

15A NCAC 02C .0204 DEFINITIONS

In addition to the terms defined in Rule .0102 of this Subchapter, the following terms and phrases apply:

- (1) "Abandonment or Plugging Record" means a listing of permanent or temporary abandonment of a well and may contain a well log or description of amounts and types of abandonment material used, the method employed for abandonment, a description of formation location, formation thickness, and location of abandonment structures.
- (2) "Aquifer Storage and Recovery Well (ASR)" means a well that is used to inject potable water for the purposes of subsurface storage and for later recovery of the injected water.
- (3) "Area of Review" means the area around an injection well as specified in each applicable rule.
- (4) "Best intended usage" means best usage as used in 15A NCAC 02L .0201 for each groundwater classification.
- (5) "Catastrophic Collapse" means the collapse of overlying strata caused by removal of underlying materials.
- (6) "Closed-Loop Geothermal Well System" means a system of continuous piping, part of which is installed in the subsurface via vertical or angled borings, through which moves a fluid that does not exit the piping, but is used to transfer heat energy between the subsurface and the fluid in association with a heating and cooling system. A variation of this type of system consists of the continuous piping emplaced into a water supply well such that the standing column of groundwater serves as the heat transfer medium.
- (7) "Closed-Loop Groundwater Remediation System" is as defined in G.S. 143-215.1A.
- (8) "Cluster" means two or more geothermal injection wells connected to the same manifold or header of a geothermal heating and cooling system.
- (9) "Confined or Enclosed Space" means any space that has a restricted means of entry and exit and is subject to the accumulation of toxic or flammable contaminants or has an oxygen deficient atmosphere.
- (10) "Confining Zone" means a geological formation, group of formations, or part of a formation that is capable of limiting movement of groundwater.
- (11) "Contaminant" is as defined in 15A NCAC 02L .0102.
- (12) "Flow Rate" means the volume per unit time of a fluid moving past a fixed reference point.
- (13) "Fluid" means a material or substance which is capable of flowing whether in a semisolid, liquid, sludge, gas, or other form or state.
- (14) "Formation Fluid" means fluid present in a formation under natural conditions. This shall not include introduced fluids, such as drilling mud and grout, used to facilitate the construction or development of a well.
- (15) "Generator" means any person, identified by site location, whose act or process produces hazardous waste.
- (16) "Groundwaters" mean those waters occurring in the subsurface under saturated conditions.
- (17) "Hazardous Waste" means any solid, semisolid, liquid, or contained gaseous waste or combination thereof that, because of its quantity, concentration, or physical, chemical or infectious characteristic, may:
 - (a) cause or contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or
 - (b) pose a present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.
- (18) "Hazardous Waste Management Facility" means all contiguous land and structures and other appurtenances and improvements on the land used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one or more landfills, surface impoundments, or combination of them).
- (19) "Hose Bibb or Tap" means a fluid sampling port located on or appurtenant to a well.
- (20) "Hydraulic Conductivity" means the volume of water at the existing kinematic viscosity that will move in a porous medium in unit time under a unit hydraulic gradient through a unit area measured at right angles to the direction of flow.
- (21) "Hydraulic or Pneumatic Fracturing" means the intentional act of injecting potable water, ambient air, or other approved fluids, which may carry a proppant, for the purpose of forming new fractures or propagating existing fractures in a geologic formation or portion thereof with the intent of increasing the formation's permeability.

- (22) "Hydrostratigraphic Unit" means a body of rock or unconsolidated sediment distinguished and characterized by observable hydraulic properties that relate to its ability to receive, store, transmit, and yield water.
- (23) "Infiltration gallery" means a subsurface ground absorption system designed for the introduction of treated wastewater into the subsurface environment.
- (24) "Injectant" means a solid or fluid that is emplaced in the subsurface by means of an injection well.
- (25) "Injection" means emplacement or discharge into the subsurface of a solid or fluid substance or material. This definition shall exclude drilling fluids, grout used in association with well construction or abandonment, and fluids used in connection with well development, disinfection, rehabilitation, or stimulation.
- (26) "Injection Well" means any well as defined in G.S. 87-85 whose depth is greater than its largest surface dimension and that is used, or intended to be used, for the injection of fluids or solids into the subsurface or groundwaters.
- (27) "Injection Zone" means a geological formation, group of formations, or part of a formation receiving solids or fluids through an injection well.
- (28) "In-situ Thermal (IST) Well Systems" means a well or wells that are used to apply heat in a targeted subsurface zone to promote remediation, such as electrical resistance heating (ERH), thermal conductive heating (TCH), or steam enhanced extraction (SEE).
- (29) "Lithology" means the description of rocks or sediments on the basis of their physical and chemical characteristics.
- (30) "Lithostratigraphic Unit" means a body of rock or unconsolidated sediment that is distinguished and characterized by observable lithologic features or its position relative to other bodies of rock or unconsolidated sediment.
- (31) "Mechanical Integrity" means:
 - (a) an absence of a leak in the casing, tubing, or packer of an injection well; and
 - (b) an absence of fluid movement through vertical channels adjacent to the injection well bore.
- (32) "Operation" means any injection well or system.
- (33) "Oversight agency" means the state or local agency with jurisdiction over a contamination incident.
- (34) "Permit" means an authorization, license, or equivalent control document issued by the Director to implement the requirements of the rules of this Section.
- (35) "Permitted by Rule" means that the injection activity is authorized by the rules of this Section and does not require the issuance of an individual permit when injection wells are constructed and operated in accordance with the rules of this Section.
- (36) "Plug" means the act or process of stopping the flow of fluids into or out of a formation through a borehole or well penetrating that formation.
- (37) "Potable Water" means those waters of the State that are suitable for drinking, culinary, or food processing purposes.
- (38) "Pressure" means the total load or force per unit area acting on a surface.
- (39) "Proppant" means a granular substance such as quartz sand or other material approved by the Department of Health and Human Services' Division of Public Health that is used to hold open cracks formed in the subsurface as a result of hydraulic or pneumatic fracturing.
- (40) "Receptor" means any human, plant, animal, or structure that is, or has the potential to be, affected by the release or migration of contaminants. Any well constructed for the purpose of monitoring groundwater and contaminant concentrations shall not be considered a receptor.
- (41) "Subsidence" means the lowering of the natural land surface in response to earth movements; reduction of formation fluid pressure; removal of underlying supporting material by mining or solution of solids, either artificially or from natural causes; compaction due to wetting (hydrocompaction); oxidation of organic matter in soils; or added load on the land surface.
- (42) "Subsurface Distribution System" means an assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids or solids below the surface of the ground.
- (43) "Transmissivity" means the rate at which water of the prevailing kinematic viscosity is transmitted through a unit width of an aquifer under a unit hydraulic gradient. It equals the hydraulic conductivity multiplied by the aquifer thickness.

- (44) "Thermally Enhanced Grout" is a grout that is used to seal or grout water well annular spaces and geothermal ground source heat loops. It is engineered to provide efficient heat transfer and to create a low permeability seal.
- (45) "Underground Sources of Drinking Water" means all underground waters of the State classified as existing or potential water supplies in 15A NCAC 02L.
- (46) "Waste" is as defined in G.S. 143-213(18).
- (47) "Waters" or "Waters of the State" is as defined in G.S. 143-212.
- (48) "Water table" is as defined in 15A NCAC 02L .0102.

History Note: Authority G.S. 87-85; 87-87; 143-213; 143-215.1A;
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