

**WAC 173-160-111 What are the definitions of specific words as used in this chapter?**

(1) "Abandoned well" means a well that is unmaintained or is in such disrepair that it is unusable or is a risk to public health and welfare.

(2) "Access port" is a 1/2- to 2-inch tapped hole or tube equipped with a screw cap, which provides access to the inner casing, for measurement of the depth to water surface. An access port also means a removable cap.

(3) "Annular space" is the space between the surface or outer casing and the inner casing, or the space between the wall of the drilled hole and the casing.

(4) "Aquifer" is a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs.

(5) "Artesian well" is a well tapping an aquifer bounded above and below by confining or impermeable rock or soil layers, or rock or soil layers of distinctly lower permeability than the aquifer itself. The water will rise in the well above the point of initial penetration (above the bottom of the confining or impermeable layer overlying the aquifer). This term includes both flowing and nonflowing wells.

(6) "Artificial gravel pack" is a mixture of gravel or sand placed in the annular space around the liner, perforated pipe, or well screen. A gravel pack is used to reduce the movement of finer material into the well and provide lateral support to the screen in unstable formations.

(7) "Artificial recharge" is the addition of water to an aquifer by activities of man, such as irrigation or induced infiltration from streams, or injection through wells, trenches, pits, and ponds.

(8) "Bentonite" is a mixture of swelling clay minerals, predominantly sodium montmorillonite.

(9) "Building drain" means that part of the lowest piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer beginning two feet outside the building wall.

(10) "Building sewer" means that part of the horizontal piping of a drainage system which extends from the end of the building drain and which receives the discharge of the building drain and conveys it to a public sewer, private sewer, individual sewage disposal system, or other point of disposal.

(11) "Capped well" is a well that is not in use and has a water-tight seal or cap installed on top of the casing.

(12) "Casing" is a pipe, generally made of metal or plastic, which is installed in the bore hole as part of the drilling process to maintain the opening. Casing may be utilized in either consolidated or unconsolidated formations and must meet the requirements of WAC 173-160-201.

(13) "Confining layer" or "confining formation" means a layer of low hydraulic conductivity material that significantly limits vertical movement of groundwater.

(14) "Consolidated formation" means any geologic formation in which the earth materials have become firm and cohesive through natural rock forming processes. Such rocks commonly found in Washington include basalt, granite, sandstone, shale, conglomerate, and limestone.

(15) "Constructing a well" or "construct a well" means:

(a) Boring, digging, drilling, or excavating a well;

- (b) Installing casing, sheeting, lining, or well screens, in a well;
- (c) Drilling a geotechnical soil boring;
- (d) Installing an environmental investigation well; or
- (e) Alteration of an existing well.
- (16) "Contamination" has the meaning provided in RCW 90.48.020.
- (17) "Curbing" is a liner or pipe made of concrete, precast tile or steel installed in dug wells to provide an annular space between the well bore and the liner or pipe for sealing.
- (18) "Decommissioning" means to fill or plug a well so that it will not produce water, serve as a channel for movement of water or pollution, or allow the entry of pollutants into the well or aquifer(s).
- (19) "Department" means the department of ecology.
- (20) "Design pumping rate" means the maximum pumping rate as determined by the well driller, without exceeding the department's policy on sand and turbidity.
- (21) "Dewatering well" means a cased or lined excavation or boring that is intended to withdraw or divert groundwater for the purpose of facilitating construction, stabilizing a land slide, or protecting an aquifer.
- (22) "Director" means director of the department of ecology.
- (23) "Disinfection" or "disinfecting" is the use of chlorine, or other disinfecting agent or process approved by the department, in sufficient concentration and contact time adequate to inactivate coliform or other indicator organisms.
- (24) "Domestic water supply" is any water supply which serves a family residence(s).
- (25) "Draw down" is the measured difference between the static groundwater level and the groundwater level induced by pumping.
- (26) "Drilled well" is a well in which the hole is usually excavated by mechanical means such as rotary, cable tool, or auger drilling equipment.
- (27) "Drilling log" means a water or resource protection well report.
- (28) "Driven well" is a well constructed by joining a "drive point" to a length of pipe, then driving the assembly into the ground.
- (29) "Dug well" is a well generally excavated with hand tools or by mechanical methods. The side walls may be supported by material other than standard weight steel casing.
- (30) "Filter pack" means clean, well rounded, smooth, uniform, sand or gravel, which is placed in the annulus of the well between the bore hole wall and the liner, perforated pipe, or well screen to prevent formation material from entering the well.
- (31) "Formation" means an assemblage of earth materials grouped together into a unit that is convenient for description or mapping.
- (32) "Ground source heat pump boring" means a vertical boring constructed for the purpose of installing a closed loop heat exchange system for a ground source heat pump.
- (33) "Groundwater" means and includes groundwaters as defined in RCW 90.44.035.
- (34) "Grounding well" means a grounding electrode installed in the earth by the use of drilling equipment to prevent buildup of voltages that may result in undue hazards to persons or equipment. Examples are anode and cathode protection wells.

(35) "Grout" is a fluid mixture of cement, bentonite, and water used to seal the annular space around or between well casings, or to decommission wells.

(36) "Impermeable" is a descriptive term for earth materials which have a texture or structure that does not permit fluids to perceptibly move into or through its pores or interstices.

(37) "Liner" means a pipe inserted into a larger casing, or bore hole, after the drilling process has occurred, as a means of maintaining the structural integrity of the well. Liners may only be used in consolidated formations and must meet the requirements of WAC 173-160-201.

(38) "Maximum pumping rate" means the maximum pumping rate, as determined by the well driller, without exceeding the department's policy on sand and turbidity.

(39) "Operator" means a person who:

(a) Is employed by a well contractor;

(b) Is licensed under this chapter; or

(c) Who controls, supervises, or oversees the construction of a well or who operates well construction equipment.

(40) "Owner" or "well owner" means the person, firm, partnership, copartnership, corporation, association, other entity, or any combination of these, who owns the property on which the well is or will be constructed or has the right to the well by means of an easement, covenant, or other enforceable legal instrument for the purpose of benefiting from the well.

(41) "NSF/ANSI" means the National Sanitation Foundation/American National Standards Institute.

(42) "Permeability" is a measure of the ease of which liquids or gas move through a porous material.

(a) For water, this is usually expressed in units of centimeters per second or feet per day. Hydraulic conductivity is a term for water permeability.

(b) Soils and synthetic liners with a water permeability of  $1 \times 10^{-7}$  cm/sec or less may be considered impermeable.

(43) "Pollution" has the meaning provided in RCW 90.48.020.

(44) "Pressure grouting" is a method of forcing grout into specific portions of a well for sealing purposes.

(45) "Public water supply" is any water supply intended or used for human consumption or other domestic uses, including source, treatment, storage, transmission and distribution facilities where water is furnished to any community, collection or number of individuals, available to the public for human consumption or domestic use, excluding water supplies serving one single-family residence and a system with four or fewer connections, all of which serve residences on the same farm.

(46) "PVC" means polyvinyl chloride, a type of thermoplastic casing or liner.

(47) "Static water level" is the vertical distance from the surface of the ground to the water level in a well when the water level is not affected by withdrawal of groundwater.

(48) "Temporary surface casing" is a length of casing (at least four inches larger in diameter than the nominal size of the permanent casing) which is temporarily installed during well construction to maintain an annular space for later placement of the surface seal as described in WAC 173-160-231. The temporary surface casing shall be removed before well completion.

(49) "Test well" is a well (either cased or uncased), constructed to determine the quantity of water available for beneficial uses, identifying underlying rock formations (lithology), and to locate optimum zones to be screened or perforated. If a test well is constructed with the intent to withdraw water for beneficial use, it must be constructed in accordance with the minimum standards for water supply wells, otherwise they shall be constructed in accordance with the minimum standards for resource protection wells. A water right permit, preliminary permit, or temporary permit shall be obtained prior to constructing a test well unless the anticipated use of water is exempt as provided in RCW 90.44.050. A "test well" is a type of "water well."

(50) "Tremie tube" is a small diameter pipe used to place grout, filter pack material, or other well construction materials in a well.

(51) "Turbidity" means the clarity of water expressed as nephelometric turbidity units (NTU) and measured with a calibrated turbidimeter.

(52) "Unconsolidated formation" means any naturally occurring, loosely cemented, or poorly consolidated earth material including such materials as uncompacted gravel, sand, silt and clay.

Alluvium, soil, and overburden are terms frequently used to describe such formations.

(53) "Water well" means any excavation that is constructed when the intended use of the well is for the location, diversion, artificial recharge, observation, monitoring, dewatering or withdrawal of groundwater. Water wells include ground source heat pump borings and grounding wells.

(54) "Water well contractor" means any person, firm, partnership, copartnership, corporation, association, or other entity, licensed and bonded under chapter 18.27 RCW, engaged in the business of constructing water wells.

(55) "Water well report" means a document that describes how a water well, ground source heat pump, or grounding well was constructed or decommissioned and identifies components per the requirements of WAC 173-160-141.

(56) "Well alteration(s)" include(s): Deepening, hydrofracturing or other operations intended to increase well yields, or change the characteristics of the well. Well alteration does not include general maintenance, cleaning, sanitation, and pump replacement.

(57) "Well completion" means that construction has progressed to a point at which the drilling equipment has been removed from the site, or a point at which the well can be put to its intended use.

(58) "Well contractor" means a resource protection well contractor and water well contractor licensed and bonded under chapter 18.27 RCW.

(59) "Well driller(s)" or "driller(s)" is synonymous with "operator(s)."

(60) "Well" means water wells, resources protection wells, dewatering wells, and geotechnical soil borings. Well does not mean an excavation made for the purpose of obtaining or prospecting for oil or natural gas, geothermal resources, minerals, or products of mining, or quarrying, or for inserting media to repressure oil or natural gas bearing formations, or for storing petroleum, natural gas, or other products.

(61) "Well screen" means a device, usually made of plastic or metal that is capable of preventing unconsolidated or poorly consolidated geologic material from entering the well. The size of the material which is prevented from entering the well is predetermined and

controlled by the screen opening or slot size of the screen. A well screen may include a riser pipe.

[Statutory Authority: Chapter 18.104 RCW. WSR 09-01-125 (Order 08-10), § 173-160-111, filed 12/19/08, effective 1/19/09; WSR 06-23-121 (Order 06-08), § 173-160-111, filed 11/21/06, effective 12/22/06; WSR 98-18-104 (Order 98-17), § 173-160-111, filed 9/2/98, effective 10/3/98. Statutory Authority: Chapter 18.104 RCW and RCW 43.21A.080. WSR 98-08-032 (Order 97-08), § 173-160-111, filed 3/23/98, effective 4/23/98.]