Town of Lakeville

Well Driller Packet
10. Wells

10.0. Article I. Authority
These regulations are adopted and, from time to time, amended by the Board of
Health pursuant to Chapter 111, Section 31 of the Massachusetts General Laws.

10.1. Article II. Definitions
“Board”: The Board of Health of the Town of Lakeville.
“Leaching Facility”: Is an approved structure used for the dispersion of sewage
effluent into the soil. These include leaching pits, galleries, chambers, trenches, and
fields.
“Lot”: An area of land; in one ownership, with definite boundaries.
“Reserve Area”: An additional area of at least equal capacity as the original sewage
disposal area, suitable for subsurface sewage disposal, and upon which no
permanent structures will be constructed.
“Town”: The Town of Lakeville.

10.2. Article III. Severability
Each article shall be construed as separate to the end that if any regulation or
sentence, clause, or phrase thereof shall be held invalid for any reason, the
remainder of that regulation and all other regulations shall continue in full force.

10.3. Drawing from a surface water supply is not a grandfathered pre-existing condition
for a seasonal conversion to year round.

11. Well Installers

11.0. Every person, business or association engaged in well construction or well installation
in the Town of Lakeville for the purpose of obtaining water shall have a permit
therefore to be issued by the State and listed on the Annual List of Registered Well
Drillers under the Commonwealth of Massachusetts Department of Conservation and
Recreation Well Driller Registration Program. This list includes individual who are
qualified to engage in the business of well digging and drilling in all cities and towns
throughout the Commonwealth of Massachusetts.

11.1. Permits for wells

11.2. Every person, business or association who installs a well for the purpose of
obtaining water shall have a permit issued by the Board prior to the commencement
of installation.

11.3. Permits for individual wells may be obtained by filing an application for same on a
form supplied by the Board.

11.4. Applications for well permits shall be accompanied by a plot plan showing, at a
minimum, property lines; location of any structures on the lot; proposed well
location, location of any animal pens on the lot; and distances between proposed well
and street line, property lines, sewage disposal systems and reserve areas on the lot,
and if within 200 feet of proposed site, on adjoining lots.

11.5. The plan accompanying the well permit application need not be prepared by a
registered professional engineer, although the Board reserves the right to request
certification of the plan, including distance measurements, from a registered professional engineer.

11.6. A permit issued pursuant to Section 11.2 shall be valid for a period on one (1) year following the date of issuance. Upon written request, the Board may extend the permit, without charge, for additional periods of one year.

12. Siting of well

12.0. The Board reserves the right to require greater distances between proposed wells and leaching facilities and reserve leaching facilities if geologic and topographic conditions warrant it.

12.1. No well shall be permitted within 20 feet of a street layout line or 10 feet of a side or rear line.

12.2. The Board may grant a variance indicating a lesser distance than that required in Sections 12.0, although not less than 100 feet from a leaching facility and reserve area, or of Section 12.1 if the Board determines that the installation of the well will not endanger the health of any potential user.

12.3. To minimize the hardship created by inadequate quality and quantity of water supply to dwellings used for year-round purposes as of the effective date of this regulation, the Board may grant a variance indicating a lesser distance than 100’ form leaching and reserve area. Before said variance may be granted, though, the applicant shall certify in writing that he/she is aware that the minimum standards are designed to prevent contamination of wells and that he/she is aware of the request for variance.

12.4. In making a determination of the proper distances the Board may require the applicant to submit information relating to the character of local geology, nature of the soil, depth and slope of the water table and an assessment of the present and projected future density of subsurface disposal systems in the adjacent area.

12.5. There shall be no new shared wells allowed in the Town of Lakeville. Replacement of an existing well shall not be considered a new well, and no shallow wells will be permitted.

12.6. It is the home owner’s responsibility to have an as-built plan submitted to BOH within 30 days of installation.

12.7. Drawing from a surface water supply is not a grandfathered pre-existing condition for a seasonal conversion to year round.

13. Non-potable wells

13.0. The Board may issue permits pursuant to Section 11.2 for wells designed for non-potable purposes.

13.1. Non-potable wells may be installed notwithstanding the siting requirements only if the applicant has a year-round source of potable water of quality and quantity satisfactory to the Board.

14. Well standards

14.0. The submergence setting of a foot valve or ejector in any well installed in unconsolidated material shall be a minimum of 10 feet below the static water level.
The submergence setting of the uppermost inlet of a well point installed in unconsolidated material shall be a minimum of 10 feet below the static water level.

14.1. A well installed in an aquifer consisting of unconsolidated material for the purpose of providing potable water for a new dwelling shall provide no less than a minimum continuous yield of five (5) gallons per minute.

14.2. A drilled well installed for the purpose of providing potable water for a new dwelling shall have as a minimum the following capacities:

<table>
<thead>
<tr>
<th>Depth of Well</th>
<th>Required Volume</th>
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<tbody>
<tr>
<td>Less than 150 feet</td>
<td>5 gallons/minute</td>
</tr>
<tr>
<td>150 feet to 300 feet</td>
<td>3 gallons/minute</td>
</tr>
<tr>
<td>More than 300 feet</td>
<td>2 gallons/minute</td>
</tr>
</tbody>
</table>

14.3. The well casing of a drilled well shall extend a minimum of twelve (12) inches above finish grade and/or flood elevation.

14.4. Water distribution piping shall be connected to a drilled well with steel casings by means of a pitless adapter installed below the frost line.

14.5. Any well installation failing to meet the criteria of Sections 14.0, 14.1 or 14.2, shall be deemed inadequate to meet the ordinary needs of a dwelling.

14.6. The Board may grant a variance from Section 14.6 following examination of the request for variance. In making its determination the Board may request that the applicant provide additional storage capacity.

15. **Well analysis standards**

15.0. Chemical and bacteriological analysis (including VOC’s) must be made of water from each well intended for drinking purposes prior to its connection to the plumbing system of the dwelling or structure where the water will be consumed.

15.1. Water analysis shall be performed by a Laboratory approved by the Massachusetts Department of Environmental Protection for microbiological and chemical analysis of drinking water.

15.2. Prior to the water sample collection, the well should be developed by sustained pumping over a period of not less than four (4) hours per State guidelines.

15.3. The analysis pursuant to Section 15.1 shall contain, as a minimum, the following: Total Coliform Bacteria, pH, Ammonia Nitrogen, Nitrate Nitrogen, Iron, Hardness, Manganese, Sodium, Chloride, Magnesium, Copper, Arsenic, & Volatile Organic Compounds

15.4. A copy of the laboratory analysis shall be submitted to the Board. The copy shall include the property plot plan number as stated on the permit and well installer’s report to Board.

15.5. Following examination of the analysis, the Board reserves the right to require a suitable water conditioner or filter be installed, if necessary.
15.6. In the case of a new dwelling, no building permit shall be issued prior to the installation of the well and the submission of the well analysis to the Board, and approval of the analysis by the Board.

16. Responsibility of the well installer
16.0. The person, business or association that drills the well must pick up the individual well permit and driller's permit. This would provide assurance to the registered driller that a well permit has been issued by the Board.
16.1. The driller shall promptly submit to the Board a report of the well installation, on a form approved by the Board, stating the location of the well, the type well, its yield and depth, as well as any other similar information as may be required by the Board.
16.2. There shall be no deviation from the well location as shown on the plot plan prepared for the Board as part of the application for a well permit without prior approval of the Board or its designee.

17. Previous well permits
All permits to install wells issued prior to the effective date of this regulation shall be valid for one full year following the effective date of this regulation.

18. Water Analysis Requirements
18.0 Any Well Only Permit must have a Current Title V Inspection or Certificates of Compliance (up to 2 years old) can be submitted to show sewage disposal facility adequacy.
18.1 Any Septic Repair or Upgrade Permit must have a Current Water Analysis (up to two years old) can be submitted to show water adequacy, provided they include all potability parameters including Nitrates and Volatile Organic Compounds and Arsenic provided they have been collected objectively by a DEP Certified Lab Employee or Certified Water Operator.
18.2 No building permit for an addition to any dwelling or structure shall be issued until the Board of Health has approved the adequacy of the water supply and sewage disposal facilities for the proposed use.
18.3 No permit required by the Town of Lakeville shall be issued in circumstances which indicate a substantial change in use or a significant expansion in use of any structure or dwelling within the town, unless the applicant can demonstrate that all regulations and requirements of the State Sanitary Code, Chapter 111 of the General Laws of
Massachusetts, the State Building Code, and the regulations and by-laws of the Town of Lakeville have been met.

19. **Water Analysis Specifications**
This section will define what the Lakeville Board of Health (hereafter referred to as BOH) defines as acceptable analytical parameters for well water to determine suitability for human consumption (which includes hand washing according to the MA Department of Environmental Protection (hereafter referred to as DEP).

*After January 1, 2014, well analyses are considered current or suitable for 2 Years for any permitting or compliance process or evaluation therefor.* The BOH also acknowledges that the State DEP recommends further testing initially for new wells. Recommended testing parameters are outlined from the Department Environmental Protection Private Well Section which can be found at:

http://www.mass.gov/eea/agencies/massdep/water/drinking/

Certain areas can have additional contaminants that are not normally checked for with a standard well analysis (nor these BOH specified parameters) and therefore it may behoove the property owner to do their own additional testing to insure safe drinking water with respect to all possible contaminants not necessarily listed below.

**Lakeville BOH “Potability” parameters include:**
Total Coliform Bacteria, pH, Ammonia Nitrogen, Nitrate Nitrogen, Iron, Hardness, Manganese, Sodium, Chloride, Magnesium, Copper, Arsenic & Volatile Organic Compounds *(hereafter referred to as VOC’s).*

**FOR NEW WELLS ONLY:**
INCLUDE: Gross Alpha *(added 9/18/13 – Effective 10/15/13)*

Sampling should take place by the certified lab performing the analysis as referenced in our Local BOH Regulation (6.2), although sampling by an objective third party is accepted providing a copy of the chain of custody is attached to the report for legal purposes.
In addition, sampling for new wells, replacement wells and well repairs should be preceded by 6 hours of sustained pumping per Local BOH Regulation (6.3) a report for which documenting said pumping should be provided to the BOH by the licensed driller.

*Please note: Onsite wells need to be tested prior to any septic permit being released or upon any property transfer inspection, unless there is a current analytical report on file.

Also note: Any onsite and/or abutters well(s) within 100 feet of a proposed septic leaching component must be tested and the results submitted for review, to the Health Department, at least one week prior to the public meeting at which the setback divergence(s) will be discussed.
Well Water Analyses for Title V, Septic Repairs & Upgrades, Property Transfers

- Water analyses are valid for two years. (voted 1/1/14)

- Water analysis must be attached to the Title V Report and submitted to the Board of Health within 30 days for the inspection to be considered valid. Incomplete reports will NOT be accepted.

- Title V inspections shall have a water analysis done on onsite wells for Lakeville potability parameters regardless of the distance to the septic system.

- Abutting wells within 100’ of said system shall have a water analysis (Nitrate Nitrogen, Ammonia Nitrogen, Fecal Coliform Bacteria) as required by the State Regulations. (voted 7/21/16 to revert to State Requirements)

- Property transfers must have water samples taken by an objective third party and the Title V Report and water analysis must be accompanied by the chain of custody form unless the sample was taken by a certified lab.

- Septic repairs and upgrades require a water analysis for Lakeville potability parameters

Lakeville Potability Parameters Include: Total Coliform Bacteria, pH, Ammonia Nitrogen, Nitrate Nitrogen, Iron, Hardness, Manganese, Sodium, Chloride, Magnesium, Copper, Arsenic, & Volatile Organic Compounds (voted to remove “Sediment” 7/20/16)

Revised 2/2018
Gross Alpha Policy
(Applicable to new wells for new construction)

Please be advised if the water sample is not taken by the engineer or certified lab, the BOH office must be notified at least 30 minutes prior to allow the Health Agent the opportunity to witness the sampling. The BOH will not delay the sampling but does require notification prior to.

Water analyses on **new wells for new construction only shall include Gross Alpha in addition to Lakeville Potability Parameters**. If initial well analysis indicates that Gross Alpha is higher than 5, follow-up sampling/testing is required under the direction of a professional engineer. (voted 9/17/14-clarified 12/6/16)

<table>
<thead>
<tr>
<th>Gross Alpha Results</th>
<th>Action Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤4.9 pCi/L</td>
<td>No further action required / LBOH Agent can sign off</td>
</tr>
</tbody>
</table>
| >5 but ≤14.9 pCi/L  | • Requires testing for Ra-226 and Ra-228  
|                     | • If combined test results is <5 for Ra-226 and Ra-228 Health Agent sign-off is required  
|                     | • If combined test result is >5, a MA PE is required to evaluate and supervise further action  
|                     | • Prior to the Building Permit sign-off by the LBOH the MA PE is required to submit a letter to the LBOH stating that a treatment system can be designed  
|                     | • Prior to the Occupancy Permit sign-off by the LBOH and after treatment system is installed a retest and a letter by same engineer is required |
| ≥15 pCi/L           | • Requires follow-up testing for Ra-226, Ra-228 & Uranium, by a MA PE who is required to evaluate and supervise further action  
|                     | • Prior to a Building Permit sign-off by the LBOH the MA PE is required to submit a letter to the LBOH stating that a treatment system can be designed  
|                     | • Prior to the Occupancy Permit sign-off by the LBOH and after treatment system is installed a retest and a letter by same engineer is required |

Note: Water sampling reports submitted to the Board of Health must have a Chain of Custody attached as stated in the Lakeville Board of Health Well Regulations, unless the water sample collection is taken by a DEP certified laboratory employee or a MA PE who is hired to supervise and certify all water sampling, testing, treatment system design and follow-up sampling and testing.

| DEP = Department of Environmental Protection | LBOH = Lakeville Board of Health |
| MA = Massachusetts (license in good standing) | pCi/L = pico curies per liter |
| PE = Professional Engineer | Ra-226 = Radium 226 |
| Ra-228 = Radium 228 | Ur = Uranium |

(voted and effective 5/20/15)
20. Waiver for Title V Mandated Well Analysis

Page 3 of the Commonwealth of Massachusetts “Official Inspection Form” mandates a water analysis when a Soil Absorption System (SAS) is found to lie within 100 feet of a private water supply well. In some instances, homeowners abutting the inspected property have been reluctant to allow access to measure their private well locations and/or to obtain samples for analysis. When an abutter’s well is concerned, the owner of the property being inspected hires a State Certified Laboratory to collect the samples to avoid any conflicts. If an abutter refuses to cooperate, the Inspector shall obtain the signature (See **) of the abutter refusing access to legally document the reason why all the appropriate analyses are not attached to the inspection report as required by 310 CMR 15.303(2)c.

Address/Lot # of abutting well that may be within 100’ & may be required to have an analysis
_______________

Printed name of owner of said property containing private well
_______________

Address/Lot# of septic system currently being inspected
_______________

Name and Company of Septic Inspector for system currently being inspected
_______________

Owner of Septic System currently being inspected
_______________

The undersigned acknowledges that a Well Location and Analysis is required under the State Environmental Code but for whatever reason wishes to deny access to the State Certified Inspector and hereby waives the right to have their well water tested and/or access to locate said well. The undersigned also acknowledges by doing so may fail to identify a water quality issue that may be caused by the septic system currently being inspected, and could enable further and increased contamination of said water supply.

Signature of Well Owner or Representative of Requesting Waiver
_______________

Printed Name of Well Owner: ________________________________

Date ________________________________

**A Certified Mail Receipt can be attached in lieu of a signature if abutter is unavailable or out of town**
21. **Nitrogen Loading and Advanced treatment septic systems Protection**

If a site is served by a subsurface sewage disposal system, and three or more abutting wells are within 100 feet, an advanced I/A treatment system (approved for denitrification by the DEP) may be required depending on the following criteria which would allow the board to make an informed decision and risk assessment:

21.0 All wells have to be accurately located (RLS) and evaluated and labeled appropriately per type (i.e. deep vs. shallow, bedrock vs gravel packed) on plan.

21.1 Topography clearly shown between wells and proposed septic system to allow evaluation of the system components shown to be up gradient or down gradient.

21.2 Lot size as well as abutting lot sizes with said wells.

21.3 Groundwater flow should be shown (especially if arguing against advanced treatment).

21.4 Soils should be identified with sufficient soil logs throughout area for a hydrogeological assessment (especially if arguing against advanced treatment).

21.5 Nitrogen loading (structures flow vs. acreage) of locus lot and abutting lots should also be discernible from the proposed plan and will be taken into consideration.

21.6 Number of animals and locations of pens (i.e. paddocks, kennels, etc.) and manure piles should also be provided for consideration, if applicable.

21.7 Recent (less than one year old) water analyses (including nitrates) should be provided on all wells if available for consideration.

Any proposed plan without sufficient information (as requested above) for assessment will mostly likely require an advanced treatment system approved for de-nitrification although each situation is under the discretion of the Board of Health.

22. **Demolition**

22.0 The Board of Health does not need to sign off on a demolition permit, however, if the property has any public or private wells or an onsite septic system that need(s) to be abandoned; it would be the applicant’s responsibility to apply for the appropriate permits to decommission the well(s) and/or septic components through the Health Department.

22.1 Any hazardous materials/waste that require removal per State regulations (i.e. asbestos, fuel oil, fuel oil tanks, etc.) need also to be properly dealt with and permits applied for through the appropriate department (fire, building, and/or the Department of Environmental Protection) and all work performed by certified or licensed professionals in that field.

22.2 If the site is served by a Subsurface Sewage Disposal System, the system
components need to be properly abandoned per 310 CMR 15.354 and with the proper permit from a licensed installer through the Health Department. If there is to be on-site reconstruction in the near future and the septic components need to be re-utilized for another structure, a Title V Inspection would be required to determine adequacy for the expansion/change in use, or to determine if an upgrade or expansion of the system would be required. If the septic system passes an inspection and will be re-utilized after demolition, the proper marking of all components with suitable flagging for protection, must be completed prior to issuance of the demolition permit. If the septic system does not pass an inspection and/or a new system is to be designed for a reconstructed building, the old system can be properly abandoned under the permit for the new system to be reconstructed after the demolition, provided there are no public health and/or safety issues. It is the owner’s and site contractor’s responsibility to maintain site safety during all operations and in order to insure that, it may be necessary to obtain an abandonment permit prior to demolition.

22.3 If the property is serviced by existing Public or Private Well(s), the well(s) would need to be properly abandoned and sealed as necessary to prevent a public health danger per State private well guidelines and any local board of health regulations or policies. If there is to be on-site reconstruction in the near future and the well(s) need to be re-utilized for another structure, a well analysis (for private wells per local specified parameters) would be required to be submitted to determine adequacy for expansion/change in use. If the well passes the analytical requirements and will be re-utilized after demolition, the proper marking of any wells with suitable flagging for protection, must be completed prior to issuance of the demolition permit. If the property has a public well, the DEP and the certified water operator would need to be contacted for the appropriate conditions for decommissioning, and any documentation forwarded to this office for our records. If a private well is to be properly abandoned, it must be done so through the Health department with the appropriate permit, by a licensed well driller per State guidelines.
APPLICATION FOR WELL PERMIT

Town of Lakeville
Board of Health

Permit #:________________________

(Name of Property Owner) (Telephone Number)

(Address of Property Owner) (Assessor's Map Number)

(Well Installation Address)

Abandonment of old well: Yes / No

The undersigned hereby applies for a permit to install a ____________________________
(Type of Well)

on the above referenced property. Said well will be installed in compliance with Board of Health
Regulations and in accordance with the approved plan in the Board of Health Office.

Requirements for wells - Scaled plan showing the following:

1. Property lines and dimensions to proposed well;
2. Location of any structures on lot;
3. Proposed well location;
4. Location of any animal pens on lot and dimensions to proposed well;
5. Distance between sewage disposal facilities (including reserve areas) and
   proposed well site;
6. Distance between sewage disposal facilities (including reserve areas) on adjacent
   lots if facilities are within 100 hundred feet of proposed well site;
7. Type of well to be installed, (deep bedrock or other must be specified);
8. Show any wetlands or surface water bodies on the plan within 100 feet of
   proposed well;
9. No changes, to the approved plan, can be done without permission from the
   Board of Health Members or the Board of Health Agent.

Name of Well Driller (PRINTED) Name of Company (PRINTED)

Signature of Well Driller Phone Number

Date of Application State License Number