



Department of  
**Environment &  
Conservation**

## Public Hearing

Water Quality, Oil and Gas Board  
WebEx Virtual Meeting

April 20, 2021 - 10:00am

\*If you wish to make General Public Comment, a comment about the Initial Orders, or Rules presented you may email [Drake.Smarch@tn.gov](mailto:Drake.Smarch@tn.gov) or message the chat box. Include what you want to comment on, and you will be placed in line.

# Welcome!

- Roll call of Board members present.
- Temporary Replacement for John McClurkan
  - Sam Marshall as Commissioner designee for Dept. of Agriculture
- Welcome to new members
  - Dodd Galbreath – Representing Environmental Interests
  - Brent Galloway - Representing as Oil & Gas Property Owner
- Opening remarks from the Division of Water Resources Director, Jennifer Dodd

# Board Minutes

- Presentation of minutes from October 2020
- Roll call **vote** for approval of minutes.
- Minutes are available on the Board's website: <https://www.tn.gov/environment/about-tdec/boards-and-commissions/board-tennessee-board-of-water-quality--oil-and-gas.html>

# General Public Comment

- If you wish to make a public comment:
  - Let the host know in the Chat Box
  - Email [Drake.Smarch@tn.gov](mailto:Drake.Smarch@tn.gov)
  
- Public comment on the Initial Orders and the Rule Chapters will happen during that agenda item.

# Board Manual / Conflict of Interest Form

- Update on Board Manual
- Presentation of Conflict of Interest Form



Department of  
**Environment &  
Conservation**

# Initial Orders

Tennessee Board of Water Quality, Oil & Gas

April 20, 2021

## Authority – Tenn. Code Ann. 69-3-110. Hearings.

**(a)** . . . . The administrative judge’s initial order, together with any earlier orders issued by the administrative judge, shall become final unless appealed to the board by the commissioner or other party within thirty (30) days of entry of the initial order or, unless the board passes a motion to review the initial order pursuant to § 4-5-315, within the longer of thirty (30) days or seven (7) days after the first board meeting to occur after entry of the initial order. . . .

## Authority – Tenn. Code Ann. 69-3-110. Hearings.

. . . . Upon appeal to the board by a party, or upon passage of a motion of the board to review the administrative judge's initial order, the board shall afford each party an opportunity to present briefs, shall review the record and allow each party an opportunity to present oral argument. If appealed to the board, the review of the administrative judge's initial order shall be limited to the record, but shall be de novo with no presumption of correctness. In such appeals, the board shall thereafter render a final order, in accordance with § 4-5-314, affirming, modifying, remanding, or vacating the administrative judge's order.

# Mike Waller v. TDEC

APD Case No. 04.30-201682J – TDEC Case No. WPC20-0036

- **Factual background:**
  - TDEC received an Aquatic Resource Alteration Permit (ARAP) application from the Cumberland River Compact (CRC) requesting approval for removal of a dam in Stewarts Creek near the Sam Davis Historic Home in Smyrna, Tennessee.
  - Mike Waller appealed the permit on grounds that property owners adjacent the dam did not approve the removal, the dam is still functional, removal would damage the nearby Sam Davis Historic Home, and removal of the dam would counter efforts of the Town of Smyrna’s stormwater runoff program.
- **Motion to Dismiss:**
  - TDEC argued that the appeal did not allege a violation of the Tennessee Water Quality Control Act (WQCA) or its regulations.
  - In particular, the WQCA does not address potential consequences to historical structures.
- **Initial Order:**
  - Administrative Judge Michael Begley granted TDEC’s Motion to Dismiss and entered an Initial Order on October 26, 2020.
  - This Initial Order was not appealed by a party.

# Comments

- Comment on Mike Waller Initial Order
- TDEC Response
- Board Deliberations, Questions
- Optional Vote

# Volunteer Sand & Gravel – 118(a) Appeal

APD Case No. 04.30-202742J – TDEC Case No. WPC20-0040

- **Factual background:**
  - TDEC issued a NPDES permit to Volunteer Sand & Gravel (Volunteer) authorizing discharge of treated mine wastewater and stormwater from a proposed sand and gravel mine in Humphreys County, Tennessee to the Duck River.
  - Tate McNeilly submitted a Section 118(a) complaint alleging the Duck River will flood, overwhelm Volunteer’s proposed operations, and place fill in wetlands. TDEC declined to act on the complaint because it alleged potential future violations. McNeilly appealed to the Board, seeking rescission of the permit.
- **Motion to Dismiss:**
  - TDEC argued that section 118(a) does not authorize citizen complaints about possible future violations, so the Board lacked subject matter jurisdiction. Also, the appeal of the 118(a) complaint was a *de facto* permit appeal.
    - Section 118(a)(1) states, “Any person may file with the commissioner a signed complaint against any person allegedly violating any provisions of this part.”
- **Initial Order:**
  - Administrative Judge Claudia Padfield granted TDEC’s Motion to Dismiss and entered an Initial Order on December 30, 2020. This Initial Order was not appealed.

# Volunteer Sand & Gravel – Summary Judgment

APD Case No. 04.30-202563J – TDEC Case No. WPC20-0070

- **Factual background:**
  - Tate McNeilly alleged that his aesthetic interests in his grandmother’s property and right to hunt would be injured by the mine, and particularly by the deposition of sediment during floods.
- **Motion for Summary Judgment:**
  - Volunteer and TDEC argued that Mr. McNeilly did not have standing within the zone of interests of the WQCA because he alleged injuries to his interest in land, not to a protected interest in water quality. Moreover, his alleged injuries were based on violations of the permit.
- **Initial Order:**
  - Judge Padfield held “Petitioner must have standing under the TWQCA to the extent that he can articulate an injury based on his right to unpolluted waters,” and noted “A petitioner must demonstrate a ‘special interest or injury beyond their concern as ‘public spirited citizens.’”

# Volunteer Sand & Gravel – Summary Judgment

APD Case No. 04.30-202563J – TDEC Case No. WPC20-0070

- Judge Padfield found, “Despite stating that he will be harmed by the authorized activity under the Permit, Petitioner has not articulated how the permitted activities under the Permit will injure any cognizable interest under the TWQCA. Petitioner has stated how he will be harmed from violations of the Permit, but those alleged violations are not grounds to rescind the Permit or to file the instant petition. The alleged injuries are not fairly traceable to the Permit. Petitioner has not articulated an interest in water quality in the Duck River that differs from an interest shared in common with the general public. Petitioner has no distinct interest in water quality, nor has he articulated how his recreational activities would be harmed by the discharges authorized by the Permit.”
- Judge Padfield granted Volunteer’s Motion for Summary Judgment and issued an Initial Order on January 6, 2021.
  - This Initial Order was not appealed by a party.

# Comments

- Volunteer Sand & Gravel – 118(a) Appeal  
APD Case No. 04.30-202742J – TDEC Case No. WPC20-0040
- Public Comment on Volunteer Sand & Gravel – Summary Judgment  
APD Case No. 04.30-202563J – TDEC Case No. WPC20-0070
- Party Response (TDEC, Volunteer, McNeilly)
- Questions for counsel
- Optional Vote
  - If yes, Vote Separately.

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Questions?



Department of  
**Environment &  
Conservation**

**Rule Chapter 0400-40-06  
Presentation to  
Water Quality, Oil and Gas Board**

**April 20, 2021**

Britton Dotson, Technical Fellow, Division of Water Resources

# Background and Authority

- The Department of Environment and Conservation (TDEC) has issued state operating permits (SOPs) for a wide variety of non-discharging wastewater activities for several decades.
- The activities governed by SOPs include land application of wastewater, animal feeding operations, pumping and hauling, collection systems, and non-potable reuse.
- The Tennessee Water Quality Control Act of 1977 requires permits for the “construction, installation, modification, or operation of any treatment works, or part thereof, or any extension or addition thereto.” Tenn. Code Ann. § 69-3-108(b)(2).
- Similarly, the Act requires permits for the operation of a sewerage system. Tenn. Code Ann. § 69-3-108(c).
- The Act authorizes SOPs for liquid waste management systems at animal feeding operations. Tenn. Code Ann. § 69-3-108(b)(7).
- Additionally, the Act requires permits for “...the underground placement of fluids and other substances...”. Tenn. Code Ann. § 69-3-108(b)(8).

# Reasons for Rulemaking

- Although no discharges are authorized by these permits, the permits have historically been regulated through Rule Chapter 0400-40-05, which was originally drafted to comply with federal regulations for national pollutant discharge elimination system permits.
- As a result, SOPs have lacked an appropriate regulatory framework, both because many provisions for discharge permits do not apply to non-discharging systems and because there were almost no rules specific to the operation of these non-discharging wastewater facilities.
- Furthermore, Public Chapter 523 established that certain animal feeding operations were obligated to obtain a SOP, in a manner distinctly separate from the NPDES permitting process. This legislative mandate set the stage for the development of a rule chapter specifically for certain activities seeking SOP coverage.

# Initial Scope of Rulemaking

- The initial scope of the current rulemaking included;
  - Land application of wastewater
  - Animal Feeding Operations
  - Pump and Haul
  - Collection Systems, and
  - Non-potable Reuse
- Based on events following the publication of the initial rule, Pump and Haul and Land Application will be re-public noticed.

# Development of Rule Language (0400-40-06)

- Considering the scope of the rule, several programs and senior staff within those programs served as primary authors and/or major contributors to text and concept, along with developing the subsequent Response to Comments.
  - Land Based Systems Unit
    - Animal Feeding Operations
  - Water Based Systems Unit
    - Pump and Haul
    - Collection Systems
  - Engineering Support Section
    - Non-Potable Reuse
  - Technical Fellow
    - Animal Feeding Operations
    - Compilation and Development of Response to Comments
    - Primary Point of Contact

# 0400-40-06-.01 Purpose

- Establish standards for non-discharging systems including:
  - Animal Feeding Operations
  - Collection and Conveyance Systems
  - Non-Potable Use of Reclaimed Wastewater
- Does not authorize discharging systems
- Does not apply to systems authorized under Chapter 0400-48-01 (Septic Systems)

*Comments 1-4, Pages 20 - 21*

# 0400-40-06-.02 Definitions

- Includes definitions originating from:
  - TN Water Quality Control Act
  - EPA Reuse Guidance
  - Other related TDEC rules
- Other definitions have been developed in support of this rule chapter including those related to:
  - Animal Feeding Operations

*Comments 5 - 21, Pages 21-23*

# 0400-40-06-.03 Permit Application, Issuance.

- Duty to apply if planning to operate
- Information required with application and process of evaluation
- Identifies which Animal Feeding Operations are subject to permit coverage
- Who can be an applicant
- Recognizes electronic form submission

*Comments 18 - 34, Pages 23 - 27*

# 0400-40-06-.04 Notice and Public Participation.

- Standards adopted from Chapter 5 with minor changes
  - Removal of obligation to develop “area lists” by soliciting participants from past permit proceedings in that area.
  - Added the phrase “as soon as practicable” regarding requests for public hearings.
    - Period in which a public hearing can be made remain unchanged
      - Within 30 days of public notice or such greater period as identified in the public notice

*Comments 35 - 40, Pages 27 - 28*

# 0400-40-06-.05 General Terms and Conditions

- Standards adapted from Chapter 5 with minor changes relating to the separation of NPDES and SOP

*Comments 41 - 55, Pages 28 - 31*

# Animal Feeding Operations

- Public Chapter 523 served to limit AFOs requiring SOPs to only large facilities with liquid waste management systems. Specifics of this law are:
  - (A) The construction, installation, or operation of a liquid waste management system supporting an animal feeding operation that stables or confines as many as, or more than, the numbers of animals specified by federal law defining a large concentrated animal feeding operation;
  - (B) A state operating permit issued pursuant to this subdivision (b)(7) shall be enforceable only in regards to submission and maintenance of a current approved nutrient management plan;
  - (C) Animal feeding operations that are not required under this subdivision (b)(7) to have a permit may apply for and be issued a state operating permit. An animal feeding operation issued a state operating permit pursuant to this subdivision (b)(7) is required to conduct such operations in accordance with the permit;
- AFOs requiring NPDES permit coverage remained the same (mirroring federal standards)

# Animal Feeding Operations (cont.)

- Current population of permitted AFOs in TN
- SOP
  - 43 large liquid waste swine operations (general SOP)
  - 1 medium dairy (general SOP)
  - 5 poultry operations (general SOP)
  - 2 large dairies (individual SOP), these plan to move to the new general SOP when issued
- NPDES
  - 14 individual NPDES operations (four large dairies and ten large swine operations). Two of these dairies plan to move over to the new general SOP, once it is issued.

# Animal Feeding Operations (cont.)

- Primary Components of Proposed Rule 0400-40-06-.07
  - Obligation to develop, submit, obtain approval for, and maintain a current nutrient management plan
  - Changes to operation necessitating update or modification to the nutrient management plan
  - Permitted facilities placed into operation after April 13, 2006, obligated to 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 Commissioner. Standards are specific to:
    - Location of components of facility
    - Information used to support the design
    - Design of Open-Manure Storage Structure
    - Subsurface investigation supporting earthen storage structures
- Tennessee Department of Agriculture will continue to support TDEC with respect to nutrient management plan review and approval.

*Comments 56 - 67, Pages 31 - 33*

# Collection Systems

- Frequently collection systems are permitted independently of the permit governing the end disposition of the collected wastewater. These permits are SOPs; therefore, a section within the proposed rule is specific to collection systems.
- Components of Proposed Rule 0400-40-06-.09
  - (1) Collection system components, including septic tank effluent gravity (STEG) tanks, which are designed to collect, treat, or convey sewage to a treatment process shall be designed in accordance with accepted engineering practice pursuant to Chapter 0400-40-02.
  - (2) Where lift pumps and lift stations, including low pressure grinder pumps and tanks, vacuum pumps and tanks, and septic tank effluent pumps (STEP) and tanks, are integral to the treatment and conveyance of sewage, the pumps and tanks shall be part of the public sewerage system.
  - (3) Collection system components regulated by this chapter shall 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 limited circumstances, a corporation with a demonstrated capacity to provide the managerial and operational resources necessary to maintain its sewerage system may be permitted to operate a collection system to support a business activity (e.g., a resort).
- Two comments were received specific to this section. Neither voiced objection to the proposed rule.

*Comments 68 – 72, Pages 33 - 34*

# 0400-40-06-.10 Non-Potable Reuse.

- Non-potable reuse is a conservation activity that replaces the use of more highly treated water, especially potable drinking water with wastewater treated to a lesser, but sufficient, degree for safe and efficacious reuse.
- Reclaimed wastewater reused for irrigation shall not be applied in excess of the evaporation rate plus the uptake rate of vegetation in the immediate distribution area to ensure there is no unpermitted discharge.
- Reclaimed wastewater reused as flushing water in residential neighborhoods shall be provided in distribution systems separate from those for potable water and returned to the appropriate wastewater collection system.

# 0400-40-06-.10 Non-Potable Reuse.

- The SOP rules for non-potable reuse of reclaimed wastewater are intended to facilitate development of reclaimed wastewater facilities to conserve water and reduce the discharge of pollutants to waters of the state, including both surface water and groundwater.
- These rules are based on well-established and widely adopted EPA guidance for best practices for non-potable reuse. In this final rulemaking, the rules have been modified to provide more clarity for the reclaimed wastewater community and flexibility for emerging reuse concepts.
- Proposed rules identifies numerous types of reuse that do not constitute reuse of reclaimed wastewater within the scope of this rule.
- Identifies “excess utilization” of reclaimed wastewater resulting in ponding, nuisance, or discharge to waters of the state as prohibited acts.

*Comments 73 – 110, Pages 33 - 40*

# 0400-40-06-.10 Non-Potable Reuse. (cont.)

- Standards for application and review to include:
  - Engineering reports, plans, and specifications
    - Includes standards for pipe identification and placement
  - Reclaimed Wastewater Management Plan (RWMP)
    - Treatment Methodology
    - Storage and Distribution
    - Process Flow Diagrams and Identification of Service Areas
    - Processes for System Expansion
    - Procedures for Metering Usage
    - Procedures for Monitoring Compliance
    - Components of Education Program
    - Contingency Planning
    - Specifications and Plans for Distribution System
  - End User Service Agreements (Proposed Templates)
  - Demonstrated Ability of Alternatives to Reuse
    - Application of reuse volume toward permit capacity
    - Need for alternatives in event of loss of reuse capacity

*Comments 111 - 128, Pages 40 - 43*

# 0400-40-06-.10 Non-Potable Reuse. (cont.)

- Special Conditions for Reuse of Reclaimed Wastewater
  - “Fit for Use by End User” as define in the End User Service Agreement
  - Requirement to implement Reclaimed Wastewater Management Plan (RWMP)
  - RWMP Updates
  - Treatment standards
    - Urban Unrestricted Reuse
    - Urban Restricted Reuse
  - Monitoring and Reporting
    - Analytical Results
    - Volumes Delivered
    - Discharges or Releases
    - Obligation to report awareness of an end user’s violation of the service agreement

*Comments 129 – 143, Pages 43 - 45*

# 0400-40-06-.11 Bonds.

No comments were received pertaining to this section.

The requirements of this rule do not apply to the following:

1. Facilities owned or operated by a governmental entity or agency;
2. Facilities in operation prior to May 25, 1984; or
3. In accordance with T.C.A. § 65-4-201(e)(1), facilities that are bonded as required by Rule 1220-04-13-.07.

# 0400-40-06-.12 Duration and Reissuance of Permits.

- Language was adapted from previous language in Chapter 5 with modifications relating to the separation of NPDES and SOP rules

*Comment 144, Page 46*

# 0400-40-06-.13 Appeals.

- Language was adapted from previous language in Chapter 5 with modifications
  - Modified introductory language regarding route of appeal.
  - Removed the category of “..have engaged in other direct communication with the department regarding the proposed permit action during the comment period...” pertaining to those entitled to a review of the Commissioner’s permit decision due to ambiguity.
  - Other categories remain including:
    - Having submitted written comments
    - Given testimony at a formal public hearing
    - Attended a public hearing as evidenced by completion of an attendance card
  - Petitions for permit appeal are to be received within 30 days of posting the notice of permit action on the Division’s website
    - Previously the notice of permit action was to be distributed to persons being entitled to appeal.

*Comments 145 – 148, Page 46*

# 0400-40-06-.13 Appeals.

- DWR requests the inclusion of the following comment and response at the end of the numbered responses in the signature copy.
  - Comment 148: A commenter indicated that the right to appeal permit decisions was being removed from the Board.
  - Response: The appeal rights for permit applicants remain the same. These rights are prescribed in TCA 69-3-105(i). Reference to this law is included in the Rule.

**QUESTIONS ?**



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**TN**

Department of  
**Environment &  
Conservation**

# Rule Chapter 0400-40-06

- Public Comment on 0400-40-06
- TDEC Response
- Board Deliberations, Questions
- Vote



Department of  
**Environment &  
Conservation**

**NPDES General Permits  
Municipal Separate Storm Sewer Systems  
Chapter 0400-40-10**

**Board of Water Quality, Oil and Gas**

# The Rules Before You

Based on federal requirements, negotiated settlement, and after incorporating the suggestions from the commenters, the post-construction stormwater rules before you provide regulatory certainty, predictability, and cost-effective water quality protection for Tennessee waters.

## These rules establish standards

- for post-construction treatment performance in terms of the **design requirements**
- for protection of water quality in terms of **operation, maintenance, and inspections** of treatment measures
- for the **sizing and uses** of riparian buffers

Much flexibility is provided in the selection of treatment options, optional mitigation by offsite treatment, variety of incentive options including incentives developed by the municipality.

# Tennessee Small MS4 General Permit

**2003 - Narrative statement** - *Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for your community.*

**EPA required clear, specific, measurable standards for new MS4 permits**

**2010 - Tiered standard** – *Tier 1: Site design standards ... require, in combination or alone, management measures that are designed, built and maintained to infiltrate, evapotranspire, harvest and/or use, at a minimum, the first inch of every rainfall event preceded by 72 hours of no measurable precipitation. This first inch of rainfall must be 100% managed with no storm water runoff being discharged to surface waters. Tier 2: For projects that cannot meet 100% of the runoff reduction requirement unless subject to the incentive standards, the remainder of the stipulated amount of rainfall ... to remove 80% Total suspended solids.*

**MS4s requested extension beyond the permit term for implementation**

**2016 - WQTV treatment standard** - *The WQTV is defined as the runoff generated from impervious surfaces during the first inch of a [representative] rainfall event. [Stormwater Control Measures] ... that approach 100% pollutant removal constitute MEP where site-specific conditions allow. If site-specific limitations do not allow infiltration, evapotranspiration, or capture/reuse of the entire WQTV, then a combination of SCMs must be selected to maximize pollutant removal consistent with site-specific limitations and, at a minimum, be designed to achieve an overall treatment efficiency of 80% TSS removal.*

**Post-construction requirements were appealed by HBAT and environmental groups**

# Federal Rules 40 CFR § 122.34

## Requirements for Regulated Small MS4 permits

- 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 permit must require the permittee to **ensure adequate long-term operation and maintenance** of BMPs.

# Rulemaking Context – Statute (2016 & 2017)

## T. C. A. § 69 -3-108. Permits section amended:

- ❑ Any NPDES permit issued shall not impose post-construction stormwater requirements, except to the extent necessary to **comply with** the minimum requirements of **federal law**;
- ❑ NPDES permit with post-construction requirements shall allow **discretion** in selecting measures;
- ❑ Post Construction requirements shall be **adopted by the board** (Tennessee Board of Water Quality, Oil & Gas) as rules pursuant to the Uniform Administrative Procedures Act; and
- ❑ Prohibits the issuance of NPDES permit regulating MS4s until after the **rules take effect**.

# Rulemaking Context - Settlement

## November 12, 2018 – Contingent Settlement of the Appeal:

- ❑ **MEP requirements** for design, incentives, buffers, and SCM O&M were negotiated.
- ❑ The parties agree that the negotiated Post-construction Stormwater Standards **comply with all provisions of the Act**, including without limitations with Tenn. Code Ann. Paragraph 69-3-108 (s) and (t).
- ❑ The parties agree **not to challenge** Tennessee **permits or rules** of the Board of Water Quality, Oil , and Gas based on the terms of this settlement in any form for period of **at least (5) years** following the date of execution of this agreement.

# Rulemaking Timeline

With **practicability** agreed upon with the residential development industry and water quality **protection** negotiated with the environmental interest advocates, the division actively **solicited input from the municipal sector** and other stakeholders through outreach and the public comment process.

- November 2018 Settlement reached
- January 2019 Division outreach sessions
- May 2, 2019 Public notice of proposed rules
- July 15, 2019 Public hearing was held
- July 25, 2019 End of comment period
- January 2021 Revisions and responses complete

# Comments Received

The Division received well over 300 comments from 50+ groups and commenters. Overwhelming majority of the comments were focused on improving the rule and requested or provided clarifications for the rule. This public input was much sought after, as it significantly **improved the clarity of the proposed rules** and provided full flexibility to the municipalities as well as certainty in implementing the post-construction requirements.

- ❑ Several comments expressed well considered appreciation or were otherwise quite **supportive**.
- ❑ Few comments were in direct opposition to some provisions of the rule, mostly in terms of **interpretation**.
- ❑ The comments from the municipalities focused on **clarifications and additions** to the rule which were **all incorporated** into the revised rules in front of you.

We would like to thank the commenters for taking the time to attend our outreach sessions, reading the proposed rule and providing thoughtful comments and well-reasoned suggestions such as the addition of treatment trains. **The revised rule is reflecting their input and agreement of the parties to the settlement.**

# Design Requirements

The rules provide a set of equivalent treatment options for the municipality to offer to be **mixed and matched** to the individual site conditions.

- ❑ The rule establishes a **single design storm** (1-year, 24-hour) and a Water Quality Treatment Volume as a portion of the runoff generated from impervious surfaces at a new development/redevelopment project by the design storm.
- ❑ The rule **categorizes stormwater control measures** by treatment type. Stormwater control measures can be used alone or be sequenced into **treatment trains** per revised rule.
- ❑ The treatment options are **all equivalent**. The more efficient treatment options available are green stormwater infrastructure using natural landscape processes such as infiltration, evaporation, plant uptake and transpiration and have a lower treatment volume.
- ❑ The municipality will now have **flexibility to use water quantity (detention) ponds** for water quality treatment without the uncertainty of a waiver process or time-consuming technical justifications of limiting conditions as was the case in the past.

# Design Requirements – Treatment Types

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, whichever is less.	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 (d) of this paragraph.

# Design Requirements - Treatment Trains

- Treatment trains using hydrodynamic separation, baffle box settling, other flow-through **manufactured treatment devices (MTDs)** must provide an overall treatment efficiency of at least 80% TSS reduction.
- TSS removal rates for MTD must be evaluated using **industry-wide standard**. The current industry-wide standards include NJDEP certification and Washington DOE TAPE approval (GULD, basic).
- Treatment trains using infiltration, evaporation, transpiration, reuse, or biologically active filtration followed by sand or 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.

# Design Requirements Incentives and Additional Discretion

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:

- Redevelopment projects (including, but not limited to, brownfield redevelopment);
- Vertical density (floor to area ratio of at least 2, or at least 18 units per acre); and
- 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.

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.

# Buffer Sizing Requirements

Water quality is assured by upfront clarity for riparian buffer sizing. The rule provides for permitting predictability and regulatory certainty while assuring water quality benefits

- ❑ Two separate requirements were aligned into one where construction buffers **now match** buffers after construction and **include** provisions for **averaging** of the buffer area.
- ❑ Permittees may authorize **alternative buffer widths** for new development and redevelopment projects where averaged water quality riparian buffers cannot be fully implemented on-site.

# Buffer Sizing Requirements

	Average buffer width (feet)	Minimum buffer width (feet)	Notes
Waters with available parameters for siltation or habitat alteration or unassessed waters	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 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.
Exceptional Tennessee Waters or waters with unavailable parameters for siltation or habitat alteration	60	30	

# Buffer Use Flexibilities

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.

# Long-term Operation and Maintenance Requirements

(40CFR § 122.34) The permit must ensure adequate **long-term operation and maintenance** of BMPs.

Water quality protection and public safety is assured through the provisions for long-term operation and maintenance of stormwater control measures through:

- plans review
- verification of installation
- agreement assigning maintenance responsibility
- periodic inspections.

# Remaining Timeline

- Settlement executed on November 12, 2018
- Draft rules published on May 2019
- Revised rules before the Board April 2021
- Rules final and effective ....
- Permit issuance - including public process ...
- Implementation of the post-construction standards is required within 24 months of the permit effective date.
- Settlement gave 5 years from November 12, 2018 of no appeal.

# Credits and Thanks

- **Stakeholders**
- **Municipalities**
- **TDEC Technical staff**
- **TDEC Leadership and Counsel**
- **Reviewers and Commenters**
- **Industry experts**
- **Appeal parties**
- **The Board**



**TN**

**Thank you!**  
**[Karina.Bynum@tn.gov](mailto:Karina.Bynum@tn.gov)**

# Rule Chapter 0400-40-10

- Public Comment on 0400-40-10
- TDEC Response
- Board Deliberations, Questions
- Vote



Department of  
**Environment &  
Conservation**

**Rule Chapter 0400-40-05  
Presentation to  
Water Quality Oil and Gas Board**

**April 20, 2021**

April Grippo, Division of Water Resources

# Chapter 0400-40-05

## Individual NPDES Permits

- Removes State Operating Permits (SOPs) from this chapter because SOPs will be governed by new rule Chapter 0400-40-06
- Electronic reporting
- Bypass provision
- Sanitary sewer overflows and releases
- Low pressure systems
- Effluent limitations and standards
- Changes to provisions for Animal Feeding Operations (AFOs)
- Establishes effluent limitations for permanent stormwater management for municipalities with individual MS4 permits

# Reasons for Rulemaking

- Incorporates recent EPA rule amendments governing the NPDES permit program
- Amends Animal Feeding Operations (AFO) rules to comply with state legislation
- Clarifies requirements for sanitary sewer overflows and releases for consistency with federal electronic reporting requirements
- Adopts effluent limitations for post-construction stormwater for municipalities with individual MS4 permits to comply with state legislation and federal law

# Engagement During Rulemaking Process

In addition to previously mentioned engagement, the Division:

- Included information and sought input during staff presentations to Tennessee Association of Utility Districts (TAUD) and the Fleming Training Center
- Met with individually permitted municipalities and TDOT to discuss specific implementation concerns, and
- Received 300+ comments as a result of these efforts

Incorporating many of these suggestions provided clarification and flexibility for individual permittees regulated by this rule.

# Electronic reporting

- Incorporates recent EPA rule amendments governing the NPDES permit program, including e-reporting requirements.
- DWR 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.
- The final rule clearly establishes that TDEC will follow the waiver requirements of the federal rules.
- No substantial comments regarding e-reporting, but municipalities expressed general concerns about the increased availability of records to the public.
- These rules do not change the requirements for CBI or critical infrastructure information. All records, electronic or paper, were already public records, so electronic records are simply easier for the public to obtain.

# Sanitary Sewer Overflows and Releases

- The new details required to be reported on overflows and releases are the result of the federal E-reporting rule.
- Currently, any untreated wastewater not discharged through a permitted outfall must be reported as an overflow
- Overflows caused by improper operation and maintenance are already prohibited
- New provisions make a distinction between overflows and releases:
  - **Overflows** could reach waters of the state
  - **Releases** do not reach waters
- The previous method of reporting required all events to be reported as overflows regardless of whether untreated wastewater reached waters, giving an inaccurate picture of the compliance of the system.
- The distinction between overflows and releases will give permittees, the public, and TDEC a better idea of the system's compliance.

# Comments on Overflows and Releases

- Requests to review surrounding state practices, such as volumetric thresholds – further review found that states do not use these thresholds for determining whether a violation occurred.
- Industrial dischargers were unclear on how the overflow provisions pertained to them – the resulting language is more clear.
- Questions about authority over collection and conveyance systems - the Act requires the regulation of the operation of treatment works and sewerage systems.
- Based on comments, added CSO and CSS definitions and improved the definition of “release” to clarify events that are not considered a release.
- Commenters:
  - questioned how to determine what could be a threat to human health and the environment.
  - requested for guidance on overflows and releases
- The Division plans to address these concepts in upcoming guidance.

# Bypass provision

- A bypass is the intentional diversion of waste streams from any portion of a treatment facility.
- The new language more closely tracks with federal law and:
  - Allows bypass if necessary for essential maintenance and if effluent limits are not exceeded.
  - Clarifies that sampling must be conducted to demonstrate compliance
  - Specifies the type of reporting that will occur following a bypass

# Improper Operation and Maintenance (O&M)

- A release must be reported but does not constitute a permit violation unless it results from improper operation and maintenance of the collection system.
- The determination of improper O&M is dependent on site-specific conditions during the event.
- Proper O&M is a federal requirement applicable to all NPDES permits, including industrial dischargers.
- These concepts don't lend themselves to a concrete definition. There are varying standards of typical operation and maintenance among municipalities.

# Low Pressure Systems

- The permittee shall properly operate and maintain all facilities and systems of treatment and control
- Low pressure pumps and tanks are part of the public sewerage system
- These pumps and tanks shall be owned or under the control of public utilities rather than private landowners.
- While direct ownership is encouraged, operational control without direct asset ownership may suffice and is described in the response to comments.

# Animal Feeding Operations (AFOs)

- This rulemaking amends the conditions for discharging Animal Feeding Operations (AFOs).
- These amendments were required by recent legislation codified at T.C.A. § 69-3- 108(10).
- This chapter now applies only to AFOs requiring NPDES coverage.
- AFOs requiring State Operating Permits (SOPs) are addressed in Chapter 6.
- As NPDES permits for AFOs are renewed, the new rule requirements will be incorporated in those permits.

# Effluent Limitations and Standards

- The final rules allow authorization of non-potable reuse of reclaimed wastewater in association with a NPDES permit (described in Chapter 5) or a SOP (in Chapter 6).
- This rule before you today includes amended language in 0400-40-05.08:

**The Commissioner may adjust these effluent limitations in accordance with 40 C.F.R. § 133.103(b) (2021).**

- This amended language will allow for secondary treatment adjustment.

# New Provisions for Post-construction Stormwater

- Although the individual permittees were not part of the settlement negotiations, their regulated community (the residential development industry) was part of the settlement and agreed with the practicability of the standards.
- The negotiated post-construction stormwater standards in Ch 10 comply with all provisions of the Act.
- These standards are the basis for the language of Ch 5 applicable to individual permittees. Since the individual permittees were not part of the settlement, the rule offers them additional flexibility while still meeting regulatory requirements of the Act.
- This provided individual permittees with an opportunity to submit language specific to their jurisdiction. While individual permittees provided input during the rulemaking, they did not suggest replacement language. Their comments are incorporated into the rule before you today.

# Additional flexibilities for Individual Permits

- Implementation plan – while both rules have 24 months from the effective date, the Division expects that the individual permitting process will provide additional time after rule adoption.
- Alternative permanent stormwater standards that provide equal or equivalent reduction of pollutants to the treatment standard table may be submitted to the Division for approval.
- An alternative maintenance and inspection schedule may also be submitted to the Division for approval.

# Conclusions

- The Division has heard the need for regulatory certainty and assurance from one 5-year permit cycle to the next.
- This rule represents the minimum burden and maximum flexibility to individual permittees in Tennessee for complying with federal NPDES permit requirements.
- E-reporting requirements will provide increased public transparency.
- Incorporating comments and suggestions by the public and the regulated community provided clarification and flexibility for individual permittees regulated by this rule.

# Rule Chapter 0400-40-05

- Public Comment on 0400-40-05
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Any Old Business?

Thank you for joining us.  
Any questions, please direct to  
[Drake.Smarch@tn.gov](mailto:Drake.Smarch@tn.gov)