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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).*

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**Revision Type (check all that apply):**

- Amendment  
 New  
 Repeal

**Rule(s)** (ALL chapters and rules contained in filing must be listed here. If needed, copy and paste additional tables 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 Please make sure that ALL new rule and repealed rule numbers are listed in the chart below.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
0400-40-06	State Operating Permits
Rule Number	Rule Title
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0400-40-06-.02	Definitions
0400-40-06-.03	Permit Application, Issuance
0400-40-06-.04	Notice and Public Participation
0400-40-06-.05	General Terms and Conditions
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0400-40-06-.09	Collection Systems
0400-40-06-.10	Non-Potable Reuse
0400-40-06-.11	Bonds
0400-40-06-.12	Duration and Reissuance of Permits
0400-40-06-.13	Appeals

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>.

## New Rules

### Chapter 0400-40-06 State Operating Permits

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#### 0400-40-06-.01 Purpose.

State Operating Permits (SOPs) authorize the operation of non-discharging ~~treatment works and~~ sewerage systems in compliance with permit conditions. SOPs [issued pursuant to this chapter](#) impose such conditions, including effluent standards and conditions and terms of periodic review, as are necessary to prevent pollution of waters from the operation of non-discharging wastewater systems, including but not limited to: land application; animal feeding operations; pumping and hauling; collection and conveyance; and non-potable reuse [of reclaimed wastewater](#). SOPs are not required for the use of a septic tank connected only to a subsurface drainfield [covered by subject to regulation under](#) Chapter 0400-48-01. SOPs do not authorize discharges to waters or alterations of the properties of waters. In addition to any standards imposed by this chapter, construction of SOP facilities that collect and treat wastewater are governed by Chapter 0400-40-02.

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

#### 0400-40-06-.02 Definitions.

All terminology not specifically defined herein shall be defined in accordance with the Water Quality Control Act, T.C.A. §§ 69-3-101 [et seq through -148](#). When used in this chapter and in permits issued pursuant to this chapter, the following terms have the meanings given below unless otherwise specified:

The “Act” means the Water Quality Control Act (TWQCA), T.C.A. [§§ 69-3-101 et seq Title 69, Chapter 3, Part 1](#).

[“Agricultural reuse for food crops” is the non-potable reuse of reclaimed wastewater to irrigate food crops that are intended for human consumption.](#)

[“Agricultural reuse for processing food crops and non-food crops” is the non-potable reuse of reclaimed wastewater to irrigate crops that are processed by humans before human consumption.](#)

“Agronomic application rate” (with respect to categories of Urban or Agricultural Reuse) as used in this chapter: the application of reclaimed wastewater to meet nutrient or hydraulic uptake needs of food crops, feed crops, fiber crops, cover crops or vegetation grown on land, the latter category including but not limited to athletic fields and ornamental landscaping. Agronomic application rates vary with the type and density of the crops, the seasonal and ambient weather conditions, shade coverage, and characteristics of the reclaimed wastewater.

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.

~~“Complete hydraulic infiltration within the soil profile” means the movement of all applied, partially-treated effluent into and through the soil.~~

“Continuous monitoring” means collection of samples using a probe and a recorder with at least one data point per dosing cycle.

~~“Discharge of a pollutant,” “discharge of pollutants,” and “discharge” when used without qualification, each refer to the addition of pollutants to waters from a source.~~

~~“Dry weather intermittent ponding” is ponding that occurs at least 24 hours after a ½ inch or greater rain event, results from dosing by drip hose or spray irrigation, and does not last longer than the rest period between dosing cycles.~~

~~“Dry weather persistent ponding” is ponding that occurs at least 24 hours after a ½ inch or greater rain event, results from drip hose or spray irrigation, and lasts longer than the rest period between dosing cycles.~~

The “end user of reclaimed wastewater” is the recipient and user of reclaimed wastewater from a permitted provider at the end of a distribution network who is engaging in beneficial reuse. Any individual who engages in the sale or resale of reclaimed wastewater is not an end user.

~~“Environmental reuse” is the non-potable reuse of reclaimed wastewater that is such quality that it could be reused to create, enhance, sustain, or augment water bodies including wetlands, aquatic habitats, or stream flow.~~

“Feed crops” are crops produced primarily for consumption by animals.

“Fiber crops” are crops produced primarily for harvesting fibers such as flax or cotton.

“Food crops” are crops produced primarily for consumption by humans. These include, but are not limited to, fruits, vegetables, and tobacco.

~~“Full utilization of the land application area” means proper spatial distribution of partially-treated effluent such that it is dispersed uniformly throughout the disposal area to maximize the use of the available soil profile.~~

A “grab sample” is a single sample collected at a particular time.

~~“Groundwater recharge for non-potable reuse” is the non-potable reuse of reclaimed wastewater of such quality that it is suitable to recharge aquifers that are not used as potable water sources.~~

~~“Industrial reuse” is the non-potable reuse of reclaimed wastewater of such quality that it is acceptable for specific industrial purposes such as power production or extraction of fossil fuels.~~

“Irrigation” is the beneficial application of reclaimed wastewater to land or soil to assist with the growing of agricultural crops and maintenance of landscapes during periods of insufficient rainfall.

~~“Land application” means the intentional disposal of treated wastewater into a soil matrix having depth and structure sufficient to assimilate the designed hydraulic and pollutant loading rates.~~

~~“Land application area” means an area of suitable soil used for the application of treated wastewater for the purpose of maximizing the disposal of partially-treated wastewater.~~

“Land application area for AFOs” 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.

~~“Major precipitation event” means a two-inch or greater precipitation event within a 24-hour period.~~

"Monthly average concentration" is the arithmetic mean of all samples collected in a calendar-month, expressed in units of mass per volume, for any pollutant.

"Non-potable reuse of reclaimed wastewater" is the planned and intentional reuse of reclaimed wastewater that does not involve direct production of potable water.

"NPDES" means National Pollutant Discharge Elimination System.

"Pasture" is the land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, or clover.

~~"Ponding" means standing water on the surface on the ground.~~

"Potable reuse of reclaimed wastewater" is the planned augmentation of a drinking water source with reclaimed wastewater.

A "quarter" is 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.

"Reclaimed wastewater" is wastewater that has been treated to meet minimum criteria with the intent of being used for non-potable purposes in a non-discharging wastewater system.

"Restricted urban reuse" is the non-potable reuse of reclaimed wastewater in municipal or suburban settings and of such quality that public access is controlled or restricted by physical or institutional barriers, such as fencing, advisory signage, and/or temporal access restrictions.

"Reuse in impoundments with restricted access" is the non-potable reuse of reclaimed wastewater in an impoundment that is of such quality that bodily contact is restricted.

"Reuse in impoundments with unrestricted access" is the non-potable reuse of reclaimed wastewater in an impoundment that is of such quality that there are no limitations imposed on bodily contact for recreational activities.

"Reuse of reclaimed wastewater" is the application of reclaimed wastewater ~~effluent in quantities such that the minimum amount water is applied to meet, but not exceed, the agronomic need or uptake of a crop, landscaping, athletic fields, or other beneficial sites~~ of sufficient quality to be reused in a non-discharging wastewater system in a manner protective of human health and the environment.

~~"Setback" means a specified distance from surface waters, potential conduits to surface waters, property lines, public use areas, or other specific features as established by the Commissioner.~~

"Sewerage system" means the conduits, sewers, and all devices and appurtenances by means of which sewage and other waste is collected, treated, or disposed.

"STEG" means septic tank effluent gravity.

"STEP" means septic tank effluent pump.

"Surface impoundment" or "impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well.

~~"Surface saturation" means the condition in which voids in the soil immediately below the surface of a drip disposal area are saturated.~~

"Unrestricted urban reuse" is the non-potable reuse of reclaimed wastewater in municipal or suburban settings and of such quality that public access is not restricted, such as irrigation for athletic fields, landscaping, or other approved "purple pipe" residential uses.

“Wastewater” means “sewage” as defined in T.C.A. § 69-3-103.

~~A “wastewater facility” is any facility, including the reserve capacity thereof, whose purpose is to collect, store, treat, neutralize, stabilize, recycle, reclaim, or dispose of wastewater. Wastewater facilities include treatment or disposal plants, interceptors, outfalls, and pumping stations, including equipment and furnishings thereof and appurtenances thereto.~~

“Wastewater reclamation” is the treatment of wastewater or effluent to produce reclaimed wastewater such that it is acceptable for reuse that would not otherwise occur.

“Waters” means any and all water, public or private, on or beneath the surface of the ground, that 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 that do not combine or effect a junction with natural surface or underground waters.

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

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

- (1) Any person who plans to operate a non-discharging wastewater system, other than an exempt septic system discharging only to a subsurface drain field, shall apply in writing for a state operating permit on forms provided by the Commissioner and secure such a permit prior to operation or expiration of an existing permit. The Commissioner may make these application forms available electronically and, if submitted electronically, then that electronic submission shall comply with the requirements of Chapter 0400-01-40. Completed applications shall be submitted no later than 180 days in advance of the date on which a new or expanded activity will begin operation or the date of expiration of an existing permit for an ongoing activity.
- (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. Processing of ~~an the~~ application shall not be completed until all requested information has been submitted. ~~The applicant will be provided notice of completion of the application and re-submitted material within 30 days of a determination that such material constitutes a complete application~~ Within 30 days of receipt of the application, the Commissioner will notify the applicant of any deficiencies or that the application is complete. This provision does not preclude the Commissioner from later requesting additional material information that subsequent to the notice of completeness is determined to be necessary for permit processing.
- (3) Non-discharging large AFOs, as defined by TABLE 0400-40-05-.14.1 of Rule 0400-40-05-.14, which utilize liquid waste management systems, shall seek and obtain coverage under a SOP prior to commencing operation. Other non-discharging AFOs may seek and obtain coverage under a SOP. All AFOs seeking to obtain permit coverage shall submit an application ~~with copies of the initial application and the approved application and nutrient management plan to the Commissioner.~~ All AFOs seeking to obtain permit coverage shall submit a nutrient management plan as outlined in subparagraphs ~~(9)~~(10)(a) and (b) of Rule 0400-40-05-.14.
- (4) Applications shall be submitted 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. A 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. A By a ranking elected official.
- (5) The Commissioner will not authorize the construction, installation, or modification of a ~~treatment works sewerage system~~, or part thereof, or any extension or addition thereto, until after the end of the public comment period as outlined in Rule 0400-40-06-.04.
- (6) The Commissioner shall issue permits only to a person or persons. ~~No permit shall be issued to a corporation, limited liability company, or limited liability partnership that has been administratively dissolved by the Tennessee Secretary of State or to an out-of-state corporation, limited liability company, or limited liability partnership that has not registered with the Tennessee Secretary of State. 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.~~
- (7) The Commissioner shall not issue a permit or a renewal of a permit to an applicant unless all fees required by T.C.A. Title 68, Chapter 203 have been paid in full.
- (8) Public sewerage system applicants shall be a municipality, a public utility, a wastewater authority, or a privately owned public utility (having a Certificate of Convenience and Necessity from the Tennessee Public Utility Commission), or another public agency.
- (9) ~~Reserved. No land application system shall be approved or certified by the Commissioner which proposes to use land having a water table at an elevation which would preclude adequate treatment of the wastewater and which may result in surfacing of groundwater pollution.~~
- (10) This chapter requires the submission of forms developed by the Commissioner 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.

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

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

- (1) Each completed permit application shall be evaluated and a tentative determination of whether to issue or deny a permit shall be made. If a tentative determination is made to issue a permit, then a draft permit shall be prepared for public notice that includes the proposed conditions.
- (2) For each application for which a tentative determination is made to issue a permit, the Commissioner shall prepare a rationale to be published with the draft permit 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, conveyed, pumped and hauled, land applied, or ~~reused~~ used;
  - (b) A brief summary of the basis for the draft permit conditions;
  - (c) The location of the activity or activities described in the application;

- (d) The tentative determination regarding the proposed activity; and
  - (e) Name, telephone number, and electronic mail address of a person to contact for additional information.
- (3) 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.
- (4) Public notices may describe more than one permit or permit actions.
- (5) Public notice of a draft permit (including a notice of intent to deny a permit application for a new or expanded activity) required under this rule shall allow at least 30 days for public comment.
- (6) 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.
- (7) To inform interested and potentially interested persons of the proposed activity 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) 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 Commissioner knows has issued, or is required to issue, other permits for the same facility or activity;
    - 3. Persons on a mailing list for permit actions developed by:
      - (i) Including those who request in writing to be on the list; and
      - (ii) 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;
    - 4. To any unit of local government having jurisdiction over the area where the facility is proposed to be located; and
    - 5. To each state agency having any authority under state law with respect to the construction or operation of such facility.
  - (b) The applicant shall post a sign within view of a public road in the vicinity of the proposed SOP activity as specified by the Commissioner. The sign shall contain those provisions as specified by the Commissioner. The sign shall be of such size that it is readily visible from the public road. Also, the sign shall be maintained for at least 30 days following distribution of the approved public notice.

- (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, or any other forum or medium to elicit public participation, may be utilized.
- (8) Public notice of applications shall include the following:
- (a) Name, address, and phone number of the Division;
  - (b) Name and location address of each applicant;
  - (c) Brief description of each applicant's wastewater activities or operations;
  - (d) Name of any surface waters adjacent to, or within 0.25 miles of, the proposed activity;
  - (e) A statement of the tentative determination to issue or deny a permit for the activity 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.
- (9) 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.
- (10) 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 ~~water quality~~ 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 other requirements of the Tennessee Water Quality Act, the Commissioner ~~may shall~~ hold ~~one a hearing~~ in the geographical area of the proposed discharge activity. Instances of doubt should be resolved in favor of holding the hearing.
- (11) Special provisions regarding public notices for public hearings.
- (a) In addition to the public notice procedures of paragraph (7) 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, and approximate distance to, the nearest stream;
    - 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.

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

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

- (1) When a permit is granted, [the permit #](#) shall be subject to the provisions of the Act, these rules, and any special terms or conditions the Commissioner determines are necessary to fulfill the purposes, or enforce the provisions, of the Act. The Commissioner may impose conditions concerning the quality of treated wastewater other than those specified herein as needed based on the quality of the raw wastewater.
- (2) Permits shall impose monitoring, recording, reporting, and inspection requirements as determined necessary by the Commissioner [to assure adequate treatment of wastewater and proper operation of the sewerage system to meet the requirements of the Act and of this chapter](#). All monitoring conducted pursuant to permits issued under this chapter shall be representative of the wastewater being sampled. The Commissioner may make monitoring, recording, reporting, and inspection forms available electronically and, if submitted electronically, then that electronic submission shall comply with the requirements of Chapter 0400-01-40.
- (3) Permits may require best management practices to carry out the purposes and intent of the Act.
- (4) The following terms and conditions shall apply to all state operating permits:
  - (a) The standard conditions established by paragraph (2) of Rule 0400-40-05-.07, as applicable.
  - (b) There shall be no discharge to any surface waters or to any location where it is likely to enter surface waters, except as separately authorized by an NPDES permit.
  - (c) There shall be no discharge of wastewater to groundwater, except as separately authorized by an underground injection control permit.
  - (d) The system shall be operated in a manner preventing the creation of a health hazard or a nuisance.
  - (e) Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters.
  - (f) Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state or federal law.
  - (g) The permittee may not add wasteloads to the permitted system in a quantity or quality not currently permitted without prior notice to, and written approval from, the Commissioner.

- (h) The permittee shall own the sewerage system, including treatment works, collection systems, and land application areas, including any parts thereof and extensions thereto (except as provided in paragraph (2) of Rule 0400-40-06-.09), as applicable. A recorded perpetual easement in a form approved by the Commissioner may be provided in lieu of fee title. Evidence of such ownership or access rights must be provided to, and approved by, the Commissioner prior to commencement of operation. This provision does not apply to land application areas for AFOs.

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

0400-40-06-.06 Land Application Reserved.

~~(1) In addition to any applicable general conditions identified in Rule 0400-40-06-.05, the following special conditions apply to permits authorizing land application of treated wastewater:~~

~~(a) Treatment.~~

- ~~1. Domestic and/or municipal wastewater disposed of by land application using drip dispersal shall achieve the following effluent quality, or better, prior to land application:~~

Parameter	Daily Maximum (mg/l)
BOD <sub>5</sub> or CBOD <sub>5</sub>	45/40
TSS	45
pH	6-9
NH <sub>3</sub> -N	22

- ~~2. Large community septic systems shall meet the construction standards of Chapter 0400-48-01. In addition, large community septic systems shall achieve the following effluent quality, and any other limitations established on a case-by-case basis through best professional judgment:~~

Parameter	Daily Maximum (mg/l)
BOD <sub>5</sub>	200
TSS	100

- ~~3. Industrial dischargers shall comply with the limitations of subparagraph (a) of this paragraph and any other limitations established by the Division through best professional judgment.~~

~~(b) Ponding.~~

- ~~1. Land application systems shall be operated and maintained to ensure complete hydraulic infiltration within the soil profile such that there are no instances of dry weather persistent ponding.~~
- ~~2. Instances of dry weather persistent ponding as a result of system operation are prohibited. Instances of dry weather persistent ponding shall be promptly investigated and noted on the Monthly Operations Report. The report shall include details regarding location(s), determined cause(s), action(s) taken to eliminate the issue, and the date the corrective actions were made. Any instances of dry weather persistent ponding not corrected within three days of discovery shall be reported to the local Environmental Field Office at that time for investigation.~~

~~(c) Fencing and Signage.~~

~~All dripfields shall be fenced sufficiently to prevent or impede unauthorized entry. Gates shall be designed and constructed in a manner to prevent or impede unauthorized entry.~~

The permittee shall place a sign at the entrance to the land application area and at regularly spaced intervals not to exceed 200 feet on the fence surrounding the land application area. The minimum sign size should be two feet by two feet (2' x 2') with one inch (1") letters. The sign should be made of durable and waterproof material.

(d) Inspections.

The wastewater facility and land application area shall be inspected by a certified operator or his/her designee at least once per 14 days unless a site-specific alternative monitoring schedule has been submitted to the Division and approved in writing by the Commissioner on or before the effective date of the permit. However, in no case shall the physical inspection frequency be less than once per 30 days. The inspection report shall identify the name of the inspector and address the condition of fencing and signage, operational status of the mechanical parts of the treatment system, and the condition of the land application area including the location of any ponding if applicable.

(2) Land Application Area.

This paragraph (2) shall apply to new land application facilities approved after June 1, 2019. The primary land application area shall contain suitable soils area(s) of sufficient size to accommodate at least 150% of the daily design flow. Soil suitability shall be demonstrated through an extra high-intensity soils map as defined in Rule 0400-48-01-.02 and supported by soil pedon descriptions prepared in accordance with the Soils Handbook of Tennessee or equivalent soil pedon description development practice as approved by the Commissioner.

(a) The soil profile shall be described to a minimum depth of 36 inches or to rock or fragipan. There shall be a minimum of two pedon descriptions per acre with at least one description in any soil unit intended for use, unless a different frequency is specified by the Commissioner.

(b) Application rates or soil area loading rates shall be such that long-term acceptance of treated wastewater is achieved and aerobic status of the soil column is maintained.

1. The maximum design loading rate cannot exceed the lower of the maximum hydraulic loading rate from the table below, or the maximum pollutant loading rate. For municipal wastewater, the maximum nutrient loading rate is based on calculations for nitrogen loading to ensure groundwater concentrations of nitrate do not exceed 10 mg/L. For industrial wastewater, additional constituents may need to be addressed as applicable.

2. The following table should be used to determine the maximum hydraulic loading rate.

Maximum Hydraulic Loading Rates			
TEXTURE	STRUCTURE		HYDRAULIC LOADING RATE (GPD/ft <sup>2</sup> )
	SHAPE	GRADE	
Coarse Sand, Loamy Coarse Sand	NA	NA	NA <sup>2</sup>
Sand	NA	NA	NA <sup>2</sup>
Loamy Sand, Fine Sand, Loamy Fine Sand, Very Fine Sand, Loamy Very Fine Sand	Single Grain	Moderate, Strong	0.50
		Massive, Weak	0.40
Coarse Sandy Loam,	Massive	Structureless	0.30
	Platy	Weak	0.20

Sandy Loam		Moderate, Strong	Not Used
	Blocky, Granular	Weak	0-40
Loam	Massive	Structureless	0-20
	Platy	Weak, Moderate, Strong	Not Used
	Blocky, Granular	Weak	0-30
		Moderate, Strong	0-40
Silt Loam	Massive	Structureless	0-20
	Platy	Weak, Moderate, Strong	Not Used
	Blocky, Granular	Weak	0-20
		Moderate, Strong	0-30
Sandy Clay Loam, Clay Loam, Silty Clay Loam	Massive	Structureless	NA <sup>2</sup>
	Platy	Weak, Moderate, Strong	Not Used
	Blocky, Granular	Weak	0-20
		Moderate, Strong	0-20
Sandy Clay, Clay, Silty Clay	Massive	Structureless	Not Used
	Platy	Weak, Moderate, Strong	Not Used
	Blocky, Granular	Weak	0-075
		Moderate, Strong	0-10

\* Requires a special site investigation

- (c) ~~There shall be a minimum soil depth of 20 inches above the restrictive horizon or seasonal water table.~~
- (d) ~~The land application area shall be protected from unauthorized vehicles and equipment. No physical structure shall be built within the land application area. No construction activity shall be allowed within the land application area that has the potential to alter soil suitability.~~
- (e) ~~Non-forested land application areas with slopes greater than 30 percent are prohibited. Forested land application sites with slopes greater than 30 percent are prohibited unless authorized by the Commissioner through a special investigation. Special investigations for steep slopes shall be in accordance with the Soils Handbook of Tennessee or equivalent investigation process as determined by the Commissioner.~~
- (f) ~~The land application area shall be closed to public access. The use of the primary disposal site as a park, golf course, cemetery, institutional use, recreational use, or other public use is prohibited.~~
- (3) ~~Construction.~~
- ~~For new land application facilities approved after June 1, 2019, the following construction standards shall apply:—~~
- (a) ~~Drip disposal lines shall be installed at a depth of six to ten inches below the natural soil surface.~~
- (b) ~~Drip lines shall be installed at an elevation conforming generally to the natural ground surface contour of the site.~~
- (c) ~~All components of the system shall be designed and manufactured for the purpose of managing wastewater.~~
- (4) ~~Design Basis.~~

For new land application facilities approved after June 1, 2019, the following design standards shall apply:

- (a) Design flows for residential developments shall be based on the higher of 300 GPD per single family dwelling unit or 65 GPD per person. For vacation rental units the design flow shall be based on 65 GPD per person for the maximum number of occupants. For other uses, design flow shall be based on the Division's design criteria or other accepted engineering practice.
- (b) Land application shall be designed and installed such that the area of influence of the drip emitters or spray pattern covers the minimum square footage calculated for the application area. For drip dispersal system design, one emitter represents four square feet of application area, provided the emitters are not spaced more closely than two feet along the drip tubing or perpendicular to the drip tubing unless otherwise approved by the Commissioner.
- (c) Adequate storage must be provided to allow for crop management (if applicable), system operation, emergency storage, and routine maintenance.
- (d) The following setbacks apply in the determination of available land application area.

Land Application Area Setback (Feet)			
Feature	Spray		Drip
	Open	Forested	
-	Open	Forested	-
Property Line or Easement Boundary	300	150	10
Gullies, Ravines, Blue Line Streams, Drains Drainways, Cutbanks >2 feet, and Sinkholes	150	75	25
Residences or Public Use Areas	300	150	10
Wells and Springs	150	75	50
Underground Utilities	10	10	10

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

0400-40-06-.07 Animal Feeding Operations.

In addition to the general conditions identified in Rule 0400-40-06-.05, the following special conditions apply to permits authorizing the operation of wastewater systems for animal feeding operations:

- (1) The permittee shall develop, submit, obtain state the Commissioner's approval for, and keep on-site a current site-specific nutrient management plan consistent with the requirements of subparagraphs ~~(9)~~ (10)(a) and (b) of Rule 0400-40-05-.14.
- (2) When the AFO owner or operator makes changes to the AFO's nutrient management plan previously submitted to the Commissioner:
  - (a) The AFO owner or operator shall provide the Commissioner with the most current version of the AFO's nutrient management plan and identify changes from the previous version.
  - (b) The Commissioner shall review the revised nutrient management plan to ensure that it meets the requirements of this paragraph and any 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 ~~(9)~~ (10)(b) of Rule 0400-40-05-.14. The Commissioner shall advise the AFO owner or operator whether ~~or not~~ the changes meet the

requirements of subparagraphs ~~(9)~~ (10)(a) and (b) of Rule 0400-40-05-.14 and applicable [effluent limitations and](#) standards. Upon such notification, the AFO owner or operator shall either make further revisions to the nutrient management plan or implement the revised nutrient management plan.

- (c) Operational changes that require nutrient management plan revision, resubmittal, and Commissioner approval include:
1. The addition of confinement buildings, settling basins, lagoons, holding ponds, holding pits, or other agricultural waste containment/treatment structures or handling systems;
  2. The addition of new land application areas for AFOs, or the removal of existing land application areas for AFOs;
  3. 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;
  4. Utilization of alternative crops that were not mentioned in the previous nutrient management plan; and
  5. Increases in field-specific annual land application rates for a linear plan, or increases in the total amount of nitrogen and phosphorus for each crop for a narrative plan.
- (3) 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 Commissioner. At a minimum, such plans shall include the following:
- (a) Any new or additional confinement buildings, waste/wastewater handling systems, waste/wastewater transport structures, waste/wastewater treatment structures, settling basins, lagoons, holding ponds, sumps, 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 current version of](#) USDA-NRCS's Animal Waste Management (AWM) software (~~version 2.4~~) or equivalent design software or procedures as approved in writing by the Commissioner.
  - (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 owner or operator 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 a qualified geologist. A qualified geologist 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 hydraulic conductivity of 0.0028 ft/day ( $1 \times 10^{-6}$  cm/sec).

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

0400-40-06-.08 ~~Pump and Haul Reserved.~~

- ~~(1) — Permits for the operation of pump and haul sewerage systems may be issued only for the following types of wastewaters:
  - ~~(a) — Boat wastes collected pursuant to T.C.A. § 69-9-102;~~
  - ~~(b) — Industrial process wastewater whose chemical characteristics or volume exceed the capacity of any subsurface sewage disposal system serving employees, are incompatible with sewer use ordinance of the public sewer system, or for which no public sewer system is available;~~
  - ~~(c) — Commercially-generated sewage where the nature of the commercial activity is limited to sites without sewage treatment availability and the site activity is inconsistent with future development for any other commercial or residential use (e.g., limestone quarries, solid waste transfer stations at landfill sites);~~
  - ~~(d) — Sewage on a temporary basis not to exceed 24 months while a state-approved subsurface disposal system or public sewer connection is being constructed; and~~
  - ~~(e) — Any other wastes subject to an enforcement action by the department for which the department requires pumping and hauling as an interim corrective action.~~~~
- ~~(2) — Any person operating a sewerage system pursuant to an NPDES permit may assume responsibility for temporarily pumping and hauling of sewerage for its lawful customers without obtaining a separate SOP, subject to any applicable terms of the NPDES permit.~~
- ~~(3) — In addition to the general conditions identified in Rule 0400-40-06-.05, the following special conditions apply to permits authorizing the operation of pump and haul sewerage systems:
  - ~~(a) — The permittee must keep a log of the following:
    - ~~1. — Date of pump and haul;~~
    - ~~2. — Facility name where wastewater is disposed/hailed;~~
    - ~~3. — Facility address where wastewater is disposed/hailed;~~
    - ~~4. — Amount of wastewater hauled;~~
    - ~~5. — Amount of sludge generated;~~
    - ~~6. — How sludge is disposed; and~~
    - ~~7. — Any operational problems encountered during pump and haul must be noted in the log.~~~~~~

- ~~(b) The permittee must provide for wastewater to be pumped from the holding tank/haul system on a regular schedule sufficient to ensure that a reasonable margin of safety is provided against the possibility of an overflow.~~
- ~~(c) A representative of the facility shall be present at all times when waste is being transferred to the haul truck. The permittee or his waste hauling contractor must clean up any spillage of wastewater that results from the operation of this pump and haul system.~~
- ~~(d) The permittee shall not add waste loads from other sources without approval by the Commissioner.~~
- ~~(e) Within 30 days of the availability of public sewers at this site, the use of the holding tank/haul system will be discontinued. The tank will be emptied (with proper disposal of contents), cleaned, and removed from the site.~~

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

0400-40-06-.09 Collection Systems.

- (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. Low pressure pumps, low pressure tanks, septic tank effluent pumps (STEP), STEP tanks, and septic tank effluent gravity (STEG) 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.~~
- (3) Collection ~~Except as provided in paragraph (2) of this rule, all 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).

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

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

- (1) Scope.
  - (a) T.C.A. § 69-3-108(e) requires applicants for a new or expanded wastewater discharge to surface waters to consider alternatives to discharge, including land application and beneficial reuse of treated wastewater. This rule governs non-potable reuse of reclaimed wastewater, ~~and which~~ may be ~~applied as authorized in~~ a stand-alone SOP, ~~as~~ an amendment to an existing SOP, or ~~as a component of in~~ an NPDES permit. Non-potable reuse is a conservation activity that replaces the use of more ~~highly treated~~ highly treated water, especially potable drinking water, ~~and is not intended to~~ 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. Moreover, the Division reserves the right to limit non-potable reuse of reclaimed wastewater that causes a greater than five percent reduction of the 7Q10 flow of the receiving stream 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.

- (b) The following activities do not constitute reuse of reclaimed wastewater within the scope of this rule:
1. Land application that uses the soil as a means of additional treatment of the wastewater produced by a treatment system authorized pursuant to [Rule 0400-40-06-.07 this chapter](#);
  2. Reclamation and reuse of harvested rainwater, or stormwater;
  3. Reclaimed wastewater produced and utilized on-site by the same treatment system (e.g., wastewater treatment plant-water [system](#)); and
  4. Industrial effluent created prior to final treatment and used for water re-circulation [for step-washing or other processes](#) or reuse systems located on the same property as the industrial facility.

~~(c) The following activities are prohibited:~~

- ~~1-5.~~ Potable reuse of reclaimed wastewater;
- ~~2-6.~~ The reuse of reclaimed wastewater to fill residential or public swimming pools, hot tubs, wading pools, or splash pads;
- ~~3-7.~~ The reuse of reclaimed wastewater for food preparation or incorporation as an ingredient ~~into~~ [in](#) food or beverages for human consumption;
- ~~4-8.~~ The resale [or delivery](#) of reclaimed wastewater [to another entity](#) without [initial prior approval from the Commissioner by modification of the NPDES permit or SOP authorizing reclaimed water sales and the subsequent contracting with other end-users without execution of the approved permit](#);
- ~~5-9.~~ [Reuse Non-potable reuse](#) in impoundments with restricted access, ~~reuse in impoundments~~ [or](#) with unrestricted access, environmental reuse, and groundwater recharge for non-potable reuse. [Impoundments intended for temporary storage of reclaimed water as part of the delivery system are not subject to regulation under this rule](#); and
- ~~10.~~ [Agriculture reuse for food crops or for processed food crops and non-food crops.](#)

~~6-(c)~~ Excess utilization of reclaimed wastewater resulting in ponding, [a nuisance to adjacent properties](#), or discharge to waters of the state [is prohibited](#).

~~(2) Definitions of classifications of non-potable reuse.~~

- ~~(a) Unrestricted Urban Reuse. The use of reclaimed wastewater for non-potable applications in municipal settings where public access is not restricted.~~
- ~~(b) Restricted Urban Reuse. The use of reclaimed wastewater for non-potable applications in municipal settings where public access is controlled or restricted by physical or institutional barriers, such as fencing, advisory signage, or temporal access restrictions.~~
- ~~(c) Agricultural Reuse for Food Crops. The use of reclaimed wastewater to irrigate food crops that are intended for human consumption; in addition to this chapter, US Department of Agriculture and other rules may apply.~~
- ~~(d) Agricultural Reuse for Processed Food Crops and Non-Food Crops. The use of reclaimed wastewater to irrigate crops that are either processed before human consumption or not consumed by humans; in addition to these rules, US Department of Agriculture and other rules may apply.~~

- ~~(e) Reuse in Impoundments with Unrestricted Access. The use of reclaimed wastewater in an impoundment in which no limitations are imposed on body-contact water recreational activities; receiving waters included in the NPDES provisions of Chapter 0400-40-05 are not eligible for coverage under this rule.~~
- ~~(f) Reuse in impoundments with Restricted Access. The use of reclaimed wastewater in an impoundment where body contact is restricted; receiving waters included in the NPDES provisions of Chapter 0400-40-05 are not eligible for coverage under this rule.~~
- ~~(g) Environmental Reuse. The use of reclaimed wastewater to create, enhance, sustain or augment water bodies including wetlands, aquatic habitats, or stream flow; receiving waters included in the NPDES provisions of Chapter 0400-40-05 are not eligible for coverage under this Rule.~~
- ~~(h) Industrial Reuse. The use of reclaimed wastewater in industrial applications and facilities, power production, and extraction of fossil fuels.~~
- ~~(i) Groundwater Recharge for Non-potable Reuse. The use of reclaimed wastewater to recharge aquifers that are not used as a potable water source.~~

~~(3)~~(2) Application and Review.

- (a) Engineering reports, plans and specifications.

An applicant seeking authorization for the new or expanded reuse of reclaimed wastewater shall comply with the requirements of Chapter 0400-40-02 for submission and fee requirements. Generation, submittal, approval, and use of standard specifications are required. In addition, the following minimum design requirements apply:

1. Any pipe conveying reclaimed wastewater for reuse must be clearly marked as such distinguished from potable water distribution systems, wastewater collection systems and stormwater conveyance systems. The use of magenta, "purple pipe," or similar painting scheme of fittings, valves, hydrants, and other appurtenances is an acceptable method, but other methods may be used if approved by the Commissioner. It is the responsibility of the utility delivering reclaimed water to ensure affected persons are aware of the system distinctions.
2. Reclaimed and potable water systems should be located at least 10 feet horizontally, or at least 18 inches vertically, apart from each other if practicable. However, if reclaimed wastewater and potable water systems are located within 10 feet horizontally and 18 inches vertically of each other, the non-potable reclaimed wastewater system shall be treated as if it were conveying wastewater that does not meet the treatment requirements of subparagraph (4)(c) of this rule.

- (b) Reclaimed Wastewater Management Plan.

An applicant seeking authorization for the new or expanded reuse of reclaimed wastewater shall submit a Reclaimed Wastewater Management Plan (RWMP) with its permit application. An applicant for renewal of a permit for reuse of reclaimed wastewater shall submit an updated RWMP if there is a material change in end user requirements from the prior submission. Material changes include changes to water quality, delivery pressure, or delivery location, and whenever the end user becomes a purveyor of reclaimed wastewater. At a minimum, the RWMP shall address:

1. Any differences between the treatment of reclaimed wastewater for reuse from that of the wastewater discharged pursuant to an NPDES permit or land applied pursuant to a SOP Describe the proposed treatment for reclaimed wastewater and the proposed treatment for wastewater to be treated under an NPDES permit or land application permit;
2. Storage and distribution of the reclaimed wastewater for reuse;

3. Schematic process flow diagrams and map of service areas;
4. Processes for approval of system expansion;
5. Procedures to meter reuse wastewater delivered to each end user;
6. Procedures for monitoring and reporting end user compliance; ~~and~~
7. Components of an education program for end users to contribute to the safe use of the system as well as program requirements to meet cross-connection and backflow prevention requirements;
8. Contingency plan for the disposition of treated wastewater in the event that reuse opportunities are not available at some point in the future; and
9. Standard specifications and plans for the reclaimed wastewater distribution system.

(c) End User Service Agreements.

The application shall include the proposed form of end user service agreements between the provider of reclaimed wastewater for reuse and the end user for each metered recipient. The end user service agreement shall establish:

1. End user control over rates of delivery of reclaimed wastewater for reuse, including the minimum and maximum delivery rates and any applicable conditions for determining such rates;
2. Standards of water quality for the reclaimed wastewater to be delivered to the end user, including the monitoring location and the frequency of sampling and analysis;
3. Acknowledgment by the end user of its responsibilities with respect to the appropriate and legal use of the reclaimed wastewater; ~~and~~
4. ~~Termination~~ Service agreement termination provisions; and
5. If an end user becomes a provider of reclaimed water to a follow-on end user, the first end user must follow all provisions of this section as a purveyor of reclaimed water, including but not limited to obtaining an SOP, submission of the RWMP, and issuing follow-on end user service agreements between the end user and the customer.

(d) Demonstrated Availability of Alternatives to Reuse.

1. Only demonstrated, consistent, year-round reuse demands can be counted toward wasteload commitments to reduce the amount of wastewater subject to discharge or land application permits. Only those reuse demands satisfying the reclaimed water purveyor's requirements and under its ownership or subject to a long-term contract that equals or exceeds the permit term may be considered as meeting wasteload commitments. The Commissioner may require documentation of five years of demonstrated year-round irrigation to demonstrate consistent reuse demands.
- 1.2. ~~No new~~ New or expanded reuse of reclaimed wastewater will not be permitted unless the applicant demonstrates that sufficient alternatives are available in case the permitted reuse activity becomes unavailable during the permit term. Wasteload commitments based on reuse shall not exceed 25% of the total wasteload commitments, unless a contingency plan has been approved by the Commissioner to adequately address wastewater disposal needs in case the reuse option is not available in the future. Such ~~alternatives~~ alternative plans include, but are not limited to, land application permitted by a SOP and/or a NPDES-permitted discharge to surface waters. Conservation measures may be used on a temporary basis until an alternative can be implemented.

~~2. Any ongoing reuse of reclaimed wastewater that lacks alternatives to reuse must submit and implement a plan to secure either a land application SOP and/or an NPDES-permitted discharge alternative.~~

~~(4)(3)~~ Special Conditions for Reuse of Reclaimed Wastewater.

- (a) The reclaimed wastewater for reuse must be fit for use by the end user, as defined by the end user service agreement.
- (b) The permittee shall implement the Commissioner-approved RWMP. If there are any material changes in end user requirements during the permit term, the permittee shall update the RWMP and submit it to the Division for review. Upon approval, the permittee shall implement the updated RWMP.
- (c) Notwithstanding any less stringent provisions established in the end user service agreement, the permittee shall comply with the following minimum standards and monitoring frequency:

Parameter	Urban Unrestricted, <del>Reuse</del> <del>Agricultural Food Crops</del>		Urban Restricted, <del>Reuse</del> <del>Agricultural Processed Food or</del> <del>Non-food crops, Industrial Reuse</del>	
	Daily Limit	Monitoring Frequency <a href="#">See Note 1</a>	Daily Limit	Monitoring Frequency <a href="#">See Note 1</a>
pH	6.0-9.0	Weekly <a href="#">See Note 2</a>	6.0-9.0	Weekly <a href="#">See Note 2</a>
CBOD <sub>5</sub> <del>or</del> NH <sub>3</sub> -N	10 mg/L <del>or</del> 5 mg/L	Weekly <a href="#">See Note 2</a>	30 mg/L <del>or</del> 10 mg/L	Weekly <a href="#">See Note 2</a>
NTU or TSS	5 NTU 5 TSS mg/L	Continuous Daily <a href="#">See Note 2</a>	30 mg/L	Weekly <a href="#">See Note 2</a>
E. coli	<del>400</del> 23 cfu/100 mL	Daily <a href="#">See Note 3</a>	200 cfu/100 mL	Daily <a href="#">See Note 3</a>
Chlorine residual <del>(1)</del>	Minimum of 1 mg/L	Daily <a href="#">See Note 3</a>	Minimum of 1 mg/L	Daily <a href="#">See Note 3</a>

~~(1)~~

[Note 1: The monitoring frequency may be increased due to special circumstances in the NPDES permit or SOP, as agreed upon in end user agreement, or as agreed by reclaimed wastewater provider.](#)

[Note 2: pH, CBOD<sub>5</sub>/NH<sub>3</sub>-N, NTU/TSS values shall be measured at the effluent sampling point of the pump station into the reclaimed water distribution system or as otherwise indicated in the SOP or NPDES permit.](#)

[Note 3: Chlorine residual limits apply only upon failure to comply with E. coli limits more than 10% of the time for the previous month after there is a demonstration that the system can meet the delivery standards. The minimum chlorine residual and E. coli shall be measured at the point of release from the reclamation system \(i.e., the delivery meter\) to ensure it is maintained within the distribution system. Chlorine and E. coli minimum frequency of measurement is based on weekly applications the previous month:](#)

[<= 100,000 gal per week      Once per week when activated](#)  
[>= 100,000 gal per week      Twice per week when activated](#)  
[>= 1,000,000 gal per week      Daily when activated](#)

~~(d)~~ Monitoring and Reporting.

1. Monthly Operating Reports.

The permittee shall submit electronic monthly operating reports no later than the 15<sup>th</sup> day of the following month, including:

- (i) Results for all parameters per subparagraph (4)(c) of this rule;
  - (ii) The volume of reclaimed wastewater delivered to each end user [and overall total reuse to their own system or sites](#); and
  - (iii) Any discharges or releases of reclaimed wastewater from the transmission system including date, location, estimated volume, and response actions.
2. The permittee shall ~~inspect each end user at least once per year and provide the inspection report to the Division within 30 days after the inspection report to the DWR Environmental Field Office whenever it becomes aware of an end user in violation of the end user agreement.~~

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

0400-40-06-.11 Bonds.

- (1) Except as provided in paragraph (2) of this rule, no person shall construct, operate or hold out to the public as proposing to construct or operate a sewerage system unless such person first provides a bond or other financial security established by the Commissioner in accordance with the provisions of this rule.
- (2) 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.
- (3) Performance security amounts pursuant to T.C.A. § 69-3-122 shall be established by the Commissioner primarily based on the ability of a sewerage system to control the flow of sewage in the event of sewage system failure. If the sewerage system is capable of ceasing production or altering its business activity to prevent inadequate treatment of sewage, the Commissioner may waive the bond requirement. If a sewerage system provides sewerage treatment service to residential units or to other persons (including businesses) via lease or other contract agreement, then the security shall be set at \$75,000.00 unless the sewerage system owner provides sufficient documentation of a basis for reducing the amount to the Commissioner. Acceptable bases for reducing the amount will consider the cost of installing alternatives that provide treatment or lawfully conveys sewage to another sewerage treatment system.
- (4) For new permits, evidence that an acceptable security can be provided by the person who will own the assets during the permit term shall be provided to the Commissioner prior to permit issuance. The permittee shall provide acceptable security to the Commissioner prior to commencing operation pursuant to the permit.
- (5) For reissued permits or for permits modified to reflect new ownership of the assets, the permittee shall provide an acceptable security to the Commissioner prior to issuance or transfer of the permit.

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

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

- (1) Each permit shall have a fixed term not to exceed 5 years. The expiration date shall be stated in the permit.
- (2) Any permittee who wishes to continue to operate after the expiration date of the permit shall apply for reissuance in accordance with the provisions of Rule 0400-40-06-.03. Timely receipt of a completed application for an SOP is necessary for permit continuance. However, the Commissioner, at the Commissioner's discretion, may accept alternative submittal materials.

- (3) The Commissioner shall review the permit and other available information to ensure:
  - (a) 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) 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 permitted activities, pursuant to monitoring records and reports submitted to the Commissioner by the permittee; and
  - (c) The activity is consistent with applicable permit requirements.

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

0400-40-06-.13 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 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 violation of 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) To be entitled to a review of the Commissioner's permit decision, aggrieved persons shall:
  - (a) Have 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 appeal shall be received within 30 days after the date that public notice of the permit issuance, denial, or modification is given by way of posting the notice on the Division's website.

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:

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

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: (05/02/19)

Rulemaking Hearing(s) Conducted on: (add more dates). (07/15/19)

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Name of Officer: \_\_\_\_\_

Title of Officer: \_\_\_\_\_

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

Rule Chapter Number(s): Chapter 0400-40-06

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

## **Public Hearing Comments**

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

### **Rule Chapter 0400-40-06 State Operating 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 Board of Water Quality, Oil and Gas (Board) is providing this concise statement of the principal reasons for its adoption of Rule Chapter 0400-40-06.

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 Tennessee Water Quality Control Act of 1977 requires permits for the “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). Finally, the Act authorizes SOPs for liquid waste management systems at animal feeding operations. Tenn. Code Ann. § 69-3-108(b)(7). The activities governed by SOPs include land application of wastewater, animal feeding operations, pumping and hauling, collection systems, and non-potable reuse.

Although no discharges are authorized by these permits, these have been regulated through Rule Chapter 0400-40-05, which was drafted to comply with federal regulations for national pollutant discharge elimination system permits. This resulted in SOPs lacking 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.

TDEC has observed a number of compliance issues with land application systems across the state. In some cases, these issues have resulted in discharges of wastes to surface water and/or groundwater. Accordingly, TDEC advised the Board of Water Quality, Oil, and Gas (the “Board”) that more specific performance standards and operating parameters are necessary to ensure that land application systems are properly operated and do not cause pollution.

TDEC engaged in a series of meetings with land application stakeholders who expressed that the proposed rule was too prescriptive and would be too costly. Several stakeholders requested that some of these provisions be adopted through guidance instead of rule, and also asserted that the design engineer should be responsible for the selection of design standards. In 2020 and 2021, legislation was introduced to limit the Board’s authority with respect to several of the proposed regulatory standards. This section of the rule, and related definitions, have been reserved for future rulemaking.

The SOP rules for non-discharging animal feeding operations were developed to comply with recent legislation. Tenn. Code Ann. § 69-3-108(b)(7).

In this final action, the Board has reserved pump and haul rules for future rulemaking to allow for additional refinement. Since the time this rulemaking began, it has become apparent that additional consideration is necessary to better address a variety of potential pump and haul scenarios.

The SOP rules for operation of collection systems refer to the applicable discharge permit rules for the same type of facilities. SOPs govern “satellite” collection systems operated by someone other than the municipal discharger. Although these collection systems are non-discharging, they are a component of a sewerage system and must be properly operated and maintained to prevent overflows, releases, and excessive inflow and infiltration.

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.

### **Response to Comments**

The Board appreciates that numerous commenters expressed interest in this rulemaking and submitted detailed comments. Every comment letter has been closely reviewed and duly considered. The specific verbiage of every comment is not included in this document, and comments have been edited for brevity, clarity, and formatting consistency. Many comments present similar recommendations and/or observations. Comments addressing the same substantive issue have been rephrased and/or grouped together for the sake of brevity.

#### **0400-40-06-.01 Purpose**

**Comment 1:** Multiple comments were received regarding the statement in the proposed rule pertaining to discharges to waters or alterations of the properties of waters. Commenters indicated that SOPs only prohibit discharge to surface water, not to groundwater.

**Response:** SOPs involving land application areas do not authorize any discharges – not to surface water and not to groundwater. Any discharges to groundwater would require authorization through the underground injection control (UIC) program. Tenn. Code Ann. § 69-3-108(b)(8); Rule Chapter 0400-45-06.

Any water discharged through a drip dispersal system that is not used by plants or evaporated will eventually become either groundwater or surface water. However, if the system performs as intended, the soil profile acts as a buffer such that the dispersal through the soil is neither a discharge of pollutants to groundwater nor surface water. If the benefit of the soil profile is negated by the flow coming to the surface and flowing to surface waters, or if the flow bypasses the soil profile through some feature in the soil providing direct passage of effluent to the groundwater table, the SOP would not be the appropriate permitting mechanism: a UIC permit would be necessary. Large subsurface fluid distribution systems such as drip dispersal systems are considered Class V injection wells and are authorized by rule. However, these systems are only authorized by rule if they are operating as permitted. If dispersal through these systems is bypassing the soil profile, the system would no longer be authorized by rule and would have to be authorized by an individual UIC permit. An SOP for a drip dispersal system is not a *de facto* authorization to discharge to groundwater.

**Comment 2:** Multiple comments were received regarding the usage of the terms “treatment works” and “sewerage systems” and requested that they be defined in this Chapter. Other commenters suggest universal replacement of “treatment works” in the proposed rule with “sewerage system.”

**Response:** The Board agrees with this proposed change for the sake of clarity. The definition of “sewerage system” has been added to the proposed rule and the use of the phrase “treatment works” has been replaced in the proposed rule with the phrase “sewerage system.” However, this change in no way indicates that treatment works are excluded from this rule: pursuant to Tennessee Code Annotated section 69-3-108(b)(2), permits are required for the operation of treatment works. However, treatment works are a component of a sewerage system.

**Comment 3:** Commenter recommends the first sentence of 0400-40-06-.01 be reworded to “State Operating Permits (SOPs) authorize the operation of non-discharging sewerage systems in compliance with permit conditions.”

**Response:** This recommendation has been incorporated into the final rule.

**Comment 4:** A Commenter recommended replacing the second sentence of this section with the following sentence: “The SOPs issued pursuant to these regulations impose such conditions, including effluent standards and conditions and terms of periodic review, as are necessary to prevent pollution of waters from the operation of the following non-discharging wastewater systems: land application; animal feeding operations; pumping and hauling; collection and conveyance; and non-potable reuse.”

**Response:** A version of this recommendation has been incorporated into the proposed rule.

#### **0400-40-06-.02 Definitions**

**Comment 5:** A Commenter requested that the addition of the definition of waters per T.C.A. § 69-3-103 be added to this proposed rule.

**Response:** This recommendation has been incorporated into the final rule.

**Comment 6:** A Commenter requested that definitions for “direct potable reuse” and “indirect potable reuse” be added to the proposed rule.

**Response:** It is premature to define any type of potable reuse without further stakeholder involvement. No section for potable reuse is included in this version of Rule 0400-40-06.

**Comment 7:** A Commenter requested that a “major precipitation event” be defined as an event “greater than ½ inch” rather than “a two-inch or greater” precipitation event as currently proposed.

**Response:** The defined term “major precipitation event” is not used in the proposed rule, and therefore it will be removed.

**Comment 8:** A Commenter requested that the definition of “nonpotable reuse” be changed to “...all water reuse applications that do not involve potable reuse.”

**Response:** A variation of the recommended wording change has been incorporated in the final rule.

**Comment 9:** A Commenter requested a definition for “reclaimed water” be included as “the wastewater that has been treated to meet specific water quality criteria with the intent of being used for a range of purposes. The term recycled water is synonymous with reclaimed water.”

**Response:** A variation of the recommended wording change has been incorporated in the final rule.

**Comment 10:** A Commenter requested the deletion of the definition of “Reuse of reclaimed wastewater” and replace with “‘Water reuse’ is the use of treated wastewater to make it acceptable for reuse.” The definition should be modified to include all legitimate reuse of the highly treated wastewater suitable for re-use.

**Response:** A variation of the recommended wording change has been incorporated in the final rule.

**Comment 11:** A Commenter requested clarification for “wastewater facility,” specifically regarding systems that either allow or require homeowners to take care of the tank. The Commenter is concerned that, as it is written, it forces the utility to assume ownership. Another Commenter requested deletion of the definition for “Wastewater facility” and any reference to “Wastewater facility” be replaced with “Sewerage system”.

**Response:** “Wastewater facility” has been removed from the definitions and is no longer utilized in the rule.

**Comment 12:** A Commenter expressed concern that the definition of “agronomic application rate” as defined in this proposed rule in support of the reuse of treated wastewater could be misinterpreted to apply to animal feeding operations and the land application of manure.

**Response:** An application rate less than the “agronomic application rate” is applicable to arid areas where water is scarce, and vegetation requires irrigation to sustain yield or growth. In Tennessee this unnecessarily limits the application of highly treated reclaimed wastewater. The “agronomic application rate” ignores the additional application that can be accommodated by the “luxury uptake” rate of plants.

**Comment 13:** A commenter requested that “reuse” be defined.

**Response:** “Reuse of reclaimed wastewater” is the application of treated wastewater as defined in Tennessee Code Annotated section 69-3-103, including effluent from a sewage treatment system, of sufficient quality for additional use and distributed in a manner protective of the environment and human health.

**Comment 14:** A Commenter requested that the definitions be numbered to be consistent with the numbering in 0400-40-05.

**Response:** The words and phrases that are defined in Rule Chapter 0400-40-06 will not be the same population as those in Rule Chapter 0400-40-05, therefore maintaining the same numbering sequence is not possible.

**Comment 15:** A Commenter requested the inclusion of a definition of “discharge” to mean “the addition of pollutants to waters from a source.”

**Response:** A definition of “discharge” exists in Tennessee Code Annotated section 69-3-103. This definition is included in the final rule.

**Comment 16:** A Commenter proposed the following revision to the definition of “Non-potable reuse of reclaimed wastewater:

- a. “Non-potable reuse of reclaimed wastewater” is the planned and intentional reuse of reclaimed wastewater that does not involve direct production of potable water and includes the following:
  - (a) Unrestricted Urban Reuse. The use of reclaimed wastewater for non-potable applications in municipal settings where public access is not restricted.
  - (b) Restricted Urban Reuse. The use of reclaimed wastewater for non-potable applications in municipal settings where public access is controlled or restricted by

physical or institutional barriers, such as fencing, advisory signage, or temporal access restrictions.

- (c) Agricultural Reuse for Food Crops. The use of reclaimed wastewater to irrigate food crops that are intended for human consumption; in addition to this chapter, US Department of Agriculture and other rules may apply.
- (d) Agricultural Reuse for Processed Food Crops and Non-Food Crops. The use of reclaimed wastewater to irrigate crops that are either processed before human consumption or not consumed by humans; in addition to these rules, US Department of Agriculture and other rules may apply.
- (e) Reuse in Impoundments with Unrestricted Access. The use of reclaimed wastewater in an impoundment in which no limitations are imposed on body-contact water recreational activities.
- (f) Reuse in impoundments with Restricted Access. The use of reclaimed wastewater in an impoundment where body contact is restricted.
- (g) Environmental Reuse. The use of reclaimed wastewater to create, enhance, sustain or augment water bodies including wetlands, aquatic habitats, or stream flow.
- (h) Industrial Reuse. The use of reclaimed wastewater in industrial applications and facilities, power production, and extraction of fossil fuels.
- (i) Groundwater Recharge for Non-potable Reuse. The use of reclaimed wastewater to recharge aquifers that are not used as a potable water source.

- b. Note that reuse as defined in (e), (f) and (g) may also require NPDES permitting through 400-40-05 in addition to these regulations.

**Response:** The Board has relocated, with additional changes as a result of other comments, the classifications of reuse, adopted from the 2012 EPA Handbook, to Rule 0400-40-06-.02 (Definitions) from Rule 0400-40-06-.10. The Board agrees that reuse as defined in (e), (f) and (g) would likely require NPDES permitting.

**Comment 17:** A Commenter requested the following definition for “reclaimed wastewater” be added to the proposed rule: “‘Reclaimed wastewater’ means wastewater that has been treated to levels suitable for reuse purposes, which at a minimum are established in 0400-40-06-.10 (4) (c).”

**Response:** The term “Reclaimed wastewater” has been added to the definitions as follows: “‘Reclaimed wastewater’ is wastewater that has been treated to meet minimum criteria with the intent of being used for non in a non-discharging wastewater system.” (See categories defined under “Non-potable reuse of reclaimed wastewater” above.) Categorical standards are established in subparagraph (4)(c) of Rule 0400-40-06-.10. Standards for “industrial reuse” may be specifically “fit for purpose” within that category. The term “recycled water” is synonymous with “reclaimed water” within the context of this Rule. “Recycled water” could refer to water exempt from the reuse Rule if it is internally recirculated within a process such as in a wastewater treatment or an industrial plant.

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

#### **0400-40-06-.03(1)**

**Comment 18:** A Commenter requested replacing “wastewater system” with “sewerage system” in the proposed rule.

**Response:** The Board agrees that consistent use of the term “sewerage system” is clearer, and has made this change.

**Comment 19:** A Commenter questions the proposed rule to allow TDEC an additional 30 days in which to respond to an application.

**Response:** The rule does not increase the period of time in which TDEC provides a notice of completeness determination. The language is the same as in paragraph (2) of Rule 0400-40-05-.05, which has applied to SOPs until now, with the exception of the language pertaining to impact statements relating to federal regulation.

#### **0400-40-06-.03(3)**

**Comment 20:** A Commenter requested the phrase “to the Commissioner” be added after the word “application.” Furthermore, the Commenter suggests the inclusion of the “Tennessee Department of Agriculture” to be consistent with an existing Memorandum of Agreement.

**Response:** The phrase “to the Commissioner” has been added as requested. The Tennessee Department of Agriculture has not been added as requested because the permitting authority rests solely with TDEC.

**Comment 21:** A Commenter requested that consideration be given to adding language to explicitly allow AFOs to voluntarily apply for a state operating permit.

**Response:** Yes, the Board agrees and has added clarifying language in the final rule.

**Comment 22:** A Commenter expressed concern regarding paragraph (3) of Rule 0400-40-06 requiring non-discharging Large AFOs to submit a nutrient management plan as outlined in 0400-40-05-.14(10)(a) and (b). The Commenter provides “This is contrary to TCA 69-3-108 (b)(7)(A)-(C). This statute specifies that the permit is only enforceable in regard to a nutrient management plan. The intent of this requirement in state law was to mirror the requirements on the federal level regarding Large, unpermitted CAFOs. In order for the land application area of a Large, unpermitted CAFO to qualify as agriculture stormwater exempt from permit requirements, the CAFO must operate according to nutrient management practices as specified in 40 CFR part 122.42(e)(1)(vi)-(ix). This proposal would require submittal of a plan that includes many other requirements than a simple nutrient management plan ensuring wastes are applied at agronomic rates. 0400-40-05-.14(9)(a)-(b) requires much more than the federal requirements for non-discharge facilities. We believe this was the intent of the General Assembly in passing Public Chapter 523.”

**Response:** The Board has revised Rule Chapter 0400-40-05-.14 and developed Rule 0400-40-06-.07 to be consistent with what is stated in Public Chapter 523. However, Public Chapter 523 is not specific regarding the information required to be contained within a nutrient management plan (NMP). Therefore, paragraph (3) of Rule 0400-40-06-.03 references the NMP requirements that were already in place and established within the previously existing rule. The NMP requirements found in 0400-40-05-.14(10)(a) and (b) do essentially mirror the full requirements that are noted in 40 C.F.R. § 122.42(e)(1)(vi)-(ix), except that division rules elaborate further on the specifics regarding buffers during land application, as well as manure sampling and soil sampling requirements.

Further, 40 C.F.R. § 122.42(e)(1)(vi)-(ix) does not alleviate the responsibility of accounting for the production area within an NMP. Specifically, 40 C.F.R. § 122.42(e)(1)(ix) states the following: “Identify specific records that will be maintained to document the implementation and management of the minimum elements described in paragraphs (e)(1)(i) through (e)(1)(viii) of this section.” This statement ties back in the full scope of federal NMP

requirements in order to claim an agricultural stormwater exemption, the first requirement of which is the following “Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities.”

#### **0400-40-06-.03(5)**

**Comment 23:** A Commenter recommended replacing “treatment works” with “sewerage system.”

**Response:** The Board has made this change in the final rule.

#### **0400-40-06-.03(6)**

**Comment 24:** A Commenter indicates that paragraph (6) of Rule 0400-40-06-.03 is confusing and suggests eliminating the first sentence.

**Response:** The first sentence has been retained. It is included because the Department can only issue permits to a “person.” Tenn. Code Ann. § 69-3-108. A “person” is defined as “any and all persons, including individuals, firms, partnerships, associations, public or private institutions, state and federal agencies, municipalities or political subdivisions, or officers thereof, departments, agencies, or instrumentalities, or public or private corporations or officers thereof, organized or existing under the laws of this or any other state or country.” Tenn. Code Ann. § 69-3-103(26). If a corporate entity is not properly organized or existing, then the Department cannot issue a permit to that entity.

**Comment 25:** Another Commenter recommends paragraph (6) of Rule 0400-40-06-.03 be revised to read: “The Commissioner shall issue permits only to a person or persons subject to the following limitations on corporations, limited liability companies or limited liability partnerships: (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 Commenter’s proposed language better reflects the intent of the rule. The final rule adopts the recommendation with modifications.

#### **0400-40-06-.03(9)**

**Comment 26:** A Commenter posed multiple questions pertaining to this paragraph including what depth of soil is required to remove waste constituents, if the depth changes with soil texture, and what measure of what constituents will determine adequate treatment of wastewater.

**Response:** The origin of this paragraph is Tennessee Code Annotated section 68-221-102(a)(4) and it pertains to TDEC’s responsibility to supervise the construction of water supply and sewerage systems; specifically, public sewerage systems with land application. Design and operation of systems with land application in accordance with this rule is considered appropriate toward the treatment of the wastewater and the prevention of pollution of surface or groundwater by pollutants of concern originating from wastewater.

**Comment 27:** A Commenter questioned whether this rule can override the requirement that there be a minimum soil depth of 20 inches above the restrictive horizon or seasonal water table as proposed in Rule 0400-40-06-.06(2)(c).

**Response:** The minimum 20-inch depth of soil above a restrictive horizon or seasonal water table is considered adequate to achieve the requirement of this paragraph.

**Comment 28:** A Commenter questioned what is meant by “surfacing of ground water pollution.”

**Response:** The statutory language was mistakenly transcribed into the draft rule using the phrase “surfacing of” instead of the correct phrase “surface or.” This has been corrected in the final rule.

The Board’s interpretation of Tennessee Code Annotated section 68-221-102(a)(4) is based on the following logic. Pollutants in untreated wastewater represent a threat to public health and the environment. Treatment, both on the surface and in the soil, can reduce the level of pollutants in the wastewater such that public health and the environment are not threatened. A portion of the wastewater applied to a land application area will migrate downward, eventually encountering the water table. A water table exists at some depth below any land application area. Water below the water table represents groundwater and as such may be withdrawn for drinking water purposes; therefore, the wastewater must be adequately treated when it gets to the water table. Furthermore, water tables generally slope toward topographic lows and eventually intersect the ground surface whereby the groundwater becomes surface water. If the groundwater has not been adequately treated when it becomes surface water, then the water represents a public health threat in that it may be consumed or used for recreation. The Board does not consider this law to pertain directly to wastewater runoff from an overloaded land application area.

**Comment 29:** A Commenter asked how the elevation of the water table will be determined and what is meant by surfacing of pollution.

**Response:** Soil mapping will be the primary means of determining the presence of saturated conditions in the soil profile. Soil discoloration, mottling and concretions provide an indication of saturated conditions. “Surfacing of pollution” is addressed in response to Comment 39.

**Comment 30:** A Commenter suggested that the provision pertaining to the water table be moved to the land application section of the rules.

**Response:** The Board considers that the language, as correctly transcribed, is appropriately retained here.

**Comment 31:** Commenters indicate there is no requirement that plans or other documents be certified by a licensed professional.

**Response:** Rule 0400-40-06-.01 identifies that construction of SOP facilities are also subject to Rule Chapter 0400-40-02 (Regulations for Plans, Submittal, and Approval; Control of Construction; Control of Operation). Rule Chapter 0400-40-02 mandates that plans be submitted by a registered engineer.

**Comment 32:** A Commenter indicates that paragraph (9) 0400-40-06-.03 should not apply to land application systems associated with animal feeding operations.

**Response:** It is not the Board’s intent for this paragraph to apply to land application systems associated with AFOs. The Board has clarified this point in the final rule.

**Comment 33:** Commenters indicate that the phrase “...preclude adequate treatment of the wastewater” is vague and suggest that the phrase is related to the differences noted between land application and land treatment; and furthermore, suggest it be included in the section pertaining to ponding limitations.

**Response:** The origin of this paragraph is Tennessee Code Annotated section 68-221-102(a)(4), and this provision pertains to TDEC’s responsibility to supervise the construction of water supply and sewerage systems; specifically, public sewerage systems with land application. Design and operation of systems with land application in accordance with this rule is considered appropriate toward the treatment of the wastewater and the prevention of pollution of surface or groundwater by pollutants of concern originating from wastewater. This rule is not synonymous with the issue of ponding. The Board considers that the language, as correctly transcribed, is appropriately included at this location.

**Comment 34:** A commenter requests the following language be added relating to 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:** A version of the proposed language has been added to the rule as 0400-40-06-.03(10).

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

**Comment 35:** A Commenter is concerned that AFO permits would be subject to public notice and public participation requirements when they have historically been subject to general permits.

**Response:** It is the Board’s intent for TDEC to maintain general state operating permits for these activities as authorized by Tennessee Code Annotated section 69-3-108(l). Once developed, this general SOP will be subject to a public notice period and public hearing to receive public comments. Provided the general permit becomes effective, applicants applying for coverage will not be subject to additional public notice requirements.

#### **0400-40-06-.04(7)**

**Comment 36:** A Commenter indicates that mailing lists for public notices about SOPs should include people on “area lists” as is the case for NPDES permits.

**Response:** The Board declines to make this change. Area lists are cumbersome to develop and maintain, and the benefit of adding area lists would be marginal. Unlike NPDES permits, SOPs have not tended to generate a great deal of public interest, likely because they do not involve discharges. However, anyone who is interested in a particular permitted facility can request to be included on a public notice list for that facility.

#### **0400-40-06-.04(8)**

**Comment 37:** A Commenter indicates that permit applicants should still be required to disclose any surface waters near the permit activity, because those waters are at risk for unauthorized discharges.

**Response:** Although it is the Board’s intention to prevent unauthorized discharges, it agrees that this additional information is potentially valuable to members of the public, and will add the following subparagraph to Rule 0400-40-06-.04(8):

(d) Name of any surface waters adjacent to, or within 0.25 miles of, the proposed activity.

The remaining subparagraphs have been appropriately renumbered.

#### 0400-40-06-.04(10)

**Comment 38:** A Commenter requested that hearings should not be limited to water quality concerns.

**Response:** TDEC’s authority in these permitting cases is limited to protection of water quality and assurance of proper operation and maintenance of sewerage facilities. Suggesting that the public hearings be open to concerns other than water quality would provide a false indication to any commenter that their concerns were being expressed in the correct venue.

**Comment 39:** A Commenter suggests rewording this provision 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 a hearing in the geographical area of the proposed activity. Instances of doubt should be resolved in favor of holding the hearing.”

**Response:** A version of the requested change has been made to avoid repetition.

**Comment 40:** A Commenter states that “as soon as practicable” is not sufficiently specific to provide guidance to the public.

**Response:** The phrase has been retained. The same provision was included in Rule Chapter 0400-40-07 (2019). In practice, “as soon as practicable” means the earliest date when the requestor knows they want to seek a public hearing. The purpose of this provision is to address the practice of deliberately waiting until the last possible moment to file a request for a hearing with the purpose of delaying a project.

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

##### 0400-40-06-.05(2)

**Comment 41:** A Commenter inquires as to the factors used to determine when monitoring is required or necessary.

**Response:** The Board considers monitoring, recording, reporting, and inspection requirements to be critical toward the determination of the effectiveness of the permitted systems; however, there are a wide range of monitoring, recording, reporting, and inspection scenarios. Accordingly, the Board intends for TDEC to specify the site- and system-specific details pertaining to monitoring, recording, reporting, and inspection in permits rather than attempt to include all possible scenarios in the rule. Factors to be considered include, but are not limited to, type of effluent, volume of effluent, compliance history, proximity to waters of the state, and system design.

**Comment 42:** A Commenter requested that the phrase “to assure treatment of wastewater and operation of the wastewater facility to meet the requirements of this Chapter” be added to the end of the first sentence.

**Response:** The first sentence of paragraph 0400-40-06-.05(2) has been amended to provide:

“Permits shall impose monitoring, recording, reporting, and inspection requirements as determined necessary by the Commissioner to assure adequate treatment of wastewater and proper operation of the sewerage system to meet the requirements of the Act and of this chapter.” This language correctly describes the purpose of monitoring requirements.

#### 0400-40-06-.05(3)

**Comment 43:** Multiple Commenters question the objective of stating that “Permits may require best management practices to carry out the purposes and intent of the Act.”

**Response:** This language was also contained in Rule Chapter 0400-40-05, and has been applicable to SOPs for many years. The Board has retained this language to continue to allow SOPs to impose narrative requirements in the form of BMPs.

#### 0400-40-06.05(4)

**Comment 44:** A Commenter inquires whether the phrase “as applicable” in Rule 0400-40-06-.05(4)(a) is appropriate in a paragraph that begins with “the following terms and conditions apply to all state operating permits.” Furthermore, the commenter is not clear as to whether this “term and condition” applies to 0400-40-06-.07 pertaining to Animal Feeding Operations.

**Response:** The phrase “as applicable” has been retained. This is consistent with Rule Chapter 0400-40-05, and is necessary because not all facilities to be regulated through this chapter include components that are subject to all general conditions. For example, a collection system that does not include a treatment works is not subject to the bypass provision and a sewerage system that does not include a collection system is not subject to overflow provisions.

Some, but not all, of the standard conditions of paragraph (2) of Rule 0400-40-05-.07 would apply to AFOs. For example, administrative conditions related to transfers, inspection and entry, property rights, and other generalized permit terms would apply. However, those conditions related to discharges, including effluent limitations, would not apply to non-discharging AFOs covered by an SOP.

**Comment 45:** A Commenter proposes modified language as a replacement: “(b) There shall be no discharge to any surface waters except as separately authorized by an NPDES permit.”

**Response:** The requested change is inconsistent with the Act and will not be made. Specifically, Tennessee Code Annotated sections 69-3-108(b)(6) and -114(a) both prohibit the placement of wastes in a location where they are likely to enter surface waters. The rule language reflects these statutory provisions. This prohibition is further supported by the recent U.S. Supreme Court decision in the *County of Maui* case.

**Comment 46:** A Commenter expressed concern regarding the UIC language and “discharge of wastewater to groundwater” in Rule 0400-40-06-.05(4)(c).

**Response:** Large subsurface fluid distribution systems such as drip dispersal systems are considered Class V injection wells and are authorized by the UIC rules. However, they are only authorized by rule if they are functioning as permitted. If effluent dispersed through these systems is bypassing the soil profile, the system would be directly discharging to groundwater, would no longer be authorized by rule, and instead, would have to be covered by an individual UIC permit. An SOP for a drip dispersal system is not a de facto authorization to discharge to groundwater.

**Comment 47:** A Commenter proposes alternate language for Rule 0400-40-06-.05(4)(c): “Activities subject to this regulation that introduce fluids to groundwater must also obtain an authorization under the Underground Injection Control permit program.”

**Response:** Subsurface fluid distribution systems with the capacity to serve more than 20 persons per day are considered Class V injection wells and are authorized by UIC rules – provided the effluent is subject to the treatment accomplished by placement in the soil profile. However, discharge directly to groundwater without the benefit of treatment in the soil is not authorized by rule and would be subject to obtaining an individual UIC permit specific to that system. The fact that these systems are authorized by rule does not mean that impact to groundwater quality has been authorized. The Board is confident that introduction of treated wastewater into the soil profile through an appropriately permitted, constructed, and operated subsurface fluid distribution system represents minimal threat to groundwater quality and, as such, only requires information relative to the location and ownership of these systems. The Board does not consider the discharge of treated wastewater through a functioning subsurface fluid distribution system to be a discharge directly to groundwater. The discharge is to a subsurface fluid distribution system where the effluent is further treated. Eventually, a portion of the fluid (that which is not lost to evapotranspiration) will become groundwater. Based on this position, the language in the rule has not been changed.

**Comment 48:** A Commenter requested that this subparagraph 0400-40-06-.05(4)(d) be deleted, as it is unnecessary for a rule and there is no definition of what constitutes either a health hazard or a nuisance.

**Response:** The provision has been retained in the final rule. Nuisance is defined through common law.

**Comment 49:** A Commenter indicates that this subparagraph is subjective and does not apply to water quality with respect to its potential effect on animal feeding operations.

**Response:** Please see response to Comment 59.

**Comment 50:** A Commenter requested that this subparagraph 0400-40-06-.05(4)(e) be deleted, as it is unnecessary for a rule. Commenter suggests that language could be introduced at this location to indicate that compliance with the terms and conditions of the SOP constitutes a valid defense to all statutory and common law claims regarding the operation of wastewater facilities (Permit Shield).

**Response:** The language will be retained as-is. Civil or criminal penalties for noncompliance are authorized by Tennessee Code Annotated sections 69-3-109, -115, and -116. Damages to the state are authorized by Tennessee Code Annotated section 69-3-116. SOPs do not authorize discharges, so any discharge from a system operating under an SOP is unpermitted and therefore could not be covered by a permit shield. Finally, if there were a permit shield, it could only extend to citizen enforcement of the Act and not to all statutory and common law claims.

**Comment 51:** A Commenter requested that subparagraph 0400-40-06-.05(4)(f) be deleted, as it is unnecessary for a rule. Commenter suggests that language could be introduced at this location to indicate that compliance with the terms and conditions of the SOP constitutes a valid defense to all statutory and common law claims regarding the operation of wastewater facilities (Permit Shield).

**Response:** The language will be retained as-is. Compliance with an SOP could only ensure compliance with the applicable provisions of the Act, and would not necessarily ensure compliance with other applicable state or federal laws. Therefore, if there were a permit shield, it could only extend to citizen enforcement of the Act and not to liabilities under other state or federal law.

**Comment 52:** A Commenter supports subparagraph 0400-40-06-.05(4)(h) and suggests that the rule should include language that instructs the permittees to obtain legal easements to the on-lot portions of the sewerage system.

**Response:** The final rule includes new language regarding easements. The Board does not propose to dictate what on-lot portions of the sewerage system are owned or are accessible to the operating utility. If the plans identify the sewerage system as including on-lot features (septic tank, pump tank) then appropriate ownership or easement access must be demonstrated.

**Comment 53:** A Commenter expressed concern that the phrase “including any parts thereof and extensions thereto, as applicable” was too broad and could be construed to apply to pumper trucks.

**Response:** The proposed language is being retained based on comparable language in Tennessee Code Annotated section 69-3-108(b)(2).

**Comment 54:** A Commenter is concerned that subparagraph 0400-40-06-.05(4)(h) is not practical for animal feeding operations and the resulting land application of manure.

**Response:** This provision does not apply to AFOs. Clarification has been provided in the final rule.

**Comment 55:** A Commenter requested subparagraph (4)(h) be reworded to remove the term “treatment works.”

**Response:** For the sake of clarity and consistency, use of the phrase “treatment works” has been replaced with “sewerage system.” The final rule has clarified that treatment works are part of a sewerage system.

#### **0400-40-06-.06 Land Application**

Based on comments received and further internal consideration, the rule has been reserved for future rulemaking.

#### **0400-40-06-.07 Animal Feeding Operations**

##### **General**

**Comment 56:** A Commenter questions whether TDEC believes medium AFOs/CAFOs are no longer a possible source of water pollution; and, if so, based on what evidence? If not, the Commenter questions how TDEC plans to compensate for degradation of water quality near unregulated AFOs in the absence of the SOP requirement.

**Response:** Public Chapter 523 limits the scope of AFOs that can be required to apply for coverage under a state operating permit. The Board does not have the regulatory authority to supersede this statute. However, the NPDES permitting mechanism is still required for AFOs that meet the criteria found in Rule 0400-40-05-.14(2).

**Comment 57:** A Commenter questions whether medium AFOs/CAFOs that opt-in to and comply with the SOP process are relieved of liability for citizen’s lawsuits under CWA.

**Response:** No, SOPs do not provide a permit shield against citizen suits under the Clean Water Act. Under federal law, only an NPDES permit could provide a permit shield in a Clean Water Act citizen suit. However, compliance with an SOP means (among other things) that a facility does not discharge. If a permittee can demonstrate that it is not discharging because it is complying with an SOP, there could be no valid claim in a Clean Water Act citizen suit.

**Comment 58:** A Commenter requested clarification regarding 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:** AFOs and CAFOs with liquid waste management systems are only required to get a permit when they stable or confine as many, or more than, the number of animals specified by federal law defining a large concentrated animal feeding operation. Operators of those facilities will need to apply for a NPDES permit pursuant to Rule Chapter 0400-40-05. Other AFOs may apply for a state operating permit but permit coverage is not required. To the extent that such facilities are not exempt agricultural activities, they would be subject to the enforcement provisions of the Tennessee Water Quality Control Act.

**Comment 59:** Multiple Commenters suggest that AFOs in the “medium size” range should be required to submit a notice of operation, with basic data (size, number of animals, waste system) every year, to better facilitate information gathering and enforcement.

**Response:** The Board does not have the regulatory authority to require this information.

#### **0400-40-06-.07(1)**

**Comment 60:** A Commenter requested that the word “state” be changed to “Commissioner” or “Department” for consistency.

**Response:** The Board agrees with this comment and has changed the word “state” to “Commissioner” throughout.

**Comment 61:** A Commenter reasons that because the 40 C.F.R. § 412 regulations only apply to AFOs in the large category, a separate section should be added to this proposed rule that outlines the nutrient management plan requirements that are applicable to AFOs that do not meet the Large CAFO definition, and that apply for a state operating permit.

**Response:** The NMP requirements associated with permitted operations, which are located in Rule 0400-40-05-.14(9)(a) and (b), are the same for permittees that are required to apply; or, that voluntarily apply for permit coverage.

**Comment 62:** A Commenter recommends that SOPs should only require an NMP for land application areas to complement EPA’s instructions for ensuring the agricultural stormwater exemption applies to these areas. Referencing subparagraphs (9)(a) and (b) of 0400-40-05-.14 would put in place the same requirements of 40 C.F.R. § 122.42(e)(1) in its entirety.

**Response:** NMP requirements also apply to the production areas associated with permitted AFOs, not the land application areas only. Ensuring adequate wastewater storage is a critical component of an NMP that is also mentioned in 40 C.F.R. § 122.42(e)(1)(i).

**Comment 63:** A Commenter requested the removal of the NMP requirement and instead consult with the University of Tennessee Institute of Agriculture and the Tennessee Department of Agriculture regarding nutrient management plan requirements for land application areas.

**Response:** Public Chapter 523 did not specify the type of information that should be contained within an NMP. As a result, the division referenced the established NMP standard found in Rule 0400-40-05-.14(9)(a) and (b). As mentioned previously, ensuring adequate storage of wastewater is also a critical component of an NMP, and not the land application area only.

#### **0400-40-06-.07(2)**

**Comment 64:** A Commenter expressed concern regarding references to subparagraphs (9)(a) and (b) of 0400-40-05-.14 indicating the entire section references waste management outside of the land application area; and also makes reference to applicable effluent limitations and standards. The Commenter does not believe there can be a reference to effluent limitations and standards in an SOP.

**Response:** Site-specific NMPs contain information regarding wastewater storage practices, in addition to proper land application practices. The production area and land application area(s) are both essential components of an NMP. The Commenter is correct that effluent limitations do not apply to non-discharging systems, so the term has been removed. SOPs do not authorize discharges, so any discharges are prohibited unless the facility has an NPDES permit.

**Comment 65:** A Commenter requested clarification regarding AFOs that the “activity” referenced in this language is referring to discharges and not the operation of the AFO.

**Response:** NPDES permitting will only be required for operations that discharge. Other operations may voluntarily apply for an NPDES permit, but are not required to unless they discharge. However, all large operations, as mentioned in 0400-40-05-.14(1), which utilize liquid waste management systems are required to apply for coverage under an SOP. If a large operation that does not discharge wishes to obtain an SOP instead of an NPDES permit, it may do so.

#### **0400-40-06-.07(3)(c)**

**Comment 66:** A Commenter recommends that TDEC check with USDA-NRCS, as ASM software may be scheduled for phase-out/replacement soon.

**Response:** The Board appreciates this insight. The rule has been modified to indicate the “most current version of USDA-NRCS’s Animal Waste Management (AWM) software.”

**Comment 67:** A Commenter states that an SOP should not place permitting requirements on the production area.

**Response:** The Board disagrees with this comment. The production area is an important component in protecting water quality, and the wastewater produced there is required to be properly managed to prevent impacts to waters.

#### **0400-40-06-.08 Pump and Haul**

Based on comments received and further internal consideration, this section of the rule has been reserved for future rulemaking.

#### **0400-40-06-.09 Collection Systems**

**Comment 68:** A Commenter indicates that “Collection systems” should be defined.

The final rules include the definition of sewerage system from the Act. The usual meaning of the term “collection” in the English language in combination with the definition of “sewerage system” is sufficient to identify the activity under jurisdiction of this rule. The rule does not intend to prescribe any specific boundaries to the designs of any type sewerage system.

**Comment 69:** A Commenter indicates that monitoring, inspections, and reporting should be required.

**Response:** Monitoring, recording, reporting, and inspection requirements as determined necessary by the commissioner are required in Rule 0400-40-06-.05.

#### **0400-40-06-.09(2)**

**Comment 70:** A Commenter indicates that the public sewerage system should not mandate that tanks in possession of the user be owned by the public sewerage systems. Furthermore, the Commenter indicates that many homeowners prefer to have ownership interests and some systems mandate or allow such ownership.

**Response:** This provision has been changed to allow the public entity to own or control these tanks, consistent with changes made in Rule 0400-40-05-.07(2)(c).

#### **0400-40-06-.09(3)**

**Comment 71:** A Commenter indicates that the proposed language “in limited circumstances, selected corporations may be approved to operate collection systems” needs clarification. The Commenter indicates that no discussion or description of what those limited circumstances are or what the qualifications or the corporations must be, and requests that this rule be revised to recognize all allowed forms of owner/operator status.

**Response:** The rule addresses the limited circumstances in which an entity other than a government may own a collection system. The rule specifically identifies a corporation with a demonstrated capacity to provide the managerial and operational resources necessary to maintain its sewerage system. It identifies a resort as an example of such a corporation.

**Comment 72:** A Commenter indicates that paragraph (3) should be deleted in its entirety as the requirement is taken from Tennessee Code Annotated section 68-221-402 related to septic tanks rather than Tennessee Code Annotated section 68-221-102.

**Response:** The collection sewerage systems regulated by this rule require a permit under Tennessee Code Annotated section 69-3-108(b) or (c). These primarily occur as satellite collection systems discharging into a public sewerage system of another. It is not the intent of this rule to provide any alternative to subsurface disposal systems regulated in Rule Chapter 0400-48-01.

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

#### **General**

**Comment 73:** A Commenter wants to resolve the potential conflict between purveyors of reclaimed water encroaching on potable water only service districts created by local demographics and utility boundaries. It is anticipated that lawn irrigation desires will result in revenue loss from the potable water utilities to the reclaimed water utility.

**Response:** This rule does attempt to either encourage or discourage reuse for lawn, landscape, and athletic field irrigation, or in-residence flushing water connections (if allowed by local building codes) under the non-potable reuse classification of “unrestricted urban reuse.” Business or contractual resolution of conflicts between reclaimed wastewater providers and potable water service with overlapping service areas is not a subject for this rule.

**Comment 74:** Commenters maintain that the proposed rules do not provide incentives for reuse.

**Response:** The Board has the responsibility to both encourage land application and reuse as alternatives to surface discharge and to protect the public by providing for the proper operation and maintenance of wastewater collection and treatment systems and the proper disposal of treated wastewater. Non-potable reuse of municipal and industrial wastewater in Tennessee is already approaching seven million gallons per day during certain times of the year. Existing incentives for reuse include:

- a. Reduction of nutrient and oxygen limiting compounds in receiving waters (i.e., preservation of assimilative capacity of ecologically stressed receiving waters);
- b. Preservation of vegetation and landscaping for ornamental and recreational areas;
- c. Sale of reuse water; and
- d. Avoidance of wastewater surcharges by diversion to irrigation.

This modified version of the proposed rule will provide for a wasteload allocation up to 25% of the reuse when the reuse can be demonstrated to be sufficiently consistent and resilient year-round with alternatives available in the event of lost demand.

**Comment 75:** Commenters believe this entire section is better suited in Rule 0400-40-05. Most reuse is documented through NPDES permits and it is unnecessarily confusing to have these rules in a separate chapter.

**Response:** Because reuse of reclaimed wastewater is a non-discharging means to dispose of wastewater, the regulations are more appropriately promulgated in this rule chapter. Legally, that will have no impact on how the rules are implemented; NPDES permits that contain reuse elements must incorporate the requirements set out in this rule.

**Comment 76:** A Commenter indicated TDEC's decision to issue regulations rather than relying on internal guidance is a positive step forward.

**Response:** The Board appreciates the comment.

#### **0400-40-06-.10(1) Scope**

##### **0400-40-06-.10(1)(a)**

**Comment 77:** A Commenter wants to change "Non-Potable Reuse" to "Water Reuse."

**Response:** The Board does not concur. This rule only authorizes two categories of reuse, both of which are non-potable.

**Comment 78:** Commenters do not want to limit or restrict reuse to the extent that it actually restricts legitimate reuse.

**Response:** The Board's intention in this rule is not to restrict legitimate categories of reuse, but to authorize appropriate permitting of Restricted and Unrestricted Urban Reuse and to allow continued investigations of other legitimate categories of potable and non-potable reuse. The rule has been revised to indicate which types of reuse are beyond the scope of this rule (meaning, these may be authorized by TDEC under its statutory authority) and what is prohibited.

**Comment 79:** Commenters request the deletion of all language other than the first sentence.

**Response:** Defining the scope of reuse addressed by this rule is important and should not be omitted. There would be no reason for this section if only the first sentence remains since it is essentially in statute.

**Comment 80:** Several commenters state that the rules should not prohibit potable reuse.

**Response:** Standards for design and operation of potable reuse systems are not mature enough nor demonstrated in Tennessee sufficiently to be authorized in this rule at this time. The final rule, however, does not prohibit pilot projects approved and monitored by the Commissioner for the purposes of investigation and establishing future conditions for implementation for potable or additional categories of non-potable reuse.

**Comment 81:** Commenters maintain that rules should not prohibit groundwater recharge.

**Response:** Groundwater recharge in Tennessee is currently covered by the UIC program, which limits injection to water that meets drinking water standards. Any proposal to pilot non-potable groundwater recharge or indirect potable reuse using groundwater as an environmental buffer would have to comply with UIC regulations and standards. The final rules do not prohibit conducting pilot projects or demonstrations to provide data on potential reuse conducted in full compliance with UIC requirements.

**Comment 82:** Commenters object to the language that apparently attempts to apply water withdrawal criteria by limiting non-potable reuse to less than 5% reduction of the 7Q10 flow of the receiving stream. Reuse water is not a withdrawal.

**Response:** The final rule removes the reference to the 7Q10. Although reuse does have the potential to reduce in-stream flow, the Tennessee Water Quality Control Act encourages reuse.

**Comment 83:** Commenters agree that the volume of reuse related to the 7Q10 should be evaluated to ensure that water quality is not adversely affected in receiving streams.

**Response:** Please see Response to Comment 216.

**Comment 84:** A Commenter asserts that TDEC uses and applies the term “new or expanded” to “wastewater discharge” in proposed Rule 0400-40-06-.10(1)(a) and to “reuse of reclaimed wastewater” in -.10(3)(a) but does not apply the term as required to surface waters as required by Tenn. Code § 69-3-108(e). TDEC must explain why it can employ the concept of “expanded” discharge in these contexts, but not where statutorily required in § 69-3-108(e).<sup>12</sup>

**Response:** The Board does not agree with the premise of this comment. Other rule chapters refer to “new or increased discharges,” which is the same thing as “new or expanded discharges.” Moreover, this comment addresses other rule chapters, and is thus outside of the scope of this rulemaking.

**Comment 85:** Proposed Rule 0400-40-06-.10(1)(a) states that TDEC reserves the right to limit the use of non-potable reuse of reclaimed wastewater that causes a greater than five percent reduction of the 7Q10 flow of the receiving stream. It is unclear whether this potential limitation can be imposed at any time, or whether it is triggered only when 7Q10 flow levels are reached, and TDEC should clarify the intent of the proposed rule or modify it.

**Response:** The Board has removed the 7Q10 calculation from the rule.

**Comment 86:** A Commenter indicates that TDEC needs to clarify when the consideration of alternatives to non-potable reuse of reclaimed wastewater are applicable. Further, TDEC needs to clarify what alternatives are acceptable when an alternative is required.

**Response:** The rule specifically discusses non-potable reuse of reclaimed wastewater as an alternative to surface discharge not vice versa. There are multiple types of non-potable reuse as characterized by the 2012 EPA Guidance on Reuse whose classifications have been adopted by this rule. Some of the classifications are in place by permit now and are procedures prescribed by this rule; there are other classifications that may require additional investigation and consideration in light of existing rules; and in addition there are those classifications which are currently covered by other rules.

**Comment 87:** Commenters assert that the phrase, "...and is not intended to be applied in excess of the uptake rate of vegetation..." is more appropriate to the provisions applicable to land application (0400-40-06-.06) than the provisions applicable to non-potable reuse.

**Response:** The distinction between land application and reuse is important. In land application, sufficient soil and detention time is available for significant aerobic and anaerobic bacterial action in addition to evapotranspiration and plant uptake. This additional time and bacterial action should complete advanced treatment of the applied wastewater. In reuse there is no guarantee that sufficient soil or time for adequate additional treatment is available; the only treatment factor assumed in the reuse scenario is direct plant uptake and whatever evaporation that occurs. The text will remain.

**Comment 88:** Commenters indicate that the statement, "Moreover, the Division reserves the right to limit non-potable reuse of reclaimed wastewater that causes a greater than five percent reduction of the 7Q10 flow of the receiving stream." suggests that the state of Tennessee has a right to "wastewater to be discharged." But no such right is established in the TWQCA since wastewater is not included in the definition of waters.

**Response:** The text has been removed from the final rule.

#### **0400-40-06-.10(1)(b)**

**Comment 89:** A Commenter requests that a new paragraph (b) be added as follows: (Table 4-3 of the 2012 EPA Guidelines for Water Reuse is provided.)

**Response:** The Board is not addressing all types of non-potable reuse sources of reclaimed water as Table 4-3 cited in 2012 EPA Guidelines in this edition of the Rule, but rather indicating that reuse in this rule is the reuse of reclaimed wastewater; the cited Table 4-3 is not limited to reclaimed wastewater. The text will remain.

**Comment 90:** A Commenter requests that part 3 of this subparagraph be deleted in its entirety, indicating that reclaimed water should not be prohibited on sites that produce and treat the wastewater.

**Response:** The text is not prohibiting use of reclaimed water on a wastewater treatment plant site, but rather ensuring that plant water that is recycled within in a wastewater process within the plant is not regulated by this section. The distinction is significant and remains in the text.

**Comment 91:** A Commenter questions if the reference be to 0400-40-06-.06 and not 0400-40-06-.07.

**Response:** The correction has been made.

**Comment 92:** A Commenter questions whether this includes reuse water for irrigation landscaped areas and other non-industrial type processes? If so, then the likelihood of human contact increases and the activity should be permitted as unrestricted public access.

**Response:** No. Part (b)1 refers to water covered by land application; part (b)2 to water whose source is other than wastewater; and parts (b)3 and (b)4 are for recycled water within a treatment or industrial process generally not exposed to the general population.

#### **0400-40-06-.10(1)(c)**

**Comment 93:** Commenters insist that current subparagraph (c) should be deleted in its entirety. The rule should address direct and indirect potable reuse and not prohibit it.

**Response:** The final rule has been modified to indicate that potable reuse is outside the scope of this rule, not prohibited.

**Comment 94:** Commenter believes that under no circumstances should the commissioner get in the business of approving resale of reuse water.

**Response:** The Board believes that the end user must have a clear understanding of the nature of reclaimed water to distinguish the water from potable water, to protect public health and to ensure the fit-of-purpose principle is established in the contracting process. Approval of individual contracts or sales is not regulated, rather an agreed standard contract is approved once by the Commissioner in concert with the provider of reclaimed water and the end-user of that water that conveys the nature and restrictions appropriate to the use of reclaimed water. This agreement is a critical step in the education of purchasers of reclaimed water.

**Comment 95:** A commenter requests specific language be provided as to how the Commissioner's approval is to be obtained and under what conditions.

**Response:** The Board delegates the approval to the Commissioner who executes that approval authority via a State Operating Permit (SOP) or additions to an existing NPDES permit to a purveyor of reclaimed wastewater. Subsequent sales to other sites and for other uses is to be regulated by the end-use agreement the general format of which has been approved in the initial request for permission to sell or provided reclaimed wastewater.

**Comment 96:** A commenter recommends that the term "impoundment" be defined in the regulation.

**Response:** The Board concurs. A definition for surface impoundment/impoundment has been added to the rule. Note: any impoundment that has a provision for discharge requires an NPDES permit.

**Comment 97:** A commenter believes the SOP regulations appear to prohibit environmental reuse.

**Response:** The final rule clarifies that environmental reuse is not within the scope of this rule.

**Comment 98:** A commenter believes that TDEC needs to explain why it is prohibiting the environmental reuse of non-potable reclaimed water and why there is a distinction from waters included in NPDES provisions.

**Response:** The final rule clarifies that environmental reuse is not within the scope of this rule. To the extent that environmental reuse involves the discharge of reclaimed wastewater to wetlands, streams, or other waters of the state, that activity would require an NPDES permit rather than an SOP.

**Comment 99:** Comments were received insisting that there is no regulatory basis for prohibiting reuse in impoundments with restricted access, reuse in impoundments with unrestricted access, environmental reuse, and groundwater recharge for non-potable reuse. These activities would require additional regulatory approval as set out in 0400-40-06-.05(4)(b) and (c).

**Response:** The final rule clarifies that these activities are not within the scope of this rule. To the extent that these activities involve the discharge of reclaimed wastewater to wetlands, streams, or other surface waters, it would require an NPDES permit. Groundwater recharge would require a UIC permit.

**Comment 100:** Commenters suggest replacing “The following activities are prohibited” with the following language since there is nothing in state or federal law to prohibit the listed activities. “(c) The following activities are not authorized under 0400-40-06-.10 Non-Potable Reuse.”

**Response:** The final rule has been changed to indicate specific activities are outside the scope of the rule, rather than prohibited.

**Comment 101:** Commenters recommend deleting any reference to potable reuse since this provision clearly applies only to non-potable reuse.

**Response:** The final rule has been changed to indicate that potable reuse is outside the scope of the rule, rather than prohibited.

**Comment 102:** Commenters recommend revising (1)(c)5 and 6. to read:

5. The discharge of reclaimed wastewater into surface waters as they are regulated through the NPDES program.

6. Excess utilization of reclaimed water that results in ponding or a nuisance to adjacent properties.

**Response:** The final rule has been amended. An NPDES permit would not be available for “excess utilization of reclaimed wastewater” so that provision has been maintained as a prohibited activity.

#### **0400-40-06-.10(2)<sup>1</sup>**

**Comment 103:** A Commenter recommends changing “reclaimed wastewater” to “reuse water.”

**Response:** The Rule applies only to reclaimed wastewater intended for reuse.

**Comment 104:** A Commenter wants to change Subparagraphs (2)(c) and (d). Not sure why reference to U.S. Department of Agriculture and other rules is necessary.

**Response:** The Board concurs in striking the reference but asserts that consultation with additional agencies to support the growth of reuse regulations is both prudent and necessary in the future.

**Comment 105:** A Commenter requests clarification to Subparagraph 2(e) and (f), indicating that clarification is needed as to what body contact would be restricted.

**Response:** The definitions in Categories (e) and (f) are not authorized in 0400-40-06-.10 and are included solely to parallel the 2012 EPA Guidance. If authorized in the future, additional definitions and requirements will be promulgated in the Rule amendment.

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<sup>1</sup> The definitions from the proposed rule that were in Rule 0400-40-06-.10(2) have been moved to the definitions section of this rule chapter. When referring to rule numbers in these responses to comments, the Board refers to the numbering from the draft rule. In the final rule, later sections are one number lower due to the deletion of this section.

**Comment 106:** A Commenter wants clarification in subparagraph 2(g) as to what receiving waters would preclude the use of reuse water in the NPDES provisions of Chapter 5.

**Response:** The environmental reuse category is outside the scope of this rule. The definition is provided to match the 2012 EPA Guidance categories of non-potable reuse. Reuse that involves a discharge to surface waters is subject to NPDES regulations.

**Comment 107:** A Commenter recommends the addition of a new paragraph. “Indirect Potable Reuse” is the augmentation of a drinking water source (surface or groundwater) with reclaimed water followed by an environmental buffer that precedes normal drinking water treatment.

**Response:** At this point, the Board is not ready to adopt rules for potable reuse. This is an area of high sensitivity, and requires further study, consideration, and stakeholder engagement. However, the final rule clarifies that potable reuse is not prohibited, but instead outside the scope of this rule at this time.

**Comment 108:** A Commenter recommends the addition of new paragraph. “Direct Potable Reuse” is the introduction of reclaimed water (with or without retention in an engineered storage buffer) directly into a water treatment plant, either collocated or remote from the advanced wastewater treatment system.<sup>3</sup>

**Response:** Please see Response to Comment 241.

**Comment 109:** A Commenter thinks TDEC should clarify the meaning of “environmental reuse” of non-potable reclaimed wastewater.

**Response:** The definition tracks the 2012 EPA Guidance. The current rule does not foresee the permissibility of environmental reuse as an SOP. Environmental reuse may be allowable through the NPDES program, but would be subject to all applicable regulatory requirements.

**Comment 110:** Commenters suggest that the definitions of the non-potable use classifications be moved to 0400-40-05-.02 and modified.

**Response:** The Board does not concur. Section 0400-40-05 deals with NPDES permits.

### **0400-40-06-.10(3) Application and Review**

#### **0400-40-06-.10(3)(a)**

**Comment 111:** A Commenter believes that the horizontal distances of 10 feet apart between potable water and reclaimed water is unnecessary with most piping other than concrete.

**Response:** The Board does not concur. This is a standard water and wastewater design and construction principle applied to reuse water distribution systems.

**Comment 112:** A Commenter recommends that construction standards should be clarified to prevent cross-contamination between non-potable reuse water and drinking water.

**Response:** No additional specific set of construction standards is necessary for reclaimed or reuse water. This paragraph incorporates the same principles as between drinking water distribution systems and wastewater collection/pumping systems that have proved effective for many years.

**Comment 113:** A Commenter recommends that TDEC also consider adopting a standard labeling practice for non-potable pipes, such as a purple color scheme.

**Response:** The final rule adds a reference to “purple pipe” as the standard identification method for reuse distribution systems.

**Comment 114:** Commenters are of the opinion that this provision does not distinguish between the quality of non-potable reclaimed wastewater from other wastewaters and should be revised to read as follows: “Non-potable reclaimed wastewater and potable water systems should be located at least 10 feet horizontally, or at least 18 inches vertically, apart from each other if practicable. However, if the non-potable reclaimed wastewater and potable water systems are located within 10 feet horizontally and 18 inches vertically of each other, the non-potable reclaimed wastewater system shall be treated as if it were conveying wastewater that does not meet the treatment requirements of (4) (c).”

**Response:** This change has not been made in the final rule, which is sufficiently clear.

**Comment 115:** A Commenter recommends this provision be renamed Reclaimed Water Management Plan.

**Response:** The rule refers to reclaimed wastewater, which is an accurate description.

**Comment 116:** A Commenter recommends deleting subdivision (b)1 in its entirety.

**Response:** The final rule has been changed to require a description of treatment for reuse, discharge, or land application.

**Comment 117:** Commenter wants the requirement that permit renewal applicants submit an updated Reclaimed Wastewater Management Plan (RWMP) if there is a “material change in end user requirements” should be clarified.

**Response:** The final rule states that a material change includes water quality, delivery pressure or location, and whenever the end user becomes a purveyor of reuse water himself.

**Comment 118:** A Commenter wants a definition of what constitutes a “material change,” leaving considerable discretion to TDEC. Further, the wastewater could “change hands” more than once before reaching the end user. In such a case, it is unclear who needs to update their RWMP and when. TDEC needs to clarify what constitutes a “material change” and write this in a way that checks every stage “from cradle to grave.”

**Response:** Please see Response to Comment 251.

#### **0400-40-06-.10(3)(c)**

**Comment 119:** A Commenter believes this section should be eliminated in its entirety. It is not an appropriate role for TDEC to review and approve each metered recipient’s user contract or to specify any requirements for such agreements.

**Response:** The Board does not concur. End users must be aware of, and subject to, any limitations on the reuse of reclaimed wastewater.

**Comment 120:** A Commenter recommends that end users be educated as to best management practices to protect cross-contamination and improper use, including setbacks, and compliance should be monitored.

**Response:** The Board concurs; this is the primary purpose of the End User Service Agreements.

#### **0400-40-06-.10(3)(d)**

**Comment 121:** A Commenter recommends elimination of part 2 of this subparagraph in its entirety, indicating that the stated language is simply unnecessary and is counterproductive to reuse.

**Response:** Part 2 of this subparagraph has been eliminated from the final rule.

**Comment 122:** A Commenter indicates that the language in parts 1 and 2 of this subparagraph is circular. TDEC is placing restrictions on our ability to expand both our NPDES permit and our reuse system.

**Response:** Part 2 of this subparagraph has been eliminated from the final rule and the requirements to demonstrate a back-up plan in case the reuse option is no longer available have been clarified.

**Comment 123:** A Commenter indicates that the requirement for alternatives for reuse to be demonstrably available is necessary to protect water quality.

**Response:** The long-term benefits of resource preservation through reuse of reclaimed warrants its safe and environmentally protective expansion. Loss of reuse opportunities is not a valid reason for failure to meet NPDES permit or SOP requirements. The RWMP must address this issue.

**Comment 124:** A Commenter indicates that the SOP regulations do not clarify when the requirement to consider alternatives to discharge under T.C.A. § 69-3-108(3) apply to the non-potable reuse of reclaimed wastewater.

**Response:** SOPs do not govern discharges. Those are regulated through the NPDES program, so this clarification is not appropriately placed in the SOP chapter. Moreover, the Commissioner has already established in guidance (Design Criteria) and in permit negotiations that expansion of discharges will only be considered in the context of a life cycle cost analysis of alternatives which must include land application and beneficial reuse of reclaimed wastewater as an alternative to a new or increased discharge.

**Comment 125:** A Commenter indicates that the only alternatives are land application permitted by an SOP or a NPDES-permitted discharge to surface waters. TDEC needs to explain why it is limiting alternatives to only these two options. Alternatively, if that's not the intention of TDEC, TDEC needs to incorporate some language like, "alternatives include, but are not limited to ..."

**Response:** The Board has changed the language as recommended.

**Comment 126:** A Commenter indicates that since non-potable reuse and land application are both covered by SOPs, the application for the reuse SOP could also include a request to authorize both the land application contingency.

**Response:** Agreed. This process is in effect at this time; SOPs and NPDES permits may include land application and reuse provisions.

**Comment 127:** A Commenter questions whether this section refers to a permitted reuse activity that no longer has the proposed alternative.

**Response:** Yes, the Board intends that this applies to the potential loss of a water reuse opportunity. NPDES permits and SOPs presume a high degree of discharge or disposal ability. Reuse, especially if dependent on end users, inherently possesses less wasteload satisfaction guarantees. Accordingly, a contingency plan is necessary in case the reuse option becomes unavailable in the future.

**Comment 128:** A Commenter indicates that the plan should be able to be freely amended as necessary. In addition, it is not clear who will be the permittee. This should be clarified.

**Response:** The amendment process for SOPs and NPDES permits are specified in the existing permits themselves. The permits would not be amended in the case of the expansion of the reuse system appropriately authorized up to the capacity of the reclaimed water production. Permit modifications would not be necessary for distribution system expansion.

The permittee is the entity holding the SOP or NPDES permit for the treatment of the wastewater and, therefore, responsibility for the production and/or delivery of the reclaimed water to the end user. The SOP or

NPDES permit holder may have the holder's own site or reclaimed water distribution system as a part of the holder's own system without separate and distinct end user customers. If an end user purchases reclaimed water for resale, that end user must obtain an SOP and all requirements of the reclaimed water permit holder applies to them; requirements would include the RWMP and engineering distribution system standards.

#### **0400-40-06-.10(4)(c)**

**Comment 129:** Commenters would like to see sampling within the water system rather than at each end user.

**Response:** The Board agrees that the primary responsibility of monitoring the quality of reuse water rests with the entity providing the reclaimed water and that the criticality of the reuse will dictate the need for point of delivery sampling. Unrestricted access of the public to reclaimed water requires periodic sampling to minimize exposure of pathogens to the public.

**Comment 130:** Commenters indicate that the effluent limitations should be more stringent to protect human health and water quality.

**Response:** Rule 0400-40-06-.10(4)(c) does not establish effluent limitations, which are defined in the Act as regulating discharges. Reuse of reclaimed wastewater pursuant to an SOP should not result in a discharge. The numeric standards in this rule have been tightened in accordance with the 2012 EPA Guidelines with the exception of applying *E. coli* limits instead of fecal coliforms.

**Comment 131:** A Commenter indicates that TDEC should require system operators to educate end users on the nutrient content of the reclaimed wastewater, and the consequences of over-application of nutrients (such as eutrophication and algal blooms in nearby surface water, such as ponds in golf courses). This could be incorporated into end user agreements in the section for the end user's responsibilities with respect to the appropriate and legal use of the reclaimed wastewater.

**Response:** Suggested minimum requirements and a template for the end user service agreements are more properly addressed through TDEC guidance than through rule.

**Comment 132:** A Commenter indicates that TDEC must also explain why the minimum standards and reporting frequencies in proposed Rule 0400-60-.10(4)(c) are protective of the State's waters.

**Response:** This rule does not authorize discharges to waters. Any such discharges must comply with NPDES (surface water) or UIC (groundwater) requirements. Moreover, reclaimed wastewater used in irrigation should not be applied in quantities exceeding vegetative uptake or evaporation; and it should not result in a discharge. Application rates will be reported on monthly MORs and excessive application amounts will be investigated. Research has indicated that overland flow, although not permitted in Tennessee, is almost as effective in removing contaminants as land application and the treatment standards for reuse exceed those for land application.

**Comment 133:** A Commenter requests the addition of, "Reuse in Impoundments, Environmental Reuse and Groundwater Recharge for Non-Potable Reuse" after "Agricultural Food Crops" in the table.

**Response:** Adding classifications or categories of reuse not authorized by this addition of the Rule would only be confusing.

**Comment 134:** A Commenter indicates that the minimum standards established for *E. coli* and chlorine residual for unrestricted reuse are less stringent than the existing requirements in some permits that allow unrestricted reuse.

**Response:** Please see response to Comment 264.

**Comment 135:** A Commenter provides that public acceptance of reuse is dependent upon a robust regulatory framework, and exceptional operation by practitioners. For this reason, it is recommended that the Board establish a 23 cfu/100 ml limit for *E. coli* and a minimum chlorine residual limit at 1 mg/l regardless of *E. coli* concentration; and require that a chlorine residual be maintained within the reuse transmission and distribution system.

**Response:** See response to Comment 264.

**Comment 136:** The monitoring location and the frequency of sampling and analysis such that samples are taken similar to the bacteriological sampling program with a potable water distribution system which does not require sampling at each end user; and that the current requirements are excessive.

**Response:** The Board concurs with the comment and remote or reuser sampling requirements must be patterned after drinking water bacteriological and chlorine residual sampling schemes.

**Comment 137:** Commenters insist that there is no need to be reporting consumption by individual users.

**Response:** The current 30-year experience of unrestricted urban reuse in the State of Tennessee reveals a tendency towards excessive irrigation. This classification of reuse cannot produce a discharge without violating the NPDES permit implementation. The Commissioner should require the reporting of the volume of water at least monthly to identify potential abusers of the requirement.

**Comment 138:** Commenters propose table revision as follows: (*Italicized wording different from the proposed text.*)

Parameter	Urban Unrestricted Reuse <i>Agricultural Food Crops, Reuse in Impoundments, Environmental Reuse, Groundwater Recharge for Non- Potable Reuse</i>		Urban Restricted Reuse <i>Agricultural Processed Food or Non-food crops, Industrial Reuse</i>	
	Daily Limit	Monitoring Frequency	Daily Limit	Monitoring Frequency
pH	6.0-9.0	Weekly	.0-9.0	Weekly
CBOD5	10 [mg/L]	Weekly	30 [mg/L]	Weekly
NTU/TSS	5 [NTU]/ 5 [mg/L]	Continuous/Daily	-/30[mg/L]	Weekly
E. Coli	23 [cfu/100 mL]	Daily	200 [cfu/100 mL]	Daily
Chlorine residual (1)	Minimum of 1 [mg/L](1)	Daily	Minimum of 1 [mg/L]	Daily

(1) *The minimum chlorine residual limit of 1 [mg/L] shall be measured at the point of release form the reclamation system and the chlorine residual must be maintained within the distribution system as measured in accordance with the approved RWMP plan.*

(2) *Chlorine residual limits apply only upon failure to comply with E.Coli limits more than 10% of the time for the previous month after there is a demonstration that the system can meet the delivery standards-*

**Response:** The Board agrees with the direction of the changes; however, it is the Board’s position that additions to impoundments that discharge to groundwater or surface waters are covered by UIC or NPDES permits respectively.

#### **0400-40-06-.10(4)(d)1.**

**Comment 139:** A Commenter indicates that (i) and (ii) should be deleted.

**Response:** The Board does not concur. Monitoring and reporting are core requirements of this rule, and provide both transparency and accountability.

**Comment 140:** Regarding subpart (iii) of this part, a Commenter respectfully recommends deletion of this section, stating that “...unaccounted for water from a reclaimed water system should not be considered discharges or releases...”

**Response:** The Board does not concur. Any discharges and releases must be reported. The discharge of reclaimed wastewater is not authorized by this rule and would require an NPDES permit.

**Comment 141:** A Commenter provides that although discharge of reclaimed water is not authorized under the proposed rules, it may be allowed under an NPDES permit. Therefore, the reporting requirement for discharges or releases, should distinguish between those that are included in the RWMP and those that are not. The language as written suggests that any release or discharge is a violation.

**Response:** A discharge of reclaimed water would be only allowed in accordance with the terms of an NPDES permit. Discharges and releases are also reportable under the NPDES rules.

#### **0400-40-06-.10(4)(d)2.**

**Comment 142:** A Commenter indicates that this language should be deleted.

**Response:** The Board agrees it should be modified. The onus for enforcement should not be on the reclaimed wastewater provider although that is usually the case in other states. The wording has been changed to require reporting to the environmental field office in the event they become aware of a violation.

**Comment 143:** A Commenter recommends deletion of this section part (4)(d)(2), stating “...it is unreasonable for TDEC to require utilities to inspect and determine how reclaimed water is utilized beyond the customer meter.”

**Response:** Please see Response to Comment 276.

#### **0400-40-06-.11 Bonds**

No comments were received related to this rule.

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

**Comment 144:** A Commenter requests clarification whether and to what extent a permit renewal could be denied or restricted based on such review.

**Response:** If a permitted activity is conducted in accordance with the Tennessee Water Quality Control Act and these rules, and there are no significant changes to environmental conditions, permits are likely to be renewed.

However, the five-year permit limit is intended to ensure that the Commissioner can conduct a meaningful, regular review to ensure on-going compliance.

#### 0400-40-06-.13 Appeals

**Comment 145:** A Commenter indicates that TDEC should clarify that it will work with petitioners for appeal to ensure the standards for petitions for appeal are met.

**Response:** It is not TDEC's responsibility to assist petitioners to appeal a TDEC decision. However, TDEC has issued guidance on how to file appeals, which can be found at [https://www.tn.gov/content/dam/tn/environment/policy/documents/finalized-guidance/boe\\_filing-appeals-and-petitions-for-declaratory-order-with-tdec.pdf](https://www.tn.gov/content/dam/tn/environment/policy/documents/finalized-guidance/boe_filing-appeals-and-petitions-for-declaratory-order-with-tdec.pdf).

**Comment 146:** A Commenter provides that the proposed language in Rule 0400-40-06-.13(2) restricts appeals to a claim for relief based on an alleged violation of the Act. However, if a permit applicant appeals the decision of the Commissioner, it is for taking action that is not consistent with the Act as opposed to being in violation of the Act. The language should be clarified that the claim for relief should be based on an "applicable provision" of the Act or rules.

**Response:** The proposed language has been retained in the final rule. A permit condition that is inconsistent with the Act would violate the Act. The purpose of this provision is to clearly establish that appeals must address legitimate issues within the purview of the Act and its regulations. Petitioners regularly file appeals for reasons outside of the purview of this Board, and this rule is intended to make it clear that such appeals must be dismissed with prejudice for lack of subject-matter jurisdiction.

**Comment 147:** A Commenter suggests that petitions for appeal be accepted if filed by mail, hand delivery, or by any electronic means directed to the person specified in the public notice.

**Response:** TDEC has issued guidance on how to file appeals, which can be found at [https://www.tn.gov/content/dam/tn/environment/policy/documents/finalized-guidance/boe\\_filing-appeals-and-petitions-for-declaratory-order-with-tdec.pdf](https://www.tn.gov/content/dam/tn/environment/policy/documents/finalized-guidance/boe_filing-appeals-and-petitions-for-declaratory-order-with-tdec.pdf). Among other things, this guidance document provides information about how to file appeals, and provides an email address.

**Comment 148:** A commenter indicated that the right to appeal permit decisions was being removed from the Board.

**Response:** The appeal rights for permit applications remain the same. These rights are prescribed in T.C.A. § 69-3-105(i). Reference to this law is included in the rule.

## 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.

### **0400-40-06-.07 Animal Feeding Operations**

The regulatory standards for Animal Feeding Operations in the proposed rule reflect standards previously housed in 0400-40-05, and mandates of Tennessee Code Annotated section 69-3-108(b)(7)(A)-(C) which reduced the population of animal feeding operations required to obtain permit coverage. No additional expenditures are anticipated to owners of animal feeding operations.

### **0400-40-06-.09 Collection Systems**

The standards proposed in this rule are directly comparable to the industry and regulatory standards that have been used to design, construct, and operate these systems as identified in TDEC's Design Criteria. No additional expenditures are anticipated as a result of this portion of the proposed rule.

### **0400-40-06-.10 Non-Potable Beneficial Reuse of Reclaimed Wastewater**

Historically there have been no regulatory standards or design criteria addressing beneficial reuse of reclaimed wastewater in TN. Some utilities already have reuse programs and reuse is expected to become prevalent in many parts of the state in the next 5 to 10 years. Expenditures associated with this portion of the proposed rule will be borne by utilities that incorporate reuse into their wastewater management practices. However, incorporation of reuse will likely be pursued in order to provide more wastewater management capacity which in turn supports continued development and increasing rate-payer base.

- (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.

### **0400-40-06-.07 Animal Feeding Operations**

No additional reporting, recordkeeping or other administrative costs are expected as a result of this proposed rule. The skillset of current administrative staff is expected to be appropriate in support of this proposed rule.

### **0400-40-06-.09 Collection Systems**

No additional reporting, recordkeeping or other administrative costs are expected as a result of this proposed rule. The skillset of current administrative staff is expected to be appropriate in support of this proposed rule.

### **0400-40-06-.10 Non-Potable Beneficial Reuse of Reclaimed Wastewater**

Adoption of this portion of the proposed rule will require a utility that elects to offer treated wastewater for beneficial reuse to its customers to prepare a Reclaimed Wastewater Management Plan to be submitted with their application and updated with any substantial changes.

The proposed rule also prescribes monitoring and reporting requirements that are specific to the reuse component of the utility's reuse program. These monitoring and reporting requirements are not unlike the monitoring and reporting currently conducted by the utility, therefore while there will be additional monitoring and reporting if the utility elects to incorporate reuse, having a permitted reuse component ultimately benefits the utility and ratepayers

- (3) A statement of the probable effect on impacted small businesses and consumers.

**0400-40-06-.07 Animal Feeding Operations**

No effect on small businesses and consumers is anticipated in association with this portion of the proposed rule.

**0400-40-06-.09 Collection Systems**

No effect on small businesses and consumers is anticipated in association with this portion of the proposed rule.

**0400-40-06-.10 Non-Potable Beneficial Reuse of Reclaimed Wastewater**

Adoption of this portion of the proposed rule is anticipated to benefit small businesses and consumers if a utility elects to incorporate reuse into its wastewater management structure. This benefit will be realized through the expanded capacity of the utility. Adoption of a reuse program by a utility will reduce its reliance on stream discharge capacities and/or the purchase of land application areas.

- (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.

**0400-40-06-.07 Animal Feeding Operations**

The Tennessee Legislature defined the population of animal feeding operations required to obtain permit coverage. Permit coverage of the type established in this rule has been in place for decades and places no additional burden on owners of animal feeding operations. As such, this rule is the least burdensome, least intrusive, and least costly method of achieving the objectives of this rule.

**0400-40-06-.09 Collection Systems**

Standards pertaining to collection systems have been in practice for years. This rule does not propose standards beyond what is currently in practice. As such, this rule is the least burdensome, least intrusive, and least costly method of achieving the objectives of this rule.

**0400-40-06-.10 Non-Potable Beneficial Reuse of Reclaimed Wastewater**

Adoption and integration of reuse of reclaimed wastewater is an option that a utility may utilize to manage wastewater. These rules only apply if the utility elects to incorporate reuse; therefore, rather than being burdensome, the rules establish standards by which a utility can expand their capacity. The rules do not force utilities to adopt reuse. As such, this rule is the least burdensome, least intrusive, and least costly method of achieving the objectives of this rule.

- (5) A comparison of the proposed rule with any federal or state counterparts.

**0400-40-06-.07 Animal Feeding Operations**

Recent legislation in Tennessee reduced the population of animal feeding operations required to obtain permit coverage. The population is however still larger than the population identified through federal rule. With respect to animal feeding operations that discharge wastewater, the Tennessee rules mirror the federal rules.

**0400-40-06-.09 Collection Systems**

There is no federal or state counterparts to this program.

**0400-40-06-.10 Non-Potable Beneficial Reuse of Reclaimed Wastewater**

There is no federal or state counterparts to this program. There is guidance provided from the federal level but there are no federal rules governing beneficial reuse of reclaimed wastewater. This is an emerging water conservation activity.

- (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.

**0400-40-06-.07 Animal Feeding Operations**

This rule reduces the population of animal feeding operations required to obtain permit coverage.

**0400-40-06-.09 Collection Systems**

Exempting utilities from the requirement to operate under a valid permit would conflict with the TN Water Quality Control Act. Standards for collection systems proposed in this rule are the same as historically practiced. In fact, collection systems have always been subject to the state's rules; this rule simply brings those standards under a designated rule section.

**0400-40-06-.10 Non-Potable Beneficial Reuse of Reclaimed Wastewater**

Exemption of the utilities electing to incorporate beneficial reuse of reclaimed wastewater from being subject to this rule would result in a patchwork pattern of reuse across the state with some of the variables having direct potential to effect public health. These rules are intended to support beneficial reuse, rather than restrict its use. The effect on small businesses is expected to be minimal, but positive in that additional non-potable water resources would be available to them.

## **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)

The Board does not anticipate that these new rules will have a financial impact on local governments.

## 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;

These rules are specific to activities that require permit coverage as identified in the Tennessee Water Quality Control Act. These activities were historically governed through rules that were originally promulgated in support of direct discharging wastewater systems. Systems subject to this rule are non-discharging systems and these activities are permitted through by State Operating Permits. These systems were previously regulated through Rule Chapter 0400-40-05.

### **0400-40-06-.07 Animal Feeding Operations**

This rule is proposed in response to recent state legislation that identified the population of animal feeding operations subject to permit coverage through the State Operating Permit program.

### **0400-40-06-.09 Collection Systems**

This rule allows utilities to operate aspects of their systems that are not subject to federal NPDES permitting standards. Collection systems have always required permit coverage, this rule simply houses these permits in a new chapter specific to State Operating Permits.

### **0400-40-06-.10 Non-Potable Beneficial Reuse of Reclaimed Wastewater**

This rule establishes standards of construction, monitoring and reporting of this component of wastewater management. Utilities that elect to incorporate reuse into their wastewater program will now be subject to a consistent state standard that minimizes the threat to public health and water quality impacts.

- (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;

#### State Law

T.C.A. § 69-3-105(a)(1) Establishes the Water Quality, Oil, and Gas Board power, duty and responsibility to establish and adopt standards of quality for all waters of the state.

T.C.A. § 69-3-105(b) The board has and shall exercise the power, duty, and responsibility to adopt, modify, repeal, and promulgate, after due notice and enforce rules and regulations that the board deems necessary for the proper administration of this part...

T.C.A. § 69-3-107(g) The commissioner may grant permits authorizing the discharges or activities including, but not limited to, land application of wastewater...

T.C.A. § 69-3-108(b)(3) Any person proposing to construct, install, modify or operate any treatment works must have a valid permit...

T.C.A. § 69-3-108(b)(7) Pertains to animal feeding operations obligated to obtain permit coverage.

T.C.A. § 69-3-108(c) Requires permits for sewerage systems.

- (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;

Promulgation of the animal feeding operation component of these rules is a direct outgrowth of recent legislation. Several commenters (non-governmental environmental organizations) were not supportive of the rule governing animal feeding operations because it was reducing the population of operations obligated to

obtain permit coverage. However, this change is mandated by statute.

Minimal comments were received regarding the collection system component of the rule. Standards identified in this portion of the rule were already in practice. There are no known entities that are either urging adoption or rejection of this rule.

The beneficial reuse of reclaimed wastewater component of the rule received many comments from concerned utilities, primarily those that already had reuse components as part of their program. Significant revisions were adopted based on feedback received. These rules do not preclude any activity that was currently being conducted by these utilities.

- (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;

The Board is not aware of any.

- (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 state fee structure is being modified by this rule. No population of permitted activities is being increased. The population of animal feeding operations required to obtain permit coverage is being reduced by this rule; therefore, collected permit fees will be reduced. The impact of this reduction is minimal in that it is less than either 2% of the annual budget or five hundred thousand dollars. Moreover, this change is mandated by statute.

- (F)** Identification of the appropriate agency representative or representatives, possessing substantial knowledge and understanding of the rule;

Britton Dotson  
TDEC DWR Environmental Fellow  
615-308-0734  
[Britton.dotson@tn.gov](mailto:Britton.dotson@tn.gov)

- (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  
  
Stephanie Durman  
Senior Associate Counsel  
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) 253-1965  
[Horace.Tipton@tn.gov](mailto:Horace.Tipton@tn.gov)

- (I)** Any additional information relevant to the rule proposed for continuation that the committee requests.

Economic Impact Statement [Tenn. Code Ann. § 4-33-104(b)]

- (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.

The action proposed is the adoption of new rules regarding animal feeding operations, collection systems, and non-potable beneficial reuse of reclaimed water. These rules are adopted pursuant to the authority of the Board of Water Quality, Oil and Gas under T.C.A. § 69-3-105(b). These rules are implemented through the rulemaking hearing process and by administrative implementation after the effective date of the rules. The purpose of these rules is to impose such conditions, including effluent standards and conditions and terms of periodic review, as are necessary to prevent pollution of waters from the operation of non-discharging wastewater systems.

- (2) A determination that the action is the least-cost method for achieving the stated purpose.

This rulemaking is the least-cost method for implementing rules to impose such conditions, including effluent standards and conditions and terms of periodic review, as are necessary to prevent pollution of waters from the operation of non-discharging wastewater systems.

- (3) A comparison of the cost-benefit relation of the action to nonaction.

Nonaction would not sufficiently prevent pollution of waters from the operation of non-discharging wastewater systems, which outweigh any costs associated with these rules.

- (4) A determination that the action represents the most efficient allocation of public and private resources.

Implementing these rules represents the most efficient allocation of public and private resources.

- (5) A determination of the effect of the action on competition.

These rules are not anticipated to have an 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.

These rules are unlikely to impact the cost of living in Tennessee.

- (7) A determination of the effect of the action on employment in the geographical area in which the action would occur.

These rules are unlikely to impact employment in Tennessee.

- (8) The source of revenue to be used for the action.

These rules will be implemented with existing resources.

- (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.

Animal feed operators will primarily bear the costs of the rule regarding animal feed operations. Utilities will primarily bear the cost if they elect to incorporate reuse into their wastewater program. The citizens of Tennessee will indirectly benefit from these rules by the prevention of pollution of waters from the operation of non-discharging wastewater systems.