

**TOWNSHIP OF HOPEWELL
MERCER COUNTY, NEW JERSEY**

ORDINANCE NO. BOH 2008 - 2

**AN ORDINANCE TO AMEND AND SUPPLEMENT CHAPTER XVI, SECTION 17, OF
THE REVISED GENERAL ORDINANCES OF THE TOWNSHIP OF HOPEWELL**

WHEREAS, the Hopewell Township Board of Health desires to amend the Township's Ordinances related to the point of entry for water treatment systems so that they are consistent the State Guidelines; and

WHEREAS, the Hopewell Township Board of Health desires to amend the Township's Ordinances to require minimum upgrades, at the time of sale, to existing septic systems, which would allow for easier and more convenient pumping and routine maintenance; and

WHEREAS, these amendments will protect and promote the health of the residents of the Township; and

WHEREAS, doing so requires amending and supplementing §16-17 of the Hopewell Township Revised General Ordinances;

WHEREAS, the Board of Health is empowered to enact and amend Health Ordinance pursuant to N.J.S.A.26:3-64 et seq.

NOW, THEREFORE, BE IT ORDAINED, by the Board of Health of the Township of Hopewell, in the County of Mercer, State of New Jersey, that the Revised General Ordinances of the Township of Hopewell, be amended and supplemented as follows:

SECTION I.

16-17 TESTING AND REPORTING REQUIREMENTS FOR WELLS AND SEPTIC SYSTEMS PRIOR TO TRANSFER OF PROPERTY.

16-17.1 Definitions.

As used in this section, words and terms shall mean as follows:

Administrative authority shall mean the Hopewell Township Board of Health.

Authorized representative shall mean a licensed health officer, registered environmental health specialist or professional engineer appointed by the administrative authority to represent it.

Private-nonpublic water system shall mean any Hopewell Township on-site well water system that provides water solely to a property or structure intended as a single-family residence. Herein referred to as a private well water system.

Point of Entry Treatment (POET) systems means a device by which drinking water is treated at the point of entry into a building for the purpose of reducing contaminants in the drinking water prior to its entering the building distribution system.

Potable water shall mean drinking water for human consumption.

Public water system shall mean any Hopewell Township on-site well water system that provides potable water to any property or structure that is not served by a private or nonpublic well and is not recorded as a single-family residence. Public well as defined here is broader than N.J.A.C. 7:10-1.3 which defines a public well as having 15 service connections or regularly serves at least 25 individuals daily for at least 60 days in any calendar year.

Subsurface sewage disposal system, also referred to as a septic system, shall comply with the Standards for Individual Subsurface Sewage Disposal Systems (N.J.A.C. 7:9A et seq.), NJPDES Rules for septic systems over 2000 gpd and any more stringent requirements previously adopted, or which will be adopted, by the Board of Health of the Township of Hopewell.

Transfer of property shall mean whenever a change of ownership, change of use or tenancy of any real property within Hopewell Township occurs.

16-17.2 General. The requirements of this section shall pertain to all on-site public and private well water systems and to all subsurface sewage disposal systems in Hopewell Township, whether the property served is used for residential, commercial, agricultural or industrial purposes. The requirements of this section are in addition to and not in lieu of any applicable Federal and State laws and regulations. In the event that any present or future Federal or State law or regulation imposes standards more stringent than the requirements of this section, the more stringent standards shall govern.

16-17.3 Onsite Well Water Systems. There shall be no transfer of real property, change in the use or change in tenancy of a property which utilizes an onsite public or private well water system for its potable water supply until the administrative authority or its authorized representative shall have issued a Letter of Review stating that the water system complies or does not comply with water quality standards specified by the NJ Safe Drinking Water Act N.J.S.A. 58:12A-1 et seq. and implementing rules N.J.A.C. 7:10 and the Private Well Testing Act Regulations N.J.A.C. 7:9E and any other parameters as specified by the health officer based on known contamination in this area.

- a. *Submittal Requirements.* The property owner, purchaser, tenant or authorized agent for either party shall submit:
 1. A completed application at least ten business days prior to transfer of properties, occupancy or changes in use or change in tenancy which should include the name and address of all persons owning, purchasing or leasing the property upon which the well is located.

2. A check made payable to Hopewell Township for the fee of twenty-five (\$25.00) dollars.
3. A laboratory report provided by NJDEP certified laboratory for testing under the Safe Drinking Water Act. A chain of custody form shall accompany all reports indicating the laboratory took the sample. All sample collection, testing and analysis shall be in accordance with the criteria and procedures established by NJDEP regulations.
4. All reports of testing shall include the Block and Lot numbers, street address for the property, the reason for the sample, i.e., sale or rental, the name of the laboratory representative who physically collected the sample from the well, the date and time the water sample was collected, the specific point of collection of the water sample, the date and time the sample was analyzed by the laboratory.
5. The laboratory must indicate if the water exceeds any maximum contaminate level (MCL) or action levels for any parameters for which standards have been established by The Private Well Testing Act Regulations N.J.A.C. 7:9E and The Safe Drinking Water Act Regulations or by the administrative authority.
6. For changes in tenancy, the following tests shall be conducted for each new tenant/lease signing. However, they may be conducted according to the periods specified as noted. These may be kept on file with the health department and resubmitted whenever there is a change in tenancy as long as the tests were conducted and are still within the time frames noted.

Annually	Total Coliform bacteria
Tri-Annually	Nitrates
	Volatile Organics (EPA method 524.2 or latest version) Lead Arsenic Gross Alpha Cadmium
As recommended	Other parameters as specified by the health officer based on known contamination in this area and for which maximum contamination limits (MCL), action levels or practical quantitative limits (PQL) are known.

b. *Remediation.*

1. In the event that a laboratory analysis of a water sample collected from any well reveals the presence of any contaminant exceeding the maximum contamination levels as referred to in this subsection, the administrative authority and the person ordering the sample shall be notified by the laboratory within 24 hours of obtaining the test results in accordance with N.J.A.C. 7:18-4.6 and 5.6 and the Private Well Testing Act Regulation N.J.A.C. 7:9E-4.1.

2. The cost of all testing required by the administrative authority or by this section shall be borne solely by the purchaser/owner of the property in question and not by the administrative authority.
- ~~3.~~ Whole house water POET system must be installed to correct or reduce contaminants as defined by the N.J.A.C. 7:10 Subchapter 5, State Primary Drinking Water Regulations or by the administrative authority. The system installed must comply with standards as defined by N.J.A.C. 7:10 Subchapter 12, standards for the Construction of Public Non-Community Water Systems and Non-Public Water Systems and/or as determined by the administrative authority and per the Minimum Requirements for Water Treatment Systems.

The Board of Health shall conduct an annual review of the Minimum Requirements for Water Treatment Systems document to ensure compliance with current state rules and regulations. All businesses or property owners affected by this section shall take all steps necessary to ensure compliance with this document. Copies of the "Minimum Requirements for Water Treatment Systems" can be obtained from the Board of Health. This document is adopted by reference.

- ~~4.~~ Where required by State Regulations, a plumbing permit and/or electrical permits must be obtained from the Township's Construction Office.
- ~~3.5.~~ Remediation may be completed after the closing as negotiated between buyer and seller.
- ~~4.6.~~ Post treatment test results are to be provided to the health department.
- ~~5.7.~~ When treatment systems are installed to remediate primary contaminants, a notice shall be placed in the deed to alert future purchasers of treatment methods and maintenance requirements.
- ~~6.8.~~ A copy of the executed deed shall be provided to the health department.

16-17.4 On-site Sewage Disposal Systems.

- a. *Submittal Requirements.* The property owner, purchaser, leaser or authorized agent for either party shall submit:
 1. A completed application at least ten business days prior to transfer of properties, occupancy or changes in use. The application is available from the Township's Board of Health.

2. An application fee of twenty-five (\$25.00) dollars shall accompany the application.
3. A report by an independent inspection company indicating that the inspection of the septic system was conducted meeting minimum standards for the inspection of subsurface sewage disposal systems as prescribed by the administrative authority and/or the DEP.

The Township has established "Minimum Requirements for the Inspection of Septic Systems Needed for the Sale, Transfer or Lease of Properties in Hopewell Township". This document shall serve as guidance for conducting septic inspections. The Board of Health shall conduct an annual review of this document to ensure compliance with current state rules and regulations. All businesses or property owners affected by this section shall take all steps necessary to ensure compliance with this document. Copies of the "Minimum Requirements for the Inspection of Septic Systems Needed for the Sale, Transfer or Lease of Properties in Hopewell Township" can be obtained from the Board of Health. This document is adopted by reference.

The report must describe in sufficient detail the basis for the decision that the septic system is in satisfactory condition, is not operating at its design capacity, is not satisfactory and/or appears to be malfunctioning or is in need of repairs or alterations so as to be brought into conformance with the standards of N.J.A.C. 7:9A-3.4.

Additionally, the report must indicate or certify that the system as designed and/or installed complies with the provisions of N.J.A.C. 7:9A-3.3 "Existing Systems," with regards to use, expansion or change in use.

4. If the ~~application report~~ cites evidence of a malfunction, unsatisfactory condition, or needs repair, a plan to correct ~~shall~~ must be provided to the health department.
5. If at the time of the inspection it is reported that the existing tank(s) is not in compliance with N.J.A.C. 7:9A-8.2 "Septic tanks", for example it is not watertight, undersized, irregular in design, or is not easily accessible through a large diameter clean out extended to grade with locking lid as required by N.J.A.C. 7:9A then the tank(s) shall be replaced and or provided with an extension to grade with manhole(s) and cleanouts as may be required to comply with current requirements.
 - a. The tank(s) shall be replaced and/or provided with an extension to grade with manholes(s) and cleanouts as required to comply with current requirements.
 - b. An effluent filter shall be required when tank(s) is replaced, .

~~5-6.~~ Upon review of the information submitted to the administrative authority or its authorized representative, one of the following documents will be issued within five business days of receipt of the completed application:

- (a) A Letter of Review will be issued by the health department indicating that the septic system inspector certifies in their report that the results of the inspection supports the satisfactory operation of the system.
- (b) Notice issued that additional information or data must be supplied.
- (c) Notice issued that the basis of the report, or its methods or conclusions, are rejected.
- (d) Notice issued that the system is in need of upgrade, repair or replacement and that a copy of the sales agreement needs to be provided. Specifically it should specify who is responsible for this work and when it is to be completed. Remediation does not need to occur before closing, as long as it is provided for in contract.

b. *Rental Properties and Changes in Tenancy.* Inspections shall be conducted and submitted each time a property is leased. At a minimum the tank must be pumped and a visual inspection of the disposal field is required. Changes in use or occupants must be noted in the report. Determination of wastewater generation for the proposed tenant must be provided and verified that it is within the design volume for the system. Inspection reports conducted within six months of the lease or sale may be used if more than one unit is included in the building and if all other design and occupancy conditions remain constant.

16-17.5 Validity. All letters of review issued by the administrative authority or its authorized agent shall be valid for a maximum of 12 months.

The issuance of a Letter of Review shall not imply any municipal warranty, nor shall it infer that the reports submitted on the results of any water tests or septic inspection is accurate, nor that the contractor or agent hired by the owner, buyer or seller is qualified, nor that the administrative authority warranties or certifies the quality of work done by the contractor, inspector, engineer or agent.

16-17.6 Certain Sources of Potable Water Are Prohibited. Except for households connected to an approved public community water supply the source of potable water for a public or private on-site water system shall be solely from wells. The use of springs, cisterns or surface waters shall not be accepted as a source of potable water. No cross-connection between a public water supply and a nonpublic water supply shall be permitted. All abandoned wells located must be sealed and decommissioned in accordance to NJDEP regulation.

16-17.7 Hearings. If the administrative authority, as required by this section, does not issue a Letter of Review, a hearing with the administrative authority shall be held within 15 days after the applicant makes a written request. The administrative authority shall take action accordingly within 15 days after the date of such hearing.

16-17.8 Right of Entry. The administrative authority has this authority under the Public Health Nuisance Code and other State statutes and regulations with regards to occupancies, rental properties, wells and septic systems, which are not in compliance with these rules.

16-17.9 Violations. Any person or persons, firm or corporation violating any of the provisions of this section upon conviction thereof, pay a penalty of not less than two hundred (\$200.00) dollars for each offense and an additional penalty of twenty-five (\$25.00) dollars for each day of continuance of the violation after notice of the violation shall have been given to such person or persons, firm or corporation by the administrative authority, to be collected and enforced by summary proceedings for the collection of penalties pursuant to the New Jersey Penalty Enforcement Law. Such notice shall be given by (1) serving a copy thereof on the property owner as shown on the current tax map or his agent in charge of the property, or (2) mailing a copy thereof by certified mail to the property owner at his address as shown on the said tax map.

SECTION II.

In the event that any portion of this Ordinance is found to be invalid for any reason by any Court of competent jurisdiction, such judgment shall be limited in its effect only to the portion of the Ordinance actually adjudged to be invalid, and the remaining portions of this Ordinance shall be deemed severable therefrom and shall not be affected.

SECTION III.

This ordinance shall take effect 30 days after the first publication in accordance with the law.

Date Introduced:	<u>September 8, 2008</u>
Dated Advertised:	<u>October 30, 2008</u>
Date Adopted:	<u>November 10, 2008</u>
Dated Advertised:	<u>November 20, 2008</u>

ATTEST:

James Burd, Chairperson
Hopewell Township Board of Health

Kathy Prassas, Secretary
Hopewell Township Board of Health

CERTIFICATION

I hereby certify that the foregoing is a true copy of the Ordinance adopted by the Hopewell Township Board of Health at a meeting held on_____.

Kathy Prassas, Secretary
Hopewell Township Board of Health

Date

Minimum Requirements for the Inspection of Septic Systems, Needed for the Sale, Transfer or Lease of Properties in Hopewell Township.

The following requirements are established because it has been reported by realtors and property owners and purchasers that the level of service being provided by the private inspector, local conditions, client/owner requirements, the depth of information collected, extent of testing performed and report results have varied widely.

Septic System Components:

The building sewer line carries all liquid wastes from the building's plumbing fixtures which include the kitchen and bathroom sinks, toilets, showers, tubs, clothes washer etc. All liquid wastes must be plumbed via the sewer line and connected into the septic tank or cesspool. A dry well may have been used in the past for kitchen or laundry wastes.

The septic tank in a modern system is a watertight container, usually concrete, sometimes fiberglass. Older steel tanks were used in many areas but might be considered a problem because of both small size and because eventually they rust out and fail.

The tank is normally "full" of liquid effluent and waste all the time. The tank and associated connections and risers should be watertight. Therefore, if 100 gallons of water flows into the tank from the house, then as the 100 gallons of water enters the tank it will force 100 gallons of effluent out of the tank into the soil absorption system.

Septic Systems Inspections:

Inspections should be conducted in as non-intrusive a manner as possible. However all components should be thoroughly evaluated.

Prior to any inspection, the inspector should collect any existing information from all reliable sources such as the owner, realtor, neighbors and the municipal health department. This should include if available: Original design and "as built" plans showing the system components, layout, type of use, design flow, water use records, service (pumping), repair records and or complaints.

Secure a signed inspection authorization form from the owner or authorized agent of the property before gathering any information or entering the property. See attached sample form.

An accurate location map of the system should be determined prior to or as part of the system inspection. This should be a part of the submitted report.

Inspector should note weather conditions prior to the inspection and note any impact this may have on the operation of the system at the time of the inspection.

Septic Systems Inspection Procedure:

1. A request for a public record/file search should be submitted to the health department prior to any inspections. Provide details of all information searches conducted.
2. All the waste lines within the building need to be visually traced to verify that all plumbing fixtures are connected and discharge into the sewage disposal system. Sump pump discharges should be checked. Ejector systems may be used in lower levels. This information should be indicated and any exceptions reported.
3. **DO NOT RUN WATER UNTIL STEPS 4, 5, 6 & 7 HAVE BEEN COMPLETED.**
4. The septic tank should be located and the lids over the inlet and outlet baffles and the large cleanout lid should be excavated and opened. Confirm the level of the effluent with regards to the inlet and outlet.
5. The condition of the tank, lids, access extensions and baffles should be noted. The depth to the top of the tank and tank lid should be recorded. A maximum of 18 inches of soil was allowed prior to 1990. All new and replaced tanks since 1990 in Hopewell Township require extension to grade with locking manhole over the main cleanout and extensions over the inlet and outlet baffles. Also, note in the report any encroachment by driveways, buildings, pools or insufficient distances to lot lines, structures, wells, etc.
6. Measure the thickness of the scum and sludge layers. Determine if routine pumping has been provided on a regular basis. The contents of the tank should not be pumped until the absorption field system has been inspected and water flow tested.
7. Locate and excavate the distribution box (d-box). Confirm the level of the effluent with regards to the inlet and outlets. Confirm that the d-box is properly balanced. The depth and condition of the d-box should be recorded. Maximum depth of 18 inches is permitted. Verify if solids, sludge or scum have entered the d-box or field. If this is a pressure distribution system the monitor ports should be inspected, however they may need to be cleared of silt and debris and/or reset.
8. If the level of effluent observed within the tank and/or d-box is above the outlets, the system is already overloaded. The cause of the overload should be determined if the system is recorded as failing. Depending upon the season, the depth of the seasonally high ground water should be confirmed with a soil log.
9. If high water table and or defective or clogged pipes are ruled out as the source of the overload, then the system needs to be located and excavated or probed. The full extent of the disposal area should be located. A monitor pipe should be installed to measure changes in effluent levels within the disposal bed or trenches over a period of time.
10. Water may be run as part of a dye test and or load test. A water meter must be used when running water and dye into the system. The total amount of water used should not exceed the daily design rate if known. The rate of flow should not aggravate the contents of the tank and force solids into the field. Flow rates of no more than 2 gallons per minute are suggested.

11. With the water running verify that the sewage is directed from the dwelling via the sewer line into the tank and then into the d-box and field. All nearby streams, catch basins and sump pump discharges should be checked for dye due to an illegal connection.
12. Inspect all areas of the property for evidence of dye or effluent breakout before and after the test. Check nearby streams, storm drains and sump pumps for effluent. Dye often appears in 10-20 minutes if there is a gross system failure; however it may not appear for several days.
13. Pump tanks and other mechanical components. There may be alternative systems in operation such as an aerobic tank system, a lift ejector or pump tank and or mechanical siphon tank for dosing. The condition of the tanks, circuit breakers, electrical connections, alarms, shut off switches and moving parts should be inspected. A service contract is required by ordinance for holding tanks and aerobic systems, and should be verified.

Minimum Requirements for Water Treatment Systems

1. Permits are required for all water treatment system installations.
2. Manufacturer's Specifications for the water treatment system and any pre / post treatment must be provided with the plumbing permit application.
 - a. Permits must be submitted prior to the start of work. Final inspections required.
 - b. Permits must be completed by a licensed master plumber in New Jersey with current stamp and credentials or as provided for by State of New Jersey Department of Community Affairs.
 - c. Plumbing equipment must meet the configuration of the New Jersey Department of Environmental Protection (NJDEP) and manufacturer's recommendations.
 - d. Water softeners or any equipment that will return sodium or other contaminants back to the environment must be set up to drain to the sewer or septic system.
 - e. Equipment vendors and installers must provide a copy of their New Jersey Home Improvement Contractors certificate representing their current registration with New Jersey Division of Consumer Affairs.

Arsenic System POET Criteria

3. Must be redundant in design with dual tanks in series that utilizes Granular Ferric Adsorption media or other media as approved by NJDEP. Systems must contain all components as outlined by the NJDEP dual tank schematic found on the information circular available on the NJDEP web site.
http://www.state.nj.us/dep/pwta/Arsenic_Treatment.pdf
 - a. Sampling ports for raw, between tanks (middle), and finish water
 - b. Sediment pre-filter with replaceable cartridge to screen to 5-micron nominal
 - c. Capable of preventing media compacting resulting from fine sediments and constant gravity as well as eliminating the possibility of channeling
Note: both tanks that hold the media must have an electronic backwash valve set to function no more than once every 20-30 days.
 - d. Vessels that house the media must be of industry standard type and sizing to permit future compatibility for new media technology adaptability
 - e. A water totalizer or meter on the finish water line to accurately provide treated water volume in gallons to be recorded at each time of maintenance testing.
4. The treatment system must remove all forms of arsenic, ie AS3 and AS5
5. Pre-treatment system must be employed for levels in excess of:
 - a. iron above 0.3 mg/L
 - b. manganese above 0.05 mg/L
 - c. sulfur above 1.0 mg/L or smell detection
 - d. hardness above 300 mg/L
 - e. pH range 6.5 – 8.0
 - f. silica less than 30 mg/L

6. Property owners are required to maintain a service agreement. The agreement must include:
 - a. Water test samples, all of which have been taken from the middle sampling port or between the tanks.
 - b. Initial test sampling must take place within 10 days of equipment installation or media replacement.
 - c. Maintenance testing must occur approximately every six (6) months and must include replacement of the sediment pre-filter. Water usage in gallons must be recorded on the Chain of Custody form.
 - d. Water must be running through the system for 10-15 minutes prior to sampling at a 3-5 gpm flow rate.
 - e. Water testing must be by a New Jersey State certified laboratory.
 - f. Electronic valve must be checked for program accuracy during the maintenance testing.
 - g. Cycling of the valve and checking media activity during backwash and rinse cycles must be completed to confirm operational integrity.

Volatile Organic Compound system Criteria

1. General Design requirements are:
 - a. Pre-filter (5 micron)
 - b. Install a water meter (to track water usage in gallons)
 - c. Three sampling ports required for raw, between and treated water
 - d. The system is to remove the contaminates to a non-detectable level (specify contaminates)
 - e. System must deliver at least 5 gallons per minute – all systems and associate plumbing must meet local plumbing codes
 - f. Unit should be located in a space that will not freeze. If this cannot be done, insulation must be provided.
2. Granular Activated Carbon Units (GAC)
 - a. redundant dual canister(s) and piped in series
 - b. each canister is to contain 1.5 to 2.0 cubic feet of GAC for a total of 3.0 to 4.0 cubic feet of GAC for the system.
 - c. virgin grade GAC is to be used
 - d. all valves, sampling taps, pre-filters and water meters are to be supplied as specified in the schematic.
3. Aeration Units
 - a. aeration systems are to include the aerator, pump and a 40 gallon bladder tank
 - b. total removal of VOCs should be greater than 80%.
 - c. the exhaust is to be vented above the roof line, if possible.
4. pH Adjustment Units
 - a. pH units are to be installed in cases where the required treatment lowers the pH more than 0.5 pH units
 - b. Assuming a pH <7 calcium carbonate unit with a minimum bed depth of 30 inches and 1.0 cubic feet of calcium carbonate should be installed.

- c. Unit must be installed prior to mercury removal system
 - d. An automatic backwash valve is required.
5. Water Softener Unit is required when
- a. The iron levels exceed 0.1 PPM as pretreatment for a POET unit.
 - b. 0.5 cubic feet of cation resin with a DIR backwashing valve
6. Mercury Removal System is required when
- a. When levels of mercury exceed 0.002 PPM
 - b. Fiber glass tank 7" diameter x 40" high with an automatic backwash valve
 - c. 0.33 cubic feet of KDF-55 (or similar product)

Monitoring

1. Samples taken from the units must be analyzed by a New Jersey certified laboratory
- a. Water test samples, all of which have been taken from the middle sampling port or between the tanks.
 - b. The vendor, or the individual resident can contract with a certified laboratory
 - c. The vendor if authorized by the lab, or the lab can collect samples
 - d. The samples are to be analyzed using an EPA approved method depending on the type of contaminant
 - e. A copy of the results are to be sent to the local health department and the property owner and/or tenant
 - f. A post installation sample is required to be taken within 48 hours of the installation of the unit.
2. Monitoring Schedule
- a. All units will be sampled within 48 hours of installation. A verbal turnaround from the lab is required within 48 hours.
 - b. Routine water samples are to be taken from the tap between the tanks on redundant systems
 - c. For the purpose of costs, all units are assumed to need 4 samples per year per unit. The exact number of samples will be determined on a case by case basis
 - d. The raw water is to be sampled once a year

Maintenance

1. The property owner is responsible for all maintenance on the POET system so that the system works effectively. An annual service contract is recommended.
2. GAC Rebedding
- a. The GAC (both tanks) must be rebedded after one year, regardless of breakthrough
 - b. If breakthrough does occur (between the tanks) the first tank is to be rebedded and put in the second tank position; the second tank is to be placed in the first tank position
 - c. If breakthrough occurs in less than a year, the contractor is to contact the property owner and the health department.

3. All spent GAC is to be disposed of by the contractor by returning the GAC to the manufacturer for regeneration

Unit Removal

1. The units can be only be removed by the contractor if public water, a new well or contaminate is eliminated and if so demonstrated by several periods of testing and approval by the health department.