



LAKEVILLE BOARD OF HEALTH REGULATIONS

Pertaining to
Subsurface Disposal Systems & Water

Voted & Adopted on June 10, 2009
Effective June 18, 2009 (reformatted May 2010)

TABLE OF CONTENTS

SEPTICS

1.	Subsurface Disposal Systems	page 3
2.	Requirements and Restrictions	page 4
3.	Specifications for designs, installs & inspections	page 5
	3.0. RLS Stamps	page 5
	3.1. Build-out Capacity	page 5
	3.2. Electrical specs for pump chambers	page 5
	3.3. Pump Chamber Check List	page 6
	3.4. Innovative & Alternative Checklist	page 7
	3.5. Title V Inspections requirements	page 8
	3.6. Existing Manhole	page 9
	3.7. Greywater	page 9
	3.8. Backwash	page 10
	3.9. Existing 1000 gallon Septic Tank	page 10
	3.10. Local Cesspool/Privies Upgrade	page 10
	3.11. Plan Permit Approval Deadline	page 10
4.	Percolation Testing	page 11
5.	Disposal Works Installers	page 11
6.	Septic Installation Inspection	page 12
7.	Certificate of Compliance Deadline Enforcement	page 12
8.	Tight Tank Checklist As-Built Certification	page 13
9.	Connection to Municipal Water	page 14

WELLS

10.	Well Authority & Definitions	page 15
11.	Well Installers	page 15-16
12.	Sitting of Well	page 16
13.	Non-Potables	page 16
14.	Well Standards	page 17
15.	Well Analysis yields & standards	page 17
16.	Responsibility of Well Installers	page 18
17.	Previous Well Permits	page 18
18.	Water Analysis Requirements	page 18
19.	Water Analysis Specifications	page 19
20.	Waiver for Title V Mandated Well Analysis	page 20
21.	Emergency Well Replacement	page 21
22.	Nitrogen Loading and A/I systems	page 21
23.	Demolition	page 22

Under the provision of Chapter 111 of the General Laws and any other powers thereto enabling the following regulations are adopted.

All Massachusetts Title V regulations are followed per 310 CMR 15.000, Department of Environmental Protection and the state environmental code Title V. Including Standard requirements for the siting, construction, inspection, upgrade and expansion of on-site sewage treatment and disposal systems and for the transport and disposal of Septage.

1. Subsurface Sewage Disposal Systems (SSDS) including but not limited to all public sewers, septic tanks, cesspools, and vault privies.

- 1.1.** Inspections and fees – All title V inspections in the Town of Lakeville, performed by a State certified inspector, shall be witnessed by an agent of the Lakeville Board of Health, the fee for which shall be \$50.00, payable in advance with the appropriate application prior to scheduling in advance.
- 1.2.** Cesspools receiving raw sewage (with openings for leaching) are considered failed systems at the time of real estate transfers in the Town of Lakeville. Property transfers, under State regulations, still require an official and complete title V inspection with report, regardless of an automatic town failure regulation, and all wells within 100 feet are to be tested as required.
- 1.3.** Leaching pits shall be evaluated (for the purposes of inspection and leaching capacity failure criteria) similar to cesspools as referenced in title V, whereas they must have at least a half a day's flow calculated capacity and/or at least 6 inches of clearance between the inlet invert and the liquid level below.
- 1.4.** 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 sewage disposal system(s) serving said dwelling, by reviewing an engineered as-built plan and certificate of compliance recently issued and/or by witnessing and reviewing an official title V inspection and report done within 3 years that located all components.
- 1.5.** An annual inspection (COI) of rental property shall be required prior to the rental of any dwelling or upon complaint by tenant(s) and will include housing code parameters in addition to an official title V inspection (and associated witnessing and report review) every three years (or annually for large or shared systems) and annual well analyses per BOH parameters.

2. SSDS Design and Property Related Requirements and Restrictions

- 2.0.** A lot less than one half acre (rounded down to 20,000 sq.ft. of upland acreage) shall be deemed too small for both a water supply and sewage disposal.
- 2.1.** No septic components of any kind shall be constructed or installed in a roadway or a right of way.
- 2.2.** Any addition or modification of an existing structure shall include re-assessing the SSDS suitability and upgrading with respect to the most recent state and local minimum requirements especially as pertaining to the latest application rates and including any change in use (upgrade must take place prior to building permit unless occupancy is revoked until such time) for commercial, industrial, and residential (or any combination thereof) applications.
- 2.3.** For new code parameters any expansion or change of use (even if no increase in flow is proposed) there must be a documented reserve area.
- 2.4.** BOH may vary the application of any provision of these regulations unless superseded by State regulations, when in the opinion of the BOH, that lot size, hydro-geo conditions, or other site restrictive factors make enforcement of the provisions impractical or if the owner can demonstrate an equivalent degree of environmental protection and/or if the BOH decides it would be manifestly unjust.
- 2.5.** No septic component shall be placed within 20 feet of a swimming pool, nor should any swimming pool be placed within 20 feet of a septic component or foundation.
- 2.6.** No structure (like sonotubes, decks, sheds, etc.) shall be within 5 feet of any component.
- 2.7.** Lowest floor elevations must be a minimum of 24” higher than the agreed high groundwater elevation as determined at percolation testing/soil evaluation between CSE and town witness or as documented with additional soil/HGW form(s) for additional test holes by CSE at foundation location(s).
- 2.8.** Approved Effluent filters are required on all systems at outermost tee
- 2.9.** Two compartment tanks are required unless two tanks in serial are utilized for all repairs, upgrades, and new construction unless a local variance is sought.

3. Additional requirements **for designs, installations & inspections when noted.**

3.0. REGISTERED LAND SURVEYOR STAMP

A registered land surveyor's (hereafter referred to as RLS) stamp is required for any plan with a lot that is less than 70,000 SF, if any local divergences and/or state variances exist, or if any minimum setbacks are proposed (horizontal or vertical). For new construction and/or lots 70,000 SF or greater, a RLS plan reference (plan referred to must show existing structure(s) footprint(s) as related to defined (bearings and distances) property lines) must be shown somewhere on all site plans unless stamped by a RLS.

3.1. BUILD-OUT CAPACITY FOR STRUCTURES AND SEPTIC

A RE-CALCULATION for leaching capacity using the latest application rates in 310 CMR 15.242. If the existing system can be successfully shown to have adequate leaching capacity through current application rates and calculations and pass an official title V inspection, no upgrade would be required for the increase in flow. If calculations cannot demonstrate compliance with latest application rates, no build out or increase in flow would be allowable without upgrade per latest title V and local regulations. If system cannot pass an official title V inspection, a repair or upgrade would be necessary prior to build out or within the BOH specified time frame but not more than 2 years without build out.

3.2. ELECTRICAL SPECIFICATIONS FOR PUMP CHAMBER

The Board of Health, after consulting with the Town Electrical Inspector, will now require the following electrical specifications on any/all plans requiring pumps or electrical fixtures working in conjunction with septic systems.

- .01.** Any conduits extending into a manhole and/or septic tank (pump chambers and tight tanks included) shall incorporate a sweep extending in the appropriate direction so as not to cause fraying or degradation of wiring insulation in contact with said conduit edge. Any opening of said conduit edge shall be sealed to prevent water and/or gases from migrating.
- .02.** Junction boxes shall not be located within manholes or tanks and shall have a separate acceptable vessel enclosing such box with a watertight and secured access at grade.
- .03.** Any pump system requiring floats (and when a pressure transducer is not otherwise specified) a removable float tree of a non-corrosive material shall be utilized to separate said float chords.
- .04.** Any questions or clarifications can be directed to the Town Electrical Inspector and/or Board of Health Agent.
- .05.** All electrical components and materials must conform to the State Electrical Code, as well as the State Environmental Code where applicable, when electrical components are specified.
- .06.** Any deviations to an approved stamped septic design plan must be first approved by the designer engineer or sanitarian that stamped said plan, and be subject to approval by both the Town Board of Health agents and Electrical Inspectors.

3.3. PUMP CHAMBER CHECKLIST / AS-BUILT CERTIFICATION

(shall include the following completed information)

MAP/BLK/LOT: _____
PROPOSED PLAN APPROVAL DATE _____
PUMP CHAMBER VOLUME _____
UNION PRESENT ___ YES ___ NO
PUMP MANUFACTURER _____
WEEP HOLE PRESENT ___ YES ___ NO
PUMP H.P. _____ RAIL SYSTEM ___ YES ___ NO
PUMP VOLTAGE _____ LIFT OUT CABLE OR CHAIN ___ YES ___ NO
SIMPLEX / DUPLEX (Circle One)
CORROSION RESISTANT MATERIAL ___ YES ___ NO
ACCESS COVER(S) AT GRADE ___ YES ___ NO
COVER(S) MATERIAL _____ LOAD RANGE _____
ACCESS COVER(S) WATERTIGHT AND SECURED ___ YES ___ NO
FLOAT SYSTEM / PRESSURE TRANSDUCER (Circle One)
IF FLOAT SYS.: REMOVABLE FLOAT TREE IN PLACE ___ YES ___ NO
CHAMBER FLOOR ELEVATION _____
LAG PUMP ON ELEVATION _____ (IF APPLICABLE)
PUMP OFF ELEVATION _____
LAG PUMP OFF ELEVATION _____ (IF APPLICABLE)
PUMP ON ELEVATION _____
ELECTRICAL PERMIT # _____ DATE _____
ALARM ON ELEVATION _____
PLUMBING PERMIT # _____ DATE _____
STORAGE CAPACITY _____
DOSING FREQUENCY _____ DOSING VOLUME _____
(1 or more times a day) (Gallons)

The undersigned certifies that the pump chamber & all associated equipment have been installed according to the approved design plan & specifications, & meet all State & Local Regulations ___ yes ___ no

(or)

The undersigned certifies that the pump chamber & all associated equipment have been installed with *changes* to the approved design plan &/or specifications, but according to all State & local regulations. ___ yes ___ no

(Note: All location changes shall be reflected on the certified as-built plan & all designer approved specification changes shall be listed on the reverse of this form.

Engineer/Inspector's Name, Title, & Company

Date: _____

Engineer/Inspector's Signature: _____

3.4. INNOVATIVE & ALTERNATIVE CHECKLIST & AS-BUILT CERTIFICATION (completed form must include the following)

I/A System Name _____

DEP Permit Type: _____

(Remedial/Pilot/General/ Provisional)

MANUFACTURER: _____

(Name, Address & Phone)

MODEL # _____

DE-NITRIFICATION _____ Yes _____ NO

DISTRIBUTOR: _____

(Name, Address & Phone)

MANHOLE(s) AT GRADE _____ Yes _____ NO

MANHOLE MATERIAL _____

WATERTIGHT & SECURED _____ Yes _____ NO

SAMPLING PORT(s) LOCATION: _____

AERATION (required) _____ Yes _____ NO

VENTING (required) _____ Yes _____ NO

PUMPING CONTRACT (required) _____ Yes _____ NO

If so, Name of Pumper: _____

CONTRACT IN PLACE _____ Yes _____ NO

DATE OF DEP APPROVAL (If required) _____

O & M CONTRACT TERM (years) _____

CONTRACT COMPANY _____

(Name, Address & Phone)

INFLUENT TESTING (required) _____ Yes _____ NO _____ Frequency

ADDRESS: _____

MAP/ BLK/ LOT: _____

DATE OF APPROVED PLAN: _____

EFFLUENT TESTING (required) _____ Yes _____ NO

TYPE OF EFFLUENT TESTING & FREQUENCY _____

ELECTRICAL PERMIT# _____ Insp. date _____

(If required)

PLUMBING PERMIT# _____ Insp. date _____

(If required)

OPERATOR'S NAME: _____ GRADE: _____

INSPECTOR'S NAME, TITLE & CERTIFICATION: _____

I CERTIFY THIS SYSTEM WAS INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND IN COMPLIANCE WITH DEP's (Department of Environmental Protection) APPROVAL.

(Inspector's Signature)

3.5. TITLE V INSPECTION REQUIREMENTS

- .0.1. Field Verifications of “Critical Components” when an adequate as-built plan is not on file for official inspections.
- .0.2. Critical components shall be defined as the leaching facility (actual horizontal and vertical location including bottom of SAS) and any wells within 100 feet, as pertains to official inspections.
- .0.3. “Adequate” as-built plan shall be defined as another specific plan made after installation (and not a copy of proposed plan that still shows proposed distances or wording that implies work that is not done or not verified) with field confirmations by designer or other engineer that specifically gives the elevation of verified leaching facility bottom in addition to a specific location of all wells within 100 feet.
- .0.4. Swing ties must be performed and documented on all septic inspections to verify component locations as found in field unless the engineered as-built on file clearly shows all components locations (as found in field by inspector) and is stamped by a registered land surveyor.
- .0.5. Comparison of the actual bottom of leaching facility elevation to high groundwater elevation is critical for the title V official inspection therefore, it would be required to be determined in the field (as least intrusively as possible) when this information is not clearly available on an adequate as-built plan.
- .0.6. Field location of all wells within 100 feet of the leaching facility is absolutely necessary as they all would need to be tested in accordance with official title V inspection parameters. Inspectors should keep in mind that new and replacement wells may have been installed after engineered reference plans on file and that some wells have no location plans on file. Most properties in Lakeville are serviced by one or more wells and it is the inspector’s responsibility to account for each property’s water source(s) within 100 feet of the septic system being inspected.
- .0.7. Any D box greater than 24 inches below grade requires a riser 9 to 12 inches below grade with watertight covers for both inspections and installs.
- .0.8. Tank inlet covers, greater than 24 inches below grade require a riser 9 to 12 inches below grade for both inspections and installs.
- .0.9. Tank outlet covers, require risers with covers at grade that are watertight and securable for both inspections and installs.
- .0.10. Pump chambers require watertight securable covers at grade for both inspections and installs.
- .0.11. Any system that has not received normal flow in the previous two weeks prior to Title V inspection will be considered “needs further evaluation”. The inspector will explain on the report the determined reason for such conditions for example: no power, no water, or house vacant. If actual time of non-use is known by inspector it will also be noted on report. This system will still require the BOH to witness the conditions & perform a walk-through. The owner of said system shall notify the inspector & BOH after the system has normal flow for two weeks so a re-inspection can be completed unless other additional assessment means are employed.

3.6. TITLE V INSPECTION OF EXISTING MANHOLES Upgrade requirement for existing non-conforming manhole covers found at Title V inspections. If an official title V inspection reveals non-conforming and unsafe conditions, a conditional pass or further evaluation is warranted to insure unsafe issues are corrected, and as required in 3.5.0.7 through 3.5.0.10. Any non-conforming and/or unsafe covers at grade need to be replaced with watertight (gasketed) and securable (bolt down or screw down) covers as required by 310 CMR 15.228(2), 15.227(7), 15.231(5), 15.227(1), 15.226(3), 15.222(8), 15.221(3) and 15.260(f), or lowered if applicable, to meet 15.221(13) when not otherwise required to be at grade by aforementioned state regulations.

3.7. TITLE V INSPECTION OF GREYWATER

for buildings found to have a separate leaching system for laundry and/or any greywater not in accordance with 310 CMR 15.262. Title V official inspection reports require an inspector to infer whether the existing laundry system(s) is/are on a separate (from a main title V septic system) sewage system. Additionally, the report states in follow-up, if yes, a separate inspection is required, and then asks if a separate inspection was performed. Unfortunately many of these greywater systems are found to exist but there is no further DEP guidance given or spaces for additional information provided on the inspection report. The Lakeville BOH has adopted a supplemental form that includes the following information to be attached to the report when this condition exists.

*Separate laundry/greywater system found but inaccessible and owner opts to reroute laundry/greywater flow into main sewer pipe and re-inspect main system after at least two weeks of normal flow and therefore will be considered a “Further evaluation by BOH” at this time and checked as such on initial report page. Owner will insure licensed plumber reroutes laundry with plumbing permit and contact title V inspector and BOH after at least 2 weeks of normal flow after rerouting for re-inspection.

*Separate laundry/greywater system found & system components & sizes are documented below from excavation and measurements.

Discharge (laundry sewer) pipe _____ inches below grade.

Tank present ___ dimensions _____ material of construction ___ Liquid Level _____

Leaching pit _____ dimensions _____ material of construction ___ Liquid Level _____

Other leaching facility _____ dimensions _____ material of construction _____

Distance from bottom of leaching to estimated high ground water _____
 _____ Pass (system passes if tank present & liquid level greater than 6” below invert & leaching facility bottom is above HGW)

_____ Conditional Pass (liquid level and HGW separation adequate but tank installation needed prior to leach facility.

_____ Fail (liquid level < 6” to leaching inlet invert or leaching bottom in HGW.

3.8. WATER TREATMENT SYSTEM BACKWASH

going into a sewer pipe that discharges to a title V leaching system.

State Code Reference 310 CMR 15.004(8)

A certified Title V Inspector working within the Town of Lakeville should, as part of the required walk-thru, document any such backwash system as a write-in conditional pass and disclose to the owner that this would need to be corrected. The correction can be made by rerouting backwash out onto the ground or into a drywell, assuming of course, that the type of backwash is non-hazardous and non-industrial. Any (pipe connections broken and re-piped and/or re-connected) plumbing changes should of course be subject to the State plumbing code and a licensed plumber with the appropriate plumbing permit, when required, by Building department. Once this has been done and witnessed and/or re-inspected (or documentation from Building Department given to the BOH from inspector or owner) compliance for a “passing” Title V Inspection report could then be given.

3.9. EXISTING 1000 GALLON SEPTIC TANK

Existing properties with existing 1000 gallon septic tanks can ask for a waiver (local variance request) during the repair or upgrade process, to retrofit and continue using the existing tank, provided that the tank is documented to be less than 20 years old, is certified structurally sound in writing by the designer, is constructed of DEP approved materials and can be made to conform to State water tightness parameters and manhole area requirements. Otherwise, compliance with 310 CMR 15.223 in every respect shall be incorporated into the design process requiring a new (1500 gallon minimum or 200%) tank be installed and compartmentalized with outlet filter as required per 2.8 & 2.9.

3.10. LOCAL CESS POOL/PRIVIES UPGRADE

All existing cesspools, privies and “overflow cesspools” in the Town of Lakeville are considered non-conforming systems in Lakeville and shall be upgraded to meet the standards set forth in the new Title V regulations at the time of or before a real estate transfer.

3.11. PLAN/PERMIT APPROVAL DEADLINE

Existing properties with plan/application permit approvals for repairs and/or upgrades must be completed (allowing COC to be issued within one year) within one year of the Agent’s or Board’s approval.

After the deadline, if the COC has not been issued, the applicant may be required to submit a whole new package (including fees and revised plans), the intent being that the plan and existing conditions have to be re-affirmed as current by the certified engineer, sanitarian and/or land surveyor, and/or any changes shown or noted on revised proposed plans, to be re-reviewed as necessary by the Health Agent and/or the Board. New construction (vacant lot) approved septic plans and permits are good for 3 years (everything complete to allow COC to be issued within the 3 years) although the wells must go in within 1 year.

4. PERCOLATION TESTING AND SOIL EVALUATION

- 4.0. Percolation tests shall not be performed during the period from June 1st extending to December 1st except when the Board of Health determines that such a test is necessary in order to repair or replace an existing sewage system and therefore apply to new construction as defined in title V.
- 4.1. Soil with a percolation rate over thirty minutes per inch is considered impervious and unsuitable for the subsurface disposal of sewage for new construction,
- 4.2. All test holes and observation holes must be at least 20' apart.
- 4.3. De-watered percolation testing is not allowed in Lakeville, and therefore the observed groundwater elevation cannot be altered to perform a percolation test.
- 4.4. Systems to be designed requiring a leaching system will require deep observation holes in the following manner:
 - a. The system shall not exceed 24" to the top of the SAS above the natural elevation at the location where percolation test was performed.

5. DISPOSAL WORKS INSTALLERS

- 5.0. The person, business or agent licensed in the Town of Lakeville to install subsurface sewage disposal systems in accordance with the provisions of Title V of the State Sanitary Code, shall sign the application for Disposal Works Construction License, pick up the license and the approved copy of the septic plan to ensure that the system be installed is one that has been approved and that the installer is properly licensed.
- 5.1. First Time Installer in Lakeville
The applicant will pay a \$250.00 fee at the time to receive their first Provisional Disposal Works Construction License. This \$250.00 will cover the 1st, 2nd and 3rd provisional as well as the first annual. These 4 licenses will not expire and do not have to be completed within a 12-month period. The Annual license fee renewal will begin upon completion of the calendar year when the 4th system is installed.
- 5.2. Annual License Renewals
Disposal works installer license shall be available only on an annual basis. No license shall be issued on the basis of one installation only.
- 5.3. Applications for License
Applications for annual license must be filed on forms available from the Board of Health no later than February 15 of the year for which a license is sought. Said applications must be accompanied by a check payable to the Town of Lakeville in the amount of \$100.00 for the annual fee. Should said application be denied by the Board the check shall be refunded.
- 5.4. Expiration of License
Such license shall expire at the end of the year in which they are issued unless earlier revoked for cause by said Board.

6. SEPTIC INSTALLATION INSPECTIONS

- 6.0. Agents of the Lakeville Board of Health will perform 3 inspections; an open hole, a final and a final grade inspection. The fee will be \$300.00 due at the time of plan submittal which covers plan review and the three required inspections. The 3rd (final grade) inspection which field confirmation will take place for but not limited to:
- 1) minimum adequate (quantity and quality) fill over all components
 - 2) the appropriate type and number of frames and covers at grade;
 - 3) an acceptable form of erosion control is in place; and
 - 4) all designated inspection ports and/or vent pipes are present at the proper height with the proper access and/or screening or filter.
- 6.1. As with the other inspections, 48 hours notice is recommended although not required, since availability cannot always be guaranteed due to public health priorities, which vary on a day to day basis.
- 6.2. Any re-inspections for any Title V shall be a \$50.00 fee.

7. Certificate of Compliance Deadline Enforcement

Effective April 21, 2006, the State Environmental Code was revised to include a 30 day deadline from the date of the final inspection of subsurface sewage disposal system construction. Within 30 days of the final required inspection by the town inspector, the as-built plan and any associated paperwork must be submitted by the engineer, and both the designer and the installer must certify in writing that the system was constructed in compliance with 310 CMR 15.000, and the approved design plans, and all local requirements, and that any changes from the design plans have been reflected on the as-built plans.

a. Any installer, who fails to certify/sign the compliance within the State deadline, will not be allowed to undertake any additional work requiring review/approval of the Town of Lakeville Board of Health, until the paper trail can be completed, and compliance issued, on any outstanding projects.

b. Any engineering company that fails to submit the as-built plan or sign/certify any/all documents required for the certificate of compliance (i.e. retaining wall certifications, pump chamber as-builts, site plan as-builts, etc.) to be issued by the above mentioned deadline, will not be able to submit any additional plans for review/approval to the Lakeville Board of Health until the paper trail can be completed and compliance issued, on any outstanding projects.

c. Adequate business contracts, proposals, scopes of work and all associated compensation between property owners and who they hire, is not the Town's responsibility nor is it reason for delays or deviation from this policy to insure all projects are completed in a timely manner per 310 CMR 15.021.

8. TIGHT TANKS

An executed 2 year renewable and transferable service contract with a licensed Town of Lakeville Septage Pumper must be submitted to the BOH.

An inspection and maintenance plan with a certified Title V inspector requiring inspection and pumping of the system at a minimum frequency of once every three months.

This report shall be in a form documenting the time and date of the visit, the person doing the inspection, the existing volume present in the tank prior to pumping, confirmation that the alarm is working and that the tank is still effectively watertight.

8.0. TIGHT TANK CHECKLIST AS-BUILT CERTIFICATION

(form available in office, information must include)

MAP/BLK/LOT: _____

ADDRESS: _____

PROPOSED PLAN APPROVAL DATE: _____

TANK VOLUME: _____

ACCESS COVER(S) AT GRADE: ___ YES ___ NO

COVER(S) MATERIAL _____ LOAD RANGE _____

WATERTIGHT AND SECURED ___ YES ___ NO

SEPTIC TANK FLOOR ELEVATION: _____

ALARM LOCATION: _____

AUDIBLE/VISUAL ALARM WORKING: ___ YES ___ NO

ALARM SEPARATE CIRCUIT: ___ YES ___ NO

ALARM ON ELEVATION: _____

CORROSION RESISTANT MATERIAL: ___ YES ___ NO

RISERS - WATERTIGHT: ___ YES ___ NO

The undersigned certifies that the Tight Tank has been made Watertight & All Associated Equipment have been installed according to the approved design plan & specifications, & meets all State & Local Regulations ___ yes ___ no

The undersigned certifies that the Tight Tank & all associated equipment have been installed with *changes* to the approved design plan &/or specifications, but according to all State & local regulations ___yes ___no (Note: All location changes shall be reflected on the certified as-built plan & all engineer approved specification changes shall be listed on the reverse side of this form.

Date: _____

Engineer/Inspector's Name, Title, & Company _____

Engineer/Inspector Contact Number _____

Engineer/Inspector's Signature: _____

9. Connection to Municipal Water

Prior to connection to a municipal water main, the Lakeville Board of Health will require a proposed water supply plan submitted.

9.1. The plan shall include any pertinent features and basic lot identification information including the structure being connected to (but not limited to) and all pertinent easements. The plan shall specify the location (from street shutoff to building), depth, and type (material specification including pressure rating) of supply line and distances to all septic components and reserve areas within 50’.

9.2. If there is no engineered as-built plan on file, a Title V inspection (unless a valid title V inspection has been done within 3 years and accurately shows all components including the leaching facilities) shall be required prior to plan submittal in order that all of the septic components can be located, including the leaching area, and shown accurately on the appropriate report page with the proper swing ties to permanent reference points. This will allow the engineer to properly show the required setbacks to the proposed water supply line for proper plan review. On the plan there should be a note to specify proper abandonment of any existing well(s).

9.3. The plan should also specify magnetic marking tape to be attached to the water supply line unless the specified line already has metallic components or if the engineer is going to be locating the line prior to backfilling in order to accurately show the location on the As-built plan which should be submitted within 30 days of the completed connection. If there is an engineered plan on record, it may behoove the applicant to have the same engineering company provide the above mentioned plans since they would probably have most of the required information on file.

9.4. If any onsite wells are desired to be kept as non-potable and/or irrigation wells, all plumbing connections to the dwelling are required to be disconnected (with the appropriate plumbing permits through the building department), the as-built plan shall properly identify the well as irrigation or specified other, and distances shown to all septic components and reserve areas within 50’ of the converted non-potable well.

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.

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. Sitting 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' from 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.

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:
- | <u>Depth of Well</u> | <u>Required Volume</u> |
|----------------------|------------------------|
| Less than 150 feet | 5 gallons/minute |
| 150 feet to 300 feet | 3 gallons/minute |
| More than 300 feet | 2 gallons/minute |
- 14.3. The well casing of a drilled well shall extend a minimum of eight (8) inches above finish grade.
- 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 and collection shall be performed by a laboratory approved by the Mass. Department of Environmental Quality Engineering 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 eight (8) hours.
- 15.3. The analysis pursuant to Section 15.1 shall contain, as a minimum, the following: total Coliform count; sediment, odor; taste; total hardness; sodium, total iron; manganese; chloride; and nitrogen-nitrate.
- 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 recommend a suitable water conditioner or filter be installed.
- 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

- 17.0. 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 one year old*) can be submitted to show water adequacy, provided they include all Potability parameters including Nitrates and Volatile Organic Compounds, and provided they have been collected objectively by a DEP Certified 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. WELL ANALYSIS SPECIFICATION

Previously a Standard Well Analysis for potability has been accepted for private wells, unless required for a Title V Inspection which involves different parameters. To eliminate confusion for required analyses for different types of site work regarding well water, it has been decided to expand the Required Analysis to include Volatile Organic Compounds, (*hereafter referred to as VOC's*).

Well Analyses greater than One Year Old are not considered current and are not considered suitable for any permitting or compliance process. The Board of Health 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 Guidelines which can be found at <http://www.mass.gov/dep/water/drinking/privatew.htm> . Certain areas can have additional contaminants that are not normally checked for with a standard well analysis and it may behoove the home owner to do their own additional testing to insure safe drinking water.

Typical “Potability” parameters include: Total Coliform Bacteria, pH
Ammonia nitrogen, Nitrate nitrogen,
Iron, Hardness, Manganese, Sodium,
Sediment, Chloride, Magnesium, & Calcium
Arsenic (added 5/12/2010) & VOC's

Sampling should take place by the certified lab performing the analysis as referenced in our local BOH regulation (6.2), although we can accept sampling by an objective third party provided 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 to 8 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 unless there is a current (not more than one year old) analytical report on file.

Also note: Any 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.

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. EMERGENCY WELL REPLACEMENT

When an existing well servicing an existing dwelling needs to be replaced on an Emergency Basis, the Board of Health can release a Well Drilling Permit with a letter of waiver from the owner. This well permit would be released on the assumption that the existing well is located in compliance with all setbacks, and that the replacement well should be in compliance as well. The letter of waiver will also document an “understanding” by the owner, that the responsibility to research and document (after the fact) the new well location by a certified person with a certified as-built plan, will still be required “within 30 days of the permit release date” in lieu of the proposed well plan to expedite an urgent need for potable water within an existing occupied dwelling. Should the new well be constructed in Non-Compliance with any or all required setbacks, it is also the Applicant/Owner’s responsibility to insure that this new well is properly permitted after the fact with any required variances, or if necessary, capped and relocated and re-drilled so that it does comply with all state and local regulations.

22. 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:

- 22.0** 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
- 22.1** topography clearly shown between wells and proposed septic system to allow evaluation of the system components shown to be up gradient or down gradient
- 22.2** lot size as well as abutting lots sizes with said wells
- 22.3** groundwater flow should be shown (especially if arguing against advanced treatment)
- 22.4** soils should be identified with sufficient soil logs throughout area for a hydro-geological assessment (especially if arguing against advanced treatment)
- 22.5** 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
- 22.6** number of animals and locations of pens (i.e. paddocks, kennels, etc.) and manure piles should also be provided for consideration, if applicable
- 22.7** 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.

23. **DEMOLITION**

- 23.0 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.
- 23.1 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.
- 23.2 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.
- 23.3 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 the 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.