

## GLOSSARY

- AQUIFER-** Rock or sediment formation capable of storing, transmitting, and yielding water to wells.
- ALLUVIAL DEPOSITS -** Strata which were laid down by water, commonly consisting of gravels, sands, and silts, which usually have a high capacity for conducting groundwater.
- BEST MANAGEMENT PRACTICES (BMPs)-** Practices and operating procedures which aid in the prevention or reduction of the pollution load. They are designed to facilitate voluntary compliance through education.
- COMMUNITY WATER SYSTEM-** A public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.
- CONFINED AQUIFER -** A *confined aquifer* is bounded above and below by low permeability formations. Water in a confined aquifer may be under considerable pressure from overlying rocks. The water level may be held below where it would be if it were unconfined.
- CONTINGENCY PLAN-** The portion of the wellhead protection plan which addresses the replacement of the major well(s) or wellfield in the event of loss due to groundwater contamination.
- FORMATION -** A geologic unit which has relatively uniform characteristics, in this case especially regarding groundwater movement.
- GROUNDWATER -** Water which occurs in subsurface openings in the earth, such as the spaces between particles in unconsolidated deposits or along fractures in consolidated deposits.
- GROUND WATER UNDER THE DIRECT INFLUENCE OF SURFACE WATER (GWUDI)-**  
Any water beneath the surface of the ground, which the NNEPA PWSSP determines has the following characteristics: Significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens such as *Giardia lamblia*; or Significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH closely correlating to climatological or surface water conditions.
- HYDROGEOLOGY-** Refers to the study of ground water with emphasis on its interaction with geologic materials and settings.
- IMPERMEABLE DEPOSITS -** Formations consisting of material through which water is unable to pass, such as clays and unfractured rock.
- INITIAL INVENTORY-** An inventory done during the source approval process. The inventory must, at a minimum, identify all potential and actual sources of ground water contamination that may pose a threat to the water bearing zone (aquifer) utilized by the well, spring or wellfield within the 1 year time of travel zone, and all high risk sources within the entire wellhead protection area.
- INJECTION WELL-** A well used to dispose of fluids underground. Fluids enter either by gravity flow or by injection under pressure.

**MONITORING WAIVER-** An action taken by the NNEPA PWSSP pursuant to NNPDWR §400 SAMPLING AND ANALYTICAL REQUIREMENTS which allows a water system to reduce specific monitoring requirements based on a determination of low source vulnerability to contamination.

**NAVAJO NATION** - means:

- a. all land within the exterior boundaries of the Navajo Indian Reservation or of the Eastern Navajo Agency or of Navajo dependent Indian communities, including all lands within the boundaries of Navajo chapter governments;
- b. all land held in trust by the United States for or restricted by the United States or otherwise set aside or apart under the superintendence of the United States for the use or benefit of the Navajo Nation, the Navajo Tribe, any Band of Navajo Indians, or any individual Navajo Indians as such; and
- c. all other land over which the Navajo Nation may exercise governmental jurisdiction in accordance with federal or international law.

**NITRATES** - The compounds formed from nitrogen sources in surface soils and waters. In groundwater they indicate the infiltration of surface water into an aquifer. Nitrates also have toxic properties themselves, particularly to infants.

**NONPOINT SOURCE-** A source discharging pollutants into the environment that is not a single, discrete point.

**PERMEABLE DEPOSITS** - Formations which permit the passage of water such as gravel and clean sand.

**POINT SOURCE-** Any discernible, confined, or discrete conveyance from which pollutants are or may be discharged, including (but not limited to) pipes, ditches, channels, tunnels, conduits, wells, containers, and animal feeding operations.

**PRIMARY DELINEATION-** A wellhead protection area delineation done during source approval. Calculated fixed radius method can be used, screened area estimated, and pumping rate based on number of connections.

**PUBLIC WATER SYSTEM-**

The term "public water system" means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves at least twenty-five (25) individuals. Such term includes: 1) any collection, treatment, storage and distribution facilities under control of the operator of such system and which are used primarily in connection with such system; and 2) any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. A public water system is either a "community water system" or a "noncommunity water system."

A connection to a system that delivers water by a constructed conveyance other than a pipe shall not be considered a connection, if

1. The water is used exclusively for purposes other than residential uses (consisting of drinking, bathing, and cooking, or other similar uses);
2. The Director determines that alternative water to achieve the equivalent level of public health protection provided by the applicable Navajo Nation Primary Drinking Water Regulation is provided for residential or similar uses for drinking and cooking; or

3. The Director determines that the water provided for residential or similar uses for drinking, cooking, and bathing is centrally treated or treated at the point of entry by the provider, a pass-through entity, or the user to achieve the equivalent level of protection provided by the applicable NNPDWR.

**PUBLIC WATER SYSTEM OWNER OR OPERATOR -** Any person who owns or operates a public water system within the jurisdiction of the Navajo Nation.

**PURVEYOR-** The entity or agency owning or operating a public water system. Purveyor also means the authorized agents of such entities.

**RECHARGE AREA -** Surface water which enters into a groundwater system. This can be natural recharge, such as from precipitation, or artificial recharge, such as from irrigation or dry wells.

**SATURATED ZONE -** The vertical zone beneath the surface where all openings are filled with water.

**STATIC WATER LEVEL -** The vertical distance from the surface of the ground to the water level in a well when the water level is not effected by drawdown due to pumping.

**SYNTHETIC ORGANIC COMPOUNDS (SOCs) -** A general term for man-made compounds such as pesticides and various specialty chemicals. Many are regulated in drinking water because of their negative impacts on human health, particularly cancer promotion.

**TIME OF TRAVEL (TOT)-** The time period used to define the area through which ground water will move and recharge a pumping well. For wellhead protection purposes, TOT is expressed in years.

**UNCONFINED AQUIFER -** An *unconfined aquifer* is directly overlain only by permeable rocks and soil. An unconfined aquifer may be recharged by infiltration over the whole area underlain by the aquifer because there is no barrier to stop the downward flow of water from the surface.

**UNSATURATED ZONE -** The vertical zone beneath the surface where the openings are filled with both air and water.

**VULNERABILITY ASSESSMENT-** The Vulnerability Assessment survey Form developed to evaluate the hydrologic setting of the water source and assess its contribution to the sources' overall vulnerability to pollution from surface activities.

**VADOSE ZONE -** see unsaturated zone

**VOLATILE ORGANIC COMPOUNDS (VOCs) -** A type of synthetic organic compound which have the ability to vaporize at room temperature, such as solvents, degreasers, fuels and oils.

**WATER TABLE -** The water table is the water level in the saturated zone where the water pressure is equal to atmospheric pressure. In practical terms it is equivalent to the static water level.

**WATERSHED-** The region or area which: Ultimately drains into a surface water source diverted for drinking water supply; and affects the physical, chemical, microbiological and radiological quality of the source.

**WELLFIELD-** An area containing two or more wells with overlapping zones of contribution that supply a public water system.

**WELLHEAD-** The physical structure, facility, or device at the land surface from or through which ground water flows or is pumped from water bearing formations.

**WELLHEAD PROTECTION AREA-** The surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach the water well or wellfield.

**ZONE OF CONTRIBUTION-** The area surrounding a pumping well that encompasses all areas or features that supply ground water recharge to the well.

**ZONE OF SATURATION-** That part of the earth's crust beneath the regional water table in which all voids, large and small, are filled with water under pressure greater than atmospheric.