

GENERAL SECTION

DEFINITIONS

Static Water Level: The level of water in a well that is not being affected by withdrawal of groundwater.

Pumping Level: The level at which water stands in a well when pumping is in progress.

Drawdown: The distance between the static water level and the surface of the cone of depression.

Specific Capacity: The rate of discharge of a water well per unit of drawdown, commonly expressed in gpm/ft or m³/day/m. It varies with duration of discharge.

Water Table: The surface between the vadose zone and the groundwater; that surface of a body of unconfined groundwater at which the pressure is equal to that of the atmosphere.

Aquifer: A formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield economical quantities of water to wells and springs.

Hard Water (Hardness): A property of water causing formation of an insoluble residue when the water is used with soap. It is primarily caused by calcium and magnesium ions.

Cone Of Depression: A depression in the groundwater table or potentiometric surface that has the shape of an inverted cone and develops around a well from which water is being withdrawn. It defines the area of influence of a well.

Artesian Well: A well deriving its water from a confined aquifer in which the water level stands above the ground surface; synonymous with flowing artesian well.

Coliform: A group of bacteria found in the intestines of warm-blooded animals and also in plants, soil, air and water. Fecal coliforms are a specific class of bacteria which only inhabit the intestines of warm-blooded animals. The presence of coliform bacteria is an indication that the water is polluted and may contain pathogenic organisms.

Porosity: The percent of the bulk volume of a rock or soil that is occupied by interstices, whether isolated or connected.

Permeability: The property or capacity of a porous rock, sediment, or soil for transmitting a fluid; it is a measure of the relative ease of fluid flow under unequal pressure.

Hydrostatic Head: Energy contained in a water mass, produced by elevation, pressure, or velocity.

Coefficient Of Transmissibility: The rate at which water is transmitted through a unit width of an aquifer under a unit hydraulic gradient. Transmissivity values are given in gallons per minute through a vertical section of an aquifer one foot wide and extending the full saturated height of an aquifer under a hydraulic gradient of 1.

Yield (Well Yield): The volume of water discharged from a well in gallons per minute or cubic meters per day.

PH: A measure of the acidity or alkalinity of a solution, numerically equal to 7 for neutral solutions increasing with increasing alkalinity and decreasing with increasing acidity. Originally stood for the words potential of hydrogen.

Artesian Pressure: Pertaining to groundwater, a well, or underground basin where the water is under a pressure greater than atmospheric and will rise above the level of its upper confining surface if given an opportunity to do so.

Hydrologic Cycle: The process of evaporation of water into the air and its return to Earth by precipitation (rain or snow). This process also includes transpiration from plants, groundwater movement, and runoff into rivers, streams and the ocean. Also called the "Water Cycle".

Drilling Fluid (mud): A water- or air-based fluid used in the water-well drilling operation to remove cuttings from the hole, to clean and cool the bit, to reduce friction between the drill string and the sides of the hole, and to seal the borehole.

Well Screen: A filtering device used to keep sediments from entering a water well.

Disinfection: The process designed to kill most microorganisms in water, including essentially all pathogenic (disease-causing) bacteria. There are several ways to disinfect, with chlorine being most frequently used in water treatment.

Hypochlorite: Chlorine in the form of liquid bleach is sodium hypochlorite. The granular compound (calcium hypochlorite) is mixed with water to make a hypochlorite solution. This solution is injected into the water supply as a disinfectant.

C1 MCL: Chloride maximum contaminant level. The MCL for chloride is 250 ppm.

Pumping Test: A test that is conducted to determine aquifer or well characteristics.