

Frequently Asked Questions (FAQs)

Possible Ordinance Requiring Inspections of Septic Systems at the Time-of-Sale or Transfer of Properties

prepared by

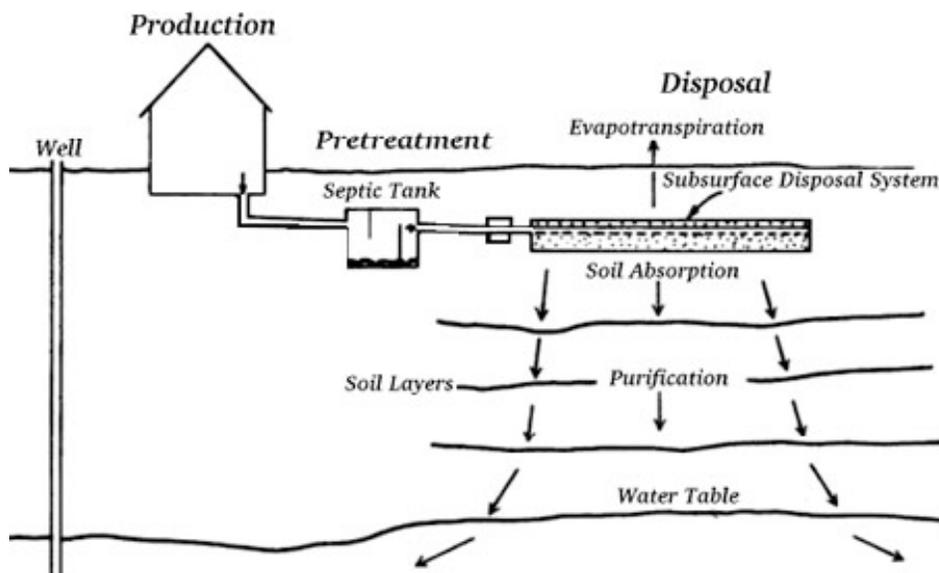
Three Lakes Association

for

Torch Lake Township, May 19, 2009

For areas that do not have sewage collection and treatments systems, the EPA and Michigan Department of Environmental Quality recommend septic maintenance ordinances as a prudent practice for managing the safe on-site disposal of household sewage in a manner that protects health and water quality.

Diagram of a Typical Septic System



The following Frequently Asked Questions and Responses were developed to help address concerns about a proposed ordinance requiring an inspection of septic systems at the point of sale:

1. What are some of the tangible benefits associated with such an ordinance?

The degree of public health protection, for both the property owners and neighbors, is increased through some assurance of properly designed and operating septic systems. Although conventional septic systems protect the public from infectious agents, they do not remove all the phosphorus, various medicines, and other common chemicals, especially if the systems are leaking. An inspection ordinance will help protect water quality by reducing the amount of phosphorus entering lakes and streams through groundwater.

2. What are some of the consequences of not adopting such an ordinance?

The primary consequences are (a) an increase in water contamination from disease causing bacteria like E. coli and (b) an increase in water nutrients leading to more plant/algae growth. As populations in this area grow and the age of existing septic systems increase, the consequences of not adopting such an ordinance would be expected to become more and more apparent, especially due to the increasing amounts aquatic plants and algae and oxygen depletion.

3. What are some of the most common modes of septic system failures?

The most common modes of septic system failures include leaking or damaged septic tanks; damaged or blocked connections to drain fields; visible sewage on the grounds; spent drain fields; inadequate distance between drain field and water table; inadequate size for the number of bedrooms; and insufficient distance from drain field to drinking water wells, lakes, or streams.

4. What is a typical lifetime of a septic system in this area?

In Antrim County, which is part of a five-county Public Health District, the average age of a septic system that has failed, based on visible problems and a Public Health evaluation, is from 23 to 28 years. However, some systems fail after only 7 years and some systems last much longer than average, depending how the system is used. The Health Department started keeping computerized records of septic system permits in 1989, which shows 639 permits have been issued within Torch Lake Twp, 916 within Milton Twp, 686 within Central Lake Twp, 544 within Custer Twp, 540 within Forest Home Twp, 446 within Kearney Twp, and 433 within Helena Twp, as of January 2009.

5. Have other townships and counties enacted ordinances requiring an inspection of septic systems at the point of sale? Why a “point-of-sale” ordinance rather than an ordinance requiring an inspection every 5 to 10 years?

In Michigan eleven counties and two townships have enacted ordinances that require inspections of septic systems at the time of sale. This approach has proven to be enforceable and practical. In this plan the quality of septic systems will improve at about the same rate as the anticipated increase in population.

6. What part of the lake nutrient load comes from septic systems now?

The nutrient load depends on the size and depth of the lake and the density of nearby residences with septic systems. For Torch Lake, we estimate that current septic systems contribute about 10% of the total phosphorus load, which corresponds to about 1,000 lbs per year. Most of this load is associated with the phosphorus in groundwater (~31% of the total amount of phosphorus load in 2006), compared to airborne phosphorus (37%), and tributary phosphorus (32%). In the future, if population growth continues at the same pace as the last 30 years, we expect the contribution from failing septic systems could double, unless there is a change in the Sanitation Code to identify and manage failing septic systems.

7. What other townships and counties have adopted a similar ordinance?

Long Lake Township adopted a septic inspection on sale ordinance that becomes effective in May 2009. Kalkaska and Manistee Counties modified their Sanitation Codes to incorporate a “Point-of-Sale” inspection requirement, effective April 1, 2009. Benzie County adopted a time-of-sale ordinance in 2001. Further away, Brooks Township in Newaygo Township (near Muskegon) adopted an ordinance in 2005. Many southern Michigan counties have adopted similar ordinances.

8. If adopted, how long will it take, at historical rates of home sales, to correct 90% of the failing septic systems?

If a Time-of-Sale Ordinance were the only management tool for identifying and correcting failing septic systems, then based on an assumption that 10% of existing septic systems are failing, and based on historical rates of home sales and title transfers in this area, then it could take up to 50 years to correct 90% of the failing septic systems. But, in actual practice, there are several ways of detecting and improving sub-standard septic systems.

9. Why not require inspections of septic systems on just riparian lots?

All groundwater travels continuously toward our lakes and streams. Groundwater from septic systems on waterfront lots may take as little as a year and water from lots farther from streams and lakes take longer. Mancelona groundwater has taken about 50 to 60 years to reach the Cedar River carrying TCE (Trichloroethylene) from a contaminated site in Mancelona. Some soil types carry groundwater much faster than others. In sandy soil, wastewater moves much faster than in clay-rich soils, but ultimately most of these nutrients are expected to migrate toward the surface waters. Since the groundwater closer to the lakes and streams will reach those water bodies sooner, the townships bordering the lakes may well choose to be the first to adopt a Point-of-Sale Ordinance.

10. How fast will our lakes respond to improvements in the phosphorus load?

Any change in the phosphorus input to our lakes takes some time to reach its “equilibrium” level. In Torch Lake this time is four years while in Lake Bellaire it is one year. Thus, a change in the phosphorus input cannot be detected immediately even if it is large enough to make a measurable change eventually. By testing phosphorus levels each year the average of all inputs can be determined and a judgment made about the source of the increase.

11. How much does an inspection cost?

An inspection by an authorized inspector (National Sanitation Foundation Certified, State of Michigan Registered Sanitarian, or equivalent) can cost in the range of \$200 to \$700, depending on whether the inspection also involves (a) pumping of the septic tank and hauling of the septage, and (b) an inspection of the drinking water well. A standardized protocol for inspecting and reporting inspections would be developed as part of an ordinance. The cost to repair or replace failing septic systems can range from a few hundred to tens of thousands of dollars, depending on the inspection findings and the site-specific situation.

12. Will an ordinance requiring a septic inspection have a negative effect on property sales?

An ordinance requiring an inspection of septic systems at the time of sale is not expected to have a negative effect on real estate sales. Real estate agents and mortgage lenders prefer win-win buy-sell arrangements rather than receiving phone calls from surprised buyers shortly after they’ve purchased property regarding a septic system that needs repairing. Escrow-related provisions in an ordinance would be expected to allow for closure of property transactions during winter period when opening/pumping a septic tank is difficult. And sellers could secure an authorized inspection report several months prior to the sale of the property.

13. Based on other inspection programs, what percentage of existing septic systems fail an inspection?

The first year following the adoption of a new Time-of-Sale Ordinance, inspection reports show failure rates in the range of 7 to 26%, which then decrease in subsequent years. If the authorized inspector’s primary pass-fail criterion is visible evidence of sewage on the ground or backing up into the house, then lower rates are reported. Based on inspection findings in other jurisdictions, most septic systems would be expected to either pass or pass as “Substantially in Compliance with the applicable Sanitation Code”.

14. What are some options for complying with the ordinance during winter months when inspections are not practical?

Most of the existing ordinances include provisions for conducting inspections when weather conditions are favorable, including provisional authorizations to transfer ownership until an inspection can be conducted. The provision may also include a contingency bond to be released upon a successful inspection. The purpose of these provisions is to enable the sale or transfer of property during periods when it is not practical to conduct an inspection.

15. For reselling homes within 5 years of a successful inspection of the septic system, could the ordinance include a moratorium on a required additional inspection within this period?

The purpose of such an ordinance is to identify and fix failing septic system. As with other point-of-sale ordinances, it may make sense to include a five-year moratorium to minimize the cost to recent homebuyers. But these individuals may want look for tell-tale signs of failing systems such as unexplained wet spots in the yard, unusual odors around the drain field or septic tank, toilets that gurgle or do not flush completely, and sewage backing up in the house.

Several terms expected to be used in a proposed ordinance will need to be defined in a Glossary of Terms in the ordinance including...

- **Standardize Inspection Protocol**
- **Authorized Inspector: List of approved inspectors**
- **Failure of an on-site sewage disposal system**
- **Septic System Passed an inspection, but with Substantial Non-Conformance relative to the current Sanitation Code**
- **Transfer Authorization: Ownership of property with a septic system**

For further information about Point-of-Sale Ordinances, please check out the following links:

1. Benzie County Health Department's Article IX pages 19 to 23 describes a Point-of-Sale inspection of septic systems, which was adopted by the county, November 1989.
<http://www.bldhd.org/publications/benziecode.pdf>
2. Septic system failure rates based on Barry-Eaton Health District's first annual report of inspections after enacting a Point-of-Sale Ordinance,
http://www.barryeatonhealth.org/EH/TOST/Docs/TOST_12_Month_Report.pdf
3. Brooks Township's Point-of-Sale Ordinance, <http://www.brookstownship.org/>
→ Open the website and then click on Publications and then select "Septic Ordinance" under "Free Standing Ordinances".
4. Brooks Township's inspection results, first two years of an in-place ordinance
[http://dev.3lakes.com/downloads/OSDS EVALUATION 2.pdf](http://dev.3lakes.com/downloads/OSDS_EVALUATION_2.pdf)
5. Long Lake Township's Point-of-Sale Ordinance, www.longlaketownship.com/
6. Kalkaska County Point-of-Sale Ordinance,
http://www.dhd10.org/EHForms/Manistee_Kalkaska_POS.pdf
7. National Sanitation Federation's standardized check list for evaluating septic systems and Long Lake Township's suggested credentials for inspectors and criteria for evaluating septic systems: <http://dev.3lakes.com/downloads/LongLakeTOSNSF.pdf>