

CHAPTER 5

SUBSURFACE SEWAGE TREATMENT SYSTEMS

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9-5-1: PURPOSE; STATUTE AUTHORITY:

The purpose of this chapter is to provide minimum standards for and regulation of subsurface sewage treatment systems (SSTS) and sewage disposal including the proper location, design, construction, operation, maintenance, and repair to protect surface water and groundwater from contamination by human sewage and waterborne household and commercial waste; to protect the public's health and safety; to protect the natural environment; and to eliminate or prevent the development of public nuisances. This chapter is adopted pursuant to the authority granted under Minnesota Statutes sections 115.55 to 115.58 and Minnesota Rules 7080 through 7083, pertaining to sewage and wastewater treatment, as the same may from time to time be amended. (Prior Code § 4-3-1; amd. 2018 Code)

9-5-2: SCOPE:

All sewage generated in areas of the City where a sanitary sewer is not available, as determined by the City, shall be treated and dispersed by an approved SSTS that is sited, designed, installed, operated and maintained in accordance with this chapter or by a system that has been permitted by the MPCA. (Prior Code § 4-3-2)

9-5-3: STATE REGULATIONS ADOPTED:

The City hereby adopts by reference Minnesota Statutes section 115.55 and Minnesota Rules 7080 and 7081 along with any future amendments thereof. (Prior Code § 4-3-2)

9-5-4: GENERAL PROVISIONS:

A. Prohibited Discharges: It is unlawful for any person to construct, maintain or use any SSTS regulated under this chapter that results in raw or partially treated wastewater seeping to the ground surface or flowing into any surface water. Any surface discharging system must be permitted under the National Pollution Discharge Elimination System (NPDES) Program by the MPCA.

B. Location In Floodplain: SSTS shall not be located in a floodway, and whenever possible, location in a floodplain shall be avoided. If no option exists to locate an SSTS outside of a floodplain, location within the flood fringe is allowed if the requirements in Minnesota Rules 7080.2270 and the requirements of the zoning ordinance are met.

C. Management Plans:

1. Management plans are required for all new or replacement SSTS. The management plan shall be submitted by the designer to the building official before issuance of an SSTS permit. Management plans shall include requirements as listed in Minnesota Rules 7080.0600, subparagraph 1(B), and any other requirements as determined by the building official.

2. SSTS specified in Minnesota Rules 7080.2290, 7080.2350, 7080.2400 and 7081 require an operating permit and shall include Minnesota Rules 7082.0600, subparagraph 2, and other requirements as determined by the building official. The operating permit for new SSTS and MSTs will be issued in tandem with the construction permit for the new system. Operating permits, when needed for existing systems and/or system repair, will be issued as separate permits.

3. SSTS not operated under a management permit or operating permit must have treatment tanks inspected every three (3) years. Solids must be removed when their accumulations exceed the limits described in Minnesota Rules 7080.2450.

4. Septage shall be pumped, managed, land applied and disposed of in accordance with applicable State and Federal laws.

5. With septic tank pumping, the service manhole(s) shall be brought to within one foot (1') of finished grade and secured as needed. With the pumping, maintaining or certification of a lift tank, the pump riser must be brought to grade.

D. Holding Tanks:

1. The use of holding tanks for new residential dwellings is prohibited.

2. Use of holding tank(s) may be approved by the City Council for existing structures or uses other than new residential dwellings only when:

- a. Physical conditions upon the property make construction of an SSTS meeting the requirements of this chapter not possible.
- b. The property does not have access to Municipal sewer as determined by the City.
- c. For residential structures, the property owner shall agree that the existing structure shall not be expanded or altered by way of kitchen, bathrooms, bedrooms or other improvements in such a way as to require additional holding tank capacity.

3. When allowed, holding tanks shall be subject to the following requirements:

- a. A level alarm shall be installed within the tank that includes an audible horn and strobe light visible from a public street.
- b. The property owner shall maintain a contract on file with the building official for pumping the holding tank(s) with a licensed maintenance business and shall submit to the building official records of required pumping and other maintenance.

E. New Systems: All lots shall have a minimum of two (2) soil treatment and dispersal areas that can support trenches, seepage beds, mounds and at grade systems as defined by Minnesota Rules 7080.2200 through 7080.2300 or site conditions described in 7081.0270, subparagraphs 3 through 7.

F. Point Of Sale: No owner of a tract of land on which a structure that is required to have an SSTS is located shall sell or transfer to another party said tract of land unless the requirements as stated in the Wright County Point of Sale Certification Ordinance for On-Site Septic Systems are met.

G. Abandonment: SSTS must be properly abandoned in accordance with Minnesota Rules 7080.2500:

- 1. If the individual abandoning an SSTS is not a licensed SSTS professional, the abandonment must be inspected by a licensed SSTS inspector.
- 2. A State abandonment document must be submitted to the building official within ninety (90) days of abandonment. (Prior Code § 4-3-2)

9-5-5: SITE EVALUATION AND DESIGN REQUIREMENTS:

A. Soil Observations: A minimum of three (3) soil observations are required for each site unless sites are adjacent. For adjacent sites, a minimum of three (3) soil observations are required with a minimum of two (2) soil observations in the primary site and one observation in the secondary site.

B. Site Identification: Benchmarks, borings, percolation sites and dispersal area must be staked and labeled in the field with the elevations of each on the submitted design.

C. Septic Tank:

- 1. A minimum of two (2) 1,000-gallon tanks are required. A one thousand five hundred (1,500) gallon split tank may be allowed subject to approval of the building official.
- 2. For a new dwelling, burial of the top of the tank greater than four feet (4') is allowed only with approval of the building official and a statement from the manufacturer as to the maximum designed depth for the tank.

D. Pump Tank:

- 1. A minimum one thousand (1,000) gallon pump tank is needed for lifting the effluent to the soil treatment area.
- 2. The pump must employ an audible alarm and warning light located inside of the principal structure to alert occupants of a failure.

E. Percolation Tests: When conducting percolation tests, soil texture shall be logged and accounted for. If there is a discrepancy between the soil texture and the percolation rate, the smaller soil loading rate shall be used.

F. Drainfield Sizing: Trenches designed with twelve inches (12") of rock or more under the distribution pipe shall be sized according to the following provisions:

- 1. Treatment level A/B:

MINIMUM TREATMENT AREA¹

Bedrooms	Sand Loamy Sand 1.60 gpd/ft.	Sandy Loam 1.00 gpd/ft.	Loam Fine Sand 0.78 gpd/ft.	Silt Silt Loam 0.78 gpd/ft.	Clay Loams 0.60 gpd/ft.
2	450 sq. ft.	450 sq. ft.	450 sq. ft.	450 sq. ft.	500 sq. ft.
3	500 sq. ft.	500 sq. ft.	577 sq. ft.	577 sq. ft.	750 sq. ft.
4	550 sq. ft.	600 sq. ft.	769 sq. ft.	769 sq. ft.	1,000 sq. ft.
5	600 sq. ft.	750 sq. ft.	962 sq. ft.	962 sq. ft.	1,250 sq. ft.

Note:

- 1. There are structure and consistence qualifiers in Minnesota Rules 7080.2150 that may require design modifications before being able to properly apply this table.

2. Treatment level C:

MINIMUM TREATMENT AREA¹

Bedrooms	Sand Loamy Sand 1.20 gpd/ft.	Sandy Loam 0.78 gpd/ft.	Loam Fine Sand 0.60 gpd/ft.	Silt Silt Loam 0.50 gpd/ft.	Clay Loams 0.45 gpd/ft.
2	600 sq. ft.	600 sq. ft.	600 sq. ft.	600 sq. ft.	667 sq. ft.
3	700 sq. ft.	800 sq. ft.	800 sq. ft.	900 sq. ft.	1,000 sq. ft.
4	800 sq. ft.	900 sq. ft.	1,000 sq. ft.	1,200 sq. ft.	1,333 sq. ft.
5	900 sq. ft.	1,000 sq. ft.	1,250 sq. ft.	1,500 sq. ft.	1,667 sq. ft.

Note:

1. There are structure and consistence qualifiers in Minnesota Rules 7080.2150 that may require design modifications before being able to properly apply this table.

3. Mound systems are to be sized at 1.0 gpd/square foot.

4. Types III, IV and V or nonresidential SSTS shall be time dosed.

5. Bedroom additions with an existing compliance SSTS where the treatment area cannot be practically increased to the proper treatment area size shall be time dosed.

6. When installing gravity trenches in sandy soil per Minnesota Rules 7080.2210 subparagraph 4F(2), the maximum single trench area shall be determined as fifteen percent (15%) of the State required treatment area.

G. Sewer Pipe:

1. The building sewer pipe extending from the building to the tank shall not be less than four inches (4") in diameter and must meet the strength requirements of schedule 40 plastic pipe. The pipe shall be supported in such manner so that there is no deflection during backfilling and subsequent settling of the soil between the building foundation and the inlet to the septic tank.

Construction of the line shall provide a grade of not less than one-eighth inch ($\frac{1}{8}$ ") per foot for minimum grades. No ninety degree (90°) ells shall be permitted.

2. All sewer pipelines, manholes, and other appurtenances shall be constructed in accordance with the State Plumbing Code and MPCA requirements.

H. Minimum Setback Distances:

	Sewage Or Holding Tank	Soil Treatment Or Absorption Area	Building Sewer Or Supply Pipes
Water supply wells ¹ :			
50 ft. continuous casing or encountering 10 ft. of impervious material	50 ft.	50 ft.	50 ft. ²
Less than 50 ft. continuous casing	50 ft.		50 ft. ²
Buried water suction pipe ¹	50 ft.	50 ft.	50 ft. ²
Buried pressurized water distribution pipe ¹	10 ft.	10 ft.	10 ft.
Buildings ³	10 ft.		-
Property lines ⁴	10 ft.	10 ft.	-
Subsurface drainage systems	50 ft.	50 ft.	-
Surface drainage systems	30 ft.	30 ft.	-
OHWL of Natural Environment Lakes, Recreation Development Lakes, Tributary River segments and the Mississippi River	150 ft.	150 ft.	-
OHWL of General Development Lakes	50 ft.	50 ft.	-
Wetlands	50 ft.	50 ft.	-

Notes:

1. Setbacks from buried water pipes and water supply well as governed by Minnesota Rules 4715 and 4725, respectively.
2. The setback can be reduced to 20 feet if the building sewer or supply pipe is air tested by holding 5 pounds of pressure for 15 minutes.
3. For structures other than buildings, these setbacks may be reduced if necessary due to site conditions, but in no case shall any part of the SSTS be located under or within the structure. For this provision to be employed, there shall not be interior space below the structure. For the new construction of a structure without interior space below the structure, no part of the absorption area shall encroach closer than 10 feet.
4. The setback from the treatment area to a public right-of-way may be reduced by approval of the City Engineer. Setbacks to other property lines shall be processed in accordance with the variance procedures established by the zoning ordinance.

(Prior Code § 4-3-3)

9-5-6: FAILING SYSTEMS:

- A. Modification Or Discontinuance Required: If, upon inspection, an SSTS is found to be a failing system or a system posing an imminent threat to the natural environment or the public health, safety and welfare, then the SSTS shall, if possible, either be modified or repaired to comply with this chapter or its use discontinued within the time periods specified in this section.
- B. Failing Septic Systems: A failing SSTS, as defined in Minnesota Rules 7080.1500 subparagraph 4b, shall be upgraded, replaced, or its use discontinued within the six (6) months of issuance of the notice of noncompliance.
- C. SSTS System Posing An Imminent Threat: Any SSTS posing an imminent threat to the natural environment or public health, safety, or welfare, as defined in Minnesota Rules 7080.1500 subparagraph 4b, shall be abated within ten (10) days. The system shall be upgraded, replaced or repaired, or its use discontinued, within a reasonable period of time, not to exceed six (6) months.
- D. Remediation: A permit shall be required when an operational component is added or a method employed to an SSTS to recover a failing treatment area. Required information for this permit will be a description of what is wrong with the existing SSTS, an inspection/compliance of the components of the system, a lab sample of the existing effluent to determine abnormalities and a preliminary site evaluation of what the upgrade options will be on the property if the remediation fails to correct the problem. A management plan/operating permit will also be required.
- E. Emergency Actions:

1. Notwithstanding the provisions of this chapter, the building official or City Engineer may require pumping of a septic system not more than twenty four (24) hours of issuance of a notice of failing system or SSTS system posing an imminent health threat being issued and compliance with the following additional requirements:
 - a. Install a level alarm within the tank that includes an audible horn and strobe light visible from the public street.
 - b. Seal the septic tank outlet converting the tank to a holding tank.
 - c. Expose the service manhole for pumping the septic tank.
 - d. Seal all outlets within the basement of the structure served by the septic system.
 - e. The property owner shall provide the City a right of entry to the property to allow for any needed inspection, maintenance, repair or replacement of the failed system with all costs incurred by the City being the responsibility of the property owner.
2. Actions as may be required by the building official or City Engineer to immediately abate a threat to public health, safety and welfare shall not exempt the property owner from providing for a compliant system in accordance with this chapter. (Prior Code § 4-3-4)

9-5-7: ADMINISTRATION:

- A. Administrative Officials: The City Clerk, Building Official, and City Engineer shall be responsible for the administration of this chapter.
 1. Clerk Duties: The City Clerk shall be responsible for the administration and issuance of orders, permits and notices required by this chapter. The Clerk is authorized and directed to cooperate with local and State officials and personnel in the enforcement of this chapter, Minnesota Rules chapter 7080 and applicable State laws.
 2. Building Official Duties: The building official shall be responsible for site and system inspections, compliance determinations, investigation of failing systems and permit review and any other duties necessary to ensure compliance with the provisions of this chapter, Minnesota Rules chapter 7080 and applicable State law.
 3. Engineer Duties: The City Engineer shall be responsible for review and system design analysis on all holding tanks, drainfield site requirements for new subdivisions and any variance from the requirements of this chapter. (Prior Code § 4-3-5)
- B. Permit Requirements:
 1. Permit Required: No person shall engage in the evaluation, inspection, design, installation, construction, alteration, extension, repair, maintenance or pumping of an SSTS without first obtaining a permit as provided in subsection B2 of this section. (Prior Code § 4-3-2)
 2. Application For Permit: Each permit application shall be presented as follows and contain all of the following information:
 - a. Applications for permits shall be made on forms approved and furnished by the City. The application must be signed by the

applicant and shall be submitted to the City Clerk.

b. Each permit application shall contain the legal description of the property for which the permit is requested. The application shall also disclose the name of the SSTS professional who will perform the work for which the permit is required and provide all license data required by Minnesota Rules 7080.

c. Each permit application shall be accompanied by a site plan, prepared by an SSTS professional or professional land surveyor, showing the following, unless such requirements are specifically waived, in whole or in part, in writing by the City building official:

(1) The location of any proposed or existing building on the subject property.

(2) The boundary lines of the subject property.

(3) The location of water supply facilities.

(4) The location and ordinary high water mark or any streams, ponds, or lakes located on or within one hundred fifty feet (150') of the subject property.

(5) That the proposed SSTS meets all setbacks as required by Minnesota Rules chapter 7080.

(6) Topographic contours at two foot (2') intervals. Topographic contours and elevations shall be drawn to scale on the site plan using common engineer's scale.

(7) The location of any SSTS or wells on adjoining lots within one hundred fifty feet (150') of the subject property.

(8) Each site plan shall be accompanied by a certificate of accuracy from the SSTS professional or land surveyor who prepared the site plan.

d. Each permit application shall include a complete design plan showing the size and location of all parts of the SSTS and provide a design certification from a licensed SSTS professional as to the adequacy and location of the SSTS in relation to the requirements imposed by Minnesota Rules 7080.

e. Each permit application shall contain any and all additional information, as may be required by the City, necessary to show that the conditions of Minnesota Rules 7080 and this chapter will be met.

3. Permit Fees: The amount of fees to be collected at the time of application for permits required by this chapter shall be as established in section 3-1-2 of this Code.

4. Approval Or Denial Of Permit: Permits shall be approved or denied as follows:

a. Submission Of Application: Permit applications shall be submitted to the building official, along with the permit fee. The building official shall, within fifteen (15) days, determine whether a submitted application is complete. Incomplete applications shall be rejected and returned to the applicant along with a written explanation as to why the application has been rejected.

b. Technical Review: Once a complete application is received, the building official shall review the application to determine whether it meets the requirements and standards of this chapter and of Minnesota Rules 7080. The building official may, at his sole discretion, submit the permit application to the City Engineer for review, comment, and/or a determination as to whether the application meets the requirements of this chapter and Minnesota Rules 7080.

c. Approval Or Denial By Building Official:

(1) Once a determination is made that the application meets all applicable requirements, the SSTS permit shall be issued. The building official and/or City Engineer may impose any and all conditions to ensure compliance with the requirements of State law, Minnesota Rules 7080, this chapter and other applicable local ordinances.

(2) If it is determined that the application does not meet the requirements of this chapter or Minnesota Rules 7080, then the building official shall give notice to the applicant that the application has been rejected and state the reasons for such rejection as provided by the building official and/or City Engineer.

(3) The decision to approve or deny the application permit should occur within ten (10) days of the building official's receipt of a complete application. Failure to approve an application within ten (10) days shall not be construed as an approval or otherwise allowing an SSTS that would not be approved under this chapter, Minnesota Rules 7080 or other applicable law.

5. Term Of Permit: A permit issued under this chapter shall be valid for one year from the date of approval. (Prior Code § 4-3-5)

C. License Requirements:

1. No person shall engage in the evaluation, inspection, design, installation, construction, alteration, extension, repair maintenance or pumping of an SSTS without first obtaining a license to perform such tasks from the Minnesota Pollution Control Agency (MPCA) except as provided under Minnesota Rules 7080.0700.

2. Property owners may only install a gravity fed type 1 system serving a single-family dwelling and only under the supervision of a person having the qualifications set forth by subsection C1 of this section. (Prior Code § 4-3-2)

9-5-8: ENFORCEMENT AND PENALTIES:

A. Inspections:

1. General Inspection Requirements: The building official shall make such SSTS inspections as are necessary to determine compliance with this chapter, Minnesota Rules 7080 and/or any conditions contained in permits issued hereunder. The following events shall trigger an SSTS compliance inspection:

- a. A permit is granted under subsection 9-5-7B of this chapter.
- b. A building permit is granted for new construction or the addition of a bedroom or bathroom on property served by an SSTS.
- c. For all new SSTS construction, or any SSTS replacement, repair, alteration, maintenance, or operation.
- d. Granting of request for change in system design or change in permit conditions.
- e. The City learns or receives a complaint that a particular SSTS may be a failing system or poses an imminent threat to public health, safety, and welfare.

2. Time And Manner Of Inspection:

- a. Inspections shall be made by the building official and/or City Engineer to ensure compliance with the requirements of this chapter, Minnesota Rules 7080 and any permit conditions.
- b. It shall be the responsibility of the permit applicant to notify the building official in writing that the project is ready for inspection. Inspections shall be made within seven (7) days of written notification by any SSTS permit holder that the SSTS for which the permit was issued is ready for inspection.
- c. No part of the SSTS shall be covered until it has been inspected and accepted by the building official and/or the City Engineer.
- d. Inspections shall be made prior to the issuance of a building permit or variance for new construction or the addition of a bathroom or bedroom on property served by an SSTS.

3. Certificate Of Compliance And Notice Of Noncompliance:

- a. No newly constructed, installed, altered, repaired, extended or relocated SSTS shall be placed in operation until it has received a certificate of compliance as hereafter provided.
- b. Upon completion of the SSTS inspection as described in subsections A2 and A4 of this section, the building official and/or City Engineer shall make a determination as to whether or not the SSTS has been constructed, repaired, extended or relocated in compliance with the requirements of this chapter, Minnesota Rules 7080 and any permit conditions.
 - (1) If the SSTS is found to be compliant, then a certificate of compliance shall be issued to the property owner within thirty (30) days of inspection.
 - (2) If the SSTS is found to be out of compliance, then a notice of noncompliance shall be issued. The notice of noncompliance shall state which portions of the SSTS are not compliant and shall further state a reasonable period for the property owner to bring the system into compliance. Once the necessary changes are made or the period specified in the notice of noncompliance has run, whichever occurs first, then the SSTS shall be again inspected as provided above. If, upon reinspection, the SSTS is not compliant, then a notice of noncompliance shall be issued to the property owner. The notice of noncompliance shall state why the SSTS is noncompliant. A copy of the certificate of noncompliance shall be forwarded to the City Attorney for enforcement as provided in subsection C2 of this section.

4. Inspection Protocol:

- a. In the event that the building official cannot complete an inspection or perform all required inspections in a timely manner, the building official is authorized and directed to develop an inspection protocol.
- b. The inspection protocol shall establish the order and priority of inspections. For any SSTS required to be inspected for which the building official is unable to actually physically inspect the SSTS, the building official shall require that evidence of compliance be submitted. Evidence of compliance includes, but is not limited to, the following:
 - (1) Affidavits from the SSTS professional who performed any construction, installation, repair, alteration, or relocation of the SSTS.
 - (2) Video, electronic or photographic images of certain components and/or work performed.
 - (3) As built drawings.
 - (4) Any other data, as may be required by the building official in lieu of an actual inspection, evidencing compliance with this chapter, Minnesota Rules 7080 and applicable State law.
- c. The building official shall review such evidence and issue either a certificate of compliance or notice of noncompliance accordingly.

5. No Warranty Or Guarantee Of Operation: Neither the issuance of an SSTS permit or certificate of compliance, nor any inspection of an SSTS shall constitute any warranty or guarantee that said SSTS will operate or function properly. (Prior Code § 4-3-5)

B. Stop Work Orders And Repair Orders: The building official may issue stop work orders and repair orders at such times and upon such terms and conditions as are necessary to prevent violations of this chapter from occurring or to eliminate existing ordinance violations.

C. Misdemeanor Violation; Penalties:

1. Any person who violates any of the provisions of this chapter or who makes any false statement on a certificate of compliance shall be guilty of a misdemeanor punishable by imprisonment, a fine, or both, as defined by State law.

2. In the event of a violation of this chapter, in addition to any other remedies, the City Attorney may institute appropriate actions or proceedings to prevent, restrain, correct or abate such violations. (Prior Code § 4-3-6)

9-5-9: CONFLICTING PROVISIONS:

The requirements of this chapter are intended to be comparable to the Environmental Protection Agency (EPA) and Minnesota Pollution Control Agency (MPCA) standards. Should this chapter differ from the standards of the EPA, MPCA or other agencies or should the standards of these agencies change, the more strict requirements shall apply. (Prior Code § 4-3-7)

9-5-10: CONNECTION TO MUNICIPAL SEWER:

A. When Required:

1. When Municipal sanitary sewer is available, in the City's sole discretion, a property is served by an SSTS shall be required to discontinue such use and connect to the Municipal sewer upon the first occurrence of any of the following events:

- a. Upon application for an SSTS permit.
- b. When a notice of noncompliance is issued in relation to the SSTS serving the property.
- c. Upon the expiration of a certificate of compliance.

2. Nothing in this chapter shall be construed as limiting the City's ability to specially assess, levy a sewer access charge (SAC) or otherwise bill properties served by an SSTS for the availability of a Municipal sanitary sewer and the public improvements associated therewith.

B. Condition Of Approval: The issuance of an SSTS permit may be conditioned upon the property connecting to a Municipal sewer when it becomes available.

C. Cause For Denial: The future availability of a Municipal sewer, in the City's sole discretion, may be cause for denial of an SSTS permit. (Prior Code § 4-3-8)