

CHAPTER 171: ONSITE WASTEWATER TREATMENT SYSTEMS

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§ 171.005 EXISTING SYSTEMS.

(A) *Continued system use.* The legal use and occupancy of any building serviced by an onsite wastewater treatment system, that had been ~~heretofore~~ approved, or likely to have been constructed before prior to the adoption of this chapter, shall be permitted to be continued without change, except as specifically addressed in this chapter.

(B) *System maintenance and protection.* The owner of an onsite wastewater treatment system shall be responsible for its safe and sanitary operation and maintenance. All system components that are required by this chapter shall be maintained in working order.

(1) Repeated regular pumping of pretreatment components and/or soil absorption components to prevent unsanitary conditions as described in § [171.050](#)(A) shall not be considered safe and sanitary operation and maintenance of a system.

(2) The pasturing of animals, staging of events with large numbers of people, and/or driving or parking of vehicles on primary or reserve soil absorption areas, distribution components, treatment tanks and units, and lift stations is prohibited.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-0605, passed 6-13-2017)

DEFINITIONS

§ 171.021 GENERAL DEFINITIONS.

BEDROOM. Any room in a dwelling that is suitable for regular use as private sleeping quarters for a person, including a room in a basement, that contains a closet and shares a common hallway with, or is adjoining a bathroom containing at least a toilet, lavatory and shower stall. A room is not considered to be suitable for regular use as private sleeping quarters for a person if the room is the sole means for accessing other rooms in the house (i.e., functions as a hallway) with the exception of bathrooms and mechanical rooms.

ONSITE WASTEWATER TREATMENT SYSTEM (OWTS). A wastewater treatment and disposal system that is installed on the site at which the wastewater is produced, and:

~~(1) disperses~~ Disperses treated wastewater into ~~the~~ soil;

~~(2) discharges~~ Discharges treated wastewater to a discharge point open to the environment when the projected daily flow is less than 1500 gallons; ~~or~~

~~(3) contains~~ Contains wastewater in a tank or tanks for removal and disposal at a remote site.

For the purposes of this chapter, an **ONSITE WASTEWATER TREATMENT SYSTEM** may also be referred to as a **SYSTEM**.

GENERAL REQUIREMENTS

§ 171.035 GENERAL.

(A) *Authority.* The Health Officer, in order to protect and promote the health, safety, and general welfare of the people of Lake County, Illinois, and other affected communities, is authorized and directed to develop procedures, practices and policies; to interpret and enforce these rules and regulations establishing minimum standards for sewage discharges, the location, installation, alteration, operation, maintenance, and monitoring of all onsite wastewater treatment systems, so as to protect land, water, groundwater and other natural resources within the County of Lake from impairment, pollution, or destruction; to minimize the risk of spreading communicable diseases, and to prevent and avoid other health and ecologic hazards, as well as illicit discharges and chemical contamination of lands and waters.

(B) *Minimum standards.* This chapter establishes minimum standards to minimize the risk that onsite wastewater treatment systems:

- (1) Contaminate any drinking water supply;
- (2) Are accessible to insects, rodents, or other possible carriers of disease that may come into contact with human food or drinking water;
- (3) Pollute or contaminate the water of any bathing beach or surface waters used for public or domestic water supply or recreational purposes;
- (4) Give rise to a nuisance due to odor or unsightly appearance; and
- (5) Violate any other laws or regulations governing control of water pollution or sewage disposal.

(C) *Onsite wastewater treatment system construction.* No person shall construct ~~an new or replacement onsite wastewater treatment system, or repair an~~ onsite wastewater treatment system without prior approval of the Health Officer, which shall include the approval of the site plan for the onsite wastewater treatment system, and the issuance of construction approval, with the exception that construction approval shall not be required for a replacement onsite wastewater treatment system, non-soil based onsite wastewater treatment system, and/or repair to an onsite wastewater treatment system.

(D) *Alterations or additions to properties.* No person shall alter, expand, remodel, replace or add to a dwelling or non-residential building served by an onsite wastewater treatment system without prior approval of the Health Officer.

(E) *Subdivision of property.* No property, where onsite wastewater treatment systems are proposed to be used, shall be subdivided into two or more lots, nor shall there be a change or rearrangement of lot lines without prior approval of the Health Officer.

(F) *Public sewer availability.* The Health Officer shall refuse to issue approval for a site plan to install, replace, or repair an onsite wastewater treatment system where a public sewer is available. A public sewer shall be deemed available when the nearest property boundary line of the property to be served is located within a reasonable distance of the public sewer connection point, and the connection is permitted by the controlling authority of the public sewer. Investigation of public sewer availability shall be conducted by the licensed onsite wastewater

system installation contractor or designer and shall be indicated on a plan submitted with an application for approval.

(1) *Reasonable distance.* A reasonable distance shall be 300 feet from the nearest property boundary of a single family dwelling, and 1,000 feet from the nearest property boundary of a non-residential, multi-family, or proposed subdivision property boundary, except where the subdivision does not result in the creation of an additional parcel or parcels. The distance shall be measured along the proposed route of the sewer, as required by the controlling authority or by other persons or agencies having authority to determine the route of the sewer.

(2) *Annexation exclusion.* If annexation is required by the controlling authority for permission to connect to the public sewer, the sewer shall be deemed unavailable.

(3) *Pre-treatment component exclusion.* The Health Officer may issue a permit to replace an OWTS pre-treatment component or lift station that is creating an imminent health hazard where a public sewer is available if the controlling authority of the public sewer does not object to the issuance of the permit.

(G) *Property boundaries.* Onsite wastewater treatment systems shall be located on property owned, either in whole or in part, by the owner of the building(s) served.

(1) *Off-lot systems.* A system component of an onsite wastewater treatment system may be located on property not owned by the owner of the onsite wastewater treatment system, provided a platted easement exists for the location of the system component and associated conveyance piping.

(H) *Regulatory floodway.* No component of an onsite wastewater treatment system shall be installed in a regulatory floodway.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-0605, passed 6-13-2017; Ord. 19-0775, passed 5-14-2019)

§ 171.067 APPROVAL CONDITIONS FOR REPLACEMENT ONSITE WASTEWATER TREATMENT SYSTEMS.

(A) *General.* Approval for a Replacement Onsite Wastewater Treatment System shall be granted when the requirements of this section are met.

(1) *Soil evaluation report.* A soil evaluation report issued in accordance with the requirements of §§ [171.085](#) through [171.089](#) determines the soil to be suitable for the projected flow and assigned loading rates in the proposed soil treatment areas.

(2) *Site plan and system design.* A site plan prepared in accordance with the requirements of §§ [171.100](#) through [171.111](#) and [171.125](#) through [171.128](#).

(3) *Primary soil treatment area.* The primary soil treatment area of the proposed onsite wastewater treatment system, of the type specified by the soil evaluation, is designed in an adequately sized area of suitable soils for the proposed flow, the assigned loading rates and required separation distance between the wastewater application point and the limiting layer.

(4) *Land slope.* The land slope of the primary soil treatment area does not exceed 25%.

(5) *Floodplain elevation.*

(a) The wastewater application point of Type 3, 4 or 5 systems, or Illinois raised filter bed systems, shall not be located below the base flood elevation.

(b) The existing grade over Type 1, 2 and drip distribution systems shall not be located below the base flood elevation.

(6) *Existing components.* Components not proposed for replacement shall:

(a) Be inspected by a Lake County licensed onsite wastewater treatment system installation contractor to determine if the component in question is in sound condition and can be expected to function as designed and originally installed. The installation contractor performing the inspection shall submit a report of the inspection that indicates that the component in question is in sound condition and can be expected to function as designed and originally installed.

(7) *Setback requirements.* All components of the primary system and the reserve soil treatment area, if proposed, comply with the setback distances established by [Appendix D](#).

(B) *Compliance impossible.*

(1) *Site plan approval conditions.* ~~Approval of a~~ Approval of a site plan for the construction of a Replacement Onsite Wastewater Treatment System to correct a failing onsite wastewater treatment system, ~~or to replace an existing non-soil based onsite wastewater treatment system,~~ may be approved when the requirements of subsection (A) above cannot be met when the Health Officer determines that the proposal:

(a) Is in substantial and reasonable compliance with these requirements; and

(b) Is protective of the health of the public and the natural resources of the County of Lake.

(2) *Restrictions.* The Health Officer may place restrictions upon the use of the system to reduce flow and/or manage the risk of domestic sewage on the ground surface, entering a limiting layer and/or discharging to a surface water resource. Such restrictions shall be recorded as a covenant with the property at the Lake County Recorder of Deeds Office and shall run with the land.

(3) *System design approval criteria.* When considering the approval of a site plan for the construction of a Replacement Onsite Wastewater Treatment System when compliance with the requirements of subsection (A) above is impossible, the Health Officer shall apply the criteria described in this section, and shall issue approval when the requirements of this section are met. Emphasis shall be for treatment and dispersal of wastewater onsite. Site accessibility, available space, local regulations, and/or existing structural conditions may preclude some actions.

(a) When site conditions preclude the ability to meet the requirements of subsections (A)(3), (A)(4), (A)(5) and (A)(7) above, the following improvements shall be considered:

1. Addition of a pretreatment component certified to produce Class I effluent to compensate for reduced setback distances and undersized soil treatment components.

2. Addition of a pretreatment component certified to produce Class I effluent to recover function of a previously malfunctioning soil treatment component.

(b) When existing soil conditions fail to meet the requirements of subsections (A)(3) or (A)(5) above, the following improvements shall be considered, in descending order of

desirability, when supplemented by a pretreatment component certified to produce Class I effluent:

1. The elevation of the grade, raised by importing sand fill as a filter media to overcome the soil limitation subject to an approved site development plan and compensatory storage requirements, when applicable. The application point of the soil treatment component shall be located to create an unsaturated soil treatment zone below the wastewater application point.
2. A bottomless media filter subject to: appropriate loading rates of the filter and dispersal soil; acceptable application point (above saturated elevation) elevation of the bottom of the media; and the presence of permeable subsoil which will accept the effluent directly from the filter or from imported permeable soil under the filter, subject to an approved site development plan and compensatory storage requirements, when applicable.
3. The wastewater stream separated into gray water and black water with treatment and dispersal requirements commensurate with the strength of the wastewater such that black water shall receive the higher degree of treatment.
4. A holding tank(s) to supplement the existing onsite wastewater treatment system on properties lacking any area for a soil treatment component as follows:
 - a. At the lowest invert elevation of the system to capture wastewater unable to be absorbed by an upstream soil treatment system.
 - b. As a separate zone for alternating use and/or separated flows.
5. Discharge of effluent to an effluent receiving trench with an overflow invert elevation at or above the top of the gravel/media in the receiving trench. The discharge from the effluent receiving trench shall meet the requirements of § [171.222](#).
6. A surface discharging onsite wastewater treatment system meeting the requirements of § [171.222](#).

(C) *System design approval criteria; performance-based proposals.* As an alternative to meeting the requirements of subsections (A) and (B)(3) above, the Health Officer shall consider the approval of a site plan to install an onsite wastewater treatment system when the proposal clearly and convincingly establishes that the requirements of subsections (B)(1)(a) and (B)(1)(b) and § [171.101](#) are met. In approving such a proposal, and in addition to any restrictions stipulated in subsection (B) above, the Health Officer may require, as a condition of the approval, routine and ongoing monitoring, inspection and/or sampling of the treated wastewater to confirm that the onsite wastewater treatment system is performing as designed, and in accordance with § [171.101](#). Any such conditions shall be recorded as a covenant with the property at the Lake County Recorder of Deeds Office and shall run with the land.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-0605, passed 6-13-2017)

§ 171.072 APPROVAL CONDITIONS FOR NON-SOIL BASED ONSITE WASTEWATER TREATMENT SYSTEMS.

(A) *General.* Non-soil based systems shall include holding tanks and surface discharging onsite wastewater treatment systems. These systems shall be approved only for uses specified in this section and shall not be approved in lieu of a reserve soil treatment area when required.

Subject to the restrictions of § [171.110](#), the uses for, or conditions under which a non-soil based onsite wastewater treatment system may be approved include:

(B) *Conditions for the approval of holding tanks.* A holding tank may be approved by the Health Officer in the following conditions and for the following uses:

(1) *Awaiting public sewer extension.* A holding tank may be approved as a temporary onsite wastewater treatment system while awaiting the extension of a public sewer, when the provision of the public sewer will occur within one year.

(a) *Proof of eventual connection.* Approval for the proposed connection and the time frame in which the sewer will be available shall be provided in documentation from the controlling authority of the sewer.

(2) *Awaiting installation of an onsite wastewater treatment system.* A holding tank may be approved as a temporary onsite wastewater treatment system when a soil based onsite wastewater treatment system is approved, but its construction is delayed by weather conditions. The use of a temporary holding tank shall not exceed 180 days.

(3) *Sanitary dumping station.* A holding tank may be approved as a sanitary dumping station to receive wastewater from the holding facilities of recreational vehicles.

(4) *Non-residential building - low flow.* A holding tank may be approved ~~for~~as an onsite wastewater treatment system for a non-residential building when the peak daily wastewater flow is projected to be less than 150 gallons per day as determined from Table C.1, or when the average daily flow is projected to be less than 150 gallons per day calculated over a one week period during peak usage.

(5) *Seasonal home - inaccessible.* A holding tank may be approved ~~for~~as an onsite wastewater treatment system for a seasonal dwelling on land inaccessible to vehicles.

(6) *Publicly owned facility.* A holding tank may be approved ~~for~~as an onsite wastewater treatment system for a publicly owned and operated seasonal recreational facility with an average daily flow of less than 150 gallons per day calculated over a one week period during peak usage.

(7) *Overflow capture.* A holding tank may be approved for use as an overflow capture tank in accordance with the requirements of § [171.067](#)(B)(2)(b)4.

(8) *Waste not allowed in a soil based onsite wastewater treatment system.* A holding tank may be approved to receive the discharge from fixtures or drains that receive waste products such as automotive grease, oils, solvents or chemicals that are not allowed to be discharged into an onsite wastewater treatment system. These waste products shall be handled according to rules for the disposal of oil, gas and grease promulgated under the Environmental Protection Act, or according to 35 Ill. Adm. Code Subtitle G, or shall be taken to an oil and gas reclamation center. Domestic sewage shall not be comingled with these waste products. Note: Also see Illinois Plumbing Code (77 Ill. Adm. Code 890). Holding tanks to be utilized for applications within this section shall be listed and labeled by Underwriters Laboratories, and constructed of materials approved for gas and oil interceptors as specified in 77 Ill. Adm. Code 890.520, and shall be properly anchored to prevent flotation.

(9) *Vault privy/waterless toilet.* A holding tank may be approved ~~for~~as an onsite wastewater treatment system for the collection of human waste where there are toilet facilities but no potable water source to the building, such as a comfort station.

(10) Existing non-soil based system. A holding tank may be approved as an onsite wastewater treatment system to replace an existing non-soil based onsite wastewater treatment system.

ONSITE WASTEWATER TREATMENT SYSTEM DESIGN

§ 171.100 GENERAL.

(A) *Soil based and non-soil based systems.* Proposed onsite wastewater treatment system (OWTS) designs shall meet the requirements of §§ [171.100](#) through [171.111](#). Onsite wastewater treatment systems shall be classified into two general categories: soil based and non-soil based.

(B) *Design sizing.* All system components of an onsite wastewater treatment system shall be properly sized for the peak projected wastewater flow as established by [Appendix C](#).

(C) *Minimum lateral setback separation distances.* Onsite wastewater treatment systems and system components shall be located no closer than the minimum [lateral setback separation](#) distances to the features specified in [Appendix D](#). When no minimum [lateral setback separation](#) distance and/or feature is specified, the Health Officer shall determine a reasonable distance to the feature.

(D) *Prohibited wastes.* Onsite wastewater treatment systems shall receive only domestic sewage. Water discharges from footing drains, air conditioners, heating units, water cooled ice machines, humidifiers and dehumidifiers, or other similar sources shall not be discharged to an onsite wastewater treatment system. The disposal of water softener backwash discharge shall be in accordance with the Illinois Private Sewage Disposal Code (77 IL Administrative Code 905). Automotive or industrial greases, oils, solvents or other similar wastes shall be discharged into a holding tank system in accordance with the requirements of § [171.072\(B\)\(7\)](#).

(E) *Construction and materials.* Onsite wastewater treatment systems shall be designed to facilitate their construction in accordance with the requirements of §§ [171.140](#) through [171.149](#) of this chapter and shall specify and incorporate approved materials in accordance with the requirements of §§ [171.160](#) through [171.168](#)

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-0605, passed 6-13-2017)

§ 171.103 DESIGN REQUIREMENTS FOR TYPE 1 AND TYPE 2 SOIL TREATMENT TRENCH SYSTEMS.

(A) *General.* Type 1 and 2 soil treatment trench systems shall be designed to the minimum requirements as follows:

(1) *Pretreatment.* The pretreatment component shall be required based upon the design soil treatment zone in accordance with the requirements of [Table B.3 \(Appendix B\)](#).

(2) *Distribution.* Distribution to the soil treatment trench may be by serial distribution using drop boxes and header pipe, manufacturer approved chamber connections, or by equal flow distribution. Piping and distribution device size and material shall comply with the requirements of §§ 171.160 through 171.168.

(3) *Lift station.* Lift stations, if required, shall be sized in accordance with the requirements of Appendix C.

(4) *Distribution piping.* Distribution into the soil treatment trench shall be by perforated pipe. No perforation shall be located closer than three feet to the proximal end of the soil treatment trench.

(5) *Piping invert elevation.* The invert elevation of the distribution pipe shall be a minimum of six inches above the trench bottom.

(6) *Soil treatment area size calculation.* Only the trench bottom area shall be used in calculating the required soil treatment area. The square footage of trench bottom area shall be equal to the projected flow in gallons per day (gpd) divided by the assigned wastewater loading rate in gallons per day per square foot.

(7) *Maximum trench length.* The maximum trench length shall be 100 feet from the distribution device. All trenches connected to an equal flow distribution box shall be of equal length.

(8) *Maximum trench width.* The maximum trench width shall be 36 inches; the minimum trench width shall be 12 inches.

(9) *Trench separation.* Trenches shall be separated by a minimum of four feet of undisturbed soil.

(10) *Minimum gravel depth.* The minimum depth of gravel in the soil treatment trench shall be 12 inches, with six inches of gravel beneath the distribution pipe and two inches above. Gravel shall not be placed closer than 12 inches to the distribution device.

(11) *Soil cover over trenches.* The maximum depth of soil cover over the top of a soil treatment trench shall be 24 inches. The minimum depth of soil cover over the top of a soil treatment trench shall be six inches.

(12) *Low pressure pipe distribution.* When distribution in a Type 1 or 2 system is by low pressure pipe, the applicable requirements of § 171.102(F) and this section shall apply.

(a) The soil loading rate may be increased by up to 10% above the original soil loading rate found in Table B.2

(b) No perforation shall be located closer than five feet to the proximal end of the soil treatment trench.

(c) The invert elevation of the distribution line shall be a minimum of six inches above the trench bottom.

(d) The square footage of trench bottom area shall be equal to the projected daily flow in gallons per day divided by the assigned wastewater loading rate in gallons per day per square foot.

(e) The maximum trench width shall be 24 inches; the minimum trench width shall be 12 inches.

- (f) Trenches shall be separated by a minimum of four feet of undisturbed soil.
- (g) The minimum depth of gravel in the soil treatment trench shall be ten inches, with six inches of gravel beneath the pipe and two inches above.
- (h) Gravel shall not be placed closer than 24 inches to the manifold trench.
- (i) The design of the pressure distribution network shall be in accordance with the requirements of Design of Pressure Distribution Networks For Septic Tank-Soil Absorption Systems as incorporated in [Appendix A](#).
- (13) *Seepage beds*. Seepage beds shall be sized at one and one-half times the required trench soil treatment area.
- (14) *Seepage chambers*. The soil treatment area per lineal foot for soil absorption components using seepage chambers shall be calculated by multiplying the average inside width of the chamber times an equivalency factor of 1.5. For example:
- (a) Using a chamber with an average inside width of 24 inches, the soil treatment area per lineal foot would be calculated as:
- $$24 \text{ in} \times 1 \text{ ft}/12 \text{ in} \times 1 \text{ ft} \times 1.5/\text{lineal ft} = 3 \text{ ft}^2/\text{lineal ft}$$
- (b) For a system that requires 600 feet² of soil treatment area, 200 lineal feet of chamber would be required using 24-inch chambers (600 ft²/3 ft²/lineal foot = 200 lineal feet).

The trench bottom area of end caps can may be included in the minimum required soil treatment area.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-0605, passed 6-13-2017)

§ 171.105 DESIGN REQUIREMENTS FOR TYPE 4 AT-GRADE SYSTEMS.

(A) *Type 4 at-grade systems*. Type 4 At-Grade Systems shall be designed to minimum requirements as follows:

(1) *Pretreatment*. The pretreatment component shall be dependent on the design soil treatment zone in accordance with the requirements of [Table B.3 \(Appendix B\)](#).

(2) *Plowing of soil treatment area*. The soil treatment area shall be plowed in accordance with the requirements of [§ 171.142](#). All vegetation shall be cut to the ground surface and removed from the soil treatment area prior to placing the ~~sand-gravel aggregate~~. A coarse sand layer, 1 to 4 inches in depth may be placed on the proposed soil treatment area prior to plowing to improve effluent infiltration.

(3) *Distribution piping*. Distribution to and into the soil treatment area shall be by low pressure pipe (LPP), which shall be installed in accordance with the requirements of [§ 171.102\(F\)](#).

(4) *Lift station*. The lift station shall be sized according to [Appendix C](#).

(5) *Piping invert elevation*. The invert of the distribution lines shall be a minimum of six inches above original grade.

(6) *Soil treatment area size calculation.* The square footage of soil treatment area shall be equal to the projected daily flow in gallons per day divided by the assigned wastewater loading rate in gallons per day per square foot.

(7) *Minimum length.* The minimum length of the at-grade soil treatment area shall be limited by the maximum linear loading rate. The linear loading rate is equal to the projected daily flow in gallons per day divided by the total length of the soil treatment area in feet, and shall be limited as follows:

(a) Systems on soils in resource groups A or B shall be designed with a maximum linear loading rate of 12 gallons per day per foot. A maximum of two basal areas may be connected perpendicular to the slope.

(b) Systems on soils in resource groups C, D or E shall be designed with a maximum linear loading rate of six gallons per day per foot. A maximum of two basal areas may be connected perpendicular to the slope.

(8) *Laterals at different elevations.* When laterals are at different elevations, a flow control valve shall be used to control the inline pressure of the laterals.

(9) *Minimum gravel depth.* The minimum depth of gravel in the at-grade soil treatment area shall be ten inches, with six inches of gravel beneath the pipe and two inches above.

(10) *Minimum soil cover over gravel.* The gravel of an at-grade soil treatment system shall be covered with a minimum of 12 inches of topsoil to support vegetative cover. Additional cover shall be placed as is necessary to shed stormwater.

(11) *Geotextile fabric cover.* The gravel shall be completely covered with an appropriate geotextile fabric prior to the placement of topsoil.

(12) *Other design requirements.* Type 4 At-grade Systems shall comply with the provisions of the *Wisconsin At-Grade Soil Absorption System Siting, Design, and Construction Manual* as incorporated in [Appendix A](#).

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-0605, passed 6-13-2017)

§ 171.141 PERMIT AND LICENSE REQUIREMENTS.

(A) *Construction approval.* No onsite wastewater treatment system, or component thereof, shall be constructed or installed until construction approval has been issued by the Health Officer, with the exception that construction approval shall not be required for [a replacement onsite wastewater treatment system, a non-soil based onsite wastewater treatment system and a repair to an onsite wastewater treatment system.](#)

(1) *Site evaluation.* The Health Officer shall evaluate each site prior to the issuance of construction approval to ensure that the soil treatment area has not been altered or disturbed, that the soil treatment area is protected by fencing or other site protective barrier, and that the information previously submitted and approved is substantially unchanged.

(2) *Refusal to issue permit.* The Health Officer shall refuse to issue construction approval when conditions on the site are determined to be inconsistent with the approved site plan, the soil treatment area has been altered or disturbed, or when the soil treatment area is unprotected from construction traffic by an effective barrier. When the issuance of construction approval is

refused, the Health Officer shall require corrective action or the re-initiation of the original approval process as appropriate.

(B) *Licensed installation contractor.* No person shall conduct work on an onsite wastewater treatment system in Lake County unless such person holds a valid onsite wastewater treatment system installation contractor's license in accordance with the requirements of §§ [171.180](#) through [171.186](#). The licensed installation contractor shall directly supervise all work conducted on an onsite wastewater treatment system, and shall be responsible to ensure that the work is in accordance with the approved site plan and complies with this chapter.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-0605, passed 6-13-2017)

§ 171.161 PRETREATMENT COMPONENTS.

(A) *Septic tanks.* A septic tank used in an onsite wastewater treatment system shall meet the minimum standards for construction established in the Illinois Private Sewage Disposal Code and in this chapter.

(B) *Aerobic treatment units.* An aerobic treatment unit used in an onsite wastewater treatment system shall be listed and labeled by an ANSI accredited third party testing and certification organization as a Class I unit. [An accompanying septic/trash tank shall be sized in accordance with the aerobic unit manufacturer recommendations.](#)

(C) *Effluent filters.* An effluent filter used in an onsite wastewater treatment system shall be designed for the specific purpose of filtering septic tank effluent and shall be designed and installed to be easily maintained.

(D) *Exterior grease interceptor.* When the Health Officer determines that the wastewater stream will contain significant quantities of fats, oil and grease (FOG) such as from food processing establishment, food service establishment licensed by the Lake County Health Department or other kitchen operations more intensive than residential, an exterior grease interceptor (EGI) designed as described in this section shall be installed.

(1) *Wastewater segregation.* The wastewater shall be segregated so that only wastewater from kitchen/food operations shall be discharged to the exterior grease interceptor. The EGI shall receive the entire waste discharge from kitchens or food processing areas.

(2) *Capacity and sizing.* The minimum capacity shall be 1,000 gallons or greater as calculated below:

(a) *Restaurant.* The minimum capacity of an exterior grease interceptor serving a restaurant shall be equal to C when:

$$C = S \times H \times A$$

S = number of seats (in lieu of, or in addition to seats, each drive-in car service space shall count as 3 seats, and each drive-up service window shall count as 60 seats)

H = hours per day that meals are served (minimum of 6 hours; maximum 12 hours)

A = Appliance factor: 0.75 for a kitchen with no dishwashing and no food waste grinder; 1.0 for a kitchen with either a dishwashing machine or a food waste grinder; 1.25 for a kitchen with both a dishwashing machine and a food waste grinder.

(b) *Other food service.* The minimum capacity of an exterior grease interceptor serving a dining hall, hospital, nursing home, school kitchen, church kitchen or a kitchen for carryout or delivery service shall be equal to C when:

$$C = (M \times G \times H) / 2 \times P$$

M = meals served per day

G = 3 gallons per meal served

H = hours per day that meals are served at least 6 hours but not more than 12 hours

P = meal periods per day, 1, 2 or 3.

(3) *Tank design specifications.* The exterior grease interceptor shall meet the construction standards of a septic tank as established in the Illinois Department of Public Health Private Sewage Disposal Code, § 905.40, and shall be modified as follows:

(a) *Inlet/outlet.* The inlet and outlet openings shall be provided with open-end sanitary tee fittings or baffles, designed and constructed to distribute the flow and retain the grease in the tank or tank compartments. The sanitary tee fitting or baffle at the inlet opening shall extend below the liquid level of the tank a distance equal to one-third of the total liquid depth. The sanitary tee fitting or baffle at the outlet opening shall extend below the liquid level of the tank a distance equal to two-thirds of the total liquid depth.

(b) *Orientation.* The longest dimension of the tank shall be set parallel to the direction of flow.

(c) *Openings.* Only watertight openings shall be used for the inlet and outlet piping.

(d) *Setbacks.* The setback distances in [Appendix D](#) shall apply to the placement of an exterior grease interceptor.

(e) *Effluent flow.* The effluent from an exterior grease interceptor shall be merged with the remaining flow from the facility at a point after primary treatment of that flow and before any additional treatment.

(4) *Inspections and pumping.* The owner of an exterior grease interceptor shall assure that the exterior grease interceptor is inspected and pumped as necessary to ensure its proper function.

(E) *Media filters.* If used, proprietary media filters shall be used in accordance with manufacturer's applications.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013)

LICENSING, CERTIFICATION AND TRAINING

§ 171.180 GENERAL.

(A) *Authority.* The Health Officer shall regulate the evaluation of soils and the design, construction, repair, pumping and servicing/management of onsite wastewater treatment systems in Lake County by requiring any individual, or in the case of pumping, any company, who performs these services to possess a valid Lake County license.

(1) *Expiration date.* Licenses shall expire on December 31 of the year issued, except that a new license issued after October 1 and before December 31 shall expire on December 31 of the following year.

(B) *License categories.* When the requirements of §§ [171.180](#) through [171.186](#) are met, the Health Officer shall issue the following categories of licenses:

- (1) Soil Classifier/Scientist;
- (2) Onsite Wastewater Treatment System Designer;
- (3) Onsite Wastewater Treatment System Installation Contractor;
- (4) Onsite Wastewater Treatment System Designer/Installation Contractor;
- (5) Onsite Wastewater Treatment System Installation Contractor/Service Provider;
- (6) Onsite Wastewater Treatment System Designer/Installation Contractor/Service Provider;
- (7) Onsite Wastewater Treatment System Pumper.

(C) *Homeowner activities.* A person who owns and occupies a single family dwelling may construct an onsite wastewater treatment system or install a system component to serve the dwelling, or maintain, manage and/or service the onsite wastewater treatment system that serves the dwelling provided the following conditions are met:

(1) *System construction/installation.* Prior to receiving construction approval and beginning work on his or her onsite wastewater treatment system or system component, the owner must meet with the Health Officer and establish that he or she is knowledgeable of the proper construction materials and methods required by this chapter for the construction/installation of the onsite wastewater treatment system or system component. The Health Officer shall refuse to issue construction approval until this meeting has taken place and the Health Officer is reasonably assured that the owner possesses sufficient capability to construct/install the onsite wastewater treatment system or system component.

(2) *System management activities.* Prior to performing management activities on ~~his or her~~their onsite wastewater treatment system or system component, the owner must establish to the Health Officer that ~~he or she is~~they are knowledgeable of the proper system management methods required by this chapter and possesses the necessary instructional materials for managing ~~his or her~~their onsite wastewater treatment system or system component, and about for-reporting the activities to the Health Officer as required in this chapter.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-0605, passed 6-13-2017)

§ 171.184 ONSITE WASTEWATER TREATMENT SYSTEM SERVICE PROVIDER.

(A) *Minimum requirements.* A person performing manufacturer specified management activities on pretreatment components, dispersal and disinfection components and/or system management required by this chapter or as a condition for site plan approval must be licensed by the Health Officer, with the exception of an owner of record who meets the requirements of § 171.180 (C)(2), Illinois Department of Public Health as a Private Sewage Disposal System Installation Contractor, shall be knowledgeable and experienced with the processes and operation of the components being serviced and shall perform management activities in accordance with the applicable manufacturer's specifications.

(B) *License.* The Health Officer shall license onsite wastewater treatment system service providers by the review and verification of documentation that the individual possesses a license from the Illinois Department of Public Health as a Private Sewage Disposal System Installation Contractor, and has received training in manufacturer's service specifications and requirements.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013)

§ 171.186 LICENSE APPLICATION AND RENEWAL.

(A) *License application.* The Health Officer shall provide forms for applications for licenses established in §§ [171.180](#) through [171.186](#). The Health Officer shall issue a license when the requirements of §§ [171.180](#) through [171.186](#) are met and the applicable fee(s), as set in the current fee schedule adopted by the County Board as codified in § [178.01](#), have been paid.

(B) *License renewal.* The Health Officer shall provide renewal application notices to all currently licensed individuals and companies in December of the current year. The renewal application notices shall be sent to the last known address of record of the licensee. The Health Officer shall renew a license when the requirements of this section are met.

(1) *Application and fee submittal.* Licensed individuals shall submit a completed and signed application to the Health Officer, proof of continuing education credits during the previous year, and the applicable fee(s). Upon receipt of the application and fee, the Health Officer shall mail the license to the licensed individual within 30 days.

(a) *Continuing education.* Onsite wastewater treatment system installation contractors, designers, pumpers, and service providers shall obtain at least three hours of continuing education credits per year in the field of onsite wastewater treatment and disposal from a training session approved by the Health Officer. Approved sessions include, but are not limited to, professional organization conferences, workshops, company training sessions, and online classes.

(C) *Expired license.* ~~An onsite wastewater installation contractor or designer~~ license issued by the Health Officer in accordance with this chapter that has been expired for a period of less than two years may be reinstated in accordance with the requirements of subsection (B)(1) above. A license that has been expired for more than two years may be restored only by meeting the requirements for a new license as established in §§ [171.180](#) through [171.186](#).

(D) *Multiple or combined licenses.* An individual may hold multiple Lake County licenses, or where applicable, may hold combined licenses as specified in § [171.180](#)(B).

(E) *Revoked license.* A license that has been revoked may be reinstated only by meeting the requirements for a new license as established in §§ [171.180](#) through [171.186](#).

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013)

SYSTEM AND SYSTEM COMPONENT MANAGEMENT ACTIVITIES

§ 171.220 GENERAL.

(A) *General.* The Health Officer shall require that the owner of record of an onsite wastewater treatment system or system component specified in §§ [171.220](#) through [171.224](#) assure that management activities are conducted and reported as required in §§ [171.220](#) through [171.224](#).

~~(A)~~

(B) *Fees.* The owner of record of an onsite wastewater treatment system who fails to submit a report of required management activities shall be assessed a fee in accordance with this section, § 171.261 and the current fee schedule adopted by the County Board as codified in § 178.01.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013)

§ 171.221 CERTIFIED PRE-TREATMENT COMPONENTS.

(A) *Owner's responsibilities.* The owner of record of an onsite wastewater treatment system that contains a component certified by an ANSI accredited third party testing and certification organization to meet NSF/ANSI Standard Number 40 or 350 for pretreatment of wastewater, shall assure that management activities on the system component are conducted and reported as required in this section.

(1) *Management activities.* Management activities on the certified pre-treatment component shall be conducted a minimum of two times per calendar year, no less than four months apart, and/or in accordance with the manufacturer's requirements. These activities shall include the repair, replacement, adjustment or modification of any part of the certified pre-treatment component and ~~for any~~ additional inspections or management activities as are necessary to ensure its proper operation.

(2) *Management activity reporting.* The owner of record shall be responsible to assure that a report of the management activities is provided to the Health Officer within 30 days of the activities. If disinfection is required for a treatment unit to meet NSF/ANSI Standard Number 350, management activity reporting shall include confirmation that the disinfection component is disinfecting the wastewater.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013)

§ 171.222 SURFACE DISCHARGING ONSITE WASTEWATER TREATMENT SYSTEMS.

(A) *Owner's responsibilities.* The owner of record of a surface discharging onsite wastewater treatment system shall assure that management activities on the system are conducted and reported as required in this section.

(1) *Management activities.* If a component certified by an ANSI accredited third party testing and certification organization to meet NSF/ANSI Standard Number 40 [or 350](#) for pretreatment of wastewater is a part of a surface discharging onsite wastewater treatment system, management activities on the certified pre-treatment component shall be conducted a minimum of two times per calendar year, no less than four months apart, and/or in accordance with the manufacturer's requirements. These activities shall include the repair, replacement, adjustment or modification of any part of the certified pre-treatment component, and ~~for any~~ additional inspections or management activities as are necessary to ensure its proper operation.

(a) *Other advanced secondary pre-treatment component.* If a surface discharging onsite wastewater treatment system contains an advanced secondary pre-treatment component, either solely or in conjunction with a pre-treatment component described in subsection (A)(1) above, management activities on the pre-treatment component shall be conducted a minimum of two times per calendar year, no less than four months apart, and/or in accordance with the manufacturer's requirements. These activities shall include the repair, replacement, adjustment or modification of any part of the certified pre-treatment component, and ~~for any~~ additional inspections or management activities as are necessary to ensure its proper operation.

(2) *Effluent discharge sampling and analysis.* A surface discharging onsite wastewater treatment system shall have its effluent discharge sampled a minimum of two times per calendar year. Samples shall be analyzed in accordance with *Standard Methods for the Examination of Water and Wastewater* and the results shall comply with the performance and monitoring criteria in [Table B.4 \(Appendix B\)](#).

(a) For systems approved prior to November 12, 2013, the discharge effluent limitations that were in effect at the time of system approval shall apply.

(3) *Management activity reporting.* The owner of record shall be responsible to assure that a report of management activities is provided to the Health Officer within 30 days of the activities.

(4) *General National Pollutant Discharge Elimination System (NPDES) permit.* The owner of record of a surface discharging onsite wastewater treatment system shall assure that the system is in compliance with the National Pollutant Discharge Elimination System (NPDES) permit requirements of the Federal Clean Water Act, the Illinois Environmental Protection Agency and the U.S. Environmental Protection Agency.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-0605, passed 6-13-2017)

§ 171.223 HOLDING TANKS.

(A) *Owner's responsibilities.* The owner of record of a holding tank onsite wastewater treatment system shall assure that the required maintenance and pumping of the holding tank(s) occurs and that all services are provided by appropriately licensed individuals or companies. The owner shall assure that a holding tank is pumped as often as is necessary to prevent overflow, and the repair, replacement, adjustment or modification of any component of the holding tank onsite wastewater treatment system to assure its proper operation.

(1) *Pumping reporting.* The owner of record shall be responsible to assure that reports of all pumping events are provided to the Health Officer upon request.

(B) *Inspections.* The Health Officer shall inspect all holding tank systems at least two times per year to determine compliance with §§ [171.220](#) through [171.224](#). The Health Officer may

request reports of all pumping activities as part of the inspection(s). Vault privies, and waterless toilets, and overflow capture holding tanks are exempt from the inspection requirement.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-06-05, passed 6-13-2017)

§ 171.224 REPORTING.

(A) *Requirements.* Management activities conducted on an onsite wastewater treatment system subject to the requirements of §§ [171.220](#) through [171.224](#) shall be reported as outlined in this section.

(1) *Management or sampling activity.* The owner of record of an onsite wastewater treatment system subject to the management requirements specified in §§ [171.220](#) through [171.224](#) or by any other agreement conditional to its initial approval, shall submit to the Health Officer a report of all required management or sampling activity.

(2) *Reporting requirements.* Reports shall be submitted as specified in §§ [171.220](#) through [171.224](#), with the exception that a report of a discharge of inadequately treated effluent to the ground surface or a surface water shall be reported within 24 hours.

(3) *Form specifications.* ~~Any~~ report submitted to the Health Officer as required by §§ [171.220](#) through [171.224](#) shall be on forms or other means provided by, or acceptable to the ~~Lake County Health Department~~ Health Officer including, as a minimum, the name of the owner of record, a complete mailing address, a complete legal description, the Permanent Index Number (PIN) and the onsite wastewater treatment system permit number.

(4) Fees. An owner who performs required management activities and failing to submit a report of management activities within 30 days of performing the activities shall be assessed a fee in accordance with this section, § 171.261 and the current fee schedule adopted by the County Board as codified in § 178.01

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-06-05, passed 6-13-2017)

§ 171.238 REVOCATION OF SITE PLAN APPROVAL.

(A) ~~Site conditions~~ Revocation of approval Cause. When the condition of a site approved for an onsite wastewater treatment system has changed after approval, including or there has been ~~or~~ any information considered in the approval of an onsite wastewater treatment system was omitted or found to be false or erroneous, or there has been a serious violation of the provisions of this chapter that would require resubmission of the plan to correct the problem(s), the Health Officer may revoke the approval of ~~that the site plan and of any associated~~ construction approval ~~issued pursuant to the site plan approval.~~ For the purposes of this section, a serious violation of the provisions of this chapter refers to a violation or deficiency in the construction of the system that would require the resubmission of a plan to correct the problem(s).

(B) *Revocation notice.* Notice of revocation of intent to revoke ~~Revocation of~~ approval shall be in writing, posted at the site and mailed to the owner, licensed designer, and licensed installation contractor, as applicable, by regular, certified or registered mail. The notice shall contain information as follows:

- (1) A statement that any further work on the onsite wastewater treatment system is prohibited.
- (2) An explanation of the reason for the revocation intent to revoke ~~revocation~~ of approval.
- (3) An outline of actions and the process required to avoid the final revocation of reinstate ~~reinstate~~ the approval, if determined.
- (4) An explanation of rights and procedures to appeal the revocation decision and request an administrative for an administrative hearing.

Unless the Health Officer receives written actions or drawn plans to correct the problems that caused the issuance of the notice of intent of revoke the approval, or receives a request for a hearing within 10 business days of the date of the notice, the revocation of approval shall be considered final.

(C) Hearing request. A person whose approval for an onsite wastewater treatment system has been is subject to revoked ~~education~~ may request an administrative appeal hearing ~~hearing~~ before the Board of Health Hearings Committee, provided that the request is received in writing within ten days from receipt of the notice of intent to revoke approval.

- (1) Conduct of hearing. The hearing shall be conducted in accordance with §§ 176.15 through 176.17.
- (2) Fees. A fee for a hearing request shall be in accordance with the current fee schedule adopted by the County Board as codified in § 178.01, and shall be submitted by the person who has been provided notice of intent to revoke their approval for an onsite wastewater treatment system with the request for hearing. If a judicial review is sought, the licensee shall pay for the cost of a transcript.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-06-05, passed 6-13-2017)

§ 171.239 HEARINGS AND RIGHT TO APPEALSUSPENSION OF CONSTRUCTION APPROVAL.

(A) SuspensionCause. When, during the construction of an onsite wastewater treatment system, a licensed installation contractor violates the provisions of this chapter or and/or is not constructing the system in accordance with the approved site plan, the Health Officer shall may suspend the construction approval issued pursuant to the site plan approval. Hearing request. A person whose approval for an onsite wastewater treatment system is revoked may request a hearing, provided that the request is received in writing within ten days from receipt of the notice of revocation.

(B) Suspension notice. The notice of suspension shall be in writing, posted at the site and mailed to the owner and licensed installation contractor, as applicable, by regular, certified or registered mail. The notice shall contain information as follows:

- (1) A statement that any further work on the onsite wastewater treatment system is prohibited.
- (2) An explanation of the reason for the suspension of construction approval.
- (3) An outline of actions and the process required to avoid the revocation of the plan approval, if determined.

(4) A statement that a written corrective action plan must be submitted within 10 business days or the approval is subject to revocation.

(C) ~~Notice of intent to revoke~~Revocation of plan approval. If the Health Officer does not receive written actions or drawn plans to correct the problems that caused the suspension of the construction approval within 10 business days of the date of the notice, the Health Officer may issue notice of intent to revoking the ke the plan plan approval in accordance with § 171.238.

~~—(B) *Scheduled hearing.* The Health Officer shall conduct a hearing in accordance with §§ 176.15 through 176.17.~~

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013)

§ 171.240 SUSPENSION-REVOCAION OF LICENSES.

(A) ~~*HearingCause for revocation.* When a person licensed under the provisions of this chapter violates a provision of this chapter, or provides information toward the evaluation of soil or site conditions, or the installation of an onsite wastewater treatment system, or required management activities or the reporting of management activities that is false or erroneous, the Health Officer may issue a notice of intent to revoke that require the appearance of that person's license at a hearing with the Health Officer.~~

(1) *Written notice.* The Health Officer shall give written notice to the licensee by regular, certified or registered mail stating as follows:

(a) The alleged violation(s) of this chapter or incident(s) of providing false or erroneous information.

(b) An indication of intent to ~~consider revocation of~~ revoke the license.

(c) Notification that the license will be revoked unless the person requests a hearing as provided for in (B) within 10 business days. ~~The time, date, and place of the hearing, which shall not be sooner than ten days after the date of the notice.~~

~~—(2) *Revocation/restrictions.* The Health Officer may, with cause, suspend or revoke the license of a person or company licensed under the provisions of this chapter.~~

~~(3) *Failure to appear.* The failure of a licensee to appear at a hearing for which due notice was given shall constitute a waiver of the right to a hearing.~~

~~—(4) *Notification of findings.* The Health Officer shall notify a licensee within ten days of a hearing of the findings.~~

(B) *Hearing not requested.* If the Health Officer does not receive a request for a hearing within 10 business days of the date of the notice, the revocation of approval shall be considered final.

(BC) *Board of Health hearing.* When a licensee receives notice of intent to revoke their license from is suspended or revoked by the Health Officer, that person whose license was suspended or revoked may make a written request to the Health Officer for a hearing before the Board of Health Hearings Committee. The request for a hearing shall be made in accordance with §§ 176.15 through 176.17.

(1) *Hearing determination.* Within 15 business days after the close of the hearing, the Board of Health Hearings Committee, having considered the record made at the hearing, shall render a decision in writing, setting forth the reasons for the decision. The action taken by the Board of Health Hearings Committee shall be final and shall be subject to judicial review.

(a) *Imposition of decision and judicial review.* A decision by the Board of Health Hearings Committee to revoke a license in accordance with this section shall be imposed 35 days after the date of the decision in order to allow the licensee to seek judicial review. The decision shall provide written instructions to the licensee for complying with the decision, including the dates the actions required by the decision take effect, and remain in effect.

(42) *Fees.* A fee for a hearing request shall be in accordance with the current fee schedule adopted by the County Board as codified in § 178.01, and shall be submitted by the licensee with the request for hearing. If a judicial review is sought, the licensee shall pay for the cost of the transcript.

(D) *Reinstatement of license.* When a person licensed under the provisions of this chapter has that licensed revoked, they may re-apply for the license in the next calendar year renewal cycle.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Res. passed 2-10-2015; Ord. 17-0605, passed 6-13-2017)

§ 171.259 HEARINGS.

(A) *Hearings.* When approval as required in this chapter is denied by the Health Officer and a subsequent variance request is denied, that person denied approval may make a written request to the Health Officer for a hearing before the Board of Health Hearings Committee.

(B) *Request.* A request for a hearing shall be made in accordance with §§ 176.15 through 176.17.

(C) *Hearing rules.* A hearing shall be conducted in accordance with §§ 176.15 through 176.17.

(D) *Fee.* A fee in accordance with the current fee schedule adopted by the County Board as codified in § 178.01 shall be submitted with a hearing request. If a judicial review is sought, the person denied approval shall pay for the cost of a transcript.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-0605, passed 6-13-2017)

Table B.3 - Soil Treatment Credit

The relationship between the system type (wastewater application point) and the depth to a limiting layer shall be as follows:

<i>Depth to Limiting Layer in inches</i>	<i>Septic Tank Effluent (greater than 10,000 FC organisms/100 ml) Minimum Twenty-four</i>	<i>Secondary Treated Effluent (less than 10,000 FC organisms/100 ml) Minimum</i>	<i>NSF Standard 350 Effluent (less than 240 E. coli MPN/100 ml)</i>

	<i>inches (24") Separation Required</i>	<i>Sixteen inches (16") Separation Required</i>	<i>Minimum Twelve inches (12") Separation Required</i>
Less than 6	NA	NA	NA
6 to <10	Mound with increased sand (a)	Drip in fill (b), Mound (a)(c)	Drip in fill (b), Mound (c), Modified Mound
10 to <16	Mound (minimum 12" depth to limiting layer), Mound with increased sand (a)	Mound, Drip on grade/in fill (b), Modified Mound (a), Illinois Raised Filter Bed	All the above, Drip on grade, Illinois Raised Filter Bed, At-grade
16 to <24	Mound, Modified Mound (d)	All the above, Drip in ground/on grade, In-ground trenches (h), At-grade	All the above, in-ground trenches (h), (g)
24 to <28	All the above, At-grade	All the above, In-ground trenches (g)	All the above
28 to 36	All the above, In-ground trenches (f)(g)(h)	All the above, In-ground trenches (e)(g)	All the above
36 and above	All the above	All the above	All the above

Footnotes:

- a. Maximum 4 gallon per day per linear foot loading rate, single bed or separated un-stacked multiple beds, time dosing.
- b. Acceptable fill is coarse sand (USDA texture 0.5mm to 1.0 mm). Proper depth of fill needed for separation distance and cover over the drip piping must be placed before installation of distribution system. A minimum of ten inches (10") of soil cover, four (4) of which must be coarse sand fill, must be placed over the drip piping for protective cover.
- c. Drip distribution acceptable with sand footprint sized according to sand loading rate and mound basal area sized according to least permeable (lowest SLR) soil horizon in existing soil above the limiting layer.
- d. Limiting layer must be at least eighteen inches (18").
- e. Limiting layer must be at least twenty-eight inches (28") using a twelve inch (12") standard gravel trench, less if using a state approved, less than twelve inches (12") thick, low profile proprietary infiltration product.
- f. Limiting layer must be at least thirty-six inches (36") using a twelve inch (12") gravel trench, less if using a state approved, less than twelve inches (12") thick, low profile proprietary infiltration product.
- g. Protective topsoil cover needed when the top of the infiltration trench gravel or infiltration product is zero inches (0") to less than six inches (6") below original grade or top of sand fill. Depth of soil cover over a proprietary infiltration product shall be in accordance with the manufacturer's specifications.
- h. When the sidewall of the infiltration trench will extend above existing grade, the soil treatment area shall be plowed and filled in accordance with § [171.142](#) and § [171.143](#) and the minimum depth of sand fill shall be ten inches (10"). The ten inch (10") depth sand fill material shall extend a minimum of ten feet (10') beyond all seepage trenches before sloping. A minimum of one-half of the depth of the infiltration trench shall be installed into existing grade. ~~Distribution of wastewater shall be by low pressure piping designed in accordance with § [171.102\(F\)](#) and § [171.103\(A\)\(12\)](#). Low pressure piping is not required for NSF Standard 350 effluent.~~

Table C.1 - Design Daily Wastewater Flow

Wastewater Source	Unit	Gallons Per Day Per Unit

Wastewater Source	Unit	Gallons Per Day Per Unit
Apartment buildings. Multi-family residence	Bedroom	150
Assembly halls (no food preparation)	Person	2
Bars and cocktail lounges with restaurant (in addition to restaurant seating space)	Seating space	9
Bars and cocktail lounges. Low risk food facility	Seating space	9
Beauty salons	Station	140
Bowling centers with or without bar and low risk food facility	Lane	125
Bowling centers with bar and food preparation, medium or high risk food facility	Lane	225
Campground sanitary dump stations	Camp space	20
Campground with central bath and toilet facilities	Space	35
Camp, day use only, no food preparation	Person	10
Camp, day use only, food preparation (cafeteria/kitchen)	Person	25
Camps, day and night toilet and shower facilities and food preparation (cafeteria/kitchen)	Person	50
Churches - no kitchen	Person	3
Churches - with kitchen	Person	6
Dance hall (10 ft per person)	Person	2
Day care facility (no meal preparation)	Child	12
Day care facility (with meal preparation)	Child	16
Dining hall (toilet and kitchen waste without dishwasher)	Meal served	5
Dining hall (toilet and kitchen waste with dishwasher)	Meal served	7
Drive-in restaurants - all paper service	Car space	15
Drive-in restaurants - all paper service, with inside seating	Car space and seating space	15
Drive-in theater (toilet and kitchen/cafeteria)	Vehicle space	3
Employees (day workers)	Employee per shift	15
Gas station and convenience store (low risk food facility)	Patron	

Health club, indoor sports facility	Person	5
Health club, indoor sports facility - with showers	Person	15
Hotels or motels and tourist rooming houses	Room	100
Laundromat	Customer	100
Long term care facility	Bed	125
Medical office buildings, clinics and dental offices		
Doctors, nurses, medical staff	Person	75
Office personnel	Person	15
Patients	Person	10
Mobile home park community	Site	300
Mobile home (individual)	Bedroom	150
Outdoor sports facilities (toilet waste only)	Person	5
Parks with toilet facilities (75 persons per acre)	Person	5
Restaurant, 24 hour (with dishwasher and/or food waste grinder)	Seating space	44
Restaurant, 24 hour (without dishwasher and/or food waste grinder)	Seating space	40
Restaurant (with dishwasher and/or food waste grinder)	Seating space	22
Restaurant (without dishwasher and/or food waste grinder)	Seating space	20
Retail stores <u>with customer restrooms</u> (70% of total store area + 30 ft ² per customer) <u>Dispensaries, vape lounge</u>	Customer	<u>≥ 1.5</u>
Schools	Classroom/Student	450/18
Schools with meals served	Classroom/Student	600/24
Schools with meals served and showers provided	Classroom/Student	750/30
Swimming pool bathhouses	Person	10
Outdoor entertainment or celebratory event venue or facility	Person	5

APPENDIX D: MINIMUM SETBACK SEPARATION DISTANCES

Minimum Setback Separation Distances of Components of OWTS to Site Features

	Component Part of System
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Distance (in feet) From:	Building Sewer, Force Main, or effluent conveyance pipe from pretreatment tanks to soil absorption component	Septic Tank, Holding Tank, Aerobic Treatment Unit, Media Filter, Lift Station, Grease Interceptor	Primary and Reserve Soil treatment Area (basal area, mantle, edge of in- ground trench/bed, drip tubing, constructed wetland)	Large Capacity Septic System⁵
	Component Part of System			
Distance (in feet) From:	Building Sewer, Force Main, or effluent conveyance pipe from pretreatment tanks to soil absorption component	Septic Tank, Holding Tank, Aerobic Treatment Unit, Media Filter, Lift Station, Grease Interceptor	Primary and Reserve Soil treatment Area (basal area, mantle, edge of in- ground trench/bed, drip tubing, constructed wetland)	Large Capacity Septic System⁵
Wells ¹ or Suction Lines	50 ^{2,6}	50 ⁶	75 ⁶	200
Water Supply Line Under Pressure, In-ground swimming (water edge)	10	10	25	25
Above Ground Swimming Pool, hot tub, lined decorative pond	5	5	10	10
Surface Waters, Retention Facility (ordinary high water mark)	25	25	25	25
Wetlands	10	25	25	25
Detention Facility High Water Line	10	10	25	25
Building with Foundation Footing Drain	NA	10	20 ³	10

Building Without Foundation Footing Drain	NA	5	10 ²	10
Property Line, Fence Posts, Structure Support Posts	3	3	5	5
Driveways, Patios, Sidewalks, Retaining Walls, <u>Paved or Gravel Parking Area</u>	NA	5	10 ⁴	10 ⁴
Agricultural Drain Tile, Perforated Pipe	10	10	10	10
Drainage Easement, <u>Shoulder of</u> Open Ditches, Road Cuts, Storm Sewer Pipe	5	5	5	10
Utility Easements	<u>5</u> <u>3</u>	<u>5</u> <u>3</u>	<u>5</u> <u>3</u>	5
Sealed Well	5	10	25	25
Upslope or Sideslope of Soil Treatment Area for System Types III, IV and V, Soil Treatment Area for All Other System Types	NA	5	NA	NA
Clearwater Conveyance Pipe (<u>i.e. gutter downspouts, clearwater sump discharge pipe</u>)	NA	5	10	10
Downslope of Soil Treatment Area for System Types III, IV and V	NA	10	NA	NA

Footnotes:

1- For separation distances to closed loop wells see 77 111. Adm. Code 920.180

2- A building sewer may be located to within 10 feet of a well or suction line from the pump to the well when cast iron pipe with mechanical joints or Schedule 40 PVC pipe with watertight joints is used for the building sewer. A force main may be located to within 10 feet of a well or suction line from the pump to the well when Schedule 40 PVC pipe with watertight joints is used.

3- The distance to the upslope edge of the basal area of a Type 3, 4 and 5 system can be reduced by 50% on sites where the soil treatment area is on a slope of 2% or greater.

4- This distance can be reduced by 50% if the soil treatment area is the edge of a trench/bed (System Type 1 or 2), drip tubing, or upslope or sideslope side of a soil treatment area.

5- Large Capacity Septic Systems, which are classified as Class V Injection Wells, are described and defined in the Illinois Pollution Control Board rules. They are typically a shallow well used to place fluids below the land surface. See 35111. Adm. Code 704.105, 704.106 and 704.280.

6- This distance can be reduced to 25 feet with NSF/ANSI Standard Number 350 effluent for the OWTS owner's private well.

7- This distance can be reduced 50% when the building is not a habitable structure.

(Ord. [Bd of Health Ord., Art. V], passed 11-12-1996; Ord. [Bd of Health Ord., Art. V], passed 11-12-2013; Ord. 17-0605, passed 6-13-2017; Ord. 19-0775, passed 5-14-2019)

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