

# TOWN OF NORTHBRIDGE BOARD OF HEALTH

Aldrich School Town Hall Annex ~ 14 Hill Street Whitinsville, MA 01588 Phone (508) 234-3272 Fax (508) 234-0821

### **Application for WELL CONSTRUCTION Permit**

Fee: \$100.00	<b>PERMIT #:</b>		
(Check made payable to the Town of Northbridge)			
APPLICATION IS HEREBY MADE FOR A PERMIT TO CONSTRUCT A WELL:			
WELL LOCATION:			
STREET ADDRESS	LOT#:		
REASON FOR WELL INSTALLATION			
PROPERTY OWNER OWNER NAME & ADDRESS:			
	PHONE#:		
WELL DRILLER INFORMATION WELL DRILLER NAME & ADDRESS:			
	TION #:		
FOR NEW CONSTRUCTION: SEPTIC PLANS DATED (LAST REVISED): SEPTIC PLAN APPROVAL DATE:			
FOR EXISTING PROPERTIES: ATTACH SKETCH LOCATING EXISTING SEPTIC SY WETLANDS, ETC. WITHIN 200' OF PROPOSED WELL			
Are all structures, wetlands, driveways, septic systems, & 10(B) of the Northbridge Board of Health regulations: YES			
I have read and understand the requirements of the No installation of wells and agree to abide by them.	orthbridge Board of Health Regulations governing the		
Signature of Applicant	Date		
This permit is not valid unless signed below by the Board of	of Health or its Agent.		
Approved by:			
Board of Health Agent			
Date of Issue: Expiration Date: (	One Year from Date of Issue)		

Revised: September 2012

### Application for Well Permit - Addendum for Geo-thermal Well Applications

1.	Geo-thermal well application shall be for:		
	Heat Only Heat & Potable Water		
2.	Geo-thermal well installation shall be:		
	☐ Open Loop ☐ Closed Loop (Closed loop heat well pumps shall not be used to produce water)		
3.	. For Closed Loop Systems: Refrigerant to be used:		
4.	. For Open Loop systems:		
	Water is being returned to the same aquifer via:		
	System bleed is being directed to:		
5.	6. Has owner/operator of GSHP registered with the MassDEP UIC Program?		
	Yes; DEP/UIC Registration Number: No; Please explain		
6.	i. Is GSHP flow greater than 15,000 gallons per day?		
	☐ Yes ☐ No		
	If yes, has owner/operator obtained permit from Groundwater Discharge Program?		

7. Open Loop GSHP wells must meet Primary Drinking Water Standards – water quality results are required to be submitted to the Northbridge Board of Health office.

### Setback Requirements for GSHP Wells:

Open-loop, Closed-loop and Direct Exchange (DX) GSHP Wells shall be set back a minimum of 25-feet from potential sources of contamination including but not limited to, septic tanks/fields, lagoons, livestock pens, and oil or hazardous materials storage tanks and 10-feet from any property line. Closed loop and DX wells shall be sited at least 50-feet from any private potable water supply well and 10-feet from any surface water bodies. If a dual purpose well, then all Primary Potable water setbacks must be met.

# Town of Northbridge – Board of Health Water Quality Testing Requirements

- 1. Before use, or in the case of new construction, before the issuance of a building permit, the well water must be tested by a laboratory that is certified by the Department of Environmental Protection to test drinking water for the parameters analyzed. All analyses shall be performed in accordance with US EPA methods for drinking water analysis.
- 2. The laboratory performing the testing must collect such samples. Written proof of the individual's certification must be supplied to the Board of Health upon request. The original results of the water quality tests, chain of custody, and verification of the Laboratory's certification for the parameters analyzed must be submitted directly to the Board of Health within two weeks of sampling. In no event shall a water treatment device be installed prior to sampling.
- 3. If the initial test did not pass and a filter or other treatment system is necessary, a second representative sample for laboratory analysis must be collected in accordance with Section D(2) above after the treatment system is installed. The second sample shall be retested for all failed parameters, plus any other parameters deemed necessary by the Board. A laboratory report indicating all test results meet EPA drinking water standards must be submitted to the Board prior to issuing a certificate of occupancy.
- 4. The following parameters shall be tested:

Total Bacteria Coliform Bacter	ria Turbidity
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#### **Inorganic Compounds:**

Antimony Flouride Arsenic Lead Barium Mercury Beryllium **Nitrate** Cadmium **Nitrite** Chromium Selenium Copper Sodium Cyanide Thallium

**Volatile Organic Compounds** (VOC's) (Using EPA method 524.2)

#### Radon

#### **Secondary Standards for Drinking Water:**

Aluminum Manganese
Chloride Odor
Color PH
Copper Silver
Flouride Sulfate

Iron Total Dissolved Solids

Hardness Zinc

Ammonia

*Note #1:* High concentrations of Nitrate, Chloride, and Ammonia could indicate that well is drawing in septic effluent. Further testing of VOC's may be requested by the Board of Health.

*Note* #2: High concentrations of Iron, Manganese, Total Dissolved Solids, Nitrogen (as ammonia or nitrate) & Hardness could indicate that well is drawing in landfill leachate. Further testing of regulated and unregulated VOC's may be requested by the Board of Health.

- 5. The Board of Health may require that any well drilled within 500' of a landfill, waste site, or 21E site, may be required to conduct water quality analysis of Synthetic Organic Chemicals (SOCs).
- 6. The US EPA Drinking Water Standards for Primary and Secondary Drinking Water Maximum Contaminant Levels (MCL's) shall be used as the guidelines for private water supplies.
- 7. All costs and laboratory arrangements for collections of water samples and testing are the responsibility of the applicant.

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## **Water Quantity Report**

Location:	Lot #:
Number of Bedrooms (BR):	
Volume of Water:	
(No. of BR +1) x 110 gallons x 2 =	Number of Gallons needed Daily
<b>Storage Capacity:</b>	
= Storage Capacity:	1.5 x Depth of Well ( <u>below</u> static water level):  Gallons
(If casing other than 6" is used please contact BOI	H for gallons/foot determination)
REQUIRED VOLUME:	
Volume of Water + Storage Capacity:	Gallons
determined above):	equal to or greater than REQUIRED VOLUME as
Pre-Pumped Static Water Level:	Actual Depth of Well:
Pump Rate: gpm How pumped	: Air or Pump
Start Time: End Time: Total Volume Pumped: Gallons	Time of Pump: Hours
Total Gallons Pumped divided by 1440 Minutes (2) Well must be capable of producing an amount green	
great management of producting and amount great	or o
Static Water Level after 24 Hour Recovery Period: (Must be within 85 % of the pre-pumped static wat	
thust be within 65 % of the pre-pumped static wat	<u>Cr levely</u>
I certify that the Water Quantity Report was cothe Northbridge Board of Health and that the	ompleted in accordance with the regulations of information contained herein is factual.
Signed:	Date:
Signed: Registered Well Driller	



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### **Application for Water Supply Certificate**

The undersigned applicant being the Owner/Agent of property located at:			
	f a <b>Water Supply Certificate</b> by the Northbridge Board of Health. The following your review as per the requirements of Regulations Section 201-10(E):		
☐ Water Quan ☐ Water Quali parameters,	cuction Permit Completion Report (DEM Form) tity Report (Pump Test) ity Report (Must include copy of certified laboratory's test results for all verification of lab certification for parameters analyzed, name of individual who he sampling, where on the system the sample was taken, and chain of custody of		
water sampl			
Date	Signature of Applicant		
	For Board of Health Use Only		
	he Northbridge Board of Health has reviewed your request for the issuance of a cate and has made the following determination:		
APPRO	OVED		
DENIE	D (Reason specified below)		
COND	ITIONAL APPROVAL (Reason specified below)		
Reason for DENIED /	CONDITIONAL APPROVAL:		
v	nter Supply Certificate shall not be construed as a guarantee that the system will The Northbridge Board of Health assumes no liability as to water quality or cted well.		
	Signature: Board of Health Chairman/Agent		