



Map Data Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," accessed January 2015, <https://programs.iowadnr.gov/mrgislibx/>

Water Table

The water table is a groundwater-saturated zone in the soil that becomes rivers, springs, and lakes when the water table reaches the surface. The water table generally mimics surface topography, but there are differences depending on the permeability and porosity of soils and bedrock in the area. The water-table depth is typically defined as a range because the depth is constantly changing with the seasons and the weather. For example, an area with a water-table depth ranging from one foot to three feet is closer to one foot below the surface after the spring snowmelt. Impermeable layers such as concrete also affect the water table by preventing precipitation from infiltrating into the soil and contributing to the subsurface water level. As a result, the water table is lower in those areas.

Prior to the significant landscape alterations caused by nonnative settlement, the water table was a driving factor that affected vegetation growth in the area. For example, historically a quaking aspen in the landscape would indicate that water is located not far below the surface. Today, quaking aspens are highly sought-after specimen trees and are found in many places they would not have existed historically.

Nashua

Depth to Water Table

Iowa State University: Julia Badenhope, Sandra Oberbroeckling, Colby Fangman, Miao Fangzhou, Anh Le, Jessica Adiwijaya

Iowa Department of Transportation Trees Forever ISU Landscape Architecture Extension ISU Extension Community and Economic Development