

Town of Glastonbury



Ground Water Protection Zone Map

Approved Date: October 10, 1995
Effective Date: January 1, 1996

Ground Water Protection Zone 1 (GW-1)

Groundwater Protection Zone 1 (GW-1) consists of lands underlain by coarse-grained stratified drift. These coarse-grained (greater than one-quarter millimeter in size) deposits were sorted and deposited in layers (or strata) by the glacial meltwater thousands of years ago. Groundwater-related characteristics of the coarse-grained stratified drift are:

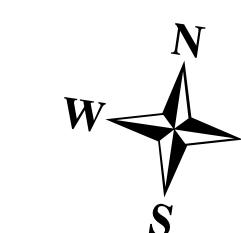
- 1) The pore spaces between the grains of sand provide a relatively large volume for the storage of groundwater so that the greater the saturated thickness of these deposits, the larger the volume of water stored;
- 2) The pore spaces are interconnected and provide pathways for the relatively fast movement of groundwater, so that sustained, high rates of groundwater withdrawal (needed for public water supply) are possible;
- 3) A quick and easy pathway exists for nutrients and other contaminants (as well as all constituents in solutions) to reach groundwater resources from sources on the surface of the land; and
- 4) Such pathways provide filtration for only the larger sized contaminants such as some microbes. Sources used in establishing the zone are: "Map Showing Unconsolidated Materials, Glastonbury Quadrangle, CT" by William H. Langer, U.S. Geological Survey, 1976 and "Map Showing Unconsolidated Materials, Marlborough Quadrangle, CT" by Dennis W. O'Leary, U.S. Geological Survey, 1975.

Ground Water Protection Zone 2 (GW-2)

Groundwater Protection Zone 2 (GW-2) consists of lands classified as glacial till soils over bedrock with the soil being less than ten (10) feet thick. Glacial till soils are an unsorted mixture of gravel, sand, silt and clay that was deposited directly by glacier. These thin soils over the bedrock that the primary or principal recharge area to bedrock aquifers. The area covered by this thin glacial till have only limited potential for trapping or filtering nutrients and other non-soluble contaminants before the enter groundwater resources within the fractures in the bedrock. These bedrock groundwater resources supply (via individuals water wells) those residences that are not serviced by public water supply. Sources used in establishing this zone are: "Map Showing Depth to Bedrock, Glastonbury Quadrangle, CT" by J. Palmer, W. Langer, J. Langer, J. Hegsted Jansky & J. Bingham, U.S. Geological Survey, 1984; and "Surficial Geologic Map of the Marlborough Quadrangle, CT" by Dennis W. O'Leary, U.S. Geological Survey, 1979.

Areas Not Covered By Special Groundwater Protections Zone

Areas not covered by any special groundwater protection zone because of their geologic conditions. Included in this category are most of the unshaded area on the map between the Connecticut River and the GW-1 Zone which are underlain by stratified drift which consists predominantly of sorted, fine-grained (less than one-quarter millimeter in size), materials like silt, clay and very fine sand. In such areas the movement of groundwater is very slow; therefore, they are considered a poor aquifer. Most of the remaining unshaded areas are comprised of non-sorted, upland, glacial till deposits with have more than ten feet of soil over bedrock. These deposits provide greater protection for the bedrock aquifer by having longer pathways for groundwater movement than the GW-2 zone areas. It should be noted, however, that all unshaded area are subject to the general, townwide protection measures outlined in the groundwater protection regulations (especially in section 20.7 and 20.8).



1,800 900 0 1,800 3,600
Feet

1 inch = 1,800 feet

Date: April 12, 2021

