Use of Lakes or Streams for Domestic Water Supply

Some residents and visitors think of New Hampshire as a relatively rural and pristine state and believe it is safe to use surface waters (lakes, ponds, streams and some springs) directly for drinking. These people often are renting lakeside cottages or are using rural areas for camping, hunting or hiking. Regardless of the ease and convenience of this practice, using drinking water from ponds and streams is not safe and NHDES strongly cautions against this practice.

Diseases commonly transmitted by contaminated surface water are giardiasis, cryptosporidiosis and other diarrheal diseases. Even where past bacterial tests for a particular pond or stream may have shown good quality, rain run-off, coupled with feces from animals and poor sanitary practices of bathers, can quickly contaminate any surface water source. It is the uncontrollable conditions that exist in and around surface waters that make the untreated water unsafe for human consumption.

Instead of surface water, NHDES recommends the use of groundwater through bedrock wells or wells installed in sand and gravel. Other alternative drinking water supplies include the purchase of bottled water. While it is true that some municipalities use water from lakes or rivers as drinking water supplies, sophisticated filtration and/or chlorination systems and continual water quality sampling is always required.

Although equipment is available which enables an individual to treat a surface water supply to lower its bacterial risk, NHDES does not recommend this approach for the following reasons:

1. There are usually no restrictions on activities in the vicinity of the intake pipe.
2. Testing by individuals is usually sporadic, and it is doubtful whether the water would be tested frequently enough to determine its quality.
3. Mixing time after addition of the chlorine to the water is seldom sufficient to ensure adequate bacteria and virus kill. Additionally, some organisms such as Giardia lamblia or Cryptosporidium are highly resistant to chlorine disinfection.
4. Ultraviolet light disinfection does not work properly if there is sediment in the water.
5. Most people are not skilled in the proper operation or repair of treatment equipment.

For more information, contact the Drinking Water and Groundwater Bureau and the New Hampshire Water Well Board at (603) 271-2513 or dwgbinfo@des.nh.gov or visit our website at des.nh.gov.

Note: This fact sheet is accurate as of June 2019. Statutory or regulatory changes or the availability of additional information after this date may render this information inaccurate or incomplete.