

TITLE 18**WATER AND SEWERS¹****CHAPTER**

1. WASTEWATER RECLAMATION AND REUSE.
2. WASTEWATER SYSTEM USER RATES.
3. WASTEWATER CAPACITY RESERVATION.
4. WASTEWATER TAP RESERVATION AND ASSIGNMENT.
5. UTILITY BOARD.

CHAPTER 1**WASTEWATER RECLAMATION AND REUSE****SECTION**

- 18-101. Purpose.
- 18-102. Authority.
- 18-103. Jurisdiction.
- 18-104. Policy.
- 18-105. Development and cost responsibility.
- 18-106. Ownership.
- 18-107. Interpretation, conflict, and separability.
- 18-108. Saving provisions.
- 18-109. Definitions.
- 18-110. Requirements for proper wastewater discharge.
- 18-111. Maintenance of building sewers.
- 18-112. Sewer extensions.
- 18-113. User discharge requirements.
- 18-114. User charges.
- 18-115. Enforcement.
- 18-116. Conformance with subdivision regulations.
- 18-117. Concurrent TDEC approval.
- 18-118. Requirements for sketch plan.
- 18-119. Requirements for preliminary plan.
- 18-120. Requirements for final plat.
- 18-121. Requirements prior to construction.
- 18-122. Construction inspection.
- 18-123. Final inspection.

¹Municipal code references

Building and housing codes: title 12.

- 18-124. Acceptance by town.
- 18-125. Assurance for completion and operation of improvements: bonding requirements.
- 18-126. Easements and access.
- 18-127. Design criteria -- in general.
- 18-128. TDEC design criteria.
- 18-129. Reclamation and reuse system design.
- 18-130. Applicability.
- 18-131. Other requirements.
- 18-132. Requirements for drip emitter systems.
- 18-133. Collection system design criteria.
- 18-134. Grinder pump wastewater systems.

18-101. Purpose. Thompson's Station recognizes the need to manage wastewater that is generated within the town's service area, which is deemed to be the municipal corporate limits of the town. The reclamation and reuse of wastewater is identified as a viable means for providing public sewer service to new development(s) within the town and potentially to serve existing residences and businesses. Thompson's Station also recognizes that these wastewater reclamation and reuse systems must be properly designed, constructed, and financed to protect the public health, safety, and general welfare of the residents of the town.

This chapter sets forth the minimum standards for wastewater reclamation and reuse systems that will be located within the Thompson's Station service area. This chapter is not intended to replace the role of the Tennessee Department of Environment and Conservation, Division of Water Pollution Control. It sets forth some provisions that relate the reclamation and reuse systems within Thompson's Station to the unique environmental conditions and the development goals of the town. It is imperative that plans and designs comply with the Tennessee Department of Environment and Conservation's Design Criteria for Sewage Systems and the additional provisions that have been added to the Tennessee Design Criteria to include items not currently addressed in the Division of Water Pollution Control Standards. (These provisions are referenced in this chapter.)

18-102. Authority. The Town of Thompson's Station Board of Mayor and Aldermen is authorized to adopt by majority vote of the board, ordinances, including requirements for the posting of performance bonds and maintenance bonds, governing the operation and maintenance of nontraditional sewage systems (wastewater reclamation and reuse) that serve more than one (1) household. Such regulations shall be consistent with or more stringent than the Water Quality Control Act, compiled in Tennessee Code Annotated, title 69, chapter 3, part 1. Such regulations adopted pursuant to the Water Quality Control Act shall be approved in writing by the commissioner of environment

and conservation. As used in this chapter, "nontraditional sewage disposal systems that serve more than one (1) household" does not include subsurface sewage disposal systems that are subject to the permitting requirements of Tennessee Code Annotated, title 68, chapter 221, part 4 ("Subsurface Sewage Disposal Systems") or to wastewater treatment facilities owned or operated by a governmental entity or public utility. Such authority is expressly granted in Tennessee Code Annotated, § 68-221-607(16) (1999).

Pursuant to Tennessee Code Annotated, §§ 7-35-401, *et seq.*, the mayor and board of aldermen, the governing body of the municipality, shall serve and perform as the authorized board of the town's wastewater works systems and facilities. Said mayor and board of aldermen are empowered and shall control the supervision of construction and operation of such works systems within the town, all in conformity with Tennessee Code Annotated, § 7-35-406. (Ord. #04-003, April 2004, as amended by Ord. #05-012, August 2005)

18-103. Jurisdiction. This chapter shall govern all new developments within the Town of Thompson's Station's service areas.

No building permit or certificate of occupancy shall be issued for any parcel or plat of land which was created by subdivision after the effective date of, and not in conformity with, the provisions of this chapter and the referenced State of Tennessee statutes or rules/regulations. (Ord. #04-003, April 2004)

18-104. Policy. It is intended that this chapter shall be consistent with and assist efforts to implement the provisions contained in the town's zoning ordinance, major thoroughfare plan, subdivision regulations, and the open space planning program. (Ord. #04-003, April 2004)

18-105. Development and cost responsibility. Following the procedures outlined herein, the developer shall be responsible for the planning, design, permitting, and construction of all wastewater reclamation and reuse systems. The cost of planning, design, permitting, and construction of all wastewater reclamation and reuse systems shall be borne by the developer. (Ord. #04-003, April 2004)

18-106. Ownership. All of the components of the wastewater reclamation and reuse system, including the collection system, shall be dedicated, owned and operated by the Town of Thompson's Station or a designated agent. Conveyance shall be made to the town in fee simple, free, clear and unencumbered, by warranty or special warranty deed. The land area for the irrigation reuse shall be developed as multipurpose open space and be dedicated to the town so it may be integrated into a town-wide park system which would provide multiple benefits to the town, including the reuse of wastewater (no discharge of pollutants), detention of stormwater runoff

(mitigation of non-point pollution) and recreation open space for the general welfare of the residents. (Ord. #04-003, April 2004)

18-107. Interpretation, conflict and separability. (1) In their interpretation and application, the provisions of this chapter shall be held to be the minimum requirements for promotion of the public health, safety and general welfare.

(2) It is established that this chapter is not intended to interfere with, abrogate or annul any regulations, statutes or laws. In any case where this chapter imposes restrictions different from those imposed by any other provision herein or another ordinance, or any other regulation, law or statute, whichever provision is more restrictive or imposes stricter standards shall control.

(3) If any part or provision of this chapter or application thereof is adjudged invalid by any court of competent jurisdiction, such judgment shall be confined in its operation to the part, provision or application directly involved in all controversy in which such judgment was rendered. The remainder of this chapter shall be considered valid and in full force and effect. (Ord. #04-003, April 2004)

18-108. Saving provisions. This chapter shall not be construed as altering, modifying, vacating or nullifying any action now pending or any rights or obligations obtained by any person, firm, or corporation by lawful action of Town of Thompson's Station and/or the Town of Thompson's Station prior to the adoption of this chapter. (Ord. #04-003, April 2004)

18-109. Definitions. For the purpose of this chapter, certain numbers, abbreviations, terms, and words used herein shall be used, interpreted, and defined as set forth in this section. Where words within this chapter have not been defined, the standard dictionary definition shall prevail.

Unless the context clearly indicates to the contrary, words used in the present tense include the future tense; and words in the plural include the singular.

(1) "Buffer zone." Minimum distance from the irrigation reuse area, or other portions of the treatment facilities or any system component as may be defined in other sections of this chapter to a property line, habitable structure, water well, right-of-way line, watercourse or other location as may be defined.

(2) "Building sewer." A sewer conveying wastewater from the premises of a user to the publicly owned sewer collection system.

(3) "Domestic wastewater." Wastewater having a quality typical to that generated in an average home with BOD, loading equal to or less than two hundred fifty (250) milligrams per liter (mg/l).

(4) "Easement." Authorization by a property owner for the use by another, and for a specified purpose, of any designated part of his property.

(5) "Effluent." The reclaimed water discharged from wastewater reclamation and reuse system applied to the irrigation reuse area(s).

(6) "Final plat." Plat map or plan of record of a subdivision and any accompanying material, as described in subdivision regulations.

(7) "Irrigation area or irrigation reuse area." The land area on which reclaimed water is applied at properly controlled rates to enhance vegetation growth (agricultural, silvicultural, or aquacultural products).

(8) "Lot." A parcel of land that:

(a) Is undivided by any street or private road;

(b) Is occupied by or designated to be developed for buildings or principal uses which must meet all zoning and subdivision requirements.

(c) Contains the accessory buildings or uses customarily incidental to such building, use, or development, including such open spaces and yards as are designed and arranged or required by the zoning ordinance for such building, use, or development.

(9) "Owner." The Town of Thompson's Station shall be the ultimate owner and operator of all wastewater reclamation and reuse systems and all of the components, including the necessary land and collection system.

(10) "Planning commission." The municipal planning commission for the Town of Thompson's Station which has duly adopted subdivision regulations.

(11) "Preliminary plat." The preliminary drawing or drawings, described in the town's subdivision regulations, indicating the manner or layout of the subdivision to be submitted to the planning commission for approval.

(12) "Pretreatment." The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into a publicly owned sewer. The reduction or alteration can be obtained by physical, chemical, biological processes, or process changes or other means, except through dilution.

(13) "Sketch plan." A generalized concept plan of subdivision presenting information, as described in the town's subdivision regulations, in regard to proposed improvements and natural features of the property in question prepared prior to preliminary plat to save time and expense in reaching general agreement as to the form of the plat and the objectives of this chapter.

(14) "Slope." The deviation of the land surface from the horizontal per unit horizontal distance changed, generally expressed in percent, i.e., vertical rise or fall per foot dividing the horizontal distance between contour lines into the vertical interval of the contours as required by the appropriate regulations.

(15) "State." The State of Tennessee.

(16) "State of Tennessee operating permit." Permit issued by TDEC granting approval and authority for the operation of a wastewater reclamation and reuse system within the State of Tennessee.

(17) "Subdivision regulations." The documents entitled "Subdivision Regulations of the Town of Thompson's Station, Tennessee," latest revision.

(18) "Tennessee Department of Environment and Conservation (TDEC)." Tennessee governmental agency responsible for regulatory compliance with environmental regulations, formerly, the Tennessee Department of Health and Environment (TDHE). TDEC and TDHE may be used interchangeably.

(19) "Town." Town of Thompson's Station, Tennessee, a municipal corporation governed by its mayor and board of aldermen. May also include the superintendent of wastewater facilities for the town or designated agent. Any reference herein to "city" shall mean town.

(20) "Town's reclamation system operator." Including, but not limited to, the town or the private firm or a utility selected by the town to supervise the operation of the wastewater reclamation and reuse systems, and collection system, and who is charged with certain duties and responsibilities by this chapter, or his duly authorized representative. Operator being duly certified under applicable law or regulation.

(21) "User." Any property owner and/or person who contributes, causes or permits the contribution of wastewater into the town's POTW.

(22) "Utility." Any construction of public roads, public water, public drainage, public sanitary facilities, or any other improvement that is or will be dedicated to public use.

(23) "Wastewater treatment system." A system used to collect, reclaim, store, filter, disinfect, and reuse purified wastewater. (Ord. #04-003, April 2004)

18-110. Requirements for proper wastewater discharge. (1) It shall be unlawful for any person to place, deposit, or permit to be deposited in any unsanitary manner on public or private property within the service area of the town, any human or animal excrement, garbage, or other objectionable waste.

(2) It shall be unlawful to discharge to any waters of the state within the service area of the town any sewage or other polluted waters, except where suitable treatment has been provided in accordance with provisions of this chapter and this section.

(3) Except as herein provided, it shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool, or other facility intended or used for the disposal of sewage.

(4) The owner of all houses, buildings, or properties used for human occupancy, employment, recreation, or other purposes situated within the service area in which there is now located or may in the future be located a public sanitary sewer, is hereby required at its expense to install suitable toilet facilities therein, and to connect such facilities directly with the proper public sewer in accordance with the provisions of the chapter, within sixty (60) days after date of official notice to do so; provided that said property abuts upon a

street or other public way containing a sanitary sewer. (Ord. #04-003, April 2004)

18-111. Maintenance of building sewers. Each individual property owner shall be entirely responsible for the construction, maintenance, repair or replacement of the building sewer as deemed necessary to meet specifications of the town. Owners failing to maintain or repair building sewers or who allow stormwater to enter the sanitary sewer may face enforcement action by the town, up to and including discontinuation of sewer service. (Ord. #04-003, April 2004)

18-112. Sewer extensions. All expansion or extension of the public sewer constructed by property owners or developers must follow policies and procedures developed by the town. In the absence of policies and procedures the expansion or extension of the public sewer must be approved in writing by the town. All plans and construction must follow the latest edition of Tennessee Design Criteria for Sewerage Works. Contractors must provide the superintendent or manager with documentation that all mandrel, pressure and vacuum tests as specified in design criteria were acceptable prior to use of the lines. Contractor's one (1) year warranty period begins with occupancy or first permanent use of the lines. Contractors are responsible for all maintenance and repairs during the warranty period and final inspections as specified by the superintendent or manager. The manager must give written approval to the contractor to acknowledge transfer of ownership to the town. Failure to construct or repair lines to acceptable standards could result in denial or discontinuation of sewer service. (Ord. #04-003, April 2004)

18-113. User discharge requirements. (1) General discharge prohibitions. No user shall contribute or cause to be contributed, directly or indirectly, any pollutant or wastewater which will pass through or interfere with the operation and performance of the wastewater reclamation and reuse system or any other wastewater system approved by the town. Violations of the general and specific prohibitions of this chapter may result in discontinuance of sewer service and other fines.

(2) A user may not discharge the following into the public sewer system:

(a) Any liquids, solids, or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion, or be injurious or interfere in any other way to the wastewater reclamation and reuse system or to its operation.

At no time, shall two (2) successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system) be more than five percent (5%) nor any single reading over

twenty percent (20%) of the Lower Explosive Limit (LEL) of the meter. Prohibited flammable materials including, but not limited to, waste streams with a closed cap flash point of less than one hundred forty degrees Fahrenheit (140°F) or sixty degrees Celsius (60°C) using the test methods specified in 40 CFR § 261.21. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromate, carbides, hydrides and sulfides and any other substances which the town, the state or EPA has notified the user is a fire hazard or a hazard to the system.

(b) Any wastewater having a pH less than 5.5 or higher than 9.5 or wastewater having any other corrosive property capable of causing damage or hazard to structures, equipment, and/or personnel wastewater reclamation and reuse systems and collection system.

(c) Solid or viscous substances in which may cause obstruction to the flow in a sewer or other interference with the operation of the wastewater reclamation and reuse system, such as, but not limited to: fats, oils, greases, gravel, ashes, bones, sand, mud, coal, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, whole blood, hair and fleshings, entrails, and paper dishes, cups, milk containers, etc., either whole or ground by garbage grinders.

(d) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems.

(e) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through.

(f) Any wastewater containing any toxic pollutants, chemical elements, or compounds in sufficient quantity, either singly or by interaction with other pollutants, to injure or interfere with any treatment process, constitute a hazard to humans or animals, creates a public nuisance.

(g) Trucked or hauled wastewater or residues except at discharge points designated by the town.

(h) Any substance that may cause the wastewater reclamation and reuse system reclaimed water unsuitable for reclamation and reuse.

(i) Any stormwater, surface water, groundwater, roof runoff, subsurface drainage, and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers, or to a natural outlet approved by the superintendent and the Tennessee Department of Environment and Conservation. Industrial cooling water or unpolluted process waters may be discharged to the wastewater reclamation and reuse system with the prior written approval of the town.

(3) Grease traps and other interceptors. Fat, oil, and grease (FOG), waste food, and sand interceptors may be required when, in the opinion of the town, they are necessary for the proper handling of liquid wastes containing fats, oils, and grease, flammable wastes, ground food waste, sand, soil, and solids, or other ingredients in excessive amount which impact the wastewater collection system or the wastewater reclamation and reuse system. All interceptors shall be of a type and capacity approved by the superintendent, and shall be located as to be readily and easily accessible for cleaning and inspection.

The interceptors shall be cleaned on a regular basis to prevent impact upon the wastewater collection and treatment system. Owners whose interceptors are deemed to be ineffective by the superintendent may be asked to change the cleaning frequency or to increase the size of the interceptors. Owners or operators of washing facilities will prevent the inflow of rainwater into the sanitary sewers.

The interceptors must be designed in accordance with Tennessee Department of Environment and Conservation engineering standards. Underground equipment shall be tightly sealed to prevent inflow of rainwater and easily accessible to allow regular maintenance. Control equipment shall be maintained by the owner or operator of the facility so as to prevent a stoppage of the collection system. If the town is required to clean out the public sewer lines as a result of a stoppage resulting from poorly maintained control equipment, the property owner shall be required to refund the labor, equipment, materials and overhead costs to the town. Nothing in this subsection shall be construed to prohibit or restrict any other remedy the town has under this chapter, or state or federal law. The town retains the right to inspect and approve installation of control equipment.

(4) Right to establish more restrictive criteria. No statement in this section is intended or may be construed to prohibit the town from establishing specific wastewater discharge criteria more restrictive where wastes are determined to be harmful or destructive to the facilities or to create a public nuisance, or to cause the discharge of the wastewater reclamation and reuse system to be unsuitable for reuse at the minimum buffer standards.

(5) Enforcement response plan. (a) Whenever the town or superintendent has reason to believe that a violation of any provision of the discharge regulations is occurring, or is about to occur, suit may be filed in the chancery or circuit court requesting injunctive relief, civil penalties and recovery of damages which have occurred.

(b) (i) Damages include: damage or destruction of physical facilities, disruption of operation of facilities due to the discharge of prohibited substances, damage or disruption of treatment processes, clean up costs and expenses associated with returning facilities and processes to normal operations, injury to personnel, attorneys' fees and other expenses borne by the town because of a prohibited discharge.

(ii) Emergency action. (A) Whenever the superintendent finds that an emergency exists requiring immediate action to protect the public health, safety or welfare, the health of animals, fish or aquatic life, a public water supply, or the facilities of the POTW, the superintendent may, without prior notice, issue an order reciting the existence of such an emergency and requiring that any action be taken as the superintendent deems necessary to meet the emergency.

(B) If the violator fails to respond or is unable to respond to the order, the superintendent may take any emergency action as he deems necessary, or contract with a qualified person or persons to carry out the emergency measures. The superintendent may assess the person or persons responsible for the emergency condition for the actual costs incurred by the town in meeting the emergency.

(C) If emergency action is taken, suit will be filed according to the provisions of subsection (ii)(A) above against the violator for damages and other relief. (Ord. #04-003, April 2004)

18-114. User charges. The town will implement by ordinance user charges to establish rates so as to have a self-sustaining enterprise fund for the operation, maintenance, administration, depreciation and other attributable costs. This chapter for wastewater reclamation and reuse systems shall further be subject to future amendment so as to establish fees and charges, which may include inspection and installation fees, fees for application of discharge, surcharge fee and any other fees and charges as the town may hereafter establish. User charges for the use of the wastewater systems and service supplied by the wastewater system by the town will be reviewed not less than annually. Further, by separate ordinance, the town may adopt billing and collection procedures and resolutions to implement the same. (Ord. #04-003, April 2004)

18-115. Enforcement. Violation of this chapter shall be enforceable in law and equity, including, but not limited to, injunctive relief in the chancery court for Williamson County, Tennessee. Violation of this chapter may also result in the issuance of a citation and violators shall be subject to a fifty dollar (\$50.00) civil penalty. Each separate day of violation shall constitute a separate offense. Violation hereof may also constitute a separate state offense punishable under applicable law. (Ord. #04-003, April 2004)

18-116. Conformance with subdivision regulations. It is the intention of the town and its municipal planning commission that the procedures for submittal and review of wastewater reclamation and reuse

systems conform to the general and specific procedures presented in the subdivision regulations. (Ord. #04-003, April 2004)

18-117. Concurrent TDEC approval. Review and approval of wastewater reclamation and reuse system will be required from both the TDEC and the town. It is anticipated that this review and approval process will be accomplished on a concurrent basis. However, planning staff or designated agents shall not approve any wastewater reclamation and reuse system or the final plat of the development that they shall serve, until such time as the Tennessee Department of Environment and Conservation has completed their review and issued an approval to construct the system. (Ord. #04-003, April 2004)

18-118. Requirements for sketch plan. The sketch plan submitted to the municipal planning commission for approval shall contain a feasibility assessment of the reclamation and reuse system. The general intent of the feasibility assessment shall be to confirm how the wastewater reclamation and reuse concept desired by the town will be met on the proposed site. The work will include identification of sites and initial sizing of the reclamation system and irrigation system, initial soils identification, and the beginning of the TDEC review process.

Required components of the wastewater reclamation and reuse feasibility assessment:

- (1) Identification of site development and land and constraints;
- (2) Number and type of homes and/or buildings;
- (3) Site development and/or land use plan;
- (4) Initial parameters for the wastewater reclamation and reuse system including flow rates, wastewater quality, special considerations;
- (5) How the wastewater reclamation and reuse system fits into the site and town's development plan including meeting standards for green space and other environmental goals;
- (6) Permitting process and any special considerations;
- (7) Wastewater flow: in gallons/day (GPD);
- (8) Land area estimates and proposed site locations for the treatment and irrigation areas and preliminary sizing of these units;
- (9) Preliminary construction cost;
- (10) Preliminary annual operation and maintenance cost;
- (11) Topographic surveys and mapping (if available);
- (12) Soil borings and/or hydrogeologic information (related to construction activity), if available; and
- (13) Location of any on-site utilities.

If a developer proposes to use wastewater treatment processes other than the deep cell lagoon reclamation system desired by the town, the developer will prepare a detailed written explanation containing both technical, and capital

and operating cost evaluations justifying its use because of economic hardship. This justification will be prepared and submitted along with the feasibility assessment. (Ord. #04-003, April 2004, modified)

18-119. Requirements for preliminary plat. The preliminary plat submitted to the planning commission for its approval shall contain an engineering report that is consistent with the engineering report guidelines outlined in the State of Tennessee Department of Environmental Conservation, Division of Water Pollution Control, Design Criteria for Sewage Works, latest edition. The engineering report shall be submitted to TDEC before the preliminary plat is approved. (Ord. #04-003, April 2004)

18-120. Requirements for final plat. The final plat submitted to the planning commission for its approval shall contain detailed construction plans and specifications for the wastewater reclamation and reuse system. The construction plans and specifications shall be consistent with final engineering plans and specifications outlined in the State of Tennessee Department of Environmental Conservation, Division of Water Pollution Control, Design Criteria for Sewage Works, latest edition.

Prior to approval of the final plat, the developer shall obtain an approved state operating permit and construction permit for the wastewater reclamation and reuse system from TDEC. (Ord. #04-003, April 2004)

18-121. Requirements prior to construction. The detailed plans and specifications for the wastewater reclamation and reuse system shall be submitted to and approved by TDEC and a construction permit secured before construction can be initiated in the development. (Ord. #04-003, April 2004)

18-122. Construction inspection. The town shall require that frequent, comprehensive, and sound inspections occur during construction. The developer shall ensure that competent and experienced personnel, preferably the design engineer or his representative, carefully monitor the progress of construction, and the town will inspect for compliance that all work essentially conforms to the approved plans and specifications. The developer or his representative shall maintain records of inspection activities, and, based on those records, certify that the project has been constructed as designed and approved. (Ord. #04-003, April 2004)

18-123. Final inspection. Upon completion of construction and testing as the town may in its discretion require, there shall be a final inspection and final approval by TDEC in accordance with the State of Tennessee Department of Environmental Conservation, Division of Water Pollution Control, Design Criteria for Sewage Works, latest edition. As-built plans shall be submitted simultaneously therewith, properly sealed. (Ord. #04-003, April 2004)

18-124. Acceptance by town. As described in this chapter, the wastewater reclamation and reuse system will be dedicated, owned, and operated by the Town of Thompson's Station. The construction of the wastewater reclamation and reuse system shall be completed and approved by TDEC, an operating permit must be issued by TDEC, the design engineer shall submit certification that the system was constructed in accordance with approved construction plans and specifications, and TDEC will perform and approve the final inspection, prior to acceptance by the town and the issuance by the town's building official utilizing a system within a development and upon a lot being served under the terms of this chapter. (Ord. #04-003, April 2004, amended by Ord. #05-012, Aug. 2005)

18-125. Assurance for completion and operation of improvements: bonding requirements. A performance bond in the form of an irrevocable stand-by letter of credit will be required for all projects utilizing a wastewater reclamation and reuse system. The bond shall be in an amount as determined by the town's consultant(s) as deemed to be sufficient to secure and assure the town the satisfactory construction, installation and dedication of uncompleted required improvements, including all necessary off-site improvements. Upon completion of the required improvements, the performance bond may be reduced to a maintenance bond of not less than thirty percent (30%) of the performance amount. The requisite maintenance bond shall remain in place until the system is accepted by the town. (Ord. #05-012, Aug. 2005)

18-126. Easements and access. All required wastewater utility easements shall be shown on plat or site plan. Easements shall be provided to allow access and to perform future maintenance by the town or its agents to all components of the wastewater collection, reclamation, and reuse systems. (Ord. #04-003, April 2004)

18-127. Design criteria -- in general. This section establishes technical criteria to be used in the design of all wastewater reclamation and reuse systems in Thompson's Station. The criteria are based upon established TDEC and U.S. EPA design criteria. These criteria may be modified to accommodate site specific conditions and changes in TDEC requirements.

The criteria do not apply to single residential or non-residential lots utilizing septic tanks for their treatment and disposal of wastewater, which shall be designed and constructed in accordance with Tennessee Department of Environment and Conservation Rules, chapter 1200-1-6, entitled "Regulations to Govern Subsurface Sewage Disposal Systems." (Ord. #04-003, April 2004)

18-128. TDEC design criteria. The Tennessee Department of Environmental Conservation has issued criteria for the design and construction of wastewater facilities, including components of the reclamation and reuse

systems. The latest revisions of these criteria, entitled "Design Criteria for Sewage Works," are hereby incorporated by reference into this chapter. Individual items in the TDEC design criteria may be modified as described in specific sections herein to conform to the requirements of Thompson's Station. (Ord. #04-003, April 2004)

18-129. Reclamation and reuse system design. The treatment system of choice for Thompson's Station is a deep cell, long duration reclamation cell followed by reuse of high quality effluent through irrigation of green space. Except as noted, design criteria for the reclamation cells should follow TDEC's Design Criteria, Section 9, entitled "Ponds and Aerated Lagoons." Except as noted, design criteria for the irrigation system, whether surface spray irrigation or subsurface drip irrigation, should follow TDEC's Design Criteria, Section 16, entitled "Slow Rate Land Treatment" or other design criteria accepted by TDEC. Additional requirements for subsurface drip emitter systems are presented in subsequent paragraphs of this section.

The town will allow use of alternative wastewater reclamation and reuse systems on a case-by-case, hardship, basis. Design criteria for these systems shall follow the appropriate section of the TDEC design criteria. (Ord. #04-003, April 2004)

18-130. Applicability. This chapter applies to all wastewater management systems developed in Thompson's Station.

The town has selected deep cell, long duration aerated lagoon treatment followed by irrigation as its wastewater reclamation and reuse system of choice. Use of systems other than the above will not be prohibited, but will be considered when a developer shows that the use of the system of choice will cause an economic hardship. If a developer proposes to use other wastewater treatment processes, they shall prepare a detailed written explanation containing both technical, and capital and operating cost evaluations justifying its use. Final approval of all systems shall lie with the mayor and board of aldermen of the town.

This chapter will not apply to point discharge systems which operate through the National Pollution Discharge Elimination System (NPDES) or septic systems utilizing land disposal to serve single residential lots, or non-residential lots with flows less than one thousand five hundred (1,500) Gallons Per Day (GPD). (Ord. #04-003, April 2004)

18-131. Other requirements. (1) Wastewater treatment or reclamation systems covered by this chapter that require septic tanks as part of the treatment process will require septic tanks be pumped on a regular basis. As a minimum, septic tanks shall be pumped out at least every three (3) years. If required for proper operation, the septic tanks must be pumped more frequently. In addition, sealed septic tanks that are part of systems regulated

by this chapter will have leak testing performed every three (3) years. All such septic tanks will be water tight, and a minimum of one thousand (1,000) gallons capacity, or larger, as determined by the town's review process.

(2) Section 16.1.3 of chapter 16 of the TDEC design criteria is revised as follows: The irrigation sites shall be located above the ten (10) year flood plain elevation and shall not be utilized when covered by flood waters. The wastewater treatment system shall be located outside or above the 100-year flood plain elevation.

(3) Section 16.9.3, buffer zone requirements, of chapter 16 of the TDEC design criteria shall have the following paragraphs added:

Width of buffer zones shall be determined based upon the quality of the reclaimed water. Reclaimed water that contains 2.4 fecal coliforms per one hundred (100) ml and a turbidity level three (3) NTU does not require any buffer zone, other than as may be specified in the town's zoning ordinance.

The quality of the reclaimed water that will be reused on public areas will be reviewed by the TDEC and Town of Thompson's Station on a case-by-case basis. Irrigation will be scheduled when the public areas are "closed" so that the application does not interfere with usage. When a wastewater reclamation and reuse system is designed and operated, the following issues should be considered:

(1) The system operator discontinues irrigation pumping of effluent to the site in the event of an obvious plant upset.

(2) When the reuse water falls below 2.4 fecal coliforms per one hundred (100) ml and turbidity exceeds three (3) NTUs, irrigation is interrupted until the reuse water quality is within compliance.

(3) All reuse water valves or outlets will be appropriately tagged to warn the public that the water is not to be used for drinking or bathing.

(4) All piping, valves, and outlets will be marked to differentiate reuse water from domestic or other potable water. A different pipe material can be used to facilitate water system identification.

(5) All reuse water valves, outlets, and sprinkler heads will be operated only by authorized personnel. Where hose bibs are present on domestic and effluent water lines, differential sizes will be established to preclude the interchange of hoses.

(6) Adequate means of notification will be provided to inform the public that reuse water is being irrigated. At golf courses, notices will also be printed on score cards and at all water hazards containing effluent reuse water.

(7) Application or use of reuse water will be done so as to prevent or minimize public contact with the reuse water and precautions shall be taken to ensure that the reuse water is not being sprayed on walkways, passing vehicles, buildings, picnic tables, domestic water facilities, or areas not under control of the user. Also:

(a) Application of the reuse water should take place during periods when the grounds will have maximum opportunity to dry before

use by the public unless provisions are made to exclude the public from areas during and after spraying with effluent water.

(b) Windblown spray from the application of effluent water should not carry beyond the reuse irrigation area.

(c) Reuse water will be kept separate from domestic water wells and reservoirs.

(d) Drinking water fountains will be protected from direct or windblown reuse water spray.

(8) Adequate measures will be taken to prevent the breeding of flies, mosquitoes, and other vectors of public health significance during the process of reuse irrigation.

(9) Operation of reclamation and reuse systems shall not create odors. (Ord. #04-003, April 2004)

18-132. Requirements for drip emitter systems. Chapter 16 of the Department of Environment and Conservation's Design Criteria does not address the use of drip emitter systems for the disposal of treated effluent.

Wastewater reclamation and reuse systems utilizing subsurface drip emitters shall meet the reclaimed water quality standards established in chapter 16 of the TDEC's Design Criteria for Sewage Works. The town will review each application and may require more stringent treatment standards as it deems necessary.

The following provisions shall apply for drip emitter systems:

(1) Buffer zones, public access and protection of water supply wells. Buffer zones are required to provide adequate access to buried drip lines and to ensure that no wastewater leaves the site. The following minimum buffer zones must be provided for all systems:

(a) A twenty-five-foot (25') buffer must be maintained between the edge of the subsurface piping and the property line. A minimum fifty-foot (50') buffer must be maintained between the edge of surface piping and the property line. This requirement is subject to change as a result of site topography and the flushing system provided.

(b) A twenty-five-foot (25') undisturbed natural vegetative buffer is required between the drip piping and the edge of any perennial lake, stream, or channelized intermittent watercourse. If application of wastewater causes a non-channelized intermittent watercourse to become perennial, a twenty-five foot (25') buffer requirement will apply. All buffer requirements for trout streams and sedimentation and erosion control will also apply.

(c) Requirements for buffer areas in relation to potable water wells will be determined after reviewing groundwater pollution susceptibility and groundwater recharge maps or by contacting the Division of Water Supply, Tennessee Department of Environment and Conservation. In no case shall a wastewater application system be located

within three hundred feet (300') of a drinking water well. Wellhead protection requirements may increase the buffer distances as necessary.

(d) An operation plan that presents the procedures to assure that the drip emitter system remains functional public access to the emitter field shall be restricted by posting signs and fencing of disposal fields. Fencing and access road gates shall be provided along property lines adjacent to residential and other developed areas. Fencing is required around all wastewater treatment systems, storage facilities, pump stations, and holding ponds.

(2) Surface drainage and runoff control. Drip emitter systems shall also include provisions to stop irrigation and hold wastewater for a minimum of ten (10) days for storage when soil conditions are wet or when flooding occurs. The wastewater storage requirements utilizing spray application disposal method shall be in accordance with chapter 16 of TDEC's Design Criteria for Sewage Works.

Storm runoff should be considered in the design of drip irrigation systems. If properly designed and constructed, drip emitter systems will not produce any runoff. All areas that acquire a wet surface should have the hydraulic loading rate reduced to prevent the situation from recurring. Areas exhibiting a wet surface on a regular basis must be eliminated from future applications unless the surface wetting can be corrected. A reassessment of the design should be performed to determine if reconstruction or repair of the failing area would correct the deficiency. Any areas taken out of service because of failure will subsequently cause a reduction in the permitted system capacity.

Indirect runoff as a result of underflow, changes in slope, and shallow restrictive soil layers can be anticipated at some drip emitter system sites. Indirect runoff will be reviewed on a case-by-case basis by the town.

Water resulting from line flushing must be dispersed over a wide area and will be reviewed on a case-by-case basis by the town. Direct discharge of these flows into any watercourse is prohibited. Effluent from line flushing should be absorbed by the surrounding area within a few minutes of line flushing. Line flushing should not be performed during any rain event.

(3) Distribution systems, maintenance and construction. Hydraulic calculations for the pump and distribution system must be submitted for review. Field pressure and flow variation due to friction loss and changes in static head should not exceed plus or minus ten percent (10%) of the design emitter pressure or flow. If this criterion cannot be met, revisions to field layout, emitter output, or any other viable option should be used to comply with this requirement. The system will not be allowed to initiate operations if the total flow or pressure variation is in excess of ten percent (10%) of the design. The ten percent (10%) difference should be the difference between any two (2) emitters in the entire system. Fields should be laid out so that the irrigation lines follow the contour of the site. Flushing flows and static head calculations can be addressed on a field-by-field basis. Each field should define total flow (gpm)

proposed, total length of emitter piping, emitter spacing, line spacing, total numbering of lines and total number of lines to be included per flushing. This layout information should be shown on a topographic map. All proposed main line sizes and lengths along with individual irrigation line lengths should be shown. All return piping sizes and lengths should also be shown and should not exceed manufacturers' specifications to ensure equal distribution to each emitter. Emitter and line spacing should be in accordance with manufacturers' recommendations.

System should be self-draining to prevent freezing during the winter months. The plan of operation and management should address disinfection and flushing of emitter lines to prevent solids build-up. Flushing of lines should be performed according to the manufacturers' recommendations but at minimum on a bi-monthly basis. Velocities must be a minimum of two feet (2') per second at the end of each irrigation or return line during the flushing operation. Calculations supporting the two feet (2') per second velocity requirement should be included.

Satisfactory operation of the drip irrigation system is necessary to safeguard the health of the public and to ensure that the wastewater effluent is disposed of in an environmentally sound manner. Emitter manufacturers must supply documentation that placing the emitter in the root zone of the cover crop will not interfere with the emitter performance. Emitters should be buried no less than five inches (5") nor more than seven inches (7") from the surface for optimum nutrient uptake. Variance from this depth of burial will be evaluated on a case-by-case basis if supported by manufacturers' recommendations. All systems must be equipped with audible and visual alarms to signal system malfunctions. Telemetry systems should also be installed where the facility is not manned during normal working hours. Monitoring equipment must be provided to detect a five percent (5%) change in flow rate to any given field. If a change is detected which shows a ten percent (10%) variance, evaluations must be performed to determine if it is a result of clogging filters, force main breaks, emitter clogging, leaks in field lines, a flush valve failure, etc. The plan of operation and management should address what actions are required to correct any such problem should it occur. Pumping equipment must be provided with pressure and flow sensitive controls which will disengage pumps if a main breaks or clogs.

Prior to pumping to the drip field distribution system, the wastewater must be screened to remove fibers, solids and other matter that might clog drip emitters. As a minimum, screens with a nominal diameter smaller than the smallest flow opening in the drip emitter tubing should be provided. Screening to remove solids greater than one-third (1/3) the diameter of the smallest drip emitter opening is recommended. (Ord. #04-003, April 2004, as amended by Ord. #05-012, Aug. 2005)

18-133. Collection system design criteria. (1) No person shall uncover, make any connections with or opening into, use, alter, or disturb any public sewer or appurtenance thereof. A connection fee shall be paid to the town at the time the application is filed.

(2) All costs and expenses incident to the installation, connection, and inspection of the building sewer shall be borne by the owner. The owner shall indemnify the town from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer.

(3) A separate and independent building sewer shall be provided for every building; except where one (1) building stands at the rear of another on an interior lot and no private sewer is available or can be constructed to the rear building through an adjoining alley, court, yard, or driveway, the building sewer from the front building may be extended to the rear building and the whole considered as one (1) building sewer.

(4) Old building sewers may be used in connection with new buildings only when they are found on examination and tested by the superintendent to meet all requirements of this chapter. All others may be sealed to the specifications of the superintendent.

(5) Building sewers shall conform to the following requirements:

(a) The minimum size of a building sewer shall be as follows:

Conventional sewer system - Four inches (4").

Small diameter gravity sewer - Two inches (2").

(b) The minimum depth of a building sewer shall be eighteen inches (18").

(c) Building sewers shall be laid on the following grades:

Four-inch (4") sewers - One-eighth inch (1/8") per foot.

Two inch (2") sewers - Three-eighths inch (3/8") per foot.

Larger building sewers shall be laid on a grade that will produce a velocity when flowing full of at least two feet (2') per second.

(d) Slope and alignment of all building sewers shall be neat and regular.

(e) Building sewers shall be constructed only of ductile iron pipe class 50 or above or polyvinyl chloride pipe schedule 40 or and SDR-21 or greater. Joints shall be rubber or neoprene "O" ring compression joints or solvent welded.

(f) A cleanout shall be located five feet (5') outside of the building, one (1) as it crosses the property line and one (1) at each change of direction of the building sewer that is greater than forty-five degrees (45°). Additional cleanouts shall be placed not more than seventy-five feet (75') apart in horizontal building sewers of six inch (6") nominal diameter and not more than one hundred feet (100') apart for larger pipes. Cleanouts shall be extended to or above the finished grade level directly above the place where the cleanout is installed. A "Y" (wye) and

one-eighth (1/8) bend shall be used for the cleanout base. Cleanouts shall not be smaller than four inches (4").

(g) Connections of building sewers to the public sewer system shall be made only by the town and shall be made at the appropriate existing wyes or tee branch using compression type couplings or collar type rubber joint with stainless steel bands. Where existing wye or tee branches are not available, connections of building services shall be made by either removing a length of pipe and replacing it with a wye or tee fitting using flexible neoprene adapters with stainless steel bands of a type approved by the superintendent. All such connections shall be made gastight and watertight.

(h) The building sewer may be brought into the building below the basement floor when gravity flow from the building to the sanitary sewer is at a grade of one-eighth inch (1/8") per foot or more if possible. In cases where basement or floor levels are lower than the ground elevation at the point of connection to the sewer, adequate precautions by installation of check valves or other backflow prevention devices to protect against flooding shall be provided by the owner. In all buildings in which any building drain is too low to permit gravity flow to the public sewer sanitary sewage carried by such building drain shall be lifted by a step or grinder pump and discharged to the building sewer at the expense of the owner, pursuant to § 18-105.

(i) The methods to be used in excavating, placing of pipe, jointing, testing, backfilling the trench, or other activities in the construction of a building sewer which have not been described above shall conform to the requirements of the building and plumbing code or other applicable rules and regulations of the town or to the procedures set forth in appropriate specifications of the ASTM and Water Environment Federation Manual of Practice FD-5. Any deviation from the prescribed procedures and materials must be approved by the superintendent before installation.

(j) An installed building sewer shall be gastight and watertight.

(6) All excavations for building sewer installation shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, parkways, and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the town.

(7) No person shall make connection of roof downspouts, exterior foundation drains, areaway drains, basement drains, sump pumps, or other sources of surface runoff or groundwater to a building directly or indirectly to a public sanitary sewer.

(8) Inspection of connections. (a) The sewer connection and all building sewers from the building to the public sewer main line shall be inspected before the underground portion is covered, by the superintendent or his authorized representative.

(b) The applicant for discharge shall notify the superintendent when the building sewer is ready for inspection and connection to the public sewer. The connection shall be made under the supervision of the superintendent or his representative.

(9) Maintenance of building sewers. Each individual property owner shall be entirely responsible for the construction, maintenance, repair or replacement of the building sewer as deemed necessary by the superintendent to meet specifications of the town. Owners failing to maintain or repair building sewers or who allow stormwater to enter the sanitary sewer may face enforcement action by the superintendent up to and including discontinuation of service.

(10) Sewer extensions. All expansion or extension of the public sewer constructed by property owners or developers must follow policies and procedures developed by the town. In the absence of policies and procedures the expansion or extension of the public sewer must be approved in writing by the superintendent or manager of the wastewater collection system. All plans and construction must follow the latest edition of Tennessee Design Criteria for Sewerage Works. (Ord. #04-003, April 2004)

18-134. Grinder pump wastewater systems. (1) When connection of building sewers to the public sewer by gravity flow lines is impossible due to elevation differences or other encumbrances, Grinder Pump (GP) systems may be installed subject to the regulations of the town board.

(2) Installation requirements. Location of tanks, pumps, and effluent lines shall be subject to the approval of the town. Installation shall follow design criteria for STEP and OP systems as provided by the superintendent.

(3) Costs. GP equipment for new construction shall be purchased and installed at the developer's, homeowner's, or business owner's expense according to the specification of the town and connection will be made to the town sewer only after inspection and approval of the town.

(4) Ownership and easements. Homeowners or developers shall provide the town with ownership and an easement. Access by the town to the GP system must be guaranteed to operate, maintain, repair, restore and service. Access manholes, ports, and electrical disconnects must not be locked, obstructed or blocked by landscaping or construction.

(5) Use GP systems. Home or business owners shall follow the GP users guide provided by the system manufacturer and as supplemented by the town. Home or business owners shall provide an electrical connection that meets specifications and shall provide and pay for electrical power. Home or business owners shall be responsible for maintenance drain lines from the building to the GP tank.

(6) Prohibited uses of the GP system. (a) Connection of roof guttering, sump pumps or surface drains;

(b) Disposal of toxic household substances;

- (c) Use of garbage grinders or disposers;
 - (d) Discharge of pet hair, lint, or home vacuum water;
 - (e) Discharge of fats, grease, and oil.
- (7) Additional charges. The town shall be responsible for maintenance of the GP equipment. Repeat service calls for identical problems shall be billed to the homeowner or business at a rate of no more than the actual cost of the service call. (Ord. #04-003, April 2004)

CHAPTER 2

WASTEWATER SYSTEM USER RATES

SECTION

- 18-201. Rates and tap fees by governing body.
- 18-202. Vacant or un-built lots.
- 18-203. Maximum residential fee.
- 18-204. Adjustment of bills.
- 18-205. Failure to pay bill when due.
- 18-206. Deposit and other related fees.
- 18-207. Responsibility for payment of fees.

18-201. Rates and tap fees by governing body. User rates and tap fees for the town's wastewater treatment services are set by the board, subject to the limitations in this chapter. A schedule of the current user rates and tap fees shall be maintained in the town recorder's office.

18-202. Vacant or un-built lots. There shall be no minimum monthly rates charged for vacant or un-built lots. Monthly rates shall begin to be assessed upon issuance of a building permit and connection to the public water system, regardless of whether the structure is occupied. (Ord. #07-016, Jan. 2008)

18-203. Maximum residential fee. Residential and non-residential user rates shall be set as follows:

(1) A base rate is set at the amount of twenty-nine dollars (\$29.00) per user.

(2) A uniform cost per one thousand (1,000) gallons of sewer used is set at a rate of eight dollars and ten cents (\$8.10) per one thousand (1,000) gallons.

(3) The rates shall be effective starting July 1, 2022. Additionally, there shall be a bi-annual review starting on or about January 1, 2023, for the purpose of the consideration of the need for a rate increase based on the evaluation of the operational expense and associated cost of the regional treatment facility. (Ord. #07-016, Jan. 2008, as replaced by Ord. #2021-005, March 2021 **Ch2_8-2-21**)

18-204. Adjustment of bills. The town administrator shall have the authority to make adjustments to sewer bills upon application of a customer and upon a showing that the calculation based upon water use is inaccurate for that billing period. The customer must provide evidence from the water utility that their water bill was adjusted prior to the town administrator approving any adjustment to the sewer bill. A sewer adjustment will be granted only in cases

in which the additional water use did not drain into the town's wastewater system. The customer must also provide proof that any water leaks have been fixed (such as invoices and receipts or cancelled checks for payment) prior to receiving a wastewater adjustment. Such adjustments shall be limited to one (1) time per twelve (12) month period per customer. (Ord. #07-016, Jan. 2008, as replaced by Ord. #2019-006, May 2019 **Ch2_8-2-21**)

18-205. Failure to pay bill when due. Any payment not received by the due date shall be assessed a ten percent (10%) penalty on all unpaid fees. A notice of cut-off will be sent to a customer if the account is not paid in full by the cut-off date in the notice. If the account, including penalties, is not paid to the town by the cut-off notice date, the customer's water service may be discontinued for nonpayment. Water service may be restored by payment in full of the past due sewer bill plus, water utility reconnection fees, penalties and any additional deposits as described in § 18-206. (Ord. #07-016, Jan. 2008, as replaced by Ord. #2019-006, May 2019 **Ch2_8-2-21**)

18-206. Deposit and other related fees. Each customer, upon providing evidence that water service has been established, shall fill out an application for wastewater services. If the customer is not the property owner, the property owner shall also sign the application. A deposit of seventy-five dollars (\$75.00) for single family residential and one hundred fifty dollars (\$150.00) for commercial and multi-family will be charged at the time of application for wastewater service. The town reserves the right to require an additional deposit from any customer that may be delinquent in their payments more than twice in a period of four (4) months or who has had services terminated due to non-payment. Deposits will be applied to the customer's final billing. Once final billing is satisfied, amounts left over from deposit, if any, will be refunded to the customer at that time. The customer must inform the town that they are closing their account in order to receive any deposit refund. The customer will remain liable for the monthly sewer bill until such time as customer notifies the town to terminate service. Changes in deposit fees may be established by resolution by the board of mayor and aldermen of the town from time to time. (as added by Ord. #2019-006, May 2019 **Ch2_8-2-21**)

18-207. Responsibility for payment of fees. (1) The owner of a building or other premises, or the owner of land leased or rented by the owner of a building or other premises placed on said land, shall be responsible for payment of all fees incurred in servicing that property. If the owner authorizes or directs a tenant, occupant or other responsible person to open an account and make payment of the fees to the town, such agreement is exclusive of the town and the owner shall remain responsible for all incurred fees.

(2) Any change in the occupancy of any building or residence connected to the town's wastewater system shall require the completion of a new application for wastewater service by the new occupant

(3) Nothing herein shall prohibit or limit the town from taking any other legal or injunctive relief including the right to place a lien on the property, necessary to recover any fees, expenses, court costs, attorneys' fees, penalties and interest from a customer, occupant or property owner as authorized by law. (as added by Ord. #2019-006, May 2019 **Ch2_8-2-21**)

CHAPTER 3

WASTEWATER CAPACITY RESERVATION

SECTION

- 18-301. Introduction.
- 18-302. Wastewater capacity reservation application.
- 18-303. Capacity review of proposed development.
- 18-304. Disposal capacity.
- 18-305. Capacity review result.
- 18-306. Completing the reservation process.
- 18-307. Existing sewer tap reservation.

18-301. Introduction. The town implements the following process to review, track, and monitor proposed developments to ensure that the town can provide sewer capacity from the connection point in the collection system through the treatment plant and effluent disposal without causing sewer overflows. This process has the following benefits:

- (1) Providing sufficient capacity for new development while maintaining existing service.
- (2) Preventing sewer overflows.
- (3) Protecting the town by allocating sewer capacity based on the regional wastewater service area as defined on Appendix A.¹
- (4) Identifying potential capacity deficiencies in the existing system.

This process describes the protocols, policies, and analytical methods for the continuous assessment and determination of capacities for the town's collection, treatment and disposal systems. The wastewater capacity reservation system will follow the sequence presented below with more detail provided in subsequent sections.

Step 1. Complete a wastewater capacity reservation application.² The developer will complete an application to provide the town with enough information to evaluate the project's potential impact on the sewer system.

Step 2. Wastewater capacity reservation request review of proposed development. An engineer retained by the town will review the capacity of the collection, treatment, and disposal systems receiving the proposed flow increase to determine if adequate capacity is present in the existing system in accordance with the requirements outlined in this document.

¹Appendix A (regional wastewater service area map), and any amendments thereto, may be found in the recorder's office.

²Appendix B (wastewater capacity reservation application), and any amendments thereto, may be found in the recorder's office.

Step 3. Wastewater capacity reservation request results. The town will issue a notification to the applicant in cases where adequate collection, treatment and disposal capacities can be determined and in cases where there are capacity deficits.

Step 4. Completing the wastewater capacity reservation process. Developers who want to pursue a project will sign a reservation agreement with the town and submit a reservation deposit. This will ensure that the upcoming development's additional capacity load is included when reviewing future wastewater capacity reservation requests in that area. (as added by Ord. #2019-002, Feb. 2019 *Ch2_8-2-21* and replaced by Ord. #2020-007, Aug. 2020 *Ch2_8-2-21*)

18-302. Wastewater capacity reservation application¹. (1) The capacity of the wastewater system is determined by the existing pipes within the system, equipment size and storage capacity at lift stations, wastewater treatment permit limits, and availability of soils and drip infrastructure for the disposal of the treated wastewater. These variables will change based upon where the proposed development is located within the town. A customer requesting a new connection to the town's collection system or a significant increase in flow from an existing service connection must complete a capacity reservation application (Appendix B) and submit the application to the town. The application will assist to define the development so that a determination on whether capacity is available and should be completed to include agent information, property information, including the number of homes, buildings, and structures, and type of development.

(2) The town sets a minimum processing fee of two hundred fifty dollars (\$250.00) to be paid with the submission of the application. Additional fees may be assessed by the town based on the cost for any necessary review for the determination of capacity, for which the developer agrees to pay by the submission of the wastewater capacity reservation application. The town will have sixty (60) days from the receipt of all requested and required evaluation materials to issue a determination of capacity availability. The processing fee is non-refundable, even if capacity is not available or the applicant decides not to develop the property. Any additional processing fees due, as determined by the town, shall be paid prior to the release of any information as to a determination or capacity availability. (as added by Ord. #2019-002, Feb. 2019 *Ch2_8-2-21* and replaced by Ord. #2020-007, Aug. 2020 *Ch2_8-2-21*)

18-303. Capacity review of proposed development. The following subsections describes the process by which the town's engineer will review the

¹Appendix B (wastewater capacity reservation application), and any amendments thereto, may be found in the recorder's office.

collection, treatment, and disposal systems to confirm that each asset has the capacity to convey the proposed flow plus the existing flow from all new or existing service connections and authorized service connections (including those which have been approved for capacity but have not begun to discharge into the sanitary sewer system) without causing surcharge conditions.

(1) Determine discharge location. (a) The discharge location (specific pipe segment, manhole, or pump station) into which the proposed flow increase will enter the town's collection system will be determined using the information provided as a part of the capacity reservation application and the latest version of the GIS mapping of the collection system as determined by the town. As infrastructure is installed, the town will update the wastewater system GIS data.

(b) In addition to the pipe segment or manhole where the proposed flow increase will connect to the collection system, all downstream pump stations and the treatment plant receiving the proposed flow increase will be identified.

(c) If there is a capacity deficit at the location proposed by the developer, the town will review and, if available, provide alternative connection points that may decrease or eliminate the need for capacity improvements.

(2) Calculate flow increase. (a) For each new or existing sanitary sewer service connection included on a capacity reservation application the developer/applicant will provide a calculation of the flow increase and the town or its designee will verify the calculation using the procedure described in §§ 18-303(3) or 18-303(4).

(b) For redevelopment of property with an existing connection to the sewer system, the existing flow will be based upon the best available information as determined by the town or estimated using the procedures described in §§ 18-303(3) or 18-303(4). The existing flow will be documented as a credit towards the wastewater flow for the redeveloped property.

(3) Single family residential. For single-family homes, a standard two hundred fifty (250) Gallons Per Day (GPD) per household should be used for estimating the peak-hour flow increase to the collection system. The collection system consists of the pipes and pump stations and excludes the Wastewater Treatment Plants (WWTPs) and disposal areas.

(4) Other properties. For non-single-family residential properties, the unit sewer flows outlined for design by the Tennessee Department of Environment and Conservation (TDEC) Design Criteria for different usage types are in Appendix 2-A and shown in Appendix C¹. The applicable unit flows should

¹Appendix C (TDEC Design), and any amendments thereto, may be found
(continued...)

be applied to the specific project variables (e.g., seats, and units) to estimate the total sewer flow that will be added to the system from the proposed project. (as added by Ord. #2019-002, Feb. 2019 **Ch2_8-2-21** and replaced by Ord. #2020-007, Aug. 2020 **Ch2_8-2-21**)

18-304. Disposal capacity. The town has developed a hydraulic model as a tool for determining existing sewer capacity as assessed by the town engineer. The capacity of the affected system will be checked for availability or deficiency after the location and estimated sewer flows are determined.

(1) Collection system capacity. (a) Determination of adequate collection capacity will confirm that each gravity sewer line between the requested tie-in location and the receiving WWTP has the capacity to transmit the proposed flow, the flow from all existing service connections, and the flow from authorized service connections, during the modeled peak one (1) hour of the two (2) year, twenty-four (24) hour rain event, without causing surcharge conditions. Authorized service connections include entities with a capacity reservation agreement or those entities who are within the allowed capacity review decision period. Existing one (1) hour peak flow is defined as the greatest flow in a sewer averaged over a sixty (60) minute period at a specific location expected to occur as a result of the representative two (2) year, twenty-four (24) hour storm (design) event.

(b) A surcharge condition is defined as the condition that occurs when the one (1) hour peak flow from the design event exceeds the capacity of the collection system. A surge condition causes the water surface to reach within thirty-six inches (36") of the manhole rim, while above the crown of the pipe, or greater than twenty-four inches (24") above the crown of the pipe; however, if the town has identified pipe segments or manholes designed to operate under a pressure condition, the capacity of these pipe segments or manholes shall be evaluated based on their respective design criteria.

(c) Determination of adequate transmission capacity will confirm that each pump station through which the requested additional flow would pass has the capacity to transmit the proposed peak one (1) hour flow, the existing peak one (1) hour flow from all existing service connections, and the flow from authorized service connections.

(2) Treatment plant capacity. Determination of adequate treatment capacity will confirm that the WWTP receiving flow from the proposed new connections, increased flows from an existing source, and authorized sewer

¹(...continued)
in the recorder's office.

service connections will be in compliance for quarterly reporting, as to the monthly operating report.

(3) Disposal capacity. The disposal capacity is contingent on the availability of adequate soils as approved by the Tennessee Department of Environment and Conservation. Further, compliance by the applicant/developer is required, pursuant to the amended LDO of November 2019, section 5.2.8, Appendix A, as provided in the developer agreement. Specifically, the applicant/developer must comply with the provisions to provide adequate soils for disposal necessary for the perspective project. Additionally, the applicant/developer may have other requirements, such as the payment of fees and/or compliance with state and local laws.

(4) Essential services. The town may authorize a new sewer service connection or additional flow from an existing sewer service connection for essential services, even if it cannot determine that it has adequate capacity. Essential services are defined as healthcare facilities, public safety facilities, public schools, government facilities, and other facilities as approved by the town. It also includes cases where a pollution or sanitary nuisance exists as a result of a discharge of untreated wastewater from an on-site septic tank. (as added by Ord. #2019-002, Feb. 2019 *Ch2_8-2-21* and replaced by Ord. #2020-007, Aug. 2020 *Ch2_8-2-21*)

18-305. Capacity review result. (1) If model results show available capacity, the results with instructions on how to reserve the available capacity can then be issued to the developer according to town policy. If the model shows a deficit, the town will issue a notice of insufficient capacity to the developer. The notice will include a description and map of where the capacity restrictions are located and what improvements will need to be made to reach adequate capacity.

(2) If service can be provided immediately or after working out an alternative option, then the developer must complete a wastewater capacity reservation application to proceed. The decision must be made within sixty (60) days of the date of the letter from the town to the developer stating that there is available capacity. If the developer decides to not move forward with the project, the capacity review terminates with no obligation by the town. To build on that property in the future, the developer would need to start the process again by filling out a new application and paying another application fee. (as added by Ord. #2020-007, Aug. 2020 *Ch2_8-2-21*)

18-306. Completing the reservation process. (1) Developers who decide to pursue the proposed project will sign an agreement and submit a reservation deposit, as determined by the town which reserves that capacity for one (1) year. This ensures that the town will consider the upcoming development when reviewing current and future capacity in that area. This also ensures that a second requested development, even one built and in service sooner, does not

reduce the town's ability to serve the first property during that time. The developer can request an extension based on the conditions outlined in the reservation agreement. The town would need to develop the cost breakdown structure for the reservation deposit, if an extension is necessary

(2) As a part of the reservation agreement or separately, the town has the option to enter into a participation agreement with the developer to increase capacity of the proposed improvements beyond the needs of the development. The town would be responsible for paying for the increase in capacity over the needs for the development.

(3) After signing the capacity reservation agreement and submitting the required deposit in the amount of twenty-five percent (25%) of the allotted wastewater tap fees for the project, a developer has one (1) year to submit formal plans and execute an extension agreement, if necessary, which will include construction milestones with the town. The developer may request a one (1) time extension, by agreement of the town, which must be a written submission, no later than thirty (30) days prior to the expiration of the capacity reservation agreement. The developer can request an extension to the construction milestones based on the conditions outlined in the capacity reservation agreement. A developer who does not complete all (or both) requirements or meet milestones will forfeit fifty percent (50%) of the reservation deposit and the reserved capacity for that property. The remaining reservation deposit will be returned to the developer. To proceed with the project at a later time, the developer will be required to submit a new waste water capacity reservation application and pay another review fee. If the capacity is still available or improvements are necessary to provide adequate capacity, the developer will also have to sign a new capacity reservation agreement and submit another deposit.

(4) The town will annually apply an offset to the remaining balance on the tap fees based on the number of billable connections or amount of incremental daily flow added in the year, and each developer agreement will define which reimbursement method will be used, as determined by the town. Developers who produce the number of connections outlined in the extension agreement or developer agreement will have any remaining deposit applied toward their outstanding tap fee balance. Developers who do not, will forfeit fifty percent (50%) of the remaining deposit balance as outlined in the developer agreement.

(5) Additional collection system, WWTP, and disposal system improvements. If improvements to the collection system, the WWTP or the disposal system are required to provide adequate capacity to serve the proposed development, the developer shall complete the improvements based on project location, site constraints, and project complexity. The developer shall design, subject to town approval, all necessary additional improvements needed to the collection system, wastewater treatment plant, and/or disposal system for the project submitted at the time the developer agreement is consummated. Should

the developer fail, refuse or be unable to meet the requirements of the town as to the improvements, the town shall have a right to take over the wastewater improvements, subject to the terms of the developer agreement.

(6) If the developer completes the work, then the developer will be responsible for covering the costs of a town-appointed field representative, paying a fee for the town's engineer to review the plans, and acquiring all easements necessary to complete the work. Easements will be acquired using the town's standard documents. After completing the improvements, the developer will deed over the completed improvements. (as added by Ord. #2020-007, Aug. 2020 ***Ch2_8-2-21***)

18-307. Existing sewer tap reservation. Developers who have an existing sewer tap agreement with the town will have those agreements honored per the executed agreement. If requested by the town, it will be the responsibility of the developer to provide the agreement and documentation of the existing sewer tap reservation. Based on the existing executed agreement, the developer shall pay prior to ninety (90) days before the expiration of the agreement to reserve capacity, the remaining fees, included, but not limited to, disposal fee, etc. to ensure the town continues to reserve capacity for the unused taps that were reserved in the agreement. The remaining fees shall be paid at the then existing, current rate. (as added by Ord. #2020-007, Aug. 2020 ***Ch2_8-2-21***)

CHAPTER 4

WASTEWATER TAP RESERVATION AND ASSIGNMENT

SECTION

- 18-401. Introduction.
- 18-402. Creation of database.
- 18-403. Notification by developer of unused taps and repayment.
- 18-404. Reservation application.
- 18-405. Capacity review.
- 18-406. Notification as to capacity.
- 18-407. Notification as to assignment of taps.
- 18-408. Payment for tap fees.
- 18-409. Miscellaneous.

18-401. Introduction. The Town of Thompson's Station, in connection with efforts to improve the process for the management and oversight of the infrastructure of the town, namely the wastewater taps allocated to existing developers and the need of future and requesting developers, and in conjunction with the newly created Capacity Reservation Ordinance (CRO), the Town of Thompson's Station does create, authorize and approve this wastewater tap reversion and assignment policy as provided hereinafter. (as added by Ord. #2020-11, Jan. 2021 *Ch2_8-2-21*)

18-402. Creation of database. The town shall create a database that shall be maintained by the office of planning and zoning for the town, for the purpose of tracking and maintaining the inventory of wastewater taps that are currently assigned to existing developers, along with a database of those requesting developers in need of tap allocation. (as added by Ord. #2020-11, Jan. 2021 *Ch2_8-2-21*)

18-403. Notification by developer of unused taps and repayment. Those developers, who hold existing wastewater tap commitments, and will not be utilizing all of the assigned taps in their development, shall notify the town of their desire to make those taps available for other developments and for reversion to the town. Should such assigned, unused taps be determined to be available for reversion to the town, the town shall repay to that developer at the then current wastewater impact tap fee rate, or no greater than the current rate for those wastewater taps submitted for reversion to the town. Thereafter, the town will, through the below referenced capacity review process, determine the use of those reverted wastewater taps and facilitate a possible assignment of those taps. (as added by Ord. #2020-11, Jan. 2021 *Ch2_8-2-21*)

18-404. Reservation application. Those developers in need of capacity for wastewater taps (requesting developer) shall submit to the town, pursuant to the Capacity Reservation Ordinance (CRO), a capacity reservation application, along with the applicable fees. (as added by Ord. #2020-11, Jan. 2021 *Ch2_8-2-21*)

18-405. Capacity review. The town shall process the application pursuant to the capacity reservation ordinance, to include the capacity review by the engineer, along with all the considerations of the land development ordinance or other applicable considerations, such as the availability of capacity and the compatibility of available taps based on the reversion of taps to the town. (as added by Ord. #2020-11, Jan. 2021 *Ch2_8-2-21*)

18-406. Notification as to capacity. If the town is able to certify that capacity is available for the project, the applicant will be notified or if the determination is that such capacity does not exist, then such notification will be provided to the applicant or the requesting developer may be issued a conditional approval. (as added by Ord. #2020-11, Jan. 2021 *Ch2_8-2-21*)

18-407. Notification as to assignment of taps. If the town, based on a review of the abovementioned database and considerations, as contained herein, determines there exists available unused wastewater taps from taps that have reverted to the town or otherwise, the requesting developer shall be notified and those taps, at the discretion of the town, will be utilized to satisfy the request of the applicant of the taps to the requesting developer. (as added by Ord. #2020-11, Jan. 2021 *Ch2_8-2-21*)

18-408. Payment for tap fees. The requesting developer shall have thirty (30) days from the date the town provides written notification of the available taps to make payment to the town in the amount of the current existing tap fee rate. Should the requesting developer fail to make such payment within the allotted thirty (30) days, the availability of the taps for assignment will be considered lapsed as to that requesting developer, and those taps identified for assignment shall be made available for consideration for other prospective requesting developers. (as added by Ord. #2020-11, Jan. 2021 *Ch2_8-2-21*)

18-409. Miscellaneous. (1) All reversion and assignment of wastewater taps shall be subject to approval by the town staff for which the town shall maintain records by and through the above referenced database of such reversion and assignment of taps.

(2) This policy and procedure for the reversion and assignment of wastewater taps is not intended to and shall not impact any current, existing

developer agreements between the town and a developer. (as added by Ord. #2020-11, Jan. 2021 **Ch2_8-2-21**)

CHAPTER 5

UTILITY BOARD

SECTION

18-501. Creation.

18-502. Board membership; appointment.

18-503. Meetings; compensation.

18-504. Powers; duties.

18-505. Required training and continued education.

18-501. Creation. That there is hereby created a utilities board to be known and referred to herein as the Thompson's Station Utilities Board ("utilities board" or "board"). (as added by Ord. #2021-007, May 2021 *Ch2_8-2-21*)

18-502. Board membership; appointment. The utilities board shall consist of seven (7) members appointed by the Board of Mayor and Aldermen ("BOMA"). The BOMA may, in its discretion, appoint one (1) BOMA member as one (1) of the seven (7) members of the utilities board, but in the event, the term of that member shall not extend beyond their term on the BOMA.

Utilities board members shall be appointed by majority vote of the BOMA and shall serve at the will of BOMA. The terms of all the utilities board members shall run from their original appointment for a period of two (2) years. However, if a member of the BOMA of the town is appointed to serve on the board, the BOMA member's term shall run concurrent with their BOMA term. Appointments to complete unexpired terms of office, vacant for any cause, shall be made in the same manner as the original appointments. (as added by Ord. #2021-007, May 2021 *Ch2_8-2-21*)

18-503. Meetings; compensation. (1) Within thirty (30) days after appointment of members, the utilities board shall hold a meeting to elect a chair and designate a secretary, who need not be a member. The board shall hold public meetings at least once per month, at such regular time and place as they may determine. Notices of the time and place of all meetings shall comply with the Open Meeting Act. The board shall establish its own rules of procedure at its first meeting.

(2) All members of the utilities board shall serve without compensation, but they shall be allowed necessary traveling and other expenses while engaged in the business of the board. (as added by Ord. #2021-007, May 2021 *Ch2_8-2-21*)

18-504. Powers; duties. (1) From and after its first meeting, the utilities board shall provide guidance and direction to town staff and shall

advise the BOMA in all matters pertaining to the operation of the town's wastewater system. The board may adopt policies related to the operation of the wastewater system, provided that such policies shall be consistent with any ordinances of the town and any applicable state laws and regulations.

(2) Subject to funds specifically budgeted by the board of mayor and aldermen and subject to the town's purchasing policies, the utilities board may authorize expenditures for goods or services related to the operation of the wastewater facilities.

(3) The board shall not be responsible for the supervision of town staff, nor shall it have any authority with respect to the hiring, dismissal or discipline of town employees.

(4) The town administrator or his or her designee shall be present at all meetings of the utilities board and assist the board in the collection of information it needs to perform its duties.

(5) The board shall perform such other duties related to the operation of the town's wastewater systems as may be requested by the BOMA.

(6) The board may also perform other duties with respect to other, non-wastewater related utility issues as may be requested by the BOMA from time to time. (as added by Ord. #2021-007, May 2021 **Ch2_8-2-21**)

18-505. Required training and continued education. (1) From the statutory requirements under Tennessee Code Annotated, § 7-34-115(j)(0)-(7),(k), the prescribed training and continuing education for members of the utility board, and as applicable to the board of mayor and aldermen, shall be as follows:

"(j)(l) The governing body of a municipal utility system subject to this section that supervises, controls, or operates a public water or public sewer system, including, but not limited to, those systems using a separate utility board pursuant to any public or private act, must meet the training and continuing education requirements in this subsection (j).

(2) All members of the municipal utility board of commissioners shall, within one (1) year of initial appointment or election to the board of commissioners or within one (1) year of reappointment or reelection to the board of commissioners, attend a minimum of twelve (12) hours of training and continuing education in one (1) or more of the subjects listed in subdivision (j)(4).

(3) (A) In each continuing education period after the initial training and continuing education required by subdivision (j)(2), a municipal utility board commissioner shall attend a minimum of twelve (12) hours of training and continuing education in one (1) or more of the subjects listed in subdivision (j)(4).

(B) For the purposes of this subsection (j) and subsection (k), "continuing education period" means a period of three (3) years beginning January 1 after the calendar year in which a municipal utility board commissioner

completes the training and education requirements set forth in subdivision (j)(2) and each succeeding three-year period thereafter.

(4) The subjects for the training and continuing education required by this subsection (j) shall include, but not be limited to, board governance, financial oversight, policy-making responsibilities, and other topics reasonably related to the duties of the members of the board of commissioners of a municipal utility.

(5) Any association or organization with appropriate knowledge and experience may prepare a training and continuing education curriculum for municipal utility board commissioners covering the subject set forth in subdivision (j)(4) to be submitted to the comptroller of the treasury for review and approval prior to use. The comptroller shall file a copy of approved training and continuing education curriculum with the water and wastewater financing board. Changes and updates to the curriculum must be submitted to the comptroller for approval prior to use. Any training and continuing education curriculum approved by the comptroller must be updated ever three (3) years and submitted to the comptroller for review and approval.

(6) For purposes of this subsection (j), a municipal utility board commissioner may request a training and continuing education extension of up to six (6) months from the comptroller of the treasury or the comptroller's designee. The request shall only be granted up on a reasonable showing of substantial compliance with this subsection (j). If the extension is granted, the municipal utility board commissioner must complete any additional required training hours necessary to achieve full compliance for only the relevant continuing education period within the extension period. The municipal utility board commissioner shall file copies of any extension request letters and corresponding comptroller of the treasury determination letters with the water and wastewater financing board.

(7) (A) Beginning no later than March 1, 2019, the comptroller of the treasury shall offer online training and continuing education courses for purposes of compliance with this subsection (j).

(B) Any association or organization with appropriate knowledge and experience may prepare an online training and continuing education curriculum for municipal utility board commissioners covering the subjects set forth in subdivision (j)(4) to be submitted to the comptroller of the treasury for review and approval prior to use.

(C) The comptroller of the treasury shall file a copy of approved online training and continuing education curriculum with the water and wastewater financing board. Changes and updates to the curriculum must be submitted to the comptroller of the treasury for approval prior to use. Any online training and continuing education curriculum approved by the

comptroller of the treasury must be updated every three (3) years and submitted to the comptroller of the treasury for review and approval.

(D) Any person required to complete training and continuing education under this subsection (j) may take one (1) or more of such online courses in lieu of attending training and continuing education courses in person.

(E) The online training and continuing education provider shall provide a certificate of completion or attendance that shall be submitted by the municipal utility board commissioner to the municipality. Each municipality shall keep the certificate of completion or attendance for six (6) years after the calendar year in which the certificate of completion or attendance is submitted.

(k) If any member of a municipal utility board or commissioner fails to meet the training and continuing education requirements set forth in subsection (j) before the end of the continuing education period or before the end of any extension approve by the comptroller of the treasury or the comptroller's designee, then the water and wastewater financing board shall have full discretion to order reasonable sanctions against the municipality, including, but not limited to, the municipality being ineligible to receive assistance from the Tennessee local development authority under § 68-221-1206(a)(3)."

(2) The town shall be responsible for paying for any training and continuing education course registration and travel expenses for each board member. (as added by Ord. #2021-007, May 2021 **Ch2_8-2-21**)