

# *Appendix E: Washtenaw County Property Transfer System Inspection Regulation*

Hennepin County, MN

ORDINANCE NUMBER 19

INDIVIDUAL SEWAGE TREATMENT SYSTEMS STANDARDS

FOR HENNEPIN COUNTY

Adopted by the Hennepin County Board of Commissioners  
of Hennepin County, Minnesota  
on September 28, 1999

IN ACCORDANCE WITH MINNESOTA STATUTES ss115.55 and

MINNESOTA RULES CHAPTER 7080 ORDINANCE No. 19

INDIVIDUAL SEWAGE TREATMENT SYSTEMS STANDARDS

The Hennepin County Board of Commissioners does hereby adopt this Ordinance establishing county-wide standards for the regulation of Individual Sewage Treatment Systems (ISTS) pursuant to Minn. Stat. § 115.55 and Minn. Rules Chapter 7080.

## SUBDIVISION 1: GENERAL PROVISIONS.

1.1 Purpose. This ordinance is enacted to provide minimum standards for the regulation of individual sewage treatment systems (ISTS) including: their proper location, design and construction; their necessary modification and reconstruction; their operation, maintenance and repair for the purpose of protecting surface water and groundwater from contamination by human sewage and waterborne household and commercial wastes; the protection of the public's health and safety; and the elimination and prevention of the development of public nuisances, pursuant to the authority granted under Minn. Stat. Chapters 115 and 145A and Minnesota Rules Chapter 7080 and as amended that may pertain to sewage and wastewater treatment.

1.2 Objectives. The principal objectives of this Ordinance are as follows:

1.21 The protection of Hennepin County's lakes, rivers and streams, wetlands, and groundwater essential to the promotion of public health, safety, welfare, socioeconomic growth and development of the County in perpetuity.

1.22 The regulation of proper ISTS construction, reconstruction, repair and maintenance to prevent the entry and migration of contaminants, thereby ensuring the non-degradation of surface water and groundwater.

1.23 The establishment of minimum standards for ISTS placement, design, construction, reconstruction, repair and maintenance to prevent contamination and, if contamination is discovered, the identification and control of its consequences and the abatement of its source and migration.

1.25 The appropriate utilization of privy vaults and other non-water carried ISTS.

1.26 The prevention and control of water-borne disease, lake degradation, groundwater related hazards, and public nuisance conditions through technical assistance and education, plan reviews, inspections, ISTS surveys and complaint investigation.

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### SUBDIVISION 2: DEFINITIONS.

2.1 Health Authority. The Hennepin County Community Health Department and its designated agent who shall be a qualified employee or licensee.

2.2 Owner. The fee owner(s) and, if applicable, the contract-for-deed purchaser. Ownership interests shall be determined by reference to the records of Hennepin County. The owner of each lot upon served by an ISTS is responsible for the lawful operation and maintenance of each ISTS.

### SUBDIVISION 3: STANDARDS ADOPTED BY REFERENCE

3.1 This Ordinance hereby adopts by reference Minnesota Rules Chapter 7080, sections 7080.0020, 7080.0060, 7080.0065, 7080.0110, 7080.0120, 7080.0125, 7080.0130, 7080.0150, 7080.0160, 7080.0170, 7080.0175, 7080.0176, and 7080.0190 being the sections containing the technical standards and criteria contained in the "Individual Sewage Treatment Systems Program".

### SUBDIVISION 4: JURISDICTION.

4.1 Municipalities. Municipalities in Hennepin County that elect to regulate Individual Sewage Treatment Systems pursuant to Minn. Rules Chapter 7080.0300 – 0305 shall:

A. Provide verification to the Health Authority of its intention to assume or retain jurisdiction of Individual Sewage Treatment Systems by submitting a resolution of the City Council or authorized governmental official to that effect prior to January 1, 1999 or within 90 days of County adoption, whichever comes later.

B. Provide timely notification to the Health Authority of its intent to assume or abandon its jurisdiction but in no case provide less than one years' notice of such action or at a time mutually acceptable to both parties.

C. In the event of abandonment of jurisdiction, agree to cooperate with the Health Authority in the transfer of responsibility including timely transfer of all records maintained by the municipality.

### SUBDIVISION 5: ADMINISTRATION BY THE HEALTH AUTHORITY.

5.1 The Health Authority shall have the following duties and responsibilities:

A. To review all applications for ISTS.

B. To issue all required permits.

C. To conduct construction inspections and to perform all necessary tests to determine its conformance with this Ordinance.

D. To investigate complaints regarding ISTS.

E. To perform compliance inspections and to issue Certificates of Compliance or Notices of Noncompliance where appropriate.

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- F. To issue Stop Work Orders and Notices of Violation pursuant to this Ordinance.
- G. To take complaints to the Municipal or County Attorney for violations of this Ordinance.
- H. To maintain proper records for ISTS including site evaluation records, design records including calculations and summaries for all system component sizings and as-builts, complaints on noncompliance, compliance inspections, site evaluations, applications and exhibits, variance requests, issued permits, Certificates of Compliance, and enforcement proceedings.
- I. To submit annual reports to the MPCA to demonstrate enforcement of this Ordinance per Chapter 7080.0310.

5.2 Neither the issuance of permits, Certificates of Compliance nor Notices of Noncompliance as requested or issued shall be construed to represent a guarantee or warranty of the system's operation or effectiveness. Such certificates signify that the system in question is or has been designed and installed in compliance or non-compliance with the provision of these standards and regulations.

### SUBDIVISION 6: PERMITTING.

6.1 **Required Permits.** A permit from the Health Authority is required before any ISTS in Hennepin County's jurisdiction is installed, replaced, altered, repaired or extended. Installation, replacement, alteration, repair, or extension of an ISTS shall not begin prior to the receipt of a permit from the Health Authority for each specific installation, replacement, alteration, repair or extension pursuant to this Ordinance. Such permits are not transferable as to person or place. Such permits shall expire 12 months after date of issuance. Upon request of an inspector, permits shall be provided by the permittee at the time of inspection.

6.2 **Permits Not Required.** Permits shall not be required for the following activities:

- A. Repair or replacement of pumps, floats or other electrical devices of the pump.
- B. Repair or replacement of baffles in the septic tank.
- C. Installation or repair of inspection pipes and manhole covers.
- D. Repair or replacement of the line from the building to the septic tank.

6.4 **Permit Application.** All applications for an ISTS permit shall include the following information:

- A. Name and address of property owner.
- B. Property identification number.
- C. Legal description of the property.
- D. ISTS Designer Name, address, phone number and State ISTS License number; (or Health Authority qualified employee name and number).
- E. ISTS Installer name, address, phone number and ISTS License Number.

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- F. Site evaluation report on forms approved by the Health Authority.
- G. System design with full information including applicable construction information on forms approved by the Health Authority.
- H. The location of at least one designated additional soil treatment area that can support a standard soil treatment system on lots created after January 23, 1996.
- I. Any other information requested pertinent to the process.
- J. A certified statement from the person who conducted the work.

6.5 **Individuals Constructing Their Own ISTS.** A license is not required for an individual who is constructing a system on land that is owned or leased by the individual and functions solely as a dwelling or seasonal dwelling for that individual. The ISTS shall be designed by a Minnesota Pollution Control Agency licensed Designer I or II.

6.6 **Application Review and Determination.** If after consideration of the application for a permit, the Health Authority determines that the work proposed conforms to and complies with provision of this Ordinance, the Health Authority shall issue a written permit granting preliminary approval authorizing initiation of the work as proposed. If the Health Authority determines that the work proposed will not conform to or comply with the provisions of this Ordinance, the Health Authority shall deny the permit application. The permit application may be revised or corrected and resubmitted to the Health Authority for reconsideration.

6.7 **Variances.** Variances to decrease the three feet of vertical separation required beneath the distribution medium and the saturated soil or bedrock must be approved by the MPCA as per the procedures contained in Minnesota Rules Chapter 7080.0305 Subp. 3. Variances to wells and water supply lines require approval from the Minnesota Department of Health. Any other requests for a variance from this ordinance shall be requested in writing to the Health Authority on forms approved by the Health Authority.

### **SUBDIVISION 7: CONSTRUCTION INSPECTIONS.**

7.1 **Requirements.** Compliance inspections shall be conducted by the Health Authority anytime an ISTS is installed, replaced, altered, repaired or extended. The installation and construction of the ISTS shall be in accordance with the permit requirements and application design. If any ISTS component is covered before being inspected by the Health Authority, it shall be uncovered if so ordered by the Health Authority. Proposals to alter the permitted construction shall be reviewed and the proposed change accepted by the Health Authority prior to construction. Inspections shall be conducted at least once during the construction of the ISTS to assure that the system has been constructed per the submitted and approved design.

7.2 **Inspector.** Compliance inspections for construction, replacement, alteration or repair work on ISTS shall be conducted by the Health Authority.

7.3 **Request for Inspection.** It shall be the duty of the permittee to notify the Health Authority of the date and time the inspection is requested at least 24 hours (excluding weekend days and holidays) preceding the requested inspection. If the permittee provides proper notice as described above and the Health Authority does not appear for an inspection within two hours after the time scheduled, the permittee may complete the installation and submit an As-built for the system.

7.4 **Access to Premises and Records.** Upon the request of the Health Authority, the applicant, owner, permittee or any other person shall allow access at any reasonable time to the affected premises as well as any related records, for

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the purposes of regulating and enforcing this Ordinance. If entry is refused, the Health Authority shall have the recourse to the remedies provided by law to secure entry. No person shall hinder or otherwise interfere with the Health Authority in the performance of their duties and responsibilities pursuant to the enforcement of this Ordinance. Refusal to allow reasonable access to the Health Authority shall be deemed a separate and distinct offense, whether or not any other specific violations are cited.

7.5 Stop Work Orders. Whenever any ISTS work is being done contrary to the provisions of this Ordinance, the Health Authority may order the work stopped by verbal or written notice personally served upon the installer or the owner of the land. All installation and construction shall cease and desist until subsequent authorization to proceed is received from the Health Authority.

7.6 As-builts. As-builts shall be submitted to the Health Authority within five (5) working days of completion of the work on the ISTS on forms provided or approved by the Health Authority. The As-built shall include photographs of the system prior to covering and a certified statement that the work was installed in accordance with submitted design and permit conditions and that it was free from defects. If an As-built is not submitted, the Health Authority may require the uncovering of the system for inspection.

7.7 Inspection Reports. A Certificate of Compliance or Notice of Noncompliance shall be prepared by the Health Authority following an inspection or review of As-builts submitted in accordance with Section 7.6. A Certificate of Compliance or Notice of Noncompliance shall include a signed statement by the inspector identifying the type of ISTS inspected and whether the system is in compliance with Minnesota Rules Chapter 7080.0060. A copy of the Certificate of Compliance or Notice of Noncompliance shall be provided to the property owner within 30 days of the compliance inspection and a copy kept on file with the Health Authority.

7.71 Certificates of Compliance issued by the Health Authority for new construction and replacement shall be valid for five (5) years from the date of the compliance inspection or As-built certification unless the Health Authority or licensed inspector identifies the system as an Imminent Public Health Threat.

7.72 Notices of Violation may be issued with Notices of Noncompliance when the Health Authority determines that new construction, replacement or repairs are not in compliance with this Ordinance.

### SUBDIVISION 8: EXISTING SYSTEMS.

8.1 Requirements. The Health Authority shall require a compliance inspection of an existing system whenever:

A. In designated Shoreland Management Areas, an application for any type of building or land use permits is made.

B. If the Health Authority deems a compliance inspection may be necessary, including, but not limited to, the receipt of information of a potential ISTS failure.

C. An additional bedroom on the property is requested. If a request for an additional bedroom is received between November 1 and April 30, the governing municipality may issue a building permit immediately with the contingent requirement that a compliance inspection of the existing ISTS shall be completed by the following June 1.

8.2 Inspector. Only the Health Authority or licensed Designer I or Inspector, shall conduct an inspection when a compliance inspection is required for an existing ISTS.

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8.3 Existing Systems in Compliance with the Two-foot Rule. An existing system shall be considered in compliance with the technical standards of MN Rules 7080 and need not be upgraded if the following conditions exist:

- A. The system is not an Imminent Public Health Threat.
- B. The system has at least two feet of vertical separation between the bottom of the distribution medium and seasonally saturated soil as indicated by mottling or other indicators.
- C. The system is not in a Shoreland Designated Area.
- D. The system is not in a wellhead protection area.
- E. The system is not serving a food/beverage/lodging facility.

8.4 Inspection Reports. A copy of the Certificate of Compliance or Notice of Noncompliance resulting from a compliance inspection shall be provided to the property owner and the Health Authority within 30 days of inspection.

8.41 Certificates of Compliance issued by a licensed ISTS Inspector for an existing system shall be valid for three (3) years from the date of the compliance inspection unless the Health Authority or licensed inspector identifies the system as an Imminent Public Health Threat.

8.42 A Notice of Noncompliance shall be issued in the following circumstances and the conditions noted in violation of this Ordinance shall be remedied as follows:

A. An ISTS determined to be failing shall be upgraded, replaced, or repaired in accord with Minnesota Rules Chapter 7080.0060, within three (3) years, or its use is discontinued. The Health Authority, at its discretion, may grant an extension of an additional two (2) years.

B. An ISTS posing an imminent threat to public health or safety shall be upgraded, replaced or repaired within 10 months. The Health Authority will give consideration to weather conditions in determining compliance dates. If an ISTS is determined to be a public health nuisance by the Health Authority, the Health Authority may order the owner of the ISTS to cease use immediately and not allow use of the ISTS until it is corrected in accordance with the recommendations of the Health Authority.

### SUBDIVISION 9: VIOLATIONS.

9.1 Cause to Issue a Notice of Violation. Noncompliance with this Ordinance by an applicant, permittee, installer or other person, as determined by the Health Authority, shall constitute a violation.

9.2 Serving a Notice of Violation. The Health Authority shall serve in person or by mail a Notice of Violation upon any person determined to be not in compliance with this Ordinance.

9.3 Contents of a Notice of Violation. A Notice of Violation shall contain the following:

A. A statement documenting the findings of fact determined through inspections, reinspection or investigation.

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- B. A list of specific violation or violations of this Ordinance.
- C. The specific requirements for correction or removal of the specified violation(s).
- D. A mandatory time schedule for correction, removal and compliance with this Ordinance.

9.4 Notification of MPCA. The Health Authority shall in accordance with state law notify the MPCA of any inspection, installation, design, construction, alteration or repair of an ISTS by a licensed person or any pumping by a licensed pumper done in violation of the provisions of this Ordinance.

### SUBDIVISION 10: ADDITIONAL STANDARDS FOR HEALTH AND ENVIRONMENTAL PROTECTION.

10.1 Siting of an ISTS. Notwithstanding any state or federal requirements, the separation distance from an ISTS to a Type 3, 4, 5 or 6 wetland shall be no less than fifty (50) feet.

10.2 Alternative and Experimental Systems.

10.21 Alternative and experimental systems are allowed only in areas where the Health Authority has determined that a standard system cannot be installed or is not the most suitable treatment.

10.22 Any required monitoring plan for an alternative ISTS is the responsibility of the ISTS Designer. The monitoring plan shall provide information as to:

- A. The specific modification to a standard system.
- B. The type and parameters for monitoring which shall be conducted to assure that the change will protect public health and the environment, including the monitoring time period and the person responsible for conducting the monitoring and reporting.
- C. A mitigation plan detailing what will be done if the system fails to meet the expectations established by the monitoring plan requirements.

10.23 The results of the monitoring of an alternative ISTS shall be submitted in accordance with the approved monitoring plan to the Health Authority.

10.3 Warranted Systems. Warranted systems, as discussed in Minn. Stat., Chapter 115.55, subd. 8, are prohibited.

10.4 Maintenance Report. The owner of an ISTS or an owner's agent who measures or removes accumulations in accord with Minn. Rules 7080.0175B shall submit records to the Health Authority of all pumping activities and recording fees.

### SUBDIVISION 11: ENFORCEMENT.

11.1 Any person, firm, corporation or other entity who violates any of the provisions of this Ordinance or who makes any false statement on a Certificate of Compliance, shall be guilty of a misdemeanor, punishable by imprisonment or a fine or both, as defined by law. Each day in violation may constitute a separate violation.

11.2 In the event of a violation of this Ordinance, in addition to other remedies, the County or Municipal Attorney may institute appropriate actions or proceedings to prevent, restrain, correct or abate such violations.

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SUBDIVISION 12: FEES. The Hennepin County Board shall from time to time establish fees for activities undertaken by the Health Authority pursuant to this Ordinance. Fees shall be due and payable at a time and in a manner to be determined by the Health Authority.

SUBDIVISION 13: SEVERABILITY. If a provision or application of this Ordinance is held invalid, that invalidity shall not affect other provisions or applications of this Ordinance.

SUBDIVISION 14: EFFECTIVE DATE. This ordinance shall take effect January 1, 2000.

This ordinance was current as of the date stated below. To be certain that it has not been amended since published here, please contact the Hennepin County Community Health Department, 525 Portland Av., Minneapolis, Minnesota 55415; phone (612)348-3925; fax (612)348-3830; e-mail [Community.Health@co.hennepin.mn.us](mailto:Community.Health@co.hennepin.mn.us)



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**Appendix E: Sample ordinances**

**WASHTENAW COUNTY**

Department of Environment & Infrastructure Services  
Environmental Health Division

Regulation For the Inspection of Residential Onsite Water and Sewage Disposal Systems  
At Time of Property Transfer

**ARTICLE I**

**Purpose**

Sec. 1:1 The Washtenaw County Board of Commissioners adopts this Regulation that states the procedures, standards and enforcement that shall be used by the Washtenaw County Environmental Health Division (“Division”), under the authority of the Washtenaw County Health Officer, to manage any residential premises containing an Onsite Water and Sewage Disposal System, (“OWSDS”) in order to promote the safety, health and general welfare of the community as follows:

- Ensure a safe and adequate supply of drinking water for those homes served by an Onsite Water Supply System (“OWSS”); and
- Ensure the adequate disposal of sewage from homes served by an Onsite Sewage Disposal System (“OSDS”); and
- It is not the intention of this regulation to cause existing systems that are currently functioning, but do not meet existing construction standards, to be brought into compliance with such standards.

#### Rules Adopted

Sec. 1:2 This Regulation contains minimum standards and supplements the Rules and Regulations enacted by the Michigan Department of Public Health and Washtenaw County. In addition, this Regulation supplements Michigan law as it relates to public health and environmental quality and shall supercede all local minimum standards previously enacted that are inconsistent with this Regulation.

#### Authority

Sec. 1:3 This Regulation is enacted pursuant to MCLA 333. 1101 et seq. as amended, MCLA 324.1701 et. seq., and MCLA 46.11, to protect the public health, safety and welfare of the citizens of Washtenaw County.

#### Jurisdiction

Sec. 1:4 The Public Health Officer shall have jurisdiction to administer and enforce the provisions of this Regulation. Nothing in this Regulation, however, shall be construed to restrict or abrogate the authority of any municipality, or incorporated city, village or township in Washtenaw County to adopt standards that are more restrictive. However, whenever an inspection relating to health or sanitation is required, no municipality shall issue a license without first having obtained written approval from the Health Officer indicating that the applicant has complied with the minimum requirements of this Regulation.

#### Effective Date

Sec. 1:5 This Regulation shall become effective in Washtenaw County when notice of its adoption by the Washtenaw County Board of Commissioners is published in a newspaper of general circulation within Washtenaw County, provided, however, that actual inspections shall not begin before January 3, 2000, to insure that a sufficient number of inspectors are certified and available.

## ARTICLE II

#### Definitions

Sec. 2:1 The following rules of language shall apply to the text of this Regulation: The word “shall” is mandatory. The word “may” is permissive. When not inconsistent with the context, words in the present tense shall include the future and words designating singular numbers shall include the plural.

#### Words and Terms

Sec. 2:2 The following words and terms used in this Regulation, unless otherwise expressly stated, shall have the following meaning:

**Authorized Agent:** The term “Authorized Agent” shall mean any individual or corporation authorized, in writing, to act as the legal representative in all matters authorized by the seller or purchaser.

**Environmental Health Division:** The term "Environmental Health Division" shall mean the Washtenaw County Environmental Health Division.

**Failure:** The term "failure" is defined as follows: 1) the backup of sewage into a structure; 2) discharge of effluent onto the ground surface; 3) the connection of an OSDS to a storm drain; 4) liquid level in the septic tank above the outlet invert; 5) structural failure of a septic tank; 6) discharge of sewage into any stream or other body of water; 7) the liquid level in a disposal field above the outlet holes in the pipe of such field; 8) unsafe water sample; 9) substantial nonconformance with water well construction requirements; 10) substantial nonconformance with water well isolation from contamination source requirements.

**Health Officer:** The term "Health Officer" shall mean the Public Health Officer, the acting Public Health Officer or her/his duly authorized representative.

**Municipality:** The term "municipality" shall mean any incorporated city, village, or township within Washtenaw County.

**OSDS:** The term “OSDS” shall mean an onsite sewage disposal system.

**Owner:** The term “Owner” shall mean any person who has legal title to any premises.

**OWSS:** The term “OWSS” shall mean an onsite water supply system.

**OWSDS:** The term “OWSDS” shall mean an onsite water and sewage disposal system.

**Person :** The term "person" shall mean any individual, firm, partnership, party, corporation, company, society, association, or other legal entity.

**Premises:** "Premises" shall mean any tract of land, or portion thereof, or combination of tracts of land under single or common ownership, operation or control, that contains any type of structure that is, was or will be inhabited either permanently or transiently, water well or septic

tank, drains, drain field, underground tank or pipes or similar appurtenances containing sewage or other contaminants or combination thereof.

**Health Code Board Of Appeals/Public Health Advisory Committee:** The term “Health Code Board Of Appeals/Public Health Advisory Committee” (HCBA/PHAC) shall mean the Health Committee of the Washtenaw County Board of Commissioners.

**Substantial Conformance:** The term "Substantial Conformance" shall mean there is a minimal likelihood of degradation of groundwater and surface water, or risk to public health caused by improper construction or location of an OWSDS, or a malfunctioning OWSDS.

### ARTICLE III

#### Limitations on Sale or Transfer Of Property

Sec. 3:1        There shall be no sale, transfer or conveyance of a parcel containing an OWSDS until the following conditions are met: The seller files an evaluation report by a Washtenaw County certified inspector to the Division; and, the Division determines, based upon such report, that the OWSDS is acceptable, or any necessary remediation is completed, or assured and accepted; and the Division authorizes the sale, transfer or conveyance of the parcel.

#### Evaluations

Sec. 3:2        Each OWSDS in Washtenaw County shall be inspected and evaluated prior to the sale, transfer or conveyance of property upon which an OWSDS is located if certification has not been done within twelve months preceding the date of property transfer. Transfers exempt from inspections include:

- Transfer from a spouse.
- Change in ownership solely to exclude a spouse.
- Transfer subject to life lease or life estate, (until the life lease or life estate expires).
- Transfer to effect foreclosure or forfeiture of real property.
- Transfer by redemption from a tax sale.
- Transfer creating or ending joint ownership if at least one person is an original owner of the property or his or her spouse.
- Transfer to establish or release a security interest.
- Premises built within the previous twenty-four months prior to date of property transfer.
- Premises that shall be demolished and shall not be occupied after the property transfer.
- New homes that have not been occupied.

The owner of a premises containing an OWSDS shall have the system evaluated by a Division certified inspector. Persons certified to perform evaluations of an OWSDS shall meet the minimum standards in Sec: 3.6 of this Article. After the evaluation is complete, the Division shall send a letter to the owner or the owner’s designated representative and any prospective purchaser describing the functional status of the OWSDS and whether it is in conformance with

the Washtenaw County Rules and Regulations governing the Supply of Groundwater and the Disposal of Sewage and Human Excreta.

Sec. 3:3 Reports of evaluations shall include, but are not limited to:

- The address of the site.
- The parcel identification number.
- The name of the owner or owner's agent.
- The location of the system(s).
- A description of the current operational or functional status of the system(s).
- Identification of any necessary repairs or replacement of all or portions of the system(s).
- The results of a bacteria and nitrate drinking water test, and other water quality parameters as required by the Division.
- Other relevant or unusual observations related to the system(s).
- Recommendations to extend the life of the system(s) and to prevent the premature failure of the sewage system(s).
- Educational material(s) about system(s) maintenance that have been approved by the Division.
- Completed forms approved by the Division.

Sec. 3:4 A certified copy of the inspectors' evaluation report of an OWSDS shall be provided to the owner and a copy filed with the Division. Such reports shall be freely available to the public through the Freedom of Information Act, MCLA 15.231 et. seq.

#### Performance Standards

Sec. 3:5.1 The evaluation shall determine whether the system(s) adversely affects the public health and environment or violates any other applicable rules or regulations.

Sec. 3:5.2 The evaluation shall determine whether the OSDS structure and its operational status are in substantial conformance with the standards of this Regulation.

Sec. 3:5.3 OWSS shall be evaluated for:

- their proximity to sources of contamination.
- substantial compliance with State of Michigan construction standards.
- compliance with bacteria and nitrate water quality standards as a minimum with other water quality standards in areas of known water quality concerns.

Sec. 3:5.4 Water samples shall be collected and analyzed at a laboratory certified by the Michigan Department of Environmental Quality to determine the presence of coliform bacteria, nitrates, or other contaminants as determined by the Division.

#### Registration and Certification

Sec. 3:6 All inspectors performing evaluations under this Regulation must be registered with the Division and certified before undertaking any evaluations. All qualified inspector

applicants must file an application with the Division, pay the County registration fee and satisfactorily complete a training course approved by the Division. Prospective inspectors must demonstrate knowledge of construction practices, operational standards as well as the causes and indicators of OWSDS failures. No evaluation reports shall be accepted from individuals not certified by the Division.

Sec. 3:7 An individual shall not be permitted to install, or replace an OWSS and/or OSDS without prior approval of the Division. This section does not preclude the requirements for permits where necessary.

Sec. 3:8 The Health Officer may de-certify any inspector under one or more of the following circumstances:

- The individual fails to comply with the Regulation.
- The Health Officer determines that the individual is incompetent.
- The individual is unable to properly perform an evaluation of an OWSDS.
- The individual is negligent in the discharge of his/her duties as outlined in the certification requirements.
- The individual submits false or misleading information.
- Significant information is missing from the evaluation report and/or is not provided within three (3) business days after being requested by the Division.
- The inspector does not maintain the required certification as required by this Regulation.

Sec. 3:9 The Division shall give written notice to an inspector before s/he is de-certified by the Health Officer. The inspector shall be given an opportunity at an informal meeting with the Division and/or the Health Officer to demonstrate why s/he should not be de-certified. Any inspector who is de-certified may appeal that decision by following the procedure in Article XIII of this Regulation.

Sec. 3:10 If an inspector is de-certified, re-certification shall be contingent upon completing the requirements established by the Division.

## ARTICLE IV

### Responsibilities of Various Parties

#### Owner

Sec. 4:1 Owners are responsible for hiring certified inspectors to perform inspections under this Regulation prior to the sale of any premises that s/he owns. The owner must also secure a letter from the Environmental Health Division indicating the OWSDS complies with this Regulation before the sale of any premises that s/he owns. Owners are responsible for maintaining the OWSDS on their property and shall notify the Division if the inspector's evaluation report or septic tank cleaner's report indicates a failure of the system or the owner observes a failure of the system.

## Environmental Health Division

Sec. 4:2 The Responsibilities of the Division are as follows:

- Administer and enforce this Regulation.
- Maintain the most current OWSDS evaluation report as long as the property is served by an OWSDS and for three years thereafter.
- Maintain a list of certified inspectors qualified to perform inspections under this Regulation.
- Require re-mediation where there is evidence of a system failure.
- Create and maintain a database of systems inspected, evaluated and re-mediated as well as newly installed systems.
- Establish criteria for the inspection of OWSDS and the certification of inspectors and make such criteria and related forms available to the public.
- Require risers, observation ports and other features to facilitate evaluations when issuing permits for installation of OWSDS.
- Issue authorizations for sale, transfer or conveyance of property.

## ARTICLE V

### Fees

Sec. 5:1 Fees to cover expenses, including but not limited to overhead, labor, storage, training, etc., by the Division, may be adopted as provided in the Public Health Code (Act 368 of 1978 as amended). Fees shall be paid when inspection reports are filed with the Division. Fees must be paid before the property is transferred.

## ARTICLE VI

### Failure

Sec. 6:1 When an OWSDS fails, as defined in Article II, the owner, agent or other responsible party shall contact the Division and shall complete all repairs as required by the Division.

## ARTICLE VII

### Inspection Notification

Sec. 7:1 If, after reviewing the inspection, the Division determines that the OWSDS is not in substantial conformance as defined, then the property owner shall be subject to enforcement as provided in this Regulation. The Division shall notify in writing the owner and/or purchaser or transferee or other person with a legally recognizable interest in the property. This written notice shall be sent no later than five (5) business days after the determination is made or from the date that the inspection report of the premises is filed and reviewed by the Division. Any party is considered notified if the notice is sent to that party's last known mailing address or to the property address if the party occupies the premises with the non-conforming OWSDS.

## ARTICLE VIII

## Corrective Action

Sec. 8:1 Upon receiving written notice from the Division of noncompliance with this Regulation, the owner, buyer or authorized agent shall, within thirty (30) days, submit a proposed corrective action and contract for services in order to bring the affected system into compliance with applicable laws. In addition, the owner, buyer or authorized agent shall place into an escrow account a deposit of a surety or performance bond or cash in an amount equal to one and one-half times the estimated cost of the contract guaranteeing performance of such contract. The Division shall review the proposed corrective action and amend it as required to conform to federal, state and local laws, rules and regulations. All necessary corrective action shall be completed within one hundred eighty (180) days following Division approval of the proposed correction action plan. Once the Division gives final approval of the completed corrective action, the system shall be deemed to be in substantial conformance with this Regulation and any affidavit previously filed with the Registrar of Deeds shall be discharged. If an OWSDS presents an immediate health hazard, the owner or other responsible party shall take such measures, in cooperation with the Division, that will immediately reduce or eliminate the impact of such failure until the full remediation plan can be implemented as described earlier in this Paragraph.

Sec. 8:2 A person who disputes any Division decision concerning the violation of this Regulation shall have the right to a hearing and appeal using the appeals process in Article XI. Any appeal shall not stay an owner's, buyer's or authorized agent's obligation to take measures to reduce or eliminate the impact of a failure until a full remediation plan can be determined and implemented.

## ARTICLE IX

### Enforcement and Compliance

Sec. 9:1 If, after investigation, the Division believes that a person is violating these Regulations, the Division shall attempt to enter a voluntary agreement with the property owner to resolve the violation. If a voluntary agreement cannot be reached, the Division may issue a violation notice to the owner. A statement of facts upon which the notice is based shall accompany the violation notice.

Sec. 9:2 The Division may, after presenting proper credentials and other documents as may be required by law, and upon stating the authority and purpose for the investigation, enter and inspect any property at reasonable times to ascertain compliance or noncompliance with this Regulation or Rules promulgated under this Regulation. This may include:  
Inspection at reasonable times of any parcel containing an OWSDS and related systems.  
Collection of evidence and information for the purpose of determining compliance with this Regulation or Rules promulgated under the Regulation.



Sec. 9:3 If an owner, transferee or purchaser does not comply with the requirements of this Regulation, a Health Officer or his/her duly authorized representative may record an affidavit that details the non-compliance with the Washtenaw County Registrar of Deeds.

## ARTICLE X

### Specific Enforcement Options

#### Violation of the Regulation

Sec. 10:1 After learning that this Regulation has been violated, the HCBA/PHAC or the Health Officer or his/her designated representative may:

Issue a Cease and Desist Order and/or suspend any permit, certificate or other approval issued pursuant to this Regulation to the owner or other party violating this Regulation, and afford the owner or other interested party Notice and Opportunity for Hearing.

Request that Washtenaw County Corporation Counsel file a legal action to enjoin the violation. In addition, the Health Officer may seek to recover any and all costs related to correcting, removing or abating the violation.

#### Issuance of Monetary Civil Penalties

Sec. 10:2 If a local health department representative or Health Officer believes that a person is violating a provision of this Regulation or an order issued pursuant to this Regulation, the representative may issue a citation within ninety (90) days after the alleged violation is discovered. The citation shall state with particularity the nature of the violation, including reference to the Section of the Regulation alleged to have been violated, the civil penalty established for such violation, if any, and a right to appeal the citation pursuant to MCLA 333.2461 and Article XI of this Regulation. The citation shall be delivered or sent by registered mail to the alleged violator.

Any party issued a citation may, within ten (10) days from the date the citation is issued, request an informal conference at which time the person may indicate why s/he believes that s/he has not violated this Ordinance.

Any party issued a citation may appeal the citation to the HCBA/PHAC or its designated committee within thirty (30) days after the citation is issued. The appeal shall be conducted in accordance with Article XI of this Regulation. A person aggrieved by a final decision of the Health Officer or the HCBA/PHAC or its designated committee, may petition the Circuit Court of the County where the premises is located for review. The time period for appeal shall begin to run the day after the date of such final decision.

#### Schedule of Monetary Civil Penalties

Sec. 10:3 Monetary civil penalties may be imposed according to the following schedule:

First violation: Up to \$ 200.00

Second violation: \$ 500.00

Third and subsequent violations each: \$ 1000.00

Sec. 10:4 A civil penalty levied under this Section may be assessed for each violation or day that the violation continues. The civil penalty may be for a specified violation of this Ordinance or promulgated Rule, that the Health Officer has the authority and duty to enforce.

Sec. 10:5 A decision by the Health Officer not to issue a citation shall not be construed as a waiver of any other rights or remedies authorized by law or this Regulation.

#### Conviction of Misdemeanor

Sec. 10:6 Any person who violates this Regulation is guilty of a misdemeanor, punishable by imprisonment for not more than ninety (90) days, or a fine of not more than \$200.00 or both. Conviction by jury, court or voluntary plea and acceptance by court under this provision shall not waive any other claim for fines, costs, injunction or other relief authorized by this Regulation. Each day that a violation of this Regulation exists shall constitute a separate offense.

#### Assessment against the Property

Sec. 10:7 If an owner does not have his/her property evaluated as specified by this Regulation, the Division shall cause an inspection to be performed and may charge all costs and fees for the evaluation to the owner of the premises.

Sec. 10:8 If the owner or party violating this Regulation refuses on demand to pay such expenses incurred by the Department to abate, correct or remove a violation, unsanitary condition or nuisance, the sum shall be assessed against the property and shall be collected and treated in the same manner as taxes assessed under the general tax laws of this State.

#### Right to Obtain Samples

Sec. 10:9 An inspection under Sec. 9.2 shall include the right to obtain samples where the Health Officer has reason to believe that there is a likelihood of contamination of surface water, ground water, water supply or other unsanitary conditions. Upon written notice, an owner or occupant of premises from which such inspection is sought shall co-operate with the Health Officer or his/her designated representative.

### ARTICLE XI

#### Hearings and Appeals

Sec. 11:1 If an owner or interested party is adversely affected by any decision under this Regulation, s/he may request in writing a Hearing before the HCBA/PHAC or its designated Committee within thirty (30) days of the date of such decision. The Health Officer shall issue a Notice of Hearing within fifteen (15) days after receiving the request. A Hearing shall then be held at the next regular meeting of the HCBA/PHAC (or its designated committee), scheduled for such purposes; provided, however, that a Hearing shall be conducted no later than sixty (60) days after the Notice of Hearing is mailed to the owner or interested party. The HCBA/PHAC (or its designated committee) shall affirm, reverse or modify the contested decision by a majority vote of the entire Board. The decision by the HCBA/PHAC (or its designated committee) shall

be in writing and state the reasons and grounds for such decision. A copy shall be furnished to the owner, any interested person, and the Health Officer within thirty (30) days of the decision.

## ARTICLE XII

### Miscellaneous Provisions

#### Severability

Sec. 12:1 Each provision of this Regulation must be interpreted in a way that is valid under Michigan law. If any provision is held invalid, the rest of the Regulation shall remain in full effect.

Sec. 12:2 All amendments to this Ordinance shall be approved by the Washtenaw County HCBA/PHAC and the Washtenaw County Board of Commissioners after a public hearing required by Section 2442 of Act 368 of the Public Acts of 1978, as amended, has been held. All amendments shall become effective at a time provided for under Michigan law.

# Lake Panorama On-Site Wastewater Management District

## Rules and Regulations

### Chapter One

#### 1.0 Administrative

1.1(1) Term of Office. The Administrative Committee members shall be appointed by the Guthrie County Board of Health to three-year terms. Members may be reappointed to consecutive terms.

1.1(2) Vacancies. Vacancies on the Committee shall be filled by the Board of Health within two months of the vacancy. Members of the Committee shall either be residents of Guthrie County or property owners within the Management District.

1.1(3) Officers. At the first meeting of each calendar year the Committee shall select a Chairperson and Vice-Chairperson as officers. The County Sanitarian shall serve as secretary.

1.1(4) Meetings. The Committee shall meet at least four times per year at a time and place designated by the Committee.

1.1(5) Budget. The Committee shall submit a budget request to the Board of Health annually. This budget shall be submitted to the Guthrie County Health Department at least two weeks prior to the Board of Health meeting at which the health budget is to be proposed.

1.1(6) Rules and Regulations. All rules and regulations or amendments shall be presented to the Board of Health for approval prior to submission to the Guthrie County Board of Health.

1.1(7) Quorum. Any three members shall constitute a quorum.

1.1(8) Voting. All motions of the Committee shall be approved by a simple majority of those members present.

1.1(9) Removal of member. By simple majority vote the Committee may recommend to the Board of Health the removal of a Committee member. Such removal may be recommended for improper conduct or lack of attendance at two consecutive regular meetings.

- a. Failure of the Board of Health to act upon receipt of such a recommendation at its next regular meeting shall result in automatic removal of the member.
- b. The Board of Health may vote to delay a final decision on the recommendation until the subsequent meeting of the Board in order to collect additional information.
- c. Removal of a Committee member shall be effective immediately upon motion of the Board of Health.

1.1(10) Notice of Meeting All members shall receive at least one week's advance notice of any regular meeting. Special meetings or emergency meetings may be called at the discretion of the Chair person with all members notified, if possible, and with at least 24 hours advance notice.

1.1(11) Policies. The Committee may direct the sanitarian to prepare policies for the day-to-day operation of the District. Such policies need only be approved by the Committee. The Board of Health, at its own initiative, may revoke any policy of the Committee.

## Chapter Two

### Section 1. Jurisdiction.

Chapter 137 of the 1999 Code of Iowa specifies in Section 137.7 the following power of the County Board of Health:

May provide such personal and environmental health services as may be deemed necessary for the protection and improvement of the public health.

Under the authority granted by Chapter 137 the Board of Health and Board of Supervisors adopted Guthrie County Ordinance No. 2 titled Lake Panorama On-Site Management District Ordinance establishing the Administrative Committee and empowering the Committee to develop rules and regulations relating to the District.

These regulations shall supersede and replace other regulations of the Committee which have been in effect to date.

### Section 2. General Requirements

2.1 Applicability These regulations are applicable to all sewage and wastewater treatment systems located within the Lake Panorama On-Site Management District except those approved by other appropriate governmental agencies, i.e. Department of Natural Resources.

2.2 Definitions The definitions applied to these regulations shall be the same as those delineated in the Guthrie County Board of Health regulations.

#### 2.3 General regulations

2.3(1) Conformance with County Health Regulations Regulations of the Board of Health that are not addressed in these regulations shall be enforced by the Sanitarian within the District when appropriate. Any system exceeding the six-bedroom requirement must be designed by an engineer and approved by the Committee, and the Dept. of Natural resources where appropriate.

##### 2.3(2) Connection to public sewer

- a. No on-site wastewater treatment and disposal system shall be installed, repaired, or rehabilitated where a public sanitary sewer is available or where a local ordinance requires connection to a public system.
- b. When a public sanitary sewer is not available, every building wherein persons reside, congregate, or are employed shall be provided with an approved on-site wastewater treatment and disposal system.
- c. It is prohibited to discharge and wastewater from on-site wastewater treatment and disposal systems (except under an NPDES permit) to any ditch, stream, pond, lake, natural or artificial waterway, county drain tile, surface water drain tile, land drain tile, or to the surface of the ground.

2.3(3) Permit No on-site system shall be installed or altered until an application for a permit has been requested and a permit has been issued by the Sanitarian. The installation shall be in accordance with these regulations and those of the Board of Health where applicable. Either the owner or installer or both may be cited for violation of these regulations. No permit shall be issued until a complete set of plans for the home is submitted for evaluation of all aspects bearing on the requirements of these rules.

2.3(4) Flow criteria The flow requirements in designing on-site wastewater systems shall be based upon the rate of 150 gallons per day per bedroom. Flows for non-resident structures shall be designated by the Committee on an ad-hoc basis.

2.3(5) Fees Permit, percolation test fees, and other fees shall be established by the Board of Health.

2.3(6) Permit validity Permits shall be valid for one year from issue date. From the date the house construction begins, the on-site system must be installed within one year prior to occupancy whichever is earlier.

2.3(7) Repairs to existing systems At such times as parts if the existing system fails, need repair, or replacement then such parts shall be repair to the standards delineated in these rules rather than those in effect at the time of the original installation.

### Section 3 Site analysis

1. A site evaluation shall be conducted prior to issuance of a construction permit. Consideration shall be given, but not limited to, the impact of the following: topography, drainage ways, terraces, floodplain, percent of land slope, location of property lines, location of easements, buried utilities, existing and proposed tile lines, existing, proposed and abandoned wells, amount of available area for the installation of the system, evidence of unstable ground, alteration (cutting, filling, compacting) of existing soil profile, and soil factors determined from a soil analysis, percolation test and soil survey maps.

2. No construction of any kind, including driveways, basement digging, etc. may be started until a meeting has been held on-site between the Sanitarian and theowner/contractor for the project. This is to assure that the site is properly laid out to allow the on-site system to be installed in the properly designed location. Any changes shall be approved by the Sanitarian.

3. On sites with existing on-site systems any improvements to the lots shall be reviewed by the Sanitarian prior to the improvements. Consideration shall be given, but not limited to, the impact of the following: landscaping, building additions, driveways, sidewalks and walkways, decks and patios, tiling, utilities installation, heat pump wells, lot boundary changes and easements. Such improvements shall only be allowed if the on-site system must be modified to assure the proper operation of the on-site system.

4. All on-site systems shall be located in accordance with Table I of the Board of Health regulations. Due to the limited spatial dimensions of properties, the Committee provided some reasonable allowances to these distances where appropriate.

### Section 4. Surface discharges

All discharges from on-site systems which are discharged into any surface water or to the surface of the ground shall be treated in a manner that will conform with the requirements of NPDES General Permit No. 4 issued by the Department of Natural Resources, as referenced in 567-Chapter 64. Prior to the installation of any system discharging to waters of the State a notice of intent to be covered by NPDES general Permit No.4 shall be submitted to the Department. Systems covered by this permit must meet all applicable requirements listed in the NPDES permit.

### Section 5. Building sewers

5.1 Type Building sewers used to conduct wastewater from a building to the primary treatment unit of an on-site system shall be constructed of Schedule 40 plastic pipe (or SDR 26) or stronger with solvent-weld or bell-and-gasket type joints.

5.2 Size Such building sewers shall not be less than 4" in diameter.

5.3 Grade Such building sewers shall be laid to the following minimum grades:

- a. 4-inch sewer 12 inches per 100 feet.
- b. 6-inch sewer 8 inches per 100 feet.

#### 5.4 Cleanouts

- a. A cleanout shall be provided where the building sewer leaves the house and at least every 100' of run.

- b. An accessible cleanout shall be provided at each change in direction or grade if a 90-degree elbow is used.

## Section 6. Primary treatment-septic tanks

### 6.1 General requirements

6.1(1) Tank required Every on-site system, except mechanical/aerobic systems, shall have as a primary treatment unit a septic tank as described in this rule.

6.1(2) Prohibited waste All wastewater from the facility serviced shall discharge into the septic tank except as follows:

- a. Softener brine from a water softener is prohibited to enter any portion of the septic system. Such brine must be discharged to a brine pit or other approved discharge site.
- b. Discharge from hot tubs and spas is prohibited to enter any portion of the septic system. Such water shall be discharged to the yard or other such area in a manner that does not create a nuisance condition.
- c. Septic tanks shall not be used for the disposal of chemical wastes or grease in quantities which might be detrimental to the bacterial action in the tank or for the disposal of drainage from roof drains, foundation drains, or area drains. Sumps shall not discharge to the tank.

6.1(3) Easements. No septic tank shall be located upon property under ownership different from the ownership of that property or lot upon which the wastewater originates unless easements to that effect are legally recorded and approved by the Committee.

6.1(4) Effluent discharge All septic tank effluent shall discharge into a secondary treatment system in compliance with these regulations.

6.1(5) Capacity The minimum liquid holding capacity shall be as specified in the following chart (capacity may be obtained by using one or more tanks)

- 1, 2 or 3 bedroom homes 1250 gallons
- 4 bedroom homes 1500 gallons
- 5 and 6 bedroom homes 2000 gallons

The presence of a high volume water use fixture such as a whirlpool bath, or other jetted style tub, or similar appliance requires an additional 500 gallon capacity tank system.

6.1(6) Tank design. Tank design shall be in accordance with the County regulations except as follows:

- a. Access must be provided to all parts of the septic tank necessary for adequate inspection, operation, and maintenance.
- b. An access opening shall be at least 18" in the smallest dimension if the tank has no other openings. Alternatively, a single opening at least 24" in diameter may be provided at the center of the tank allowing access to both compartments, with two smaller openings at least 6" in diameter over both inlet and outlet.
- c. If the top of the tank is to be greater than 12" below the finished ground surface, a riser must be installed over each manhole to bring the top of the manhole lid to within 6" of the finished ground surface.
- d. The lid of the tank or the riser, if greater than 12" must be donut-style lid such that there is a smaller lid no less than 6" nor greater than 12" for an opening. This is to facilitate the inspection program. Lids above grade level are exempt except that lids may not exceed 3' in diameter and may not be below grade. Existing lids in pits must have access lid of 6"-12" in these larger lids. At the time of sale such existing lids shall be modified to remove the pit.
- e. All access manholes into the tanks must be a plastic manhole cast into the tank lid with a fitted accompanying lid to assure water-tightness. If a riser is needed, it must be a compatible unit that is sealed to the manhole with appropriate material and the lid appropriate for the riser.
- f. Without special permission of the Committee no tank shall be deeper than 5' from final grade to top of tank.

6.1(7) Connecting pipes

- a. Minimum diameter The pipes connecting septic tanks installed in series and at least the first 5' on the effluents side of the last tank shall be a minimum of 4" in diameter Schedule 40 plastic.
- b. Tank connections All inlet and outlet connections at the septic tanks shall be made by flexible boot gaskets cast into the concrete and adaptable to the 4" Schedule 40 plastic by using a metal strap clamp to assure water tightness. Other gaskets may be approved if appropriate by the Sanitarian.
- c. Joints All joints in connecting Schedule 40 plastic pipe shall be approved plastic pipe connections such as solvent welded or compression-type gaskets. No joints are allowed in the fill space between a tank and undisturbed ground.
- d. Unstable ground Schedule 40 plastic pipe shall be used extending across excavations or unstable ground to at least 2' beyond the point where the original ground has not been disturbed in septic tank installations. If the excavation spanned is more than 2', it must be filled with sand or compacted fill to provide a firm bed for the pipe. The first 12" of backfill over the pipe shall be applied in thin layers using material free from stones, boulders, large frozen chunks of earth, or any similar material that would damage or break the pipe.

6.1(8) Prohibited construction There shall be no construction of any kind covering any portion of the septic tank.

## Section 7 Secondary treatment

Soil absorption systems are the best available treatment technology and shall always be used where possible.

### 7.1 General requirements

7.1(1) Location All subsurface absorption systems shall be located on the property to maximize the vertical separation distance from the bottom of the absorption trench to the seasonal high groundwater level, bedrock, hardpan, or other confining layer, but under no circumstances shall this vertical separation be less than 3'.

7.1(2) Soil evaluation A percolation test or professional soil analysis is required before any soil absorption system is installed. A percolation test shall be performed by Health Department Staff or be a registered, professional engineer who shall consult the Sanitarian prior to conducting the percolation test or soil analysis. The Committee shall review all percolations tests and soil analyses submitted and may reject tests deemed not properly performed. The Committee may at any time develop a requirement for both a soil analysis and a percolation test.

- a. The percolation test procedure is outlined in the Board of Health regulations.
- b. If a professional soil analysis is performed, soil factors such as soil content, color, texture, and structure shall be used to determine a percolation rate.
- c. An area is deemed suitable for conventional soil absorption if the average percolation test rate is between 1 min. and 60 min. per inch. Rates for systems such as mounds and drip irrigation can be up to 120 minutes per inch.
- d. Prior to construction, an additional test hole 6' deep shall be provided in the center of the proposed absorption area to determine the location of groundwater, rock formations, or other confining layers. This hole shall be provided by the contractor by digging with a backhoe.
- e. If a seasonal high groundwater level is present within 3' of the trench bottom, then corrective measures to eliminate this problem must be performed.
- f. In situations where specific location or site characteristics would appear to prohibit normal installation of a soil absorption system, design modifications may be approved by the Committee which could overcome such limitation.

### 7.1(3) Site limitations

- a. Roof, foundation, and storm drains shall not discharge into or upon subsurface absorption systems. Where appropriate, eave troughs shall be required.
- b. Grading, improvements, driveways, and other structures cannot create drainage pathways onto lateral field areas.
- c. There shall be no construction of any kind, including driveways, over the subsurface absorption system. Vehicle access to the subsurface system is prohibited.
- d. Connecting solid lines under driveways shall be constructed of Schedule 40 plastic or equivalent. Measures to protect from freezing shall be employed when necessary.
- e. No subsurface system shall be constructed on any property under ownership different from the ownership of the property or lot upon which it originates unless easements to that effect are legally recorded and approved by the Committee.



7.1(4) Split fields. Subsurface rock trench fields installed in areas with percolation test rates of 21-60 min./inch shall be composed of two equal fields each containing 75% of the total lateral field length specified in Table I. Each field shall receive the effluent in alternating years. Such alternating of laterals shall be done by the Sanitarian. All alternating fields shall be pressure dosed.

## 7.2 Trench requirements

7.2(1) Percolation charts The following charts are used to determine appropriate subsurface trench lengths.

- Table I specifies the lineal feet of subsurface trenches required in accordance with the results of the standard percolation test under normal conditions.
- Table II lists an optional method of determining length of subsurface trenches when space is a problem. This table for increased rock usage shall be used only when the size of lots limits the use of the standard length trenches. This table is only applicable to percolation test rates of 20 min/inch or less.
- Table II must not be used when the soil profile indicates it is not proper nor can it be used when the potential for a water table problem exists. Under no circumstances can the trench depth exceed 36".
- Table III must be utilized additionally to determine actual rock depth for percolation test rates greater than 20 min./inch.

Table I

Soil Absorption System Sizing Chart (Lineal feet of absorption trench)

Min. Per Inch	Two-bedroom 300gpd	Three-bedroom 450gpd	Four-bedroom 600gpd	Five-bedroom 750gpd	Six-bedroom 900gpd
-10	200	265	320	385	460
11-15	230	300	400	500	600
16-20	275	365	440	530	635
21-25	325	420	500	600	720
26-30	360	470	565	680	815
31-35	390	510	615	740	890
36-40	420	550	660	790	950
41-45	450	585	700	840	1010
46-50	475	615	740	890	1070
51-55	495	645	775	930	1115
56-60	510	660	800	960	1150

Table II

Alternative Option for Increased Rock Usage

Perc rate > 20 min./inch

Depth of gravel below distribution line      Reduction in trench lengths as taken from Table I

16"	20%
20"	33%
24"	40%

Table III

## Rock Depth for Various Percolation Rates

Percolation rate (min./inch)	Depth of Rock
0-20	12 inches
21-40	16 inches
41-60	20 inches

- e. For any percolation test rate a reduction of 20% in total length can be allowed when dosing is employed.  
 f. Lateral trench reduction for both dosing and increased rock depth shall be calculated as follows:

Percolation rate (min./inch)	Total gravel depth	% Reduction from Table I
0-20	16"	30%
0-20	20"	40%
0-20	24"	45%
21-60	24"	25%

- g. If soil analysis is utilized, the person analyzing the site shall determine a value from the soil analysis to fit Table I. From Tables II and III section f. above may be utilized where appropriate.  
 h. Soils with percolation rates of 20 min./inch or more shall have a backhoe bucket with side raker teeth utilized to install rock trench lateral fields.

7.2(2) Conventional subsurface soil absorption trenches shall not be installed in soils that have a percolation rate less than one min./inch or greater than 60 min./inch.

## 7.2(3) Construction Details

- a. Depth Lateral. trenches shall not exceed 36" in depth. Not less than 6" of porous soil shall be provided over the laterals. A shallow trench with as near the minimum cover as possible is strongly recommended. Minimum separation between trench bottom and groundwater, rock formation, or other confining layer shall be 36" even if extra rock is used under the pipe.  
 b. Length. No gravity absorption trench shall be greater than 100' long. Pressure laterals may be longer if approved by the Sanitarian.  
 c. Separation distance. At least 5' of undisturbed soil shall be left between each trench edge on level sites. Additional separation of 2' is recommended on sloping sites.  
 d. Grade. Trench bottom should be constructed level from end to end.  
 e. Compaction Prior to construction. the subsurface absorption system shall be located and fenced with snow fence, or equivalent, to prevent compaction of the area with no removal of the fence at any time during home construction, except to install the system. After installation, the fence shall be re-installed until the home is completed. Warning signs, provided by the Sanitarian, must be posted on the fence.  
 f. Fill Soil. Soil absorption systems shall not be installed in fill soil. Disturbed soils which have stabilized for at least five years may be approved upon soil analysis or percolation test results. The Committee may reject any fill site deemed to not be suitable for an absorption system.  
 g. Graded sites. Removal of upper layers of soil from an absorption system site is prohibited. Areas graded down may not be used as soil absorption system sites except as approved by the Committee after suitable soil analysis and testing.  
 h. Soil Smearing. Soils with significant clay content shall not be worked when wet. The Sanitarian, upon observing significant smearing, shall have the authority to stop work on the absorption system until the soil has dried to allow minimal smearing.

7.2(4) Gravel systems. Only rock trench lateral field systems shall be allowed as the preferred subsurface soil absorption system. Rockless pipe systems and chamber systems shall not be used. Also allowed shall be drip irrigation systems.

- a. A minimum of 12" clean, washed river rock shall be used in the trench. This gravel shall be of such size that 100% will pass a 2.5" screen and 100% will be retained on a .75" screen. Limestone or crushed rock is not allowed as a rock medium.
- b. Lateral trenches shall be 24" in width. A trench width of up to 36" is permissible with Committee approval.
- c. The trench bottom should be level.
- d. Untreated building paper, synthetic drainage fabric, straw, or other approved material shall be laid so as to separate the gravel from the soil backfill.
- e. Transit readings shall be taken on all lateral lines at the proximal and distal ends to assure proper grade. Additional readings may be required for any connecting piping from distribution boxes or manifolds to secure proper fall.
- f. Gravity systems. Additional requirements for such systems shall be as follows:

1. Pipe Distribution. pipe shall be PVC rigid plastic meeting ASTM Standard 2729, or other suitable material approved by the Committee. The inside diameter shall not be less than 4" with perforations at least .5" and no more than .75" in diameter spaced no more than 40" apart. Two rows of perforations shall be provided located 120 degrees apart along the bottom half of the tubing (each 60 degrees up from the bottom center line). The end of the pipe shall be capped.

2. Distribution. Distribution on sloped sites shall be by either drop boxes or a distribution box method. Serial distribution may be allowed with permission of the Sanitarian. On flat sites either serial distribution, a manifold distribution, or a distribution box may be employed.

- a. Drop boxes and distribution boxes shall be of plastic composition.
- b. Manifold layouts shall be of water-tight piping laid on a level, undisturbed bed. Only 90-degree tees may be the lateral to the manifold. The effluent line shall be used to connect to the manifold in approximately the middle of the manifold and equidistant between two laterals.
- c. Distribution shall be laid out in an approved manner that does not allow water to follow a trench from one distribution line to another.
- d. Distribution boxes shall not feed any lateral greater than 100' in length.
- e. Laterals in a distribution box or manifold system shall all be equal in length, except that a line may vary from the common length by 10% in special circumstances.
- f. Distribution boxes shall have a 45-degree or more inlet letdown.
- g. Speed levelers must be installed on all lateral outlets.

3. An observation port shall be installed at the outer end of every lateral line. This shall consist of a Tee at the end of the lateral pipe with section of the perforated pipe extending down to the bottom of the rock layer and a piece of solid pipe extending from line level to 2" above grade. All piping shall be glued together with a cap (not glued) covering the above grade pipe.

4. Such ports shall be maintained by the homeowner to be visible and at least 2" above the surface of the ground. Caps and ports must be kept in proper repair at all times to allow for the Sanitarian to inspect the conditions of the laterals. Caps must be of the proper size for the port.

- g. Pressure systems Additional requirements for such systems shall be as follows:

1. The manifold and distribution pipe shall be rigid, plastic pipe (Schedule 40 or equivalent) of 1-2" inside diameter. The lateral pipe shall be laid in the rock layer as near to level as possible.
2. All joints shall be pressure fittings solvent welded.
3. The distribution pipe shall be placed in the upper 3" of rock with the holes turned downward.
4. No perforations shall be allowed in the last 3" of the outer end of the lateral pipe nor in the first 3' of the lateral pipe.
5. The length of pressure laterals is not limited to 100' nor do all laterals in a system have to be of equal length.

6. The system shall be pressure-tested for proper operation prior to covering where possible or deemed necessary.
7. Discharge holes in the pipe shall not be smaller than 3/16" nor larger than 3/8" without special permission.
8. Hole spacing shall not be less than 2' nor more than 10'.
9. Pump head shall correspond as closely as possible to that needed to pressurize the highest elevation lateral to 3' of head minimum.
10. The system is to be designated so that approximately equal volumes of water are delivered to each lateral on a per foot basis. This is accomplished by varying the hole size and spacing and if necessary using valves or pipe restrictions to regulate flow to a particular lateral.
11. An observation port shall be installed at the outer end of every lateral line. Such ports shall be of 4" rigid, solid, plastic pipe of less than Schedule 40 weight. The pipe shall be within 3' of the end of the with the pipe extending from the bottom of the trench to at least 2" above final grade. In the rock layer, the pipe shall have a series of 1/4" holes installed but shall be solid through the dirt layer.
12. Such ports shall be maintained by the homeowner to be visible and at least 2" above the surface of the ground. Caps and ports must be kept in proper repair at all times to allow inspection of the lateral condition. Caps must be of the proper size for the port.
13. The manifold line shall be laid in such an approved fashion as to prevent effluent from seeping from line to line.
14. Any lateral field of 400' or more must be pressure dosed.

7.3 Mound systems. Under suitable site conditions the use of a mound system is allowed. The mound system shall be installed according to the current Board of Health regulations in effect at the time the mound is approved for installation. The Committee reserves the right to add additional stipulations if necessary to protect the health and condition of the Lake and residents.

7.4 Drip irrigation systems. Specifications given in these rules are minimal and may not be sufficient for all applications. Technical specifications are changing with experience and research. Other design information beyond the scope of these rules may be necessary to properly design a drip irrigation system.

7.4(1) Pretreatment. These systems must be preceded by a secondary treatment system with National Sanitation Foundation approval discharging a treated, filtered effluent with BOD and TSS values less than 20 mg/L.

7.4(2) Groundwater separation. Drip irrigation systems shall have a minimum vertical separation distance to high groundwater level or bedrock of 20".

7.4(3) Maximum slope. Drip irrigation systems shall not be installed on slopes of more than 25%.

7.4(4) Emitter layout

- a. Discharge rate Systems shall be designed so that emitters discharge approximately 1 gpm at 12 psi or other rates suggested by the manufacturer and approved by the Committee.
- b. Grid size Drip lines shall be run in parallel lines at least 2' apart. Emitters shall be placed in the drip lines on 2' intervals with emitters offset 1' between adjacent lines. Each emitter shall cover 4 square feet of absorption area.
- c. Field size The field shall be sized according to the application rate given in Table IV. Where appropriate the manufacturer's representative may provide input into sizing of the system.
- d. Depth of lines Drip lines shall all be laid on the contour 6-12" deep with a maximum line length of 100'.
- e. Interconnection Drip lines shall all be connected to supply and return headers such that the entire system will automatically drain back to the pump pit upon completion of the pumping cycle. Vacuum breakers shall be positioned at the high point of the supply and return headers.

7.4(5) Pump chamber These pump pits shall meet all appropriate specifications of pump pits listed in section 7.7. Additionally, the following shall apply:

- a. Pump pits shall be at least 1000 gallons in capacity.
- b. Pump pits shall have an audible and visible alarm system either in the house or at the pump station.
- c. Pumps shall cycle to deliver a dose of 20-50 gallons of water then shut off for at least one-half hour before restarting to repeat the cycle as long as there is sufficient effluent to activate the pump float.

- d. There shall be a high level alarm that activates when the tank is 75% full.
- e. No check valve is allowed on the pump line.
- f. A filter shall be present on the discharge line after the pump but within the pit that will not allow solids that might plug the emitters to enter the pump line.
- g. A service contract shall be maintained by the homeowner with an approved company to do a service check on this system quarterly. This service report shall be automatically sent to the Committee by the service company within ten days of completion of the service for that quarter.

Table IV

Length of Drip Line Required per Bedroom

Perc rate (min./inch)	Length of Drip Line (feet/bedroom)
1-5	50
6-15	75
16-30	100
31-45	200
46-60	250
61-90	400
91-120	600

7.5(1) Intermittent sand filters. Such sand filters may be allowed by the Committee with special variance if it is determined it is not possible to install a subsurface soil absorption system.

- a. Pretreatment These systems must be preceded by a secondary treatment system with National Sanitation Foundation approval discharging a treated, filtered effluent with BOD and TSS values less than 20 mg/L.
- b. Location. Such sand filters shall be located as far from the shoreline as practical but in no case shall the sandfilter be deeper than the Lake elevation nor in the water table.
- c. Sampling. A sampling port shall be available at the discharge point of the filter or shall be installed in the discharge line after the effluent filter in the pump pit. Monitoring and effluent sampling of intermittent sand filters must meet the requirements of the NPDES General Permit No. 4. Such sampling shall be performed annually or as directed by the Committee. The annual sample must be collected in the months of June, July, or August.
- d. Contaminant levels The maximum carbonaceous BOD5, total suspended solids, and fecal coliform count requirements are as follows:

Effluents Discharging to:	Fecal Coliform	BOD5	TSS
Class "A" waters:			
Primary contact waters:	200	25	25
All other water use classifications	no limit	25	25

- e. Free access filter. It is assumed that such filters will be free access sand filters. Such filters shall be dosed by pumping.
- f. Gravel specifications. The bottom of the sand filter shall have a 12" layer of gravel meeting the specifications of section 7.2(4)a with the collector lines laid in the bottom 6" of rock.
- g. Collector lines. One collector line shall be laid for each 3' of bottom surface area. Such lines shall be Schedule 35, or equivalent, with perforations as specified in section 7.2(4)f1.
- h. Sand barrier. A 3" layer of clean, washed pea gravel shall cover the rock prior to the sand layer being added. Filter fabric shall not be used.
- i. Sand. A minimum of 30" course, washed sand shall be placed over the pea gravel.. The sand shall meet the Iowa DOT standard for concrete sand: 100% shall pass a 9.5 mm screen, 90-100% shall pass a 4.75 mm screen, 70-100% shall pass a 2.36 mm screen, 10-60% shall pass a 600 micron screen, and 1- 1.5% shall pass a 75 micron screen.
- j. Distribution. Distribution of effluent over the sand layer shall be accomplished by the use of a 1 ½" Schedule 40 manifold laid on the sand inside a 4" pipe meeting the standards of section 7.2(4)f.1. This 4" pipe shall be

capped at the end with a ¼" holes drilled at the end to allow drainage after the pump shuts off. The pressure manifold pipe shall have ¼" holes drilled on 4' centers. There shall be one distributor line for each 2' of filter width.

k. Access. Such filters must be covered to protect against severe weather conditions or to avoid encroachment by weeds or animals. The cover also serves to reduce odor conditions. Covers may be constructed of treated wooden planks, or other suitable material. Insulation is recommended. A minimum space of 18" shall be available between the cover and the sand surface to allow easy maintenance. Such filters shall not be buried by sod or soil. All portions of the sand surface shall be accessible from the accesses.

l. Size. Such filters shall be 20 square feet per bedroom with a minimum square footage of 60 square feet.

m. Discharge line. The discharge line from the sand filter to the point of discharge shall be perforated pipe meeting the standards of section 7.2(4)f.1. It shall be laid in the trench surrounded by pea gravel or septic rock meeting standards of section 7.2(4)a. This is to allow as much treated effluent as possible to enter the soil prior to discharge.

n. Pump pit The pump pit shall meet the specifications in section 7.7. A filter shall be present on the discharge line after the pump but within the pump pit that will meet the same requirements as the filter specified for drip irrigation systems.

o. Service contract. A service contract shall be maintained by the homeowner with an approved company to do a service check on this system quarterly. The service report shall be automatically sent to the Committee by the service company within ten days of completion of service for that quarter.

7.5(2) Existing non-aerated intermittent sand filters. There are in existence such sand filter that are preceded by septic tank treatment with a dosing chamber to dose the sand filter.

a. Such systems shall be allowed to exist until such time as the Committee adopts rules that would replace such septic tank/sand filter systems with another system.

b. Should such a sand filter fail and need to be replaced the system must be replaced with an aerated system per section 7.5(1).

c. The homeowner shall maintain all plumbing fixtures in proper working in order to limit the hydraulic load.

d. Low volume toilets and showerheads shall be utilized.

e. Water pressure should be 65 psi or less.

f. Garbage disposal units are prohibited.

g. Should such system's septic tank need to be replaced the system must be replaced with an aerated system as per section 7.5(1).

h. The septic tank outlet shall have a gas baffle in addition to the standard baffle required.

i. The sand filter construction shall be maintained in at least the same condition as required by the rules in effect at the time the sand filter was installed.

j. There shall be no construction over the discharge line of the sand filter.

k. Sampling of the effluent shall be done on the same schedule as other sand filters.

l. Septic tanks preceding such sand filters shall be pumped when scum depth exceeds 3" or when sludge depth exceeds 12".

## 7.6 Individual mechanical aerobic wastewater treatment systems

7.6(1) Use Mechanical/aerobic systems may be used only when the Sanitarian determines that the site is unacceptable for a full-sized soil absorption system. Because of the higher maintenance requirements of mechanical/aerobic systems, preference should always be given to septic tank/lateral field systems.

7.6(2) Certification All such systems shall be certified by an ANSI-accredited third-party certified to meet National Sanitation Foundation Standard 40, Class I, including appendices (May 1996 or as revised).

7.6(3) Installation and operation All such systems shall be installed, operated, and maintained in accordance with the manufacturer's instructions and the requirements of the Committee. The aerobic plants shall have a minimum treatment capacity of 150 gallons per bedroom or 500 gallons, whichever is larger.

7.6(4) Effluent treatment The effluent from such systems shall receive additional treatment through the use of free access sand filters, drip irrigation, or mounds as specified above.

7.6(5) Maintenance contract A maintenance contract with a manufacturer-certified technician shall be maintained at all times.

- a. Maintenance agreements and responsibility waivers shall be recorded with the County Recorder and in the abstract of title for the premises on which such systems are installed.
- b. Mechanical aerobic units shall be inspected for proper operation at least quarterly.
- c. The inspection report for each unit shall be forwarded to the Sanitarian within ten days of the completion of that quarter's inspection. Any additional service calls shall have the inspection report forwarded to the Sanitarian within ten days.
- d. Sampling of the effluent from the unit must be done annually in the months of June, July or August with the report submitted to the Sanitarian.
- e. Test results shall meet the limitations set forth in section 7.5d. Any system, or portion of system, failing to meet these standards must be promptly repaired, and a retest conducted within 30 days of the repair.
- f. Should inspection by the Sanitarian reveal problems, or suspected problems, the maintenance company shall inspect the system within 5 working days and collect additional samples if deemed necessary by the Sanitarian.

7.7 Pump pits. All pump pits shall comply with these regulations. Pump pits following aeration systems may have additional requirements.

7.7(1) Sizing. Pump pits shall be of a 1000-gallon minimum size. The optimum gallonage to pump per cycle is 150-250 gallons with the balance available as freeboard in case of pump failure or electrical outage.

7.7(2) Material. Pump pits may be constructed of the same materials as approved for septic tanks. However, plastic or fiberglass tanks cannot have more than 2' of cover over the tank.

7.7(3) Required use. Pump pits are required when elevation dictates to reach the lateral files and also on any lateral field system that is 400' or more in size. Dosing is required on all split-field systems.

7.7(4) Access. A manhole of no less than 22" shall be provided into the pump pit. This manhole shall extend above grade at least 4" and shall not be obstructed by heavy objects, rock cover, or any other obstruction that limits access into the pump pit. All pump pits shall be vented which may be accomplished by loose fitting lids.

7.7(5) Alarm. All pump pits shall have an audible and visible alarm either mounted at the pump station on an outside mounting or within the home. Such alarm shall be installed so that it is activated when the pump pit exceeds a 350-gallon volume of effluent.

7.7(6) Wiring. All wiring shall be done so that it is water and airtight. No plugs or other open connections shall be used. Preference is given to watertight electrical boxes mounted outside the pump pit.

7.7(7) Repair. Any systems being repaired or replaced that involve pump stations being installed or changed shall have the pump pit volume of at least 1000 gallons used.

7.8 Pumps. All pumps shall meet specifications for sewage pumps and shall be sized such that the pump will deliver the effluent to the treatment system in a manner that allows proper distribution of the effluent into the treatment system. All pumps shall be plumbed with a quick disconnect for easy removal.

7.9 Alternative methods of wastewater disposal. Other methods of private sewage disposal not described in these rules shall only be allowed after special approval of the Committee. There must be a preponderance of evidence to show that any such system is capable of properly treating the effluent generated by the residence.

## Chapter 3

### Section 8 Operation, maintenance, and repair

#### 8.1(1) Purposes

- a. The purpose of this chapter of rules is to extend and maintain the useful life of all existing on-site wastewater treatment systems within the District without causing undue cost or hardship to the owner.
- b. The District shall make every attempt to utilize subsurface disposal of wastewater. Surface disposal is considered temporary and as a last resort.

#### 8.2 Definitions

- a. Part-time residence: Structure having substantially continuous occupancy less than six months per year.
- b. Permanent residence: Structure having substantially continuous occupancy more than six months per year.

#### 8.3 Inspection of existing systems

##### 8.3(1) General requirements

- a. Inspections shall be made when weather permits.
- b. Such inspection will be unannounced unless the inspector directs the assistance of the resident.
- c. Wastewater treatment systems at permanent residences shall be inspected at least once each year, except that tank conditions shall be checked at least once each three years.
- d. Wastewater treatment systems at part-time residences shall be inspected at least once each two years, except that the tank conditions shall be checked at least once every six years.
- e. Tanks with access ports below ground level shall be opened by the owner or owner's agent prior to the inspection if greater than 1' to the top of the access port or if obstacles to opening are present.
- f. Any tank opened that has the access greater than 12" below grade shall have a riser added to bring the access to 6" or less below grade. Any lid diameter greater than 16" shall have the lid changed to a donut-style lid to provide a smaller access opening to facilitate inspection.
- g. The District shall maintain a permanent file of inspections and historical data for each structure served by an on-site disposal system.
- h. Mechanical/aerobic systems shall be inspected by the certified technician as specified in section 7.6(5). However, the Sanitarian shall do an inspection as per c and d above.

#### 8.4 Inspection items

##### 8.4(1) Tank inspection. The tank inspection shall include:

- a. sludge and scum levels
- b. determination of the conditions of the baffles, where feasible.
- c. Determination of the integrity of the tank, walls, lid, and other structural components, where feasible.

##### 8.4(2) Mechanical parts The following shall be checked:

- a. pump and pump chamber
- b. dosing siphon
- c. aerator
- d. timer and alarms, when possible
- e. wiring
- f. sampling of effluent shall be done according to appropriate portions section 7.

##### 8.4(3) Disposal area. The treatment system shall be checked as follows:

- a. surface conditions; i.e. wetness, unusual plant growth, erosion, and other visible signs



- b. any drop boxes, distribution boxes, alternating valves, etc. that may be exposed to the surface
- c. any surface discharge area checked for conditions indicating improper functioning of the secondary treatment system.

8.5 Operation and maintenance To aid in the proper operation and longevity of systems the following items are required and specified.

8.5(1) Septic tanks shall be pumped when scum levels exceed 4" in thickness or when sludge levels exceed 16" in depth, except as noted for sand filters. Scrubbing or disinfecting tanks after pumping is prohibited.

8.5(2) At no time shall vehicles, construction equipment be driven on the septic tank, pump pit, secondary treatment system, or other damageable parts of the system.

8.5(3) Metal, cement, or other construction equipment, or pumping equipment be driven on the septic tank, pump pit, secondary treatment system, or other damageable parts of the system.

8.5(4) Mechanical equipment such as pumps, siphons, aerators, and alarms shall be maintained in an operational condition as specified in the manufacturer's recommendations.

8.5(5) Wiring, connectors, and electrical components shall be repaired or replaced if deemed necessary by the Sanitarian in order to assure proper equipment operation and to prevent safety hazards.

8.5(6) At the time of sale of a residence older portions of the system that do not meet current standards of installation, such as wiring, may be required to be upgraded to current regulations.

8.5(7) Improperly operating systems cannot be repaired until the owner and Sanitarian agree on an acceptable plan for repair that conforms to these rules as best is possible. It is realized that on some existing sites the rules may not be able to be adhered to strictly and variances to certain sections may be necessary. Serious system problems will be reviewed by the Committee for approval of repairs.

8.5(8) At the time of abandonment of the old pre-1980 aerators, observation ports shall be installed on as many of the existing lateral lines as can be located.

#### 8.6 Maintenance of the split fields

- a. The Sanitarian shall be responsible for switching the alternating valve.
- b. The valve shall be diverted from field to field once each year at approximately the same time each year.
- c. Any system which develops symptoms of failing to operate satisfactorily under this dosing schedule may have the dosing schedule modified by the Sanitarian.

#### 8.7 Tank pumping

- a. A property owner can only hire persons or firms holding a current license from the Guthrie County Board of Health to clean septic tanks within District.
- b. When work begins on cleaning a tank, it shall be continued without interruption until the work is done and the tank is properly closed.
- c. Contents pumped from tanks may not be applied to land within the District except in a location and manner approved by the Sanitarian and the Lake Panorama Association in order to protect the surface and groundwater quality as well as for public health concerns.

8.8 Disinfection. The Committee may require the disinfection of certain systems that surface discharge. Such disinfection systems shall be commercially manufactured units that meet the Committee's approval.

8.9 Types of repairs To correct failing or problem systems the following may be utilized. This list is only a partial listing and others may be approved by the Committee.

- a. converting gravity-fed systems to doses systems
- b. converting a single field to a split field
- c. re-leveling the distribution box
- d. increasing the dosing chamber size
- e. implementing water conservation practices and installing water conservation devices
- f. installing a second lateral field and developing a split field system
- g. installing of curtain drains, terraces, and other water diversion structures
- h. redirecting runoff and foundation drain water
- i. increasing the lateral field size
- j. installation of a mound system
- k. segregation of black water and grey water systems
- l. developing a pressurized subsurface absorption system
- m. installation of a dosed, pressure sand filter
- n. removal of structures affecting the subsurface absorption field.

8.9(1) The Committee shall establish a time limit for the completion of the repairs

8.9(2) Any consultants or other professionals hired as directed by the Committee shall be the responsibility of the homeowner as regards payment for services.

8.10 NPDES Permits For systems designed to discharge treated effluent into waters of the State or onto the surface, it will be necessary to obtain a Notice of Intent to fall under the requirements of NPDES General Permit No. 4. The Committee is responsible for determining that the requirements of the permit are met including the monitoring program. However, the homeowner is responsible for all costs associated with meeting these requirements.

8.11 Variances Variances to these rules may be granted by the Committee provided sufficient information is submitted to substantiate the need and propriety for such action. Applications for variances and justification shall be in writing and copies filed in the Committee minutes.

The rules were approved by the Administrative Committee at the April 10, 2000 meeting.

The rules were submitted to the Guthrie County Board of Health for review.

The Guthrie County Board of Health held a public hearing on these rules at its May 17, 2000 meeting.