Checklist for Inspecting the Condition of Your Well and Protecting it from Contamination

Type of Well Construction. There are three basic types of well design; shallow dug wells, drilled bedrock wells, and drilled or driven gravel wells (see definitions below). The type of well on your property is important because some wells are more susceptible to factors such as drought, contamination, etc. The well on my property is a:

- ☐ Dug well.
- ☐ Drilled bedrock well (sometimes called an artesian, drilled, or bedrock well).
- ☐ Gravel well (sometimes called a point well).
- ☐ Not sure.

Check the Well Cover. State regulations require new well covers to have an o-ring, gasket, or other seal. Well covers protect your well from unwanted insects, snakes, and small furry animals. Old, cracked, or broken covers should be replaced. Dug wells should have a concrete cover that is difficult to remove by virtue of its weight to prevent children or unauthorized persons from gaining access to the well. Wooden covers are prohibited. What to inspect for:

- ☐ No holes or cracks are visible in cover, casing, or tiles.
- ☐ Well cover is securely attached.
- ☐ Well cover is sealed with an o-ring or gasket.

Well Pits and Vaults. Finding the well is important. If you are unable to find your well, it is probably below ground in a "well pit" or vault. Drilled wells constructed before about 1980 were finished below grade to protect against freezing. The introduction of the "pitless adaptor" to the industry now allows the water supply line to pass through the steel well casing below the frost line. Well pits were necessary in their time; however they have two fatal flaws. Many fill with surface water in the spring and submerge the wellhead allowing contaminated water into the well. In winter, finding and getting to a well in a pit is extremely difficult if maintenance or repair is needed. For these reasons, NHDES and the Water Well Board recommend that homeowners have their wells raised above grade by a licensed water well contractor or pump installer.

What to inspect for:

- ☐ Casing is at least 8 inches above the land surface (or 1-2 feet above the highest recorded flood level if the well area is known to flood).

Location of Your Well. Your well's location in relation to other features on or near your property will determine some pollution risks. If possible, any new well should be located on the uphill side of features such as a septic system, fuel storage tanks or over fertilized fields. In addition, state regulations require wells be at least 75 feet from septic systems and property boundaries (although exemptions are sometimes given). Finally, a well should be located so that rain and melting snow drains away from the casing rather than pooling around it or submerging it, which can introduce surface contaminants into your drinking water.

What to inspect for:

- ☐ Well is uphill from any septic systems, leach fields, or storage tank.
- ☐ Well is at least 75 feet from any septic systems, leach fields, or storage tanks.
- ☐ Surface water (rain, runoff from roads, etc.) drains away from the well and does not regularly pool around well casing.

Storage, Use and Disposal of Hazardous Materials On Your Property. Some commercial products commonly used at home have the potential to contaminate groundwater if stored or disposed

of improperly. Products such as household cleaners, fertilizers, pesticides, petroleum products, and automotive materials (antifreeze, brake fluid, etc.) should be stored in an original, sealed, and labeled container that itself is stored in an area with an impermeable floor. Care should be taken to use as much of the product as possible before disposing of the container. Some items, such as latex paint, can be disposed of in the household garbage while others should be brought to a local household hazardous waste collection. Always read the label to determine the best disposal method. Never get rid of excess products by pouring them on the ground, down a storm drain, or in an abandoned well. Always fuel lawn mowers, snowmobiles, etc. on a concrete floor (never on your lawn) and immediately clean up any spillage of gasoline.
What to inspect for:

- ☐ Hazardous materials are stored in their original, sealed, & labeled containers.
- ☐ Containers of hazardous materials are stored on an impervious surface.
- ☐ Hazardous products are properly disposed of at household collection days.
- ☐ Hazardous products are never dumped on the ground, down a storm drain, or in an abandoned well.
- ☐ Hazardous products are not stored within 75 feet of the well.
- ☐ Machinery is fueled on a concrete floor and spills are immediately cleaned up.

Fill and Seal Abandoned Wells. State regulations require abandoned wells to be sealed because they remain a threat to New Hampshire's groundwater. An abandoned well on your property may be an entryway for pollution to reach your current water supply well. An abandoned dug well may also be a safety hazard to children or animals if the well does not have a secure tamper-proof cover or if it is level with the ground. DES and the Water Well Board urge property owners that have an abandoned well(s) on their property to contact a licensed water well contractor to have the well sealed in accordance with state code. What to inspect for:

- ☐ Any unused wells on the property have been sealed.

If you suspect any problems with the condition of your well or the existence of an abandoned well, we recommend that you contact a licensed water well contractor in your area to resolve the issue according to state regulations. For a list of licensed contractors, go to "Find a Licensed Well or Pump Contractor" on OneStop or contact the Board at (603) 271-1974.

Definitions

- **Dug wells** are commonly 3 or 4-foot diameter wells constructed by excavation and are usually not much deeper than 15 feet below land surface. Older dug wells are lined with fieldstone and more recent construction utilizes inter-locking concrete tile. These wells are generally easy to identify in your yard because they're relatively large stone or concrete objects protruding from the ground and many have well houses built over them for protection or ornamental purposes.
- **Drilled bedrock wells** are almost always 6-inch diameter wells drilled into solid bedrock and cased with steel pipe through the unconsolidated earth deposits into the upper surface of the bedrock. The remainder of the well is a 6-inch open hole drilled in bedrock. These wells range in depth from less than 100 feet to more than 1,000 feet. They should be easily identified as that odd looking 6-inch steel pipe sticking out of the ground about 8 to 12 inches with a flat or rounded cover on top and a 1 inch black plastic pipe alongside.
- **Gravel wells** for domestic use can be either 2- or 6-inch diameter drilled wells cased and screened in sand or gravel, or 1¼ to 1½ inch diameter screened wells driven into sand or gravel. These wells are unique because they can only be constructed in sand and gravel aquifers usually found in river valleys. The 6-inch diameter type are readily observable in the yard and look identical to the bedrock well, however, the small diameter type are usually finished below ground surface in a well pit and may be very difficult to find.