

## Iowa DNR Well Program Definitions

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The following list of definitions is based on the Iowa Administrative Code (IAC) definitions associated with water supply wells and well construction. The majority of these definitions can be found in 567 IAC Chapters 38, 39, 40, 49, and 82. While this list does not represent every definition found in Administrative Code that relates to well construction or drinking water, it provides a strong base to help understand the private water well rules. For additional information please refer to each individual Chapter of rule.

*"Abandoned well"* means a well whose use has been permanently discontinued. A well shall be considered abandoned when its condition is such that continued use is impractical or no longer desired.

*"Acutely Toxic Substances"* means that level of pollutants which would rapidly induce a severe and unacceptable impact on organisms.

*"Administrative authority"* means the local boards of health.

*"Agreement"* means a signed document between the department and the county board of supervisors with which the department delegates the authority to issue private well drilling permits to the county board of supervisors or its designee.

*"Agricultural lime"* means all calcium and magnesium products sold for agricultural purposes in the carbonate form, not including quicklime or hydrated lime, of a size comparable with that of crushed stone, gravel or pea gravel.

*"Anaerobic lagoon"* means an impoundment, the primary function of which is to store and stabilize organic wastes. The impoundment is designed to receive wastes on a regular basis, and the design waste loading rates are such that the predominant biological activity in the impoundment will be anaerobic. An anaerobic lagoon does not include:

1. A runoff control basin which collects and stores only precipitation-induced runoff from an open feedlot feeding operation; or
2. A waste slurry storage basin which receives waste discharges from confinement feeding operations and which is designed for complete removal of accumulated wastes from the basin at least semiannually; or
3. Any anaerobic treatment system which includes collection and treatment facilities for all off-gases.

*"Approved"* means accepted or acceptable under an applicable specification stated or cited in these rules.

*"Aquifer"* means a water-bearing geologic formation capable of yielding a usable quantity of water to a well or spring.

*"Backflow prevention device"* means any device, method or type of construction to prevent backflow of water, liquids, mixtures, or substances into a well or into the distribution pipes of a potable supply of water from any source other than its intended source.

*"Bentonite"* means naturally occurring highly plastic, colloidal clay composed largely of the mineral montmorillonite which expands upon wetting.

*"Bentonite grout (or slurry)"* means a mixture of 10 percent processed bentonite (by weight) and water which is free of contaminants, turbidity and settleable solids.

*"Bentonite pellets"* means a form of processed bentonite which can be used directly for sealing applications in well plugging operations.

*"Bentonite products"* means the forms of bentonite which can be used for sealing material in wells, including graded bentonite, bentonite pellets and bentonite grout.

*"Best Management Practices"* ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of Waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

*"Capped"* means the application of a layer of sealing material at the top of the well casing.

*"Casing"* means a tubular retaining structure installed in an excavated hole to maintain the well opening.

*"Certified well contractor"* means a well contractor who has successfully passed an examination prescribed by the department to determine the applicant's qualifications to perform well drilling or pump services or both.

*"Cesspool"* means a covered excavation, lined or unlined, into which wastes from toilets or urinals are discharged for disposal. Cesspools are not an approved method of sewage disposal.

*"Class 1 well"* means a well 100 feet or less in depth and 18 inches or more in diameter.

*"Class 2 well"* means a well more than 100 feet in depth or less than 18 inches in diameter or a bedrock well. Bedrock wells include:

1. Wells completed in a single confined aquifer;
2. Wells completed in a single unconfined aquifer; and
3. Wells completed in multiple aquifers.

*"Class 3 well"* means a sandpoint well 50 feet or less in depth and having a casing inside diameter of 2 inches or less constructed by joining a screened drive point with lengths of pipe and driving the assembly into a shallow sand and gravel aquifer.

*"Classification"* means one of three levels of well contractor certification, designated as certified well contractor, provisionally certified well contractor or well plugging contractor. All three are referred to as "certified well contractor" in the following rules unless specifically identified otherwise.

*"Concrete"* means a mixture of one sack (94 pounds) of Portland cement, up to but not exceeding an equal amount by volume of sand and up to but not exceeding an equal amount by volume of gravel or crushed stone and not more than six gallons of water which is free of contaminants, turbidity and settleable solids.

*"Confined aquifer"* means an aquifer in which the groundwater is under pressure greater than atmospheric pressure. The static water level in a well tapping a confined aquifer rises to a level above the top of the aquifer.

*"Compensation for well interference"* means payment to the owner of a nonregulated well for damages caused by a lowered water level in the well due to withdrawal of water for a permitted use.

*"Confinement building"* means a building used in conjunction with a confinement feeding operation to house animals.

*"Conforming well"* means a well that complies with the standards of this chapter, including wells properly plugged according to [567—Chapter 39](#).

*"Construction"* means the physical act or process of making a water well including, but not limited to, siting, excavation, construction and installation of equipment and materials necessary to maintain and operate the well.

*"Contiguous"* means any number of parcels of land that physically touch one another, including tracts of land separated by roads, railroads or streams, except that for the purpose of reporting on other existing wells on the property, the radius of a contiguous piece of land shall be limited to one mile from the site of the new well constructed.

*"Contractor"* means a person engaged in the business of well construction or reconstruction. The term may include a corporation, partnership, sole proprietorship, association or any other business entity, as well as any employee or officer of the entity.

*"Contractor(s) and/or Subcontractor(s)"* means any individual or entity who performs work on the well construction site involved in installing, managing, and altering BMPs intended to manage and treat well construction wastewater, or whose on-site work may alter the effectiveness of the BMPs that have been deployed, increase the amount of discharge wastewater, or reduce the quality of the discharge wastewater.

*"CWA"* or *"Clean Water Act"* means the Federal Water Pollution Control Act.

*"Continuing education unit" or (CEU)* means ten contact hours of participation in an organized education experience under responsible sponsorship, capable direction, and qualified instruction.

*"Co-permittee"* means any individual who performs work on the well construction site involved in installing, managing, and/or altering BMPs intended to manage and treat well construction wastewater or whose on-site work may alter the effectiveness of the BMPs that have been deployed, increase the amount of discharge wastewater, or the reduce the quality of the discharge

wastewater. Planning and design activities related to development or modification of the WWPPP, by themselves, do not constitute co-permittee status.

*"Cross connection"* means any actual or potential connection between a potable water supply and any other source or system through which it is possible to introduce into the potable system any used water, industrial fluid, gas, or other substance other than the intended potable water with which the system is supplied. See *"interconnection"*.

*"Crushed stone"* means stone (predominantly limestone), crushed and well graded, with 100 percent passing a 1-inch sieve, in accordance with the 1984 edition of Iowa department of transportation specification No.4120.04 for Class A crushed stone.

*"Department"* means the department of natural resources created under Iowa Code section 455A.2.

*"Department"* means the Iowa Department of Natural Resources.

*"Designated agent"* means a person other than the state, designated by a county board of supervisors to review and confirm that a well has been property plugged.

*"Direct charge"* means the certified well contractor at the well site responsible for ensuring that the well services are performed as required in [567—Chapters 38, 39, 43, 49 and 110](#).

*"Director"* means the director of the department of natural resources or a designee.

*"Deep well"* means a well located and constructed in such a manner that there is a continuous layer of low permeability soil or rock at least 5 feet thick located at least 25 feet below the normal ground surface and above the aquifer from which water is to be drawn.

*"Drilling Fluid and Drilling Mud"* means naturally developed and/or artificially mixed colloidal, polymer, or other water based fluids used in the drilling process to enhance the carrying capacity of the fluid to lift borehole cuttings to the ground surface and stabilize the well borehole.

*"Drinking water"* means water intended for human consumption.

*"Earthen manure storage basin"* means an earthen cavity, either covered or uncovered, which, on a regular basis, receives waste discharges from a confinement feeding operation if accumulated wastes from the basin are completely removed at least once each year.

*"Established grade"* means the permanent point of contact of the ground to artificial surface with the casing or curbing of the well.

*"Formed manure storage structure"* means a structure, either covered or uncovered, used to store manure from a confinement feeding operation, which has walls and a floor constructed of concrete, concrete block, wood, steel, or similar materials. Similar materials may include, but are not limited to, plastic, rubber, fiberglass, or other synthetic materials. Materials used in a formed manure storage structure shall have the structural integrity to withstand expected internal and external load pressures.

*"Filling materials"* means agricultural lime, soil, sand, gravel, crushed stone, rock and pea gravel used to occupy space between and below sealing materials in abandoned wells being plugged.

*"Field Office Notification Form"* also known as a "FON" means the notice that the well contractor must file with the regional Iowa DNR Field Services Office when well construction related wastewater reaches Waters of the United States.

*"Frost pit"* means a sunken area located directly over or within 4 feet of a well and used to house the equipment for discharging water from a well into the water system.

*"General Permit #6"* means a well construction related wastewater permit that authorizes a well site owner to discharge well construction related discharge that reaches a Water of the United States as long as the wastewater is properly treated and conforms to the general water quality standards.

*"GHEX"* means geothermal heat exchange as it relates to water source heating and cooling systems.

*"Graded bentonite"* means bentonite which is crushed and sized for pouring and easy handling. Like processed bentonite, it swells when hydrated with water and will form a plastic, essentially impermeable mass.

*"Gravel"* means stone screened from river sand or quarried, with 100 percent passing a ¾-inch sieve, in accordance with the 1984 edition of the Iowa department of transportation specification No.4120.02 for Class B gravel.

*"Groundwater"* means any water beneath the surface of the earth.

*"Grout"* means, (Chapter 39 – Well Plugging) for the purposes of this chapter, a fluid mixture of cement and water (neat cement); sand, cement and water (sand cement grout); or bentonite and water (bentonite grout or slurry) of a consistency that can be forced through a pipe and placed as required.

*"Grout"* means (Chapter 49, Well Construction) a material used to seal the annular space between the casing and the borehole and shall consist of neat cement, concrete, high solids bentonite slurry, or hydrated bentonite chips.

*"Hazardous Condition"* means any situation involving the actual, imminent, or probable spillage, leakage, or release of a hazardous substance on to the land, into a water of the state, or into the atmosphere, which creates an immediate or potential danger to the public health or safety or to the environment. 455B.381(2) 1991, Code of Iowa.

*"Hazardous Substance"* means any substance or mixture of substances that presents a danger to the public health or safety and includes, but is not limited to, a substance that is toxic, corrosive, or flammable, or that is an irritant or that, in confinement, generates pressure through decomposition, heat, or other means. The following are examples of substances which, in sufficient quantity may be hazardous: acids; alkalis; explosives; fertilizers; heavy metals such as chromium, arsenic, mercury, lead and cadmium; industrial chemicals; paint thinners; paints;

pesticides; petroleum products; poisons, radioactive materials; sludges; and organic solvents. "Hazardous substances" may include any hazardous waste identified or listed by the administrator of the United State Environmental Protection Agency under the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976, or any toxic pollutant listed under section 307 of the federal Water Pollution Control Act as amended to January 1, 1977, or any hazardous substance designated under section 311 of the federal Water Pollution Control Act as amended to January 1, 1977, or any hazardous material designated by the secretary of transportation under the Hazardous Materials Transportation Act (49 CFR 172.101). 455B.381(1), 1991 Code of Iowa, and 40 CFR Part 116 pursuant to section 311 of the Clean Water Act.

*"Health-related problem"* means well water that contains any contaminant at a level that exceeds MCLs (maximum contaminant levels), or HALs (health advisory levels) as adopted by the department of natural resources.

*"Heavy drilling fluid"* means water used for drilling which because of the natural clay content of the borehole or by addition of bentonite grout has a solids density of at least 10 percent by weight or a mud weight of at least 9.25 lb/gal.

*"Inactive water well"* means a water well which is not currently in use and is capped or sealed to prevent the entrance of contaminants into the well, but is in such a condition that it can be activated to produce a safe supply of water.

*"Influenced groundwater (IGW)"* means any groundwater which is under the direct or indirect influence of surface water, as determined by the presence of (1) significant occurrence of insects or other macroorganisms, algae or large-diameter pathogens such as *Giardia lamblia* or *Cryptosporidium*; or (2) significant and relatively rapid shifts in water characteristics such as turbidity (particulate content), temperature, conductivity, or pH which correlate to climatological or surface water conditions, or other parameters as specified in 567—43.5(455B).

*"Interconnection"* means a connection between a well or boring and another well, boring, water supply system or any type of chemical injection or contamination source. Interconnections are not allowed unless the connection is protected by an air gap or an approved backflow prevention device. *See "cross connection"*.

*"Issuing agency"* means a professional, technical/educational organization authorized by the department to provide continuing education for certification renewal in accordance with the commitments and guidelines detailed in the written issuing agency agreement and procedures.

*"Landowner"* means an individual, trust, partnership, corporation, government or governmental subdivision or agency, association or other legal entity that has legal or equitable title to a piece of land.

*"Landowner's agent"* means a person who acts for or in place of the landowner by authority from the landowner.

*"Limestone"* means sedimentary rock which contains greater than 50 percent calcium carbonate and has a strong reaction with hydrochloric acid (HCL).

*"Low permeability material"* means a geological unit of unconsolidated material (usually clay or till) or bedrock (usually shale) that is all or partially saturated, and having permeability low enough ( $10^{-7}$  cm/sec) to give water in the aquifer artesian head.

*"Maintenance"* means the replacement of equipment or materials that are necessary to maintain the operation of the public water supply system but do not alter capacity, water quality or treatment method or effectiveness.

*"Maximum contaminant level"* or *"MCL,"* means a maximum contaminant level, or an action level, or a treatment technique requirement established in lieu of a maximum contaminant level, as specified in the national primary drinking water regulations (40 CFR 141).

*"Municipality"* means a city, town, borough, county, parish, district, association, or other public body created by or under State law.

*"Neat cement"* means a mixture of one sack (94 pounds) of Portland cement to not more than six gallons of water which is free from contaminants, turbidity or settleable solids. Bentonite up to 2 percent by weight of cement may be added to reduce shrinkage.

*"Nonpublic water supply well"* means a well that does not supply a public water supply system.

*"Noncommunity water system"* means a public water system that is not a community water system. A noncommunity water system is either a "transient noncommunity water system (TNC)" or a "nontransient noncommunity water system (NTNC)."

*"Nonregulated well"* means a well used to supply water for a nonregulated use (a use of water less than 25,000 gallons per day which is not required to have a water use permit).

*"Nontransient noncommunity water system"* or *"NTNC"* means a public water system other than a community water system which regularly serves at least 25 of the same persons four hours or more per day, for four or more days per week, for 26 or more weeks per year. Examples of NTNCs are schools, day-care centers, factories, offices and other public water systems which provide water to a fixed population of 25 or more people. In addition, other service areas, such as hotels, resorts, hospitals and restaurants, are considered as NTNCs if they regularly serve at least 25 or more of the same persons for four or more hours per day, for four or more days per week, for 26 or more weeks of the year.

*"Open feedlot"* means an unroofed or partially roofed animal feeding operation in which no crop, vegetation, or forage growth or residue cover is maintained during the period that animals are confined in the operation.

*"Owner"* means the titleholder of the land where an abandoned well is located.

*"Pea gravel"* means gravel sized from 1/8 inch to 3/8 inch in diameter.

*"Permittee"* means the owner of the water supply well.

*"Permitted use"* means a use of water in excess of 25,000 gallons per day which requires a water use permit pursuant to [567—Chapters 50 through 52](#) and Iowa Code chapter 455B, division III, part 4.

*"Pitless adapter"* means a device designed for attachment to one or more openings through a well casing. It shall be constructed so as to prevent the entrance of contaminants into the well through such openings, conduct water from the well, protect the water from freezing or extremes of temperature, and provide access to water system parts within the well.

*"Pitless unit"* means an assembly which extends the upper end of the well casing to above grade. It shall be constructed so as to prevent the entrance of contaminants into the well, conduct water from the well, and protect the water from freezing or extremes of temperature, and shall provide full access to the well and to water system parts within the well. It shall provide a pitless well cap for the top terminal of the well.

*"Plan"* means Well Water Pollution Prevention Plan ( or WWPPP) as required to manage well construction related wastewater under General Permit #6.

*"Plug"* means the closure of an abandoned well with plugging materials by procedures which will permanently seal the well from contamination by surface drainage and permanently seal off the well from contamination into an aquifer. This involves the proper application of filling and sealing materials.

*"Point-of-entry treatment device (POE)"* is a treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in the drinking water distributed throughout the house or building.

*"Point-of-use treatment device (POU)"* is a treatment device applied to a single tap or multiple taps used for the purpose of reducing contaminants in drinking water at those taps, but is not intended to treat all of the water in the facility or home.

*"Private water well"* means a well that does not supply a public water supply system.

*"Processed bentonite"* means bentonite which has been kiln dried and processed into pellets for direct use in well sealing applications or into powder or coarse granules for use in bentonite grout for sealing.

*"Protected source"* means a surface water or groundwater source recognized by rule as deserving special protection in order to ensure its long-term availability, in terms of either quality or quantity, or both, to preserve the public health and welfare.

*"Public water supply"* means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. The term includes (1) any collection, treatment, storage, and distribution facilities under control of the supplier of water and used primarily in connection with the system; and (2) any collection (including wells) or pretreatment storage facilities not under the control of the supplier which are used primarily in connection with the system.

*"Pump installer"* means a person certified by the department to perform pump services.

*"Pumps and pumping equipment"* means any equipment or materials, including seals, tanks, fittings and controls utilized or intended for use in withdrawing or obtaining water for any use.

*"Pump services"* means the installation, repair, and maintenance of water systems; modification of the upper terminus of a well; well plugging; well rehabilitation; or the construction of Class 3 wells.

*"Rock"* means stone screened from river sand or quarried, free of debris, foreign matter and any toxic or agricultural chemical residue, up to 2½ inches in diameter.

*"Runoff control basin"* means an impoundment designed and operated to collect and store runoff from an open feedlot.

*"Sand"* means clean, medium-textured quartz (concrete sand) and shall be at least 25 percent with diameters between 2.0 and 0.25 mm, less than 35 percent with diameters between 0.25 and 0.05 mm and less than 5 percent with diameters between 0.002 and 0.05 mm.

*"Sand cement grout"* means a mixture of one sack (94 pounds) of Portland cement, an equal amount by volume of sand and not more than six gallons of water which is free from contaminants, turbidity and settleable solids.

*"Sandpoint well"* means a small diameter water well constructed by joining a screened drive point with lengths of pipe and driving the assembly into a shallow sand and gravel aquifer.

*"Sealing"* means the proper placement of sealing materials into an abandoned well to seal off flow into, out of or between aquifers.

*"Sealing materials"* means bentonite products. Sealing materials may also include neat cement, sand cement grout and concrete.

*"Septic tank"* means a watertight tank which receives sewage.

*"Shallow well"* means a well located and constructed in such a manner that there is not a continuous layer of low permeability soil or rock (or equivalent retarding mechanism acceptable to the department) at least 5 feet thick, the top of which is located at least 25 feet below the normal ground surface and above the aquifer from which water is to be drawn.

*"Standby well"* means a water well which is temporarily taken out of service with the expectation of being returned to service at a future date.

*"Static water level"* means the water level in a water well or aquifer when the well is not flowing or being pumped; sometimes referred to as the water line. The static water level for an abandoned well is determined just prior to commencing plugging operations.

*"Stuffing box"* means an approved receptacle in which packing may be compressed to form a watertight or airtight junction between two objects.

*"Transient noncommunity water system (TNC)"* means a noncommunity water system that does not regularly serve at least 25 of the same persons over six months per calendar year.

*"Tremie pipe"* means a device, usually a small diameter pipe, that carries grouting materials to the bottom of the hole and which allows pressure grouting from the bottom up without introduction of air pockets.

*"Unconfined aquifer"* means an aquifer in which the static water level does not rise above the top of the aquifer, i.e., the pressure of the water in the aquifer is approximately equal to that of the atmosphere.

*"Upper terminus"* means the upper ten feet of the well casing as measured from the finished surface grade.

*"Waters of the United States"* means:

(a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(b) All interstate waters, including interstate "wetlands;"

(c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(3) Which are used or could be used for industrial purposes by industries in interstate commerce;

(d) All impoundments of waters otherwise defined as waters of the United States under this definition;

(e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;

(f) The territorial sea; and

(g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR §423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States.

*"Water systems"* means any part of the mechanical portion of a water well that delivers water from the well to a valve that separates the well from the plumbing system. "Water systems" includes the pump, drop pipe to the well, electrical wire from the pump to the first electrical panel or connection outside the casing, piping from the well to the pressure tank or first valve outside the casing, pitless unit or adapter, and all related miscellaneous fittings necessary to

operate the pump. "Water systems" does not include any outside piping to other buildings and does not include the piping that carries the water in the remainder of the distribution system.

"Well" (Chapter 49) means any excavation that is drilled, cored, driven, dug, bored, augered, jetted, washed or is otherwise constructed for the purpose of exploring for groundwater, monitoring groundwater, utilizing the geothermal properties of the ground, or extracting water from or injecting water into the aquifer. "Well" does not include an open ditch, drain tiles, an excavation made for obtaining or prospecting for oil, natural gas, minerals, or products mined or quarried, lateral geothermal heat exchange systems less than 20 feet deep, nor temporary dewatering wells such as those used during the construction of subsurface facilities only for the duration of the construction.

"Water well" (Chapter 38) means any excavation that is drilled, cored, bored, augered, washed, driven, dug, jetted, or otherwise constructed for the purpose of exploring for groundwater, monitoring groundwater, utilizing the geothermal properties of the ground, or extracting water from or injecting water into the aquifer. "Water well" does not include an open ditch or drain tiles or an excavation made for obtaining or prospecting for oil, natural gas, minerals, or products mined or quarried.

"Well construction" means constructing a water well and installing necessary casing, screen, liners, grout, seals, and other appurtenances.

"Well construction wastewater" means any water, groundwater, and drilling and development water or fluids that is generated during the well construction process. Well test pumping water is also categorized as well construction wastewater. Any well construction related wastewater that reaches a Water of the United States requires management under General Permit #6.

"Well driller" means a person certified by the department to perform well drilling services.

"Well drilling services" means new well construction, well reconstruction, well rehabilitation, well repair, installation of pitless equipment, or well plugging.

"Well liner" means a pipe used to line the inside of a well hole but not designed to hold hydraulic or structural loading. Liners must be installed within a casing or in an ungrouted open borehole.

"Well plugging" means the closure of an abandoned well with plugging materials by procedures which will permanently seal the well from contamination by surface drainage and permanently seal off the well from contamination into an aquifer. "Well plugging" involves the proper application of filling and sealing materials.

"Well plugging contractor" means a contractor certified to plug only Class 1 or Class 3 wells but not certified to abandon Class 2 wells or perform any other well services.

"Well reconstruction" means modifying the original construction of a well. "Well reconstruction" includes, but is not limited to, deepening the well, installing a liner, installing or replacing a screen with one of a different diameter or length, installing a pitless adapter, extending the casing, or hydrofracturing a well. Replacing a screen with one of identical diameter and length or replacing a pitless adapter is considered repair, not reconstruction.

*"Well rehabilitation"* means the physical or chemical cleaning of a well.

*"Well services"* means both well drilling services and pump services.

*"Well Service(s)"* as noted in GP6 means any service that meets the following definitions: *"construction"* of a water well, *"water well"* and *"well reconstruction"* as found in Iowa Code 455B.171, *"well services"* as found in 567 Iowa Administrative Code Chapter 49, and for all well construction performed in accordance with 567 Iowa Administrative Code Chapter 43. Examples of water well and well services include but are not limited to: well drilling and well construction for private and public water supply wells, well servicing, well development, well rehabilitation, well repair, and test pumping of all types of water supply wells, well drilling and construction for geothermal production supply wells, borehole drilling and heat exchanger installation for vertical geothermal closed loop heat exchangers, and any other water well services related activity that generates wastewater.

*"Well seal"* means a device used to cover or seal a well that establishes or maintains a junction between the casing of the well and the piping, electric conduit or equipment installed, so as to prevent water or other foreign material from entering the well at the uppermost terminal.

1. "Well cap" means a snug-fitting, watertight device used above flood level that excludes dust and vermin and allows for screened venting.
2. "Sanitary seal" means a watertight fitting which uses mechanical compression to seal the casing opening that is installed on wells that terminate in a well house. NOTE: Sanitary seals are not acceptable well caps for wells that are exposed to weather.

*"WWPPP"* means a Well Water Pollution Prevention Plan as required to manage well construction related wastewater under General Permit #6.