, and reuse had to provide technical justification of site limitations is no longer applicable. With equivalent treatment options, designers will be able to select the optimum treatment for each site with respect to effectiveness, economics, and expediency.

Comment 239: The design approach implied by the table is highly inflexible. It does not recognize the use of multiple SCMs in sequence (i.e. "treatment train") to achieve compliance, which is currently a common post construction design practice. Nor does it consider multi-objective stormwater programs where water quality and water quantity compliance are often required and SCM designs may be multifunctional. The rule should explicitly allow alternate equivalent approaches, including but not limited to keeping the WQTV static (e.g., 1-inch or 85th percentile storm event) and allowing the use of one or more SCMs in sequence to achieve or exceed the 80% TSS removal standard for that WQTV. Possible Solution for Rule: Modify the first sentence in subsection (2)(b) as indicated below by the addition of the red text. "Compliance with permanent stormwater standards for new development projects is determined by designing and installing SCMs as established by the rule or by equivalent or more stringent standards and methods, as outlined in any individual MS4 NPDES permit and complying with the other requirements of this rule."

Response: Treatment trains were added to the final rule. The proposed language from the commenter is acceptable with the intent of the Division: Compliance with permanent stormwater standards for new development projects is determined by designing and installing SCMs as established by the rule or by equivalent or more stringent standards and methods, as outlined in any individual MS4 NPDES permit and complying with the other requirements of this rule. The Board agrees that a site should be able to optimize design solutions for all pertinent requirements and not just water quality.

Comment 240: In part (7)(b)1., limit inspections to TN registered design professionals who are professional engineers and landscape architects. Delete "other qualified professional familiar with applicable design and maintenance requirements." Allowing unlicensed professionals to perform this work is in conflict with the State of TN Board of Architectural and Engineering Examiners rules for professional practice and requirements for sealing or stamping plans reports. TN registered design professionals have an obligation to public health, safety and welfare that people with self-proclaimed qualifications do not. In addition, not requiring professionals puts the burden on local governments to determine competency and qualifications.
Response: This provision concerns maintenance inspections, not design plans. The language will be retained as-is. However, an MS4 community could choose to further limit whom they will allow to conduct these inspections.

Comment 241: The signed settlement agreement included a comment in the sidebar that stated, “The rationale will indicate that MS4s may offer these four options.” It is assumed that the options in the table are equivalent. As such, does the note infer that permittees will be able to offer as many or as few of the 4 options listed in the table? It is not clear based on the current wording whether permittees will need to offer all of the 4 options.
Response: The stormwater programs have the flexibility to set requirements specific to their community within the bounds of this rule and select any, some, or all of the four equivalent alternatives.

Comment 242: Do antibacksliding provisions apply to the rule language's effluent limitations in comparison to past any individual MS4 NPDES permit requirements that were more stringent than proposed rule language standards?
Response: Caselaw from other jurisdictions has held that antibacksliding does not apply to MS4 permits.

Regulatory Flexibility Addendum

Pursuant to T.C.A. §§ 4-5-401 through 4-5-404, prior to initiating the rule making process, all agencies shall conduct a review of whether a proposed rule or rule affects small business.

(1) The type or types of small business and an identification and estimate of the number of small businesses subject to the proposed rule that would bear the cost of, or directly benefit from the proposed rule.

The proposed rule removes state operating permits for non-discharging systems from this rule chapter so that the rule now directly affects those who hold a National Pollution Discharge Elimination Permit (NPDES), which are typically larger industries and municipal facilities. The rules also propose a number of revisions to the conditions for animal feeding operations (AFOs). Additional provisions are separately being proposed in the new rule Chapter 0400-40-06 for nondischarging large AFOs. The rule in 0400-40-05-.15 provides flexibility for TDOT, the four large local governments that operate a municipal separate storm sewer system (MS4), and any MS4 community that seeks an individual permit, who bear the burden for compliance.

One secondary effect of the rule may be on the development community, which will be required to comply with the MS4 program implementation decisions by municipalities and will benefit from reduced permitting risk (improved regulatory certainty) created by the rule. Another secondary effect may be on consultants and inspectors who may provide services to the development community and municipalities and, therefore, benefit from the rule. However, it is not possible to estimate the number of such members of the development community or consultants/inspectors who may benefit from the rule, or if they are small businesses, since that number is dependent on implementation decisions by municipalities.

(2) The projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed rule, including the type of professional skills necessary for preparation of the report or record.

The proposed rule includes expanded requirements for publicly owned treatment works and domestic dischargers to report sewage releases (which do not reach waters of the state) in addition to sanitary sewer overflows (which do reach waters). These rules are also updated to reflect EPA's revised reporting requirements, including new e-reporting requirements. A list of pollutants and outfalls disclosed by the applicant would be required in the rationales for draft permits. It is not anticipated that these requirements would result in additional costs associated with report or record preparation. Governments operating large MS4s with NPDES permits have been subject to permitting since 1990. These programs are already developed, but the rule provides more regulatory certainty.

(3) A statement of the probable effect on impacted small businesses and consumers.

The rule is expected to have a neutral to positive effect on small businesses and consumers. The rules propose a number of revisions to the conditions for animal feeding operations (AFOs). The new 0400-40-05.15 provides regulatory certainty, and ensures that post-construction stormwater requirements will not change from one 5-year permit cycle to the next. Critically, this rule substantially increases the range of options developers, including homebuilders, may select for post-construction stormwater control measures. In addition, this rule aligns permanent buffer requirements with the temporary buffer requirements imposed by the construction stormwater general permit.

(4) A description of any less burdensome, less intrusive or less costly alternative methods of achieving the purpose and objectives of the proposed rule that may exist, and to what extent the alternative means might be less burdensome to small business.

This rule provides the least burdensome, least costly, least intrusive, and most flexible, way to comply with NPDES permit requirements, in particular, reporting requirements, in Tennessee. In particular, the new rule 0400-40-05.15 provides flexibility for the four large Tennessee municipalities and TDOT to comply with federal post-construction requirements, so that each municipality may determine whether/how to implement certain elements. The rule includes complementary elements that align with local requirements so that stormwater management and water quality requirements can be met simultaneously (regional ponds and regional detention).

(5) A comparison of the proposed rule with any federal or state counterparts.

This rule complies with the minimum requirements of federal law, including EPA's rule 40 C.F.R. Part 127 for electronic reporting submission, EPA's rule 40 C.F.R. Part 25 for public participation in Clean Water Act programs, EPA's rule 40 C.F.R. § 122.41(m) pertaining to wastewater bypasses and proper operation and maintenance, and EPA's rule 40 C.F.R. §122.26 for MS4s. EPA's rule, 40 C.F.R. § 122.34(b), provides "For any permit issued to a regulated small MS4, the NPDES permitting authority must include permit terms and conditions to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. Terms and conditions that satisfy the requirements of this section must be expressed in clear, specific, and measurable terms. Such terms and conditions may include narrative, numeric, or other types of requirements." The EPA rule requires implementation of six minimum control measures, one of which is post-construction stormwater management for new development and redevelopment sites that disturb one or more acres or are part of a larger common plan of development. This rule mandates that NPDES permits require structural and/or nonstructural best management practices appropriate for the community, require an ordinance or other regulatory mechanism, ensure adequate long-term operation and maintenance of best management practices, and ensure that controls are in place that would prevent or minimize water quality impacts. 40 C.F.R. § 122.34(b)(5).

(6) Analysis of the effect of the possible exemption of small businesses from all or any part of the requirements contained in the proposed rule.

Federal law defines the NPDES permittees and the MS4 communities that are subject to regulation. This rule does not directly regulate small business. However, homebuilders and other developers must comply with local stormwater ordinances adopted in accordance with this rule. This is mandated by federal law and no exemption would be legal.

Impact on Local Governments

Pursuant to T.C.A. §§ 4-5-220 and 4-5-228 “any rule proposed to be promulgated shall state in a simple declarative sentence, without additional comments on the merits of the policy of the rules or regulation, whether the rule or regulation may have a projected impact on local governments.” (See Public Chapter Number 1070 (http://publications.tnsosfiles.com/acts/106/pub/pc1070.pdf) of the 2010 Session of the General Assembly.)

Local governments that have a NPDES permit for discharge to waters of the state or that qualify as large MS4 communities under federal law are directly affected by this rule. After the rule goes into effect and the individual MS4 permits are modified, local post-construction stormwater programs must be at least as stringent as the provisions of this rule.

Additional Information Required by Joint Government Operations Committee

All agencies, upon filing a rule, must also submit the following pursuant to T.C.A. § 4-5-226(i)(1).

(A) A brief summary of the rule and a description of all relevant changes in previous regulations effectuated by such rule;

Please see the Concise Statement of the Principal Reasons for Rulemaking at the beginning of the response to comments section.

(B) A citation to and brief description of any federal law or regulation or any state law or regulation mandating promulgation of such rule or establishing guidelines relevant thereto;

The federal Clean Water Act (CWA), 33 U.S.C. §§ 1251-1387, prohibits the discharge of pollutants to waters of the United States except in compliance with an NPDES permit. The CWA authorizes the delegation of NPDES permitting authority to states, under specified conditions. EPA has promulgated extensive NPDES permit regulations at 40 C.F.R. Part 122, and state program requirements at 40 C.F.R. Part 123.

The TWQCA, T.C.A. §§ 69-3-101 to -148, requires the Board to adopt rules for NPDES permits.

- T.C.A. § 69-3-108(b)(2) requires permits for the operation of treatment works, parts thereof, or extensions thereto.
- T.C.A. § 69-3-108(b)(6) requires persons to secure NPDES permits to discharge wastes to waters of the state.
- T.C.A. § 69-3-108(b)(10) establishes the NPDES permit requirement for CAFOs.
- T.C.A. § 69-3-108(c) requires permits to operate sewerage systems.
- T.C.A. § 69-3-108(s) & (t) require NPDES permits that include effluent limitations for post-construction stormwater to comply with, but not exceed, the minimum requirements of federal law and to be promulgated by rule.
- T.C.A. § 69-3-108(g)(1) prohibits the issuance of NPDES permits that would authorize activities that would cause pollution and requires NPDES permits to impose effluent limitations sufficiently stringent to comply with federal law.

(C) Identification of persons, organizations, corporations or governmental entities most directly affected by this rule, and whether those persons, organizations, corporations or governmental entities urge adoption or rejection of this rule;

Municipalities that operate publicly owned treatment works are affected by provisions concerning sanitary sewer overflows, releases, and reporting requirements. Other than releases, these provisions are required by federal law.

Agricultural industries that operate animal feeding operations (AFO) are impacted by revisions to the AFO rule. These industries support the changes in the rule, which are based on recent statutory changes.

Governments that operate Phase I MS4s (TDOT, Knoxville, Nashville, Chattanooga, and Memphis) are most directly affected by Rule 0400-40-05-.14. Because these governments will establish local stormwater ordinances and requirements in compliance with this rule, developers are indirectly affected. The Homebuilders Association of Tennessee settled its appeal of the 2016 Phase II MS4 permit based on the provisions of this rule.

Finally, the people of Tennessee who use and enjoy our waters are also affected by this rule. NGOs have expressed concern with weakening of rules for CAFOs, however this is required by recent amendments to the TWQCA. Some NGOs participated in a settlement of litigation regarding MS4 requirements, which is reflected in these rules.

(D) Identification of any opinions of the attorney general and reporter or any judicial ruling that directly relates to the rule or the necessity to promulgate the rule;

No attorney general and reporter opinions or judicial rulings directly relate to the rule or the necessity to promulgate the rule.

(E) An estimate of the probable increase or decrease in state and local government revenues and expenditures, if any, resulting from the promulgation of this rule, and assumptions and reasoning upon which the estimate

is based. An agency shall not state that the fiscal impact is minimal if the fiscal impact is more than two percent (2%) of the agency's annual budget or five hundred thousand dollars ($500,000), whichever is less;

No change in state revenues and expenditures is anticipated. Local governments may have an increase in expenditures from upfront labor costs that may be associated with aligning municipal programs to meet this rule, such as changes to stormwater ordinances, training staff, and providing guidance materials. This cost, if necessary, is anticipated to be minimal for any affected municipality and municipalities have the option to assess stormwater utility fees to offset such labor costs. The expenditure is not expected to be more than $500,000 or more than 2% of a municipality's budget.

(F) Identification of the appropriate agency representative or representatives, possessing substantial knowledge and understanding of the rule;

Jennifer Dodd, DWR Director, Stephanie Durman, Esq.

(G) Identification of the appropriate agency representative or representatives who will explain the rule at a scheduled meeting of the committees;

Horace Tipton
Legislative Liaison
Office of General Counsel

(H) Office address, telephone number, and email address of the agency representative or representatives who will explain the rule at a scheduled meeting of the committees; and

Office of General Counsel
Tennessee Department of Environment and Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, Tennessee 37243
(615) 253-2027
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(I) Any additional information relevant to the rule proposed for continuation that the committee requests.

(1) A description of the action proposed, the purpose of the action, the legal authority for the action and the plan for implementing the action.

This rulemaking incorporates recent EPA rule amendments governing the NPDES permit program, including e-reporting requirements. The Department has been working for several years to prepare itself and the regulated community to implement e-reporting, and will continue this process until such reporting is fully implemented.

This rulemaking amends the AFO rules in accordance with recent legislation codified at T.C.A. § 69-3-108(10). As NPDES permits for AFOs are renewed, the new rule requirements will be incorporated in those permits.

This rulemaking further clarifies requirements for sanitary sewer overflows and releases, including reporting requirements. These have previously been prohibited (all SSOs, and releases caused by improper operation and maintenance), so the substantive changes are minimal.

This rulemaking also adopts effluent limitations for post-construction stormwater in large MS4 communities across Tennessee. The purpose of this action is to comply with recent legislation and federal law. This rulemaking is authorized and required by Tennessee Code Annotated section 69-3-108(s). TDEC's regulation of post-construction stormwater in MS4 communities is required by section 402(p)(3)(B)(iii) of the Clean Water Act and 40 C.F.R. § 122.34(b). The limitations in this rule meet, but do not exceed, the minimum requirements of federal law as required by Tennessee Code Annotated section 69-3-108(s) and (t).

(2) A determination that the action is the least-cost method for achieving the stated purpose.

This rule represents the least-cost method to comply with applicable statutes and regulations.

(3) A comparison of the cost-benefit relation of the action to nonaction.

Action on e-reporting and updates to rules concerning sanitary sewer overflows are required by federal law.

Action on AFOs is required by recent legislation codified at T.C.A. § 69-3-108(10).

Action on the MS4 rule is required by the Tennessee Water Quality Control Act, Tenn. Code Ann. § 69-3-108(s), which requires effluent limitations for post-construction stormwater management to be adopted by rule. These effluent limitations are required by federal law, and by TDEC's memorandum of understanding with EPA for delegation of NPDES permitting authority in Tennessee. Therefore, nonaction is not an available option.

(4) A determination that the action represents the most efficient allocation of public and private resources.

This rule represents the most efficient allocation of public and private resources because it provides both regulatory certainty and flexibility, while ensuring compliance with mandatory federal requirements.

(5) A determination of the effect of the action on competition.

This rule is not anticipated to have a direct impact on competition.

(6) A determination of the effect of the action on the cost of living in the geographical area in which the action would occur.

No effects are anticipated on the cost of living.

(7) A determination of the effect of the action on employment in the geographical area in which the action would occur.

This rule is not anticipated to have an impact on employment. Professionals who will benefit from this rule are consultants and inspectors who may provide services to the development community and municipalities to ensure compliance with this rule or municipal programs implementing the requirements of this rule.

(8) The source of revenue to be used for the action.

This rule, and any required implementation by TDEC, will be funded through existing revenues. No additional revenue is required for this action.

(9) A conclusion as to the economic impact upon all persons substantially affected by the action, including an analysis containing a description as to which persons will bear the costs of the action and which persons will benefit directly and indirectly from the action.

This rule is not anticipated to have a substantial economic impact on any person.