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DRAFT 01/04/2017

**Title 10--DEPARTMENT OF NATURAL RESOURCES
Division 20--Clean Water Commission
Chapter 2--Definitions**

10 CSR 20-2.010 Definitions

PURPOSE: This rule sets forth the definitions of terms used in the Missouri Clean Water Law and all regulations passed pursuant to it.

(1) **503(b) Regulations**, **40 CFR 503** addresses the use and disposal of wastewater sludge generated from the treatment of domestic and municipal wastewater and includes domestic septage. It does not apply to materials such as grease trap residues or other non-domestic wastewater residues pumped from commercial facilities, sludges produced by industrial wastewater treatment facilities, or grit and screenings from publicly owned treatment works. **40 CFR 503** establishes two levels of wastewater sludge quality with respect to heavy metal concentrations—pollutant Ceiling Concentrations and Pollutant Concentrations; and two (2) levels of quality with respect to pathogen densities—Class A and Class B; and two (2) types of approaches for meeting vector attraction reduction—wastewater sludge processing or the use of physical barriers.

Comment [ETC1]: Proposed 8.170

(A) Class A Biosolids. The Class A designation only applies to the vector attraction reduction requirements. To meet the Class A designation, pathogens (*Salmonella* sp. bacteria, enteric viruses, and viable helminth ova) in the biosolids are below detectable levels. Class A corresponds to the existing **40 CFR Part 257** “Process to Further Reduce Pathogens (PFRP)” designation.

(B) Class B Biosolids. Biosolids are designed Class B if pathogens are detectable but have been reduced to levels that do not pose a threat to public health and the environment as long as actions are taken to prevent exposure to the biosolids after their use or disposal. When Class B biosolids are land applied, certain restrictions must be met at the application site; other requirements have to be met when Class B biosolids are surface disposed. Class B corresponds to the existing **40 CFR Part 257** “Process to Significantly Reduce Pathogens (PSRP)” designation.

[(1) Abandoned well. A well whose use has been permanently discontinued. Any well shall be deemed abandoned which is in a state of disrepair that continued use for the purpose of obtaining water is impracticable. This shall include test holes that have been converted for water-supply purposes and then abandoned or not used for these purposes.]

(2) **Abandoned Well**. Abandoned well as defined in **Section 256.603, RSMo** means a well shall be deemed abandoned when it is in such a state of disrepair that continued use for the purpose of thermal recovery or obtaining groundwater is impracticable and the well has not been in use for a period of two (2) years or more. The term abandoned well includes a test hole or a monitoring well which was drilled in the exploration for minerals or for geological, water quality, or hydrologic data from the time that it is no longer used for exploratory purposes and that has not been plugged in accordance with rules pursuant to **Sections 256.600 through 256.640 RSMo**.

Comment [ETC2]: Division of Geology and Land Survey 10 CSR 23-1.010(1).

10 CSR 20-6.090(2)(B)17
10 CSR 20-7.015(7)(C)
10 CSR 20-8.200(4)(A)4.

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[(2) Agrichemical. Any pesticide or fertilizer but does not include anhydrous ammonia fertilizer material.]

(3) **Agrichemical facility.** Any site, with the exception of chemical production facilities, where bulk **[agrichemicals]** pesticides or fertilizers, excluding anhydrous ammonia fertilizer, are stored in non-mobile containers or dedicated containers and are being mixed, applied, repackaged, or transferred between containers for more than thirty (30) consecutive days per year.

Comment [ETC3]: 10 CSR 20-8.500

[(4) Alternative technology. Proven wastewater treatment processes and techniques which provide for the reclaiming and reuse of water, productively recycle wastewater constituents or otherwise eliminate the discharge of pollutants and recover energy. Specifically alternative technology includes land application of effluent and sludge; aquifer recharge; aquaculture; direct reuse (nonpotable); horticulture; revegetation of disturbed land; containment ponds; sludge composting and drying prior to land application; self-sustaining incineration; methane recovery; co-disposal of sludge and solid waste; and individual and on-site systems.]

(4) **Air-gap Separation.** A backflow prevention assembly consisting of a physical separation between the free-flowing discharge end of a public water system pipeline and an open or nonpressurized receiving vessel. An approved air-gap separation shall be at least twice the diameter of the system pipe measuring vertically above the overflow rim of the vessel. In no case shall the distance be less than one inch (1").

Comment [ETC4]: Safe Drinking Water Commission 10 CSR 60-2.015(2)(A)2.
8.140 & 8.210

(5) **Alternative Sewer Systems.** Alternative sewer systems include pressurized sewers carrying raw wastewater from grinder pumps, pressurized or gravity sewers carrying septic tank effluent, and combinations thereof. Although each alternative collection technology uses different motive forces (i.e., pressure, gravity, and vacuum) to move wastewater from its source to its destination, there are many commonalities. All use lightweight plastic pipe buried at shallow depths, with fewer joints due to increased pipe lengths than typical gravity sewers. Alternative sewer systems are generally lower in capital costs than conventional gravity sewers.

Comment [ETC5]: New 8.125

(6) **Antidegradation.** The implementation of a rule and procedure approved by the EPA and the Missouri Clean Water Commission that specifies how the department will determine, on a case-by-case basis, whether and to what extent, existing water quality may be degraded in a water of the state. The Missouri Antidegradation Implementation Procedure is established in **10 CSR 20-7.031(3)(D).**

Comment [ETC6]: AIP 7/13/16

(7) **Annular Space.** Annular space means the space between two (2)-cylindrical objects one (1) of which surrounds the other, such as a between a casing pipe and carrier pipe.

Comment [ETC7]: Adapted from Division of Geology and Land Survey 10 CSR 23-1.010(3).
Used in draft 8.120.

[(5)8] Application. The application form supplied by the department, the filing fee, if required, and other supporting documents if requested.

[(6)9] Appurtenances. Valves, pumps, fittings, pipes, hoses, plumbing, or metering devices connected to sewers, basins, tanks, storage vessels, treatment units, and discharge or delivery structures, or used for transferring products or wastes.

Comment [ETC8]: Existing 8.110, 8.120, 8.130, 8.160, 8.170, 8.200, and 8.210

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(10) **Aquaculture Facility.** A hatchery, fish farm, or other facility used for the production of aquatic animals that is required to have a permit pursuant to the federal Clean Water Act as amended, 33 U.S.C. Section 1251, et seq.

Comment [ETC9]: RSMo 644.016(1)

(/7/11) **Aquifer.** A subsurface water-bearing bed or stratum **within the saturation zone** which stores or transmits water in recoverable quantities that is presently being utilized or could be utilized as a water source for private or public use. It does not include water in the vadose (**above the water table**) zone. For purpose of the **effluent regulation**, sandy or gravelly alluvial soils in or on the floodplains of intermittent streams are not an aquifer.

Comment [ETC10]: Division of Geology and Land Survey 10 CSR 23-1.010 Aquifer means water-bearing geological material that transmits water in sufficient quantities to supply a well.

Comment [ETC11]: Should we cite 10 CSR 20-7.015 instead?

(12) **Backflow.** The undesirable reversal of flow of water or mixtures of water and other liquids, gases, or other substances into the public water system from any source(s).

Comment [ETC12]: Safe Drinking Water Commission 10 CSR 60-2.015(2)(B)1.

(13) **Bedrock.** Bedrock means competent rock that is not weathered or fractured.

Comment [ETC13]: Division of Geology and Land Survey 10 CSR 23-1.010(7).

(14) **Beneficial Uses.** All existing and designated uses on or in waters of the state as defined in the Water Quality Standards at **10 CSR 20-7.031(1)(C)**.

Comment [ETC14]: AIP 7/13/16

(15) **Biochemical Oxygen Demand.** The five (5)-day Biochemical Oxygen Demand (BOD₅) is the amount of oxygen required to stabilize biodegradable organic matter under aerobic conditions within a five (5)-day period.

Comment [ETC15]: Existing 8.110(4)(C)5.A.(l)

(A) Total Five (5)-Day Biochemical Oxygen Demand (TBOD₅). TBOD₅ is equivalent to BOD₅ and is sometimes used in order to differentiate carbonaceous plus nitrogenous oxygen demand from strictly carbonaceous oxygen demand.

(B) Carbonaceous Five (5)-Day Biochemical Oxygen Demand (CBOD₅). CBOD₅ is BOD₅ less the nitrogenous oxygen demand of the wastewater.

(16) **Biosolids.** Biosolids refers to treated sludge that meets the EPA pollutant and pathogen requirements for land application and surface disposal. Biosolids are organic wastewater solids that can be reused after suitable sludge treatment processes leading to sludge stabilization.

Comment [ETC16]: Prosed 8.170

(17) **Blackwater.** Portion of the wastewater stream that originates from toilet fixtures, dishwashers, food preparation sinks, etc.

Comment [ETC17]: Chuck Harwood 9/23/16

(18) **Building Lateral.** A building lateral is a pipe or conduit that conveys wastewater from only one (1) building to a point where it is joined to an alternative sewer system unit (i.e., grinder pump station and septic tank). Maintenance and ownership of the building lateral is generally the responsibility of the property owner.

Comment [ETC18]: New 8.125

(/8/19) **Bulk fertilizer.** Any liquid or dry fertilizer which is transported or stored in undivided quantities of greater than five hundred (500) *[United States]* gallons measure or five thousand (5,000) pounds *[(5000 lbs.)]* net dry weight respectively.

Comment [ETC19]: 8.500

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(~~19~~**20**) **Bulk pesticide.** Any registered pesticide which is transported or stored in an individual container in undivided quantities greater than fifty-six (56) *[United States]* gallons liquid measure or one hundred (**100**) pounds *[(100 lbs.)]* dry weight respectively.

Comment [ETC20]: 8.500

(~~110~~**21**) **Bulk repackaging.** The transfer of a registered pesticide from one (1) container to another in an unaltered state in preparation for sale to or distribution for use by another person.

Comment [ETC21]: 8.500

(~~111~~**22**) **Bypass.** The **intentional** diversion of *[wastewater]* **waste streams** from any portion of a wastewater treatment facility, *[or sewer system to waters of the state]* **except in the case of blending.**

Comment [ETC22]: 10 CSR 20-7.015(9)(G)

(23) **Carrier Pipe.** ~~Sewer piping slipped inside the installed casing pipe.~~

Comment [ETC23]: Proposed 8.120

(24) **Casing Pipe.** Pipe with continuous circumferential joints, jacked into position during the boring operation. A casing pipe is most commonly used in underground construction to protect the carrier pipe from damage.

Comment [ETC24]: Proposed 8.120

(25) **Chlorination.** Chlorination means the use of a chlorine solution to disinfect wastewater. Chlorine is an oxidizing disinfectant that kills bacteria.

Comment [ETC25]: Adapted from Division of Geology and Land Survey 10 CSR 23-1.010(14). Existing 8.190

(26) **Clarifier.** Clarifiers are settling tanks with mechanical means for continuous removal of solids being deposited by sedimentation. A clarifier is generally used to remove solid particulates or suspended solids from liquid or clarification or thickening. Sludge collects at the bottom of the tank, or sludge hopper, and is removed.

Comment [ETC26]: Proposed 8.160

(27) **Cleanout.** A cleanout is a capped vertical pipe which provides access to a sewer, allowing personnel the ability to clean out blockages in the sewer.

Comment [ETC27]: Proposed 8.120

(28) **Collection System.** A collection system is a network of pipes or similar conduits and all other structures, devices and appurtenances excluding building laterals for collecting and conveying wastewater to treatment or other disposal facilities. Maintenance and ownership of the collection system is the responsibility of one (1) of the continuing authorities listed in **10 CSR 20-6.010(3)(B).**

Comment [ETC28]: Proposed 8.120

(29) **Combined Sewer Overflow (CSO).** Combined sewer overflow means the portion of flow from a combined sewer system that discharges into a water body from an outfall located upstream of the headworks of a wastewater treatment facility, usually during a rainfall event.

Comment [ETC29]: Definition adapted from EPA.

(30) **Combined Sewer System.** Combined sewer systems are wastewater collection systems designed to convey sanitary wastewaters (domestic, commercial, and industrial) and stormwater runoff in a single conduit to a wastewater treatment facility. Maintenance and ownership of the combined sewer system is the responsibility of one (1) of the continuing authorities listed in **10 CSR 20-6.010(3)(B).**

Comment [ETC30]: Definition adapted from EPA.

(31) **Comminutor.** A comminutor is an instrument that cuts and shreds stringy materials and coarse solids into smaller sizes (approximately 0.25 to 0.75 inches).

Comment [ETC31]: Proposed 8.150

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~~(12)~~**32** **Commission.** The Missouri Clean Water Commission as established under **section 644.021, RSMo.**

Comment [ETC32]: RSMo 644.016(2)
"The clean water commission of the state of Missouri created in section 644.021."

10 CSR 20-1.020(2)(A)

~~(13)~~**33** **Common promotional plan.** A plan, undertaken by one (1) or more persons, to offer **individual lots or residential housing units within a residential housing development** for sale or lease; where land *[is]* **or residential housing units are** offered for sale **or lease** by a person or group of persons acting in concert, and the land is contiguous or is known, designated, or advertised as a common unit or by a common name or similar names, the land is presumed, without regard to the number of lots **or residential housing units** covered by each individual offering, as being offered for sale or lease as part of a common promotional plan. **State and county roads are not considered property boundaries.**

Comment [ETC33]: Harwood 9/23/16

10 CSR 20-6.030(1)(A)2.

~~(14)~~**34** **Composite sample.** A combination of individual samples collected over a designated period of time.

(A) Twenty-four (24)-hour composite sample. A **twenty-four (24)-hour composite sample** is composed of **forty-eight (48) aliquots (subsamples) collected at thirty (30)-minute intervals by an automatic sampling device.**

Comment [ETC34]: MSOP permits and 7.015

(B) Modified composite sample. A **modified composite sample is made up from a minimum of four to six (4-6) grab samples collected within a twenty-four (24)-hour period with a minimum of two (2) hours between each grab sample.**

Comment [ETC35]: MSOP permits

(35) Conference, Conciliation, and Persuasion. A process of verbal or written communications consisting of meetings, reports, and correspondence or telephone conferences between authorized representatives of the department and the alleged violator. The process shall, at a minimum, consist of one offer to meet with the alleged violator tendered by the department. During any such meeting, the department and the alleged violator shall negotiate in good faith to eliminate the alleged violation and shall attempt to agree upon a plan to achieve compliance.

Comment [ETC36]: RSMo 644.016(3)

10 CSR 20-3.010(2)(B)1.

~~(15)~~**36** **Construction.** Any activities including, but not limited to, the erection, installation or significant modification of any dwelling, structure, building, sewer system, water contaminant source, or point source. Construction commences with any preparatory activity including, but not limited to, trenching, excavation for any building in a subdivision, or for a waste treatment facility, demolition of existing waste treatment facility structures or change in the waste treatment facility operation necessary to allow modification, but shall not include interior remodeling of single-family residences or commercial buildings which will not result in a substantial change in wastewater volume, nature, or strength of the discharge therefrom.

[(16) Conventional technology. Wastewater treatment processes and techniques involving the treatment of wastewater at a centralized treatment plant by means of biological and/or physical/chemical unit processes followed by direct point source discharge to surface waters.]

(37) Construction Permit. Construction permit means a written authorization issued by the department giving the owner the right to construct and modify wastewater components with conditions that are necessary to adequately protect public health and the environment.

Comment [ETC37]: Adapted from Dam and Reservoir Safety Council 10 CSR 22-1.020(8).

6.010

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([17]38) **Daily maximum.** An effluent limitation that specifies the total mass or *[average]* **maximum** concentration of pollutants that may be discharged in a calendar day.

Comment [ETC38]: 7.015

([18) **Dedicated agrichemical container.** A container effectively designed and constructed to hold a specific agrichemical and to be reused, repackaged or refilled. The containers shall be clearly and permanently marked identifying the agrichemical to which it is dedicated and include a clearly visible tamper indicator which reveals that the integrity of the container has been either maintained or disrupted.]

([19]39) **Department.** The Missouri Department of Natural Resources.

Comment [ETC39]: RSMo 644.016(4)

(40) Designated Use. A beneficial use designated to a water of the state as shown in **10 CSR 20-7.031, Water Quality Standards.**

Comment [ETC40]: AIP 7/13/16

([20]41) **Developer.** Any person or group of persons who *[,]* directly or indirectly, sells or leases or offers to sell or lease, *[or advertises for sale or lease,]* any lots, *[in a subdivision,]* **residential housing units, or recreational camping sites**, but shall not include any licensed broker or licensed salesman who is not a shareholder, director, officer, or employee of a developer and who has no legal or equitable interest in the land.

Comment [ETC41]: Harwood 9/23/16
10 CSR 20-6.030(1)(A)3.

([21]42) **Director.** The director of the Department of Natural Resources.

Comment [ETC42]: RSMo 644.016(5)

([22]43) **Discharge.** The causing or permitting of one (1) or more water contaminants to enter the waters of the state.

Comment [ETC43]: RSMo 644.016(6)

(44) Disinfection. Disinfection is the process of removal, deactivation, or killing of pathogenic microorganisms.

Comment [ETC44]: Safe Drinking Water Commission 10 CSR 60-2.015(2)(D)6 Disinfection. A process which inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

([23]45) **Domestic wastewater.** Wastewater originating primarily from the sanitary conveniences of residences, commercial buildings, factories, and institutions, including any wastewater which may have infiltrated the sewers.

Comment [ETC45]: Proposed 8.190

Comment [ETC46]: See Wastewater, Domestic for conflict.

(46) Dry Wells. A dry well is a below-grade structure of a pumping station that contains the pumps, drive shafts, valves, and piping and in which there is no liquid outside the pumps and piping (i.e., the structure is “dry” and facility personnel often occupy the space).

Comment [ETC47]: Proposed 8.130

([24]47) **Effluent.** Any wastewater or other substance flowing out of or released from a point source, water contaminant source, or waste[-]/water treatment facility.

(48) Effluent Control Regulations. Limitations on the discharge of water contaminants.

Comment [ETC48]: RSMo 644.016(7)

(49) Effluent Launder. An effluent launder collects the effluent from a settling tank and directs it to the effluent piping.

Comment [ETC49]: Proposed 8.160

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(/25/50) **Effluent limitation segment.** Any segment of water where the water quality meets and will continue to meet water quality standards or where the water quality will meet water quality standards after the application of effluent limitation guidelines.

Comment [ETC50]: 10 CSR 20-7.015(9)(G)1.

(/26) **Eligible construction costs.** *Costs related to the erection, building, equipment acquisition, alteration, improvement or extension of a wastewater treatment facility, interceptors, pump stations or force mains; or the inspection or supervision of any of the foregoing items.*

Comment [ETC51]: Garrett 10/4/16
10 CSR 20-4.040(22)(B) defines eligible costs.

(/27/51) **Emergency and discharge response plan.** A plan as described under **Superfund Amendments & Reauthorization Act of 1986 (SARA) Title III Emergency Response Plan, which details a plan of action for the efficient deployment and coordination of services, agencies, and personnel to provide the earliest possible remedial response to an emergency situation.**

Comment [ETC52]: Higgins 9/27/16

(/28/52) **Engineer.** An individual registered as a professional engineer in the state of Missouri.

(/29/53) **EPA.** The *[federal]* **United States** Environmental Protection Agency.

(54) **Equivalent Dwelling Unit (EDU).** **An equivalent dwelling unit is a system that produces raw domestic wastewater equivalent to a typical single family residence in volume and strength.**

Comment [ETC53]: New 8.125

(55) **Fats, Oils, and Grease (FOG).** **Animal and plant derived substances that may solidify or become viscous between the temperatures of thirty-two and one hundred fifty degrees Fahrenheit (32°F – 150°F), and that separates from wastewater by gravity.**

Comment [ETC54]: Proposed 8.150

(/30/56) **Federal Clean Water Act.** The Federal Water Pollution Control Act (P.L. 92-500) as amended in 1977, (P.L. 95-217) and in 1981 (P.L. 97-117).

Comment [ETC55]: AIP 7/13/16
Clean Water Act. The federal Water Pollution Control Act, 33 U.S.C. §§1251 et seq.

(/31/57) **Fertilizer.** As defined by **section 266.291, RSMo.**

Comment [ETC56]: Garrett 10/4/16
Suggests deleting the amended dates as there are many and will likely be more in the future. We don't want to reference an older version of the FWPCA.

(/32/58) **Filing fee.** A check, money order, or bank draft payable to the state of Missouri as filing fee for a construction permit, an operating permit, or a variance.

Comment [ETC57]: RSMo 266.291(4) states "Includes any organic or inorganic material of natural or synthetic origin which is added to soil, soil mixtures, or solution to supplement nutrients and is claimed to contain one or more essential plant nutrients. The term "fertilizer" does not include unmanipulated animal and vegetable manure and agricultural liming materials used to reduce soil acidity."

(59) **Flow Equalization.** **Flow equalization is a process of controlling flow rate variations to improve the performance of downstream processes and to reduce the size and cost of downstream wastewater treatment facilities.**

Comment [ETC58]: Proposed 8.150

(A) **Diurnal Flow Equalization.** **Diurnal flow equalization provides flow equalization for the dry weather diurnal flow received by a wastewater treatment facility in a twenty-four (24)-hour period.**

(B) **Wet Weather Flow Equalization.** **Wet weather flow equalization provides flow equalization during wet weather events which have a hydraulic peaking factor above the capacity of the wastewater treatment facility.**

(60) **Force Main.** **A force main is a pipe or conduit that conveys wastewater under pressure from the discharge side of a pump to a discharge point. A force main is considered part of a**

Comment [ETC59]: Proposed 8.130

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sanitary sewer system that is operated and maintained by one of the continuing authorities listed in **10 CSR 20-6.010(3)(B)**.

(61) **Freeboard**. Freeboard is the vertical distance from the normal operating water surface to the overflow point, spillway, emergency overflow, pipe, or top of the berm or tank.

Comment [ETC60]: Proposed 8.200
Also referred to in 8.160

(62) **General Permit**. A permit written with a standard group of conditions and with applicability intended for a designated category of water contaminant sources that have the same or similar operations, discharges, and geographical locations, and that require the same or similar monitoring, and that would be more appropriately controlled pursuant to a general permit rather than pursuant to a site-specific permit.

Comment [ETC61]: RSMo 644.016(8)

(63) **General Permit Template**. A draft general permit that is being developed through a public participation process.

Comment [ETC62]: RSMo 644.016(9)

(/33/64) **Grab sample**. Any individual sample collected without compositing or adding other samples.

Comment [ETC63]: 7.015

(65) **Gravity Sewer**. A pipeline or similar conduit conveying wastewater or treated effluent which flows exclusively under the influence of gravity.

Comment [ETC64]: Proposed 8.120

(A) **Interceptor Sewer**. Interceptor sewers are large sewers that are used to intercept a number of sewer mains or trunk sewers and convey the wastewater to treatment or other disposal facilities. These sewers shall not allow direct connection of service lines. An interceptor sewer is considered part of a sanitary sewer system that is operated and maintained by one (1) of the continuing authorities listed in **10 CSR 20-6.010(3)(B)**.

(B) **Sewer Lateral**. A sewer lateral is a pipe or conduit that collects wastewater from one (1) or more service lines and conveys it to a sewer main. A sewer lateral is considered part of a sanitary sewer system that is operated and maintained by one of the continuing authorities listed in **10 CSR 20-6.010(3)(B)**.

(C) **Sewer Main**. Sewer mains are used to convey wastewater from one (1) or more sewer laterals to trunk sewers or interceptor sewers. A sewer main is considered part of a sanitary sewer system that is operated and maintained by one (1) of the continuing authorities listed in **10 CSR 20-6.010(3)(B)**.

(D) **Trunk Sewer**. Trunk sewers are large sewers that are used to convey wastewater from sewer mains to interceptor sewers, treatment, or other disposal facilities. A trunk sewer is considered part of a sanitary sewer system that is operated and maintained by one (1) of the continuing authorities listed in **10 CSR 20-6.010(3)(B)**.

(66) **Graywater**. Water captured from no-food preparation sinks, showers, baths, spa baths, cloths washing machines, etc. Specifically excludes toilet, hazardous, culinary, and oily waste.

Comment [ETC65]: Harwood 9/23/16

(67) **Grease Interceptor**. A grease interceptor is a tank that intercepts and collects FOG from a commercial or institutional kitchen waste stream.

Comment [ETC66]: Proposed 8.150

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(68) **Grit.** Grit includes sand, gravel, cinder, or other heavy solid materials that have a higher specific gravity than the organic biodegradable solids in the wastewater. Grit also includes eggshells, bone chips, seeds, coffee grounds, and large organic particles, such as food waste.

Comment [ETC67]: Proposed 8.150

(69) **Groundwater.** Groundwater means the water in subsurface zone of saturation. The water that supplies springs and wells is groundwater.

Comment [ETC68]: Division of Geology and Land Survey 10 CSR 23-1.010(61)(A).

7.015

Comment [ETC69]: Harwood 9/23/16

(70) **Holding Tank.** A watertight tank for temporary storage of wastewater until it can be transported to a permitted wastewater treatment facility.

(71) **Human Sewage.** Human excreta and wastewater, including bath and toilet waste, residential laundry waste, residential kitchen waste, and other similar waste from household or establishment appurtenances.

Comment [ETC70]: RSMo 644.016(10)

(72) **Hydraulic Capacity.**

Comment [ETC71]: Existing 8.110(4)(C)4.A.

(A) **Design Average Flow.** The design average flow is the average daily volumes to be received for a continuous twelve (12)-month period expressed as a volume per unit time. However, the design average flow for facilities having critical seasonal high hydraulic loading periods (e.g., recreational areas, campuses, and industrial facilities) shall be based on the daily average flow during the seasonal period.

(B) **Design Maximum Daily Flow.** The design maximum daily flow is the largest volume of flow to be received during a continuous twenty-four (24)-hour period expressed as a volume per unit time.

(C) **Design Peak Hourly Flow.** The design peak hourly flow is the largest volume of flow to be received during a one (1)-hour period expressed as a volume per unit time.

(D) **Design Peak Instantaneous Flow.** The design peak instantaneous flow is the instantaneous maximum flow rate to be received.

(73) **Income.** Income includes retirement benefits, consultant fees, and stock dividends.

Comment [ETC72]: RSMo 644.016(11)

(74) **Infiltration/Inflow (I/I).** Groundwater or stormwater which enters a sanitary sewer system.

Comment [ETC73]: 10 CSR 20-4.040(2)(H)

Existing 8.110

[(34) Innovative technology. Developed wastewater treatment processes and techniques which have not been fully proven under the circumstances of their contemplated use and which represent a significant advancement over the state of the art in terms of significant reduction in life cycle cost of the project when compared to an appropriate conventional technology.]

(75) **Innovative Technology.** New and generally unproven technology in the type or method of its application that bench testing or theory suggest has environmental, efficiency, and cost benefits beyond standard technologies.

Comment [ETC74]: RSMo 644.051.12

[(35) Interceptor. A sewer with the primary purpose of transporting wastewater rather than collecting it.]

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(76) **Karst.** A terrain, generally underlain by limestone, in which the topography is chiefly formed by the dissolving of rock and which is commonly characterized by karren, closed depressions, subterranean drainage and caves.

Comment [ETC75]: Metallic Minerals Waste Management 10 CSR 45.2010(2)(I).
Existing 8.110(4)(C)8.C.(VII)

(77) **Lagoon. Reserved.**

(78) **Lagoon Cross Section.** Lagoon cross section terms are depicted in the following **Figure 1**, included herein:

Comment [ETC76]: Proposed 8.200

STORAGE BASIN PROFILE

Cell #1

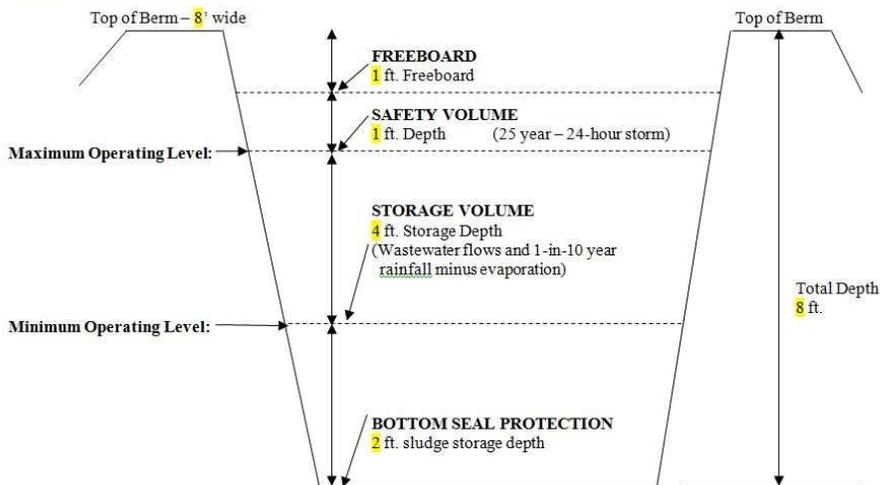


Figure 1. Lagoon Storage Basin Cross Section Terminology.

(79) **Lagoon Retrofits.** Lagoon retrofits refer to physical, chemical, and biological modifications to an existing lagoon system to improve the quality of the effluent or allow the facility to achieve no-discharge.

Comment [ETC77]: Proposed 8.200

(80) **Land Application.** Land application is the application of wastewater at rates up to the maximum amount which can be renovated by the soil—plant filter without detrimental effects to surface or groundwater soils or crops. The land application of wastewater may recharge the local groundwater or reemerge into streams; therefore, the quality, direction, and rate of movement and local use of the groundwater, present and future, are important considerations in evaluating a proposed site. Major factors in the design of land application systems are topography, soils, geology, hydrology, weather, agricultural practice, crop, use of crop, adjacent land use, equipment selection and installation.

Comment [ETC78]: Proposed 8.200

LEGEND:

Text to be *[deleted]* is in italics and bracketed.
Text to be **added** is in bold.

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(81) **Landscape Position.** Specific geomorphic component of the landscape in which a site is located, two-dimensional landscape positions may be summit, shoulder, backslope, footslope, or toeslope; three-dimensional views of geomorphic landscape position can be considered as headslope, noseslope, sideslope, baseslope, etc.

Comment [ETC79]: Harwood 9/23/16

(82) **Leachate.** Leachate is water that has percolated through solid waste or has come in contact with solid waste and has extracted, dissolved, or suspended materials from it. Leachate usually is quite high in organics, nutrients, and metals.

Comment [ETC80]: Proposed 8.150

Comment [ETC81]: 10 CSR 80-2.010(51) Solid Waste Management

(83) **Loading Rate.**

Comment [ETC82]: Harwood 9/23/16

(A) **Contour Loading Rate.** Cumulative total of effluent applied to the soil profile at the down gradient end of a dispersal system installed on a slope, expressed as volume per unit time along the contour (e.g. gallons per day per foot).

(B) **Hydraulic Loading Rate.** Quantity of wastewater applied to a given treatment component, usually expressed as volume per unit of infiltrative surface area per unit time (e.g. gallons per day per square foot).

([36]84) **Losing streams.** A stream which distributes thirty percent (30%) or more of its flow during low flow conditions through natural processes, such as through permeable geologic materials into a bedrock aquifer within two (2) miles' flow distance downstream of an existing or proposed discharge. Flow measurements to determine percentage of water loss must be corrected to approximate the seven (7)-day Q10 stream flow. If a streambed or drainage way has an intermittent flow or a flow insufficient to measure in accordance with this rule, it may be determined to be a losing stream on the basis of channel development, valley configuration, vegetation development, dye tracing studies, bedrock characteristics, geographical data and other geological factors. Losing streams are listed in **Table J of 10 CSR 20-7.031**; additional streams may be determined to be losing by the *[Division of Geology and Land Survey]* **department's Geological Survey Program.**

Comment [ETC83]: Abbott 9/27/16:
This sentence needs clarification.

([37]85) **Lot.** Any portion, piece, division, unit, or undivided interest in real estate, if the interest includes the right to the exclusive use of a specific portion of real estate, whether for a specific term or in perpetuity.

Comment [ETC84]: 10 CSR 20-6.030(1)(A)5.

(86) **Minor Violation.** A violation which possesses a small potential to harm the environment or human health or cause pollution, was not knowingly committed, and is not defined by the United States Environmental Protection Agency as other than minor.

Comment [ETC85]: RSMo 644.016(12)
10 CSR 20-3.010

([38]87) Missouri Clean Water Law. **Sections 644.006--644.141, RSMo.**

([39]88) **Mobile container.** Container designed and used for transporting agrichemicals that meet Department of Transportation standards for the product being transported.

Comment [ETC86]: Existing 10 CSR 20-8.500(2)

([40]89) **Monthly average.** The total mass or concentration of all daily discharges sampled during a calendar month divided by the number of daily discharges sampled or measured during that month.

Comment [ETC87]: 7.015

([41]90) **Municipality.** An incorporated city, town, or village (including an intermunicipal agency of two (2) or more of the foregoing entities).

LEGEND:

Text to be *[deleted]* is in italics and bracketed.
Text to be **added** is in bold.

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(/42/91) **National Pollutant Discharge Elimination System (NPDES).** The National Pollutant Discharge Elimination System as defined in the Federal Clean Water Act.

(A) NPDES permit. Any permit issued by either the EPA or the state of Missouri under authorization by EPA which fulfills the NPDES requirements as set forth in the Federal Clean Water Act.

(B) NPDES application. Any application on a form supplied by the department, submitted for an NPDES permit.

(92) Net Positive Suction Head (NPSH). NPSH is the absolute total dynamic head of the pumped liquid at the suction eye of a pump.

Comment [ETC88]: Proposed 8.130

(/43/93) **New discharger.** Any building, structure, facility or installation--

(A) Which on October 18, 1972, has never discharged pollutants;

(B) Which has never received a finally effective NPDES permit;

(C) From which there is or may be a new or additional discharge of pollutants; and

(D) Which does not fall within the definition of new source.

Comment [ETC89]: 10 CSR 20-6.010(9)(G)

(/44/94) **New source.** Any building, structure, facility or installation from which there is or may be a discharge of pollutants, the construction of which commences--

(A) After promulgation of standards of performance under **Section 306 of the Federal Clean Water Act** which are applicable to the source; or

(B) After proposal of standards of performance under **Section 306** which are applicable to the source, but only if the standards are promulgated within one hundred twenty (120) days of their proposal.

Comment [ETC90]: 10 CSR 20-6.010(9)(G)
10 CSR 20-7.015(9)(F)

(95) New Technology. Technologies and processes not addressed in 10 CSR 20-8 are referred to as new technology.

Comment [ETC91]: Proposed 8.140

(/45/96) **No-Discharge.** A treatment facility [D]designed, constructed, and operated to hold or irrigate, or otherwise dispose without discharge to surface or subsurface waters of the state, all process wastes and associated storm water flows for the wettest one-in-ten (1:10)-year precipitation; any basin is sealed in accordance with **10 CSR 20-8** and no subsurface releases exist in violation of **10 CSR 20-7.015** or **section 577.155, RSMo.**

Comment [ETC92]: 10 CSR 20-6.015(1)(B)7.
No-discharge facility. A facility designed, constructed, and operated to meet each of the following conditions:
A. To hold or irrigate, or otherwise dispose without discharge to surface or subsurface waters of the state, all process wastes and associated storm water flows except for discharges that are caused by catastrophic and chronic storm events;
B. Process wastes are not land applied during frozen, snow covered, or saturated soil conditions; and
C. Basins are sealed in accordance with 10 CSR 20-8 and there are no subsurface releases in violation of 10 CSR 20-7.015 or section 577.155, RSMo.

(97) No-Discharge Lagoon. A no-discharge lagoon is a lagoon system consisting of one or multiple cells designed to hold the one-in-ten (1 in 10)-year storm event, plus a minimum of sixty (60)-days of wastewater without discharging. No-discharge lagoons are used in series with surface or subsurface land application.

Comment [ETC93]: Proposed 8.200

(/46) **Non-bulk quantity repackaging.** The authorized transfer in non-bulk quantities of a specific bulk pesticide to a suitable container capable of holding the pesticide. Non-bulk quantity repackaging may only be carried out at a bulk pesticide storage facility under a specific written authorization and agreement between the facility and the registrant of the pesticide.]

LEGEND:

Text to be *deleted* is in italics and bracketed.
Text to be **added** is in bold.

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([47]98) **Non-mobile container.** A **stationary** container **designed to be incapable of movement once installed**; not defined as mobile.

Comment [ETC94]: Higgins 9/27/16

Term used in the definition of Agrichemical Facility, 2.010(3).

([48]99) **Operating location.** All *contiguous* lands owned, operated, or controlled by one (1) *person or by two (2)* or more persons jointly or as tenants *in common* **no matter if the land is contiguous or not. State and county roads are not considered property boundaries.**

Comment [ETC95]: Harwood 9/23/16

10 CSR 20-6.010, 6.015

Comment [ETC96]: 10 CSR 20-6.015(1)(B)9. Operating location. All contiguous lands owned, operated, or controlled by one (1) person or by two (2) or more persons jointly or as tenants in common or noncontiguous lands if they use a common area for the disposal of wastes. State and county roads are not considered property boundaries for the purposes of this rule.

([49]100) **Operation and maintenance.** Activities required to assure the dependable and economical function of a wastewater treatment facility.

(A) **Maintenance.** Preservation of functional integrity and efficiency of equipment and structures. This includes preventive maintenance, corrective maintenance, and replacement of equipment as needed.

Comment [ETC97]: Abbott 9/27/16:

Commented definition needs to be expanded to include MS4 O&M as well.

(B) **Operation.** Control of the unit processes and equipment which make up the wastewater treatment facility. This includes financial and personnel management, records, laboratory control, process control, safety, and emergency operation planning.

Comment [ETC98]: Adapted from Dam and Reservoir Safety County 10 CSR 22-1.020(33) Maintenance means the proper keeping of all aspects of a wastewater collection system and treatment facility and appurtenances thereto, that pertain to safety, in a state of repair and working order as necessary to comply with the Missouri Clean Water Law and any permit issued thereunder and to protect public health and safety.

([50]101) **Operational area.** An area(s) at an agrichemical facility where agrichemicals are transferred, loaded, unloaded, mixed, repackaged, refilled, or where agrichemicals are cleaned, washed, or rinsed from containers or equipment that is used in application, handling, storage, or transportation.

Comment [ETC99]: 10 CSR 20-8.500

Comment [ETC100]: 10 CSR 20-8.500

([51]102) **Operational containment area.** Any structure or system effectively designed and constructed to intercept and contain discharges, including container or equipment wash water, rinsates and precipitation, and to prevent escape, runoff, or leaking from the operational area.

(103) **Operator.** Any individual who operates or determines the method of operating a wastewater treatment system, either directly or by order.

Comment [ETC101]: 10 CSR 20-9.020(1)(B)

Existing 10 CSR 20-6 and 8

(104) **Organic Loading.**

Comment [ETC102]: Existing 8.110(4)(C)5.A.

(A) **Design Average BOD₅.** The design average BOD₅ is generally the average of the organic load received for a continuous twelve (12)-month period for the design year expressed as weight per day. However, the design average BOD₅ for facilities having critical seasonal high loading periods (e.g., recreational areas, campuses, and industrial facilities) shall be based on the daily average BOD₅ during the seasonal period.

(B) **Design Maximum Day BOD₅.** The design maximum day BOD₅ is the largest amount of organic load to be received during a continuous twenty-four (24)-hour period expressed as weight per day.

(C) **Design Peak Hourly BOD₅.** The design peak hourly BOD₅ is the largest amount of organic load to be received during a one (1)-hour period expressed as weight per day.

(105) **Owner.**

Comment [ETC103]: Should we define "owner", which may or may not be the same as permit holder?

(106) **Permit By Rule.** A permit granted by rule, not by a paper certificate, and conditioned by the permit holder's compliance with commission rules.

10 CSR 20-6

Comment [ETC104]: RSMo 644.016(13)

LEGEND:

Text to be *[deleted]* is in italics and bracketed.

Text to be **added** is in bold.

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(107) Permit Holders or Applicants for a Permit. ~~Permit holders or applicants for a permit shall not include officials or employees who work full time for any department or agency of the state of Missouri.~~

Comment [ETC105]: RSMo 644.016(14)

~~(/52/108) Person.~~ Any individual, partnership, co[-]/partnership, firm, company, public or private corporation, association, joint stock company, trust, estate, political subdivision, or any agency, board, department, or bureau of the state or federal government, or any other legal entity whatever[,] which is recognized by law as the subject of rights and duties.

Comment [ETC106]: RSMo 644.016(15)

~~(/53/109) Pesticide.~~ Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest; or any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

Comment [ETC107]: RSMo 281.020(18)

10 CSR 20-8.500

~~(/54/110) Point source.~~ Any discernible, confined and discrete conveyance, including[,] but not limited to[,] any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, *[separate storm sewer]* or vessel or other floating craft, from which pollutants are[,] or may be[,] discharged. **Point source does not include agricultural storm water discharges and return flows from irrigated agriculture.**

Comment [ETC108]: RSMo 644.016(16)

~~(/55/111) Pollutant.~~ Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewer sludge, munitions, chemical waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, filter backwash, or industrial, municipal, or agricultural waste discharged into water.

Comment [ETC109]: AIP 7/13/16

~~(/56/112) Pollution.~~ Contamination or other alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or **such** discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state **as** will or is reasonably certain to create a nuisance or render *[the] such* waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, industrial, agricultural, recreational, or other legitimate beneficial uses, or to wild animals, birds, fish or other aquatic life, *or which violates, or is reasonably certain to violate, any effluent regulations or limitations or any other standards or limitations adopted by the commission*.

Comment [ETC110]: RSMo 644.016(17)

(113) Population Equivalent (PE). The calculated population which normally contributes the same amount of BOD₅ per day. The common base is 0.17 pounds of BOD₅ per capita per day. The calculated population which normally contributes the same amount of flow per day. The common base is one hundred (100) gallons per capita per day.

Comment [ETC111]: 10 CSR 20-9.020(1)(D) Population equivalent (P.E.). The calculated population which normally contributes the same amount of biochemical oxygen demand (BOD₅) per day. The common base is 0.17 pounds of five (5)-day BOD₅ per capita per day. The calculated population which normally contributes the same amount of flow per day. The common base is one hundred (100) gallons per capita per day.

(114) Potable Water. Potable water means water which is safe for human consumption in that it is free from impurities in amounts sufficient to cause disease or harmful physiological effects.

Comment [ETC112]: Division of Geology and Land Survey 10 CSR 23-1.010(40)

Proposed 8.140

(115) Precipitation.

(A) One-in-Ten (1:10)-Year. The wettest precipitation expected once every ten (10) years for a three hundred sixty-five (365)-day period, based on at least thirty (30) years of records from the National Climatic Data Center.

Comment [ETC113]: 10 CSR 20-6.015(1)(B)8.

Proposed 8.200

LEGEND:

Text to be *[deleted]* is in italics and bracketed.

Text to be **added** is in bold.

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(B) **Twenty-Five (25)-Year, Twenty-Four (24)-Hour.** The wettest precipitation event for a twenty-four (24)-hour period with a probable recurrence interval of once in twenty-five (25) years based on at least thirty (30) years of records from the National Climatic Data Center.

Comment [ETC114]: 10 CSR 20-6.015(1)(B)14.
Proposed 8.200

(116) **Pressure Sewers.** Pressure sewers consists of a small diameter pipeline, generally following the profile of the ground, which receives macerated wastewater for conveyance from two (2) or more grinder pump stations.

Comment [ETC115]: New 8.125

(117) **Pretreatment Regulations.** Limitations on the introduction of pollutants or water contaminants into publicly owned treatment works or facilities which the commission determines are not susceptible to treatment by such works or facilities or which would interfere with their operation, except that wastes as determined compatible for treatment pursuant to any federal water pollution control act or guidelines shall be limited or treated pursuant to **Chapter 644, RSMo** as required by such act or guidelines.

Comment [ETC116]: RSMo 644.016(18)

(/57/118) **Primary containment.** The storage of an agrichemical in either its original container or other suitable container, including dedicated containers, effectively designed and constructed to contain the product that may be stored there.

Comment [ETC117]: 10 CSR 20-8.500(6)

(119) **Process Wastes.** The waste, wastewater, sludges, biosolids, and residuals originating from sanitary conveniences, or generated during manufacturing or processing, or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product and includes discharges from land application fields that occur as a result of the land application process.

Comment [ETC118]: 10 CSR 20-6.015(1)(B)10.

(120) **Programmable Logic Controller (PLC).** A PLC is a digital computer used for automation of electromechanical processes and designed for multiple inputs and output arrangements.

Comment [ETC119]: Proposed 8.140

(/58/121) Project completion. Satisfactory final inspection conducted by the department.

Comment [ETC120]: Clarification needed – not every project has a final inspection.

(/59/122) Publicly-owned treatment works (POTW). Wastewater treatment facility owned by the state, a municipality, a political subdivision or a sewer district defined by **Chapters 644, 249 and 250, RSMo.**

(123) **Pump and Haul.** Pump and haul systems temporarily hold domestic or industrial wastewater; the wastewater is then pumped down and hauled to an appropriate wastewater treatment facility for ultimate disposal.

Comment [ETC121]: Proposed 8.140

(124) **Pump Station.** A pump station is designed to move wastewater from lower to higher elevation through pipes or conduits. The key components are pumps, valves, and electrical equipment. A pump station is considered part of a sanitary sewer system that is generally operated and maintained by one of the continuing authorities listed in **10 CSR 20-6.010(3)(B).**

Comment [ETC122]: Proposed 8.130

LEGEND:

Text to be *[deleted]* is in italics and bracketed.
Text to be **added** is in bold.

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(125) Re-Rating. Wastewater treatment facility re-rating is the practice of evaluating a facility to assess whether the facility can operate at loading levels higher or lower than the level originally specified during design.

Comment [ETC123]: Proposed 8.110

(126) Redoximorphic Feature. Soil property that results from the reduction and oxidation of iron and manganese compounds in the soil after saturation with water and subsequent desaturation.

Comment [ETC124]: Harwood 9/23/16

([60]/127) **Regional administrator.** Regional administrator of the Environmental Protection Agency's regional office for the region in which the state of Missouri is located.

Comment [ETC125]: 10 CSR 20-6.010

([61]/128) **Release.** To discharge directly or indirectly to waters of the state, or to place, cause or permit to be placed, any water contaminant in any location where it is reasonably certain to enter waters of the state. For agrichemical facilities, this includes any spill, leak, deposit, dumping, or emptying of an agrichemical, process wastewater, or collected precipitation from a secondary containment area or operational containment area. Release does not include the lawful transfer, loading, unloading, repackaging, refilling, distribution, use, or application of an agrichemical, agrichemical process wastewater, or related collected precipitation.

Comment [ETC126]: 10 CSR 20-6.010
10 CSR 20-7.015

([62]/129) **Residence.** *[A building or other type of]* **Any structure, dwelling, unit, or shelter which** is intended or used for human habitation as a permanent, vacation, or recreational home or building. **They may be detached or part of one or more attached units.**

Comment [ETC127]: Harwood 9/23/16

10 CSR 20-6.010, 6.015, 6.030
10 CSR 20-8.110

(A) **Multiple-family.** Residential housing units that share the same structure, dwelling, unit, shelter, or common wall with or without a common social area that includes the right to the exclusive use of a specific portion of real estate, whether for a specific term or in perpetuity; they may include but are not limited to duplexes, condominiums, townhouses, apartments, hotels, motels, hospitals, dormitories, boarding schools, group homes, barracks, etc.

(B) **Single-family.** An individual structure, dwelling, unit, or shelter constructed for the purpose of human habitation, with one or more rooms occupied or intended for occupancy by one (1) family for cooking, sanitary, and sleeping purposes that includes the right to the exclusive use of a specific portion of real estate, whether for a specific term or in perpetuity; they do not include multiple-family residences.

(130) Residential Housing Development. Any land which is divided or proposed to be divided into three (3) or more lots, whether contiguous or not, for the purpose of sale or lease as part of a common promotional plan for residential housing.

Comment [ETC128]: RSMo 644.016(19)

10 CSR 20-6.030

Harwood 9/23/16:
Any land which is divided or proposed to be divided into three (3) or more lots, less than five (5) acres for the specific use and construction of a single-family residence or an individual lot, whether contiguous or not, for the purpose of sale or lease as part of a common promotional plan or operating location.

(131) Residuals. Residuals refers to sludges produced from industrial wastewater treatment facilities that undergo treatment for pollutant and pathogen reduction.

Comment [ETC129]: Proposed 8.170

Comment [ETC130]: Harwood 9/23/16

(132) Responsible Management Entity (RME). The legal entity that has the managerial, financial, and technical capacity to ensure the long-term, cost-effective operation of individual onsite wastewater treatment systems, cluster wastewater treatment systems, or a combination thereof in accordance with the Missouri Clean Water Law and its regulations.

LEGEND:

Text to be *[deleted]* is in italics and bracketed.
Text to be **added** is in bold.

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RME can include but is not limited to homeowners associations, owner of a wastewater treatment system, contracted management service, etc.

(/63/133) Rinsate. Any water containing *[agrichemicals]* **contaminates** that *[has]* **have** been washed off or rinsed from containers, application equipment, handling or storage areas, or transportation equipment, **including but not limited to industrial chemicals, agrichemicals, or concrete.**

Comment [ETC131]: Irwin 9/27/16
10 CSR 20-8.500

(134) Rock Fragments. **Unattached pieces of rock two millimeters (2 mm) in diameter or larger that are strongly cemented or more resistant to rupture and are described by size, shape, and for some the kind which may include but not limited to chert, sandstone, shale, limestone, or dolomite.**

Comment [ETC132]: Harwood 9/23/16

(135) Sanitary Sewer Overflow (SSO). Sanitary sewer overflows are releases of untreated wastewater into the environment.

Comment [ETC133]: Adapted from EPA.
Existing 10 CSR 20-8.120

(136) Sanitary Sewer System. A sanitary sewer system is a network of pipes or similar conduits, pumping stations and force mains, and all other structures, devices, and appurtenances excluding service connections for collecting and conveying wastewater to treatment or other disposal facilities. Maintenance and ownership of the sanitary sewer system is the responsibility of one (1) of the continuing authorities listed in **10 CSR 20-6.010(3)(B).**

Comment [ETC134]: Proposed 8.120

(137) Screening Device. A screening device physically removes inorganic objects from wastewater such as rags, paper, plastics, and other such debris to prevent damage and clogging of downstream equipment, piping, and appurtenances.

Comment [ETC135]: Proposed 8.150

(138) Screenings. Screenings include rags, toilet paper, disposable wipes, trash, and other large, nuisance inorganic materials in the wastewater.

Comment [ETC136]: Proposed 8.150

(139) Scum. Scum is particles that float to the surface of the liquid.

Comment [ETC137]: Proposed 8.160

(/64/140) Secondary containment. Any structure effectively designed and constructed to contain discharges and to prevent leaks, escapes, and runoff, or leaching of agrichemicals from the agrichemical storage facility and operational area.

Comment [ETC138]: Existing 8.140 and 8.500
Proposing in 8.140...
"Secondary containment is any structure effectively designed and constructed to surround and contain one (1) or more primary storage containers to collect any solid, liquid, or gaseous chemical leaks or spills in the event of loss of integrity or primary container failure.

(/65/141) Separate storm sewer. Conveyance or systems of conveyances primarily used for conducting and conveying storm water runoff and located in an urbanized area or designated by the department as a separate storm sewer due to its size, its location, the quantity and nature of pollutants reaching the waters of the state and other relevant factors.

(142) Septage. Septage is a general term for the contents removed from septic tanks, portable vault toilets, privy vaults, holding tanks, semi-public facilities (e.g., mobile home parks, camp grounds, small commercial businesses, etc.) receiving wastewater from domestic sources. Septage usually is quite high in organics, grease, scum, grit, solids, and other extraneous debris.

Comment [ETC139]: Proposed 8.150

Harwood 9/23/16:
The liquid and residuals removed from a septic tank or other similar pretreatment device, seepage pit, cesspool, portable toilet, or similar domestic wastewater treatment works that receives only domestic wastewater.

LEGEND:

Text to be *[deleted]* is in italics and bracketed.
Text to be **added** is in bold.

DRAFT 01/04/2017

(143) **Septic Tank Effluent Pumped (STEP) Sewers.** STEP sewers consist of small diameter pipeline, generally following the profile of the ground which receives effluent wastewater for conveyance from two (2) or more septic tanks with pumps.

Comment [ETC140]: New 8.125

(144) **Septic Tank Effluent Gravity (STEG) Sewers.** STEG sewers consist of small diameter pipeline which flows exclusively under the influence of gravity and receives effluent wastewater for conveyance from two (2) or more septic tanks.

Comment [ETC141]: New 8.125

(/66/145) Service area population. The population to be served by *[the]* a wastewater treatment facility.

(/67/146) **Service connection.** A pipe which conveys wastewater from the point of origin on a tract of land to a sewer system which is operated and maintained by one of the continuing authorities listed in **10 CSR 20-6.010(3)(B).**

Comment [ETC142]: Existing 8.120

Proposing in 8.120...
A service connection is the connection point of the service line and the sanitary sewer system.

(147) **Service Line.** A service line is a pipe or conduit that conveys wastewater from only one (1) platted lot to a point where it is joined to a sanitary sewer system which is operated and maintained by one (1) of the continuing authorities listed in **10 CSR 20-6.010(3)(B).** Maintenance and ownership of the service line is generally the responsibility of the property owner.

Comment [ETC143]: Proposed 8.120

(/68/149) **Seven (7)-day Q10 stream flow.** The lowest average flow that occurs for seven (7) consecutive days that has a probably recurrence interval of once every ten (10) years.

Comment [ETC144]: AIP 7/13/16
10 CSR 20-7.015

(150) **Sewer.** A pipe or conduit that conveys wastewater or stormwater.

Comment [ETC145]: Proposed 8.120

(/69/151) **Sewer extension.** Sewer systems which are added to existing sewers and wastewater treatment facilities.

Comment [ETC146]: Existing 6.010, 8.110 and 8.120

(/70/152) **Sewer system.** Pipelines or conduits, pumping stations, and force mains, and all other structures, devices, appurtenances, and facilities *[excluding service connections]* used for collecting or conducting wastes to an ultimate point for treatment or *[discharge]* handling.

Comment [ETC147]: RSMo 644.016(20)

(153) **Short Circuiting.** Short circuiting refers to wastewater that moves quickly from the inlet of a structure to the outlet, without properly dispersing.

Comment [ETC148]: Proposed 10 CSR 20-8

(154) **Side Water Depth.** Side water depth is the vertical distance from the top of the overflow weir to the top of the sloped settling floor in circular settling tanks, sludge hopper in rectangular settling tanks, or suction head in suction header settling tanks.

Comment [ETC149]: Proposed 8.160

(155) **Significant Portion of His or Her Income.** Significant portion of his or her income shall mean ten percent of gross personal income for a calendar year, except that it shall mean fifty percent of gross personal income for a calendar year if the recipient is over sixty years of age, and is receiving such portion pursuant to retirement, pension, or similar arrangement.

Comment [ETC150]: RSMo 644.016(21)

LEGEND:

Text to be *[deleted]* is in italics and bracketed.
Text to be **added** is in bold.

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(156) Single-Family Lagoon (Wastewater Stabilization Pond). At minimum a sealed earthen basin to treat and stabilize domestic wastewater from a single-family residence.

Comment [ETC151]: Harwood 9/23/16

*(171)***157) Single family residence.** Any structure or dwelling which is intended for or is used by a single household.

Comment [ETC152]: Wieberg 9/15/16
Currently working on updates to this term.

*(172)***158) Single family residence wastewater treatment facility.** Any method or system for the treatment of domestic wastewater from only one (1) single family residence.

Comment [ETC153]: Wieberg 9/15/16
Currently working on updates to this term.

(159) Site-specific Permit. A permit written for discharges emitted from a single water contaminant source and containing specific conditions, monitoring requirements, and effluent limits to control such discharges.

Comment [ETC154]: RSMo 644.016(22)

(160) Sludge. Wastewater sludge is the solid, semi-solid, or liquid residue generated during the treatment of domestic wastewater in a treatment works. Sludge includes scum or solids removed in primary, secondary, or advanced wastewater treatment processes and any material derived from wastewater sludge but does not include grit and screenings or ash generated by the firing of wastewater sludge in an incinerator.

Comment [ETC155]: Proposed 8.170

(161) Sludge Hopper. A sludge hopper is the lowest point of a settling tank where sludge accumulates and is removed.

Comment [ETC156]: Proposed 8.160

*(173)***162) Small rural community.** A community of less than ten thousand (10,000) population and not located in whole or in part, in an area of St. Louis County or City encircled by Interstate Route 270, or in an area of Jackson, Clay or Platte Counties encircled by State Route 150 and 291 and Interstate Routes 29 and 635.

(163) Soil. Unconsolidated mineral or organic matter of the surface of the earth that has been subjected to and shows effects of pedogenic and environmental factors of climate (including water and temperature effects) and macro- and microorganisms, conditioned by relief, acting on parent material over a period of time.

Comment [ETC157]: Harwood 9/23/16

(A) **Fragipan.** Dense, brittle, usually acid subsoil horizon which restricts the movement of water, air, and root development; extreme density and compactness is not a result of high clay content but a dense soil fabric arrangement and/or cementation by various chemical constituents.

(B) **Soil Color.** Reported as a moist color based on the Munsell soil color system that specifies the relative degrees of the three (3) variables of color— hue, value, and chroma (e.g. 10YR 6/4 is the color called ‘strong brown’ with a hue of 10YR, value of 6, and chroma of 4).

(C) **Soil Consistence.** Attribute of soil expressed in degree of cohesion and adhesion, or in resistance to deformation or rupture; general classification of soil consistence include loose, friable, very friable, firm, very firm, extremely firm.

(D) **Soil Horizon.** Layer of soil or soil material approximately parallel to the land surface and differing from layers above and below in physical, chemical, and biological properties or characteristics such as color, structure, texture, consistence, etc.

LEGEND:

Text to be *[deleted]* is in italics and bracketed.
Text to be **added** is in bold.

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(E) Soil Horizon, Restrictive. Condition in the soil profile or underlying strata that restricts or limits water and air movement. A restrictive layer may include but not limited to a fragipan, claypan, permanent or perched water table, abrupt textural change, massive soil structure grade, or bedrock, etc.

(F) Soil Morphology. Physical constitution of a soil profile as exhibited by the kinds, thickness, and arrangement of the horizons in the profile; and by the texture, structure, consistence, and porosity of each horizon.

(G) Soil Permeability. Ability of the porous medium to transport fluids and gases and considers only water, at a field saturation, as the working fluid and is measured in units of length per time (e.g. inch per hour, centimeter per hour, etc.).

(H) Soil Profile. Vertical section of the soil through all its horizons and extending into the parent material.

(I) Soil Porosity. Volume percentage of total bulk not occupied by soil particles.

(J) Soil Structure. Combination or arrangement of primary soil particle into secondary units or peds; secondary units are characterized on the basis or shape, size class, and grade (i.e. degree of distinctness).

(K) Soil Texture Class. Percentage by weight of sand, silt, and clay such that each class possesses unique physical characteristics and management relative to the other textural classes; soil textural classes are illustrated in the U.S. Department of Agriculture Soil Textural Triangle.

(L) Soil Treatment Area. The physical location for the treatment of effluent for the final physical, chemical, and biological breakdown of the effluent under aerobic conditions including dispersal into unsaturated (vadose) zone of the soil or surface land application.

(M) Vadose Zone. Aeriated, unsaturated region of the soil above the zone of saturation.

(164) Soil Scientist. A qualified soils scientist shall have a minimum of at least fifteen (15) semester credit hours of soils science course work, including at least three (3) hours of course work in soil morphology and interpretations.

Comment [ETC158]: Proposed 8.200

(165) Spillway. Spillway means any passageway, channel, or structure, open or closed or both, designated expressly or primarily to discharge excess wastewater from a basin after the water storage elevation has been reached.

Comment [ETC159]: Adapted from Dam and Reservoir Safety Council 10 CSR 22-1.020(48).
10 CSR 20-8.300

(166) Static Head. Static head is the difference in elevation between the surface from which the pump draws wastewater and the surface into which the outlet discharges.

Comment [ETC160]: Proposed 8.130

(167) Stormwater. Reserved.

(168) Stream. A defined watercourse which carries water either continuously or intermittently and which is not entirely confined or located completely upon land owned, leased, or otherwise controlled by one (1) person.

Comment [ETC161]: Metallic Minerals Waste Management 10 CSR 45.2010(2)(S) Stream. Any body of running water moving under gravity flow in a clearly defined channel on the surface of the ground or in a subterranean cavern.

(169) Storm Event.

(A) Catastrophic Storm Event. A precipitation event of twenty-four (24)-hour duration or less that exceeds the twenty-five (25)-year, twenty-four (24)-hour storm event.

Comment [ETC162]: Dam and Reservoir Safety Council 10 CSR 22-1.020(53) Stream means any river, creek, or channel, having well-defined banks, in which water flows for substantial periods of the year to drain a given area.

Comment [ETC163]: 10 CSR 20-6.015(1)(B)2.

LEGEND:

Text to be *[deleted]* is in italics and bracketed.
Text to be **added** is in bold.

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(B) Chronic Storm Event. A precipitation event with a duration of more than twenty-four (24)-hours that exceeds the one-in-ten (1 in 10)-year return frequency.

~~(175)~~ **Subdivision.** Any land which is divided or proposed to be divided into fifteen (15) or more lots, whether contiguous or not, for the purpose of sale or lease as part of a common promotional plan.

(171) Subsurface Land Application. Subsurface land application or irrigation is a method of dispersing effluent from a wastewater treatment facility into subsurface soil uniformly and under unsaturated soil conditions allowing for efficient water use and nutrient uptake by vegetation.

~~(176)~~ **Test hole.** A hole which has been drilled, bored, augered, or otherwise excavated in the exploration for mineral commodities or for obtaining geologic data. Test holes that penetrate only the residuum or unconsolidated materials and which do not enter a geologic unit, are deemed to be an aquifer, exempt from this definition.

(173) Total Dynamic Head (TDH). TDH is the total head at which a pump operates at any given discharge rate.

(174) Total Suspended Solids (TSS). TSS is the dry-weight of solids particles (including organic and inorganic) trapped by a filter.

(175) Treatment Facilities. Any method, process, or equipment which removes, reduces, or renders less obnoxious water contaminants released from any source.

Comment [ETC164]: Proposed 8.200:
A precipitation event with a duration of more than twenty-four (24) hours that exceeds the one-in-ten (1 in 10)-year return frequency. It is preferred the University of Missouri's Missouri Climate Center be used to determine the ten year, twenty-four hour storm event for any county in the state.

Comment [ETC165]: 10 CSR 20-6.015(1)(B)3.

Comment [ETC166]: Safe Drinking Water Commission 10 CSR 60-2.015(2)(S)10. **Subdivision.** Any land which is divided or proposed to be divided into fifteen (15) or more lots or tracts, whether contiguous or not, for the purpose of sale, lease, rental, or construction of permanent structures on lots or tracts as part of a common plan; or where subdivided land is offered for sale or lease, or where structures are constructed by a single developer or a group of developers acting in concert and where the lots or land or structures are contiguous or known, designated or advertised as a common unit or by a common name. The lots or land tracts and structures shall be presumed, without regard to the number of lots or dwellings covered by each individual offering, as being offered for sale or lease as part of a common plan.

Comment [ETC167]: RSMo 644.150 states "For all purposes of regulation pursuant to this chapter, the term "subdivision" shall not refer to any lot of five acres or larger or any land which is divided or proposed to be divided into lots of five acres or larger."

Comment [ETC168]: Proposed 8.200

Comment [ETC169]: 10 CSR 20-6.010, 6.090, 7.015

Comment [ETC170]: Proposed 8.130

Comment [ETC171]: Proposed 8.110

Comment [ETC172]: RSMo 644.016(23)

LEGEND:

Text to be *[deleted]* is in italics and bracketed.
Text to be **added** is in bold.

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(176) **Trench Cross Section.** Trench cross section terms are depicted in the following **Figure 2**, included herein:

Comment [ETC173]: Proposed 8.120

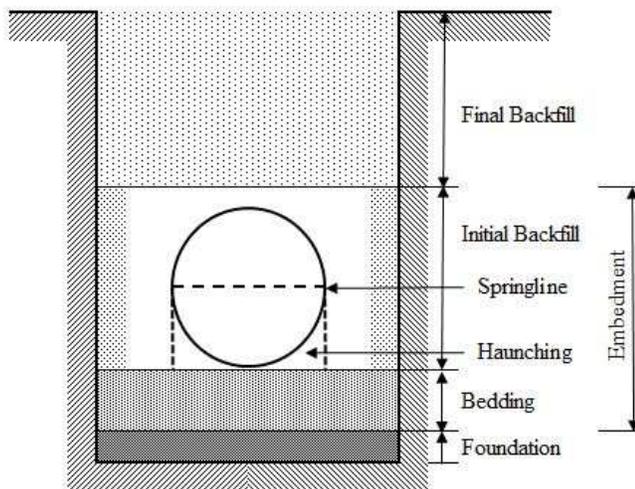


Figure 2. Trench Cross Section Terminology.

(177) **Ultraviolet Disinfection.** Ultraviolet disinfection is a physical process that deactivates microorganisms as the wastewater flows by ultraviolet light.

Comment [ETC174]: Proposed 8.190

(177) **User charge.** A charge levied on users of a wastewater treatment facility for the user's *[proportionate]* share of the costs of operation, maintenance, and replacement of the *[treatment works]* collection system and wastewater treatment facility.

Comment [ETC175]: Garrett 10/4/16
Suggested removing proportionate as it only applies to communities receiving EPA grants or CWSRF funding.

(179) **Vacuum Sewer.** Vacuum sewers consist of small diameter pipeline, generally following the profile of the ground. It uses the differential pressure between atmospheric pressure and a partial vacuum maintained in the piping and vacuum station collection vessel.

Comment [ETC176]: New 8.125

(180) **Variance.** Variance means any modification to the application of the Missouri Clean Water Law. A variance may be applied for through the procedure set out in **Section 644.061, RSMo.**

Comment [ETC177]: Adapted from Division of Geology and Land Survey 10 CSR 23-1.010(60).
10 CSR 20-6.010, 6.020
10 CSR 20-7.015, 7.031(12)

(178) **Waste load allocation.** The amount of pollutants each discharger is allowed by the department to release into a given stream after the department has determined the total amount of pollutants that may be discharged into that stream without endangering its water quality.

Comment [ETC178]: 10 CSR 20-7.015

LEGEND:

Text to be *[deleted]* is in italics and bracketed.
Text to be **added** is in bold.

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(/79/182) Wastewater. Water or other liquids which carry or contain pollutants or water contaminants from any source.

(A) **Commercial (i.e. Industrial).** **Non-toxic, non-hazardous wastewater from commercial establishments, including but not limited to commercial food preparation operations, that is similar in composition to domestic wastewater, but which may have one or more of its constituents exceed typical domestic ranges.**

Comment [ETC179]: Harwood 9/23/16

(B) **Domestic.** **Any water carried waste, including but not limited to, liquid waste produced by bathing, laundry, culinary operations, liquid waste from toilets and floor drains; also known as wastewater. Domestic wastewater excludes footings and roof drainage, animal waste, and commercial process water, and other similar waste.**

Comment [ETC180]: Harwood 9/23/16. This definition is currently under discussion by DHSS – 19 CSR 20-3.060(1)(A)50.

Conflicts with existing Domestic Wastewater definition 10 CSR 20-2.010(23).

(C) **Process. Reserved.**

(183) **Wastewater Recycling.** **Reclamation process of the collection and treatment of wastewater onsite for the return and use back into the same site (e.g. reclamation of graywater for flushing toilets).**

Comment [ETC181]: Harwood 9/23/16

(184) **Wastewater Reuse.** **Reclamation process of the collection and treatment of wastewater for the deliberate application of the treated wastewater for a beneficial purpose such as subsurface irrigation, local water recharge, etc.**

Comment [ETC182]: Proposed 8.200: Wastewater reuse is the application of wastewater for maximum economic return from the cropping system. Application rates will approximate the irrigation deficit and normally will not exceed twenty four inches (24") per year.

(/80) Wastewater treatment facility. Any facility, method or process which removes, reduces or renders less obnoxious pollutants or water contaminants released from any source.

Comment [ETC183]: Harwood 9/23/16

Comment [ETC184]: Same definition as "Treatment Facilities" from RSMo 644.016(23).

(185) **Wastewater Treatment System, Centralized.** **A single sewer system and treatment facility under common ownership and management for an entire community or development.**

Comment [ETC185]: Harwood 9/23/16

(186) **Wastewater Treatment System, Individual Onsite or Cluster.** **Wastewater treatment systems used to collect, treat, and disperse or reclaim domestic wastewater from individual homes, clusters of homes, buildings, or isolated communities at or near the point of waste generation.**

Comment [ETC186]: Harwood 9/23/16

(A) **Individual onsite wastewater treatment system.** **A system relying on natural processes and/or mechanical components serving one dwelling or building treating and dispersing into the soil onsite.**

(B) **Cluster wastewater treatment system.** **A wastewater collection and treatment system under some form of common ownership which collects wastewater from two or more independent dwellings or buildings but not the entire community or development and conveys it to a treatment and dispersal system located near the dwellings or buildings which may or may not be onsite.**

(/81/187) **Water contaminant.** **Any particulate matter or solid matter or liquid or any gas or vapor or any combination thereof, or any temperature change which is in or enters any waters of the state either directly or indirectly by surface runoff, by sewer, by subsurface seepage or otherwise, which causes or would cause pollution upon entering waters of the state, or which violates or exceeds any of the standards, regulations or limitations *[under]* set forth in the Missouri Clean Water Law or *[the]* any Federal *[Clean Water]* **Water Pollution Control Act**, or is included in the definition of pollutant in *[the]* **such** federal act.**

Comment [ETC187]: RSMo 644.016(24)

LEGEND:

Text to be *[deleted]* is in italics and bracketed.
Text to be **added** is in bold.

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(188) Water Contaminant Source. The point or points of discharge from a single tract of property on which is located any installation, operation or condition which includes any point source defined in sections 644.006 through 644.141, RSMo and nonpoint source pursuant to any federal water pollution control act, which causes or permits a water contaminant therefrom to enter waters of the state either directly or indirectly.

Comment [ETC188]: RSMo 644.016(25)

Comment [ETC189]: Should this state "Missouri Clean Water Law" instead of the citation?

(189) Water Quality Standards. Specified concentrations and durations of water contaminants which reflect the relationship of the intensity and composition of water contaminants to potential undesirable effects.

Comment [ETC190]: RSMo 644.016(26)

(190) Water Supply Source. All sources of water supply including wells, infiltration galleries, springs, reservoirs, lakes, streams, or rivers from which water is derived for public water systems, including the structures, conduits, pumps, and appurtenances used to withdraw water from the source or to store or transport water to the water treatment facility or water distribution system.

Comment [ETC191]: Safe Drinking Water Commission 10 CSR 60-2.015(2)(W)3.
Existing 8.110 and 8.120

(191) Water Table. Upper surface of groundwater or that level in the ground where the water is at atmospheric pressure; includes permanent, seasonal, and perched water tables.

Comment [ETC192]: Harwood 9/23/16

(182/192) Waters of the state. All waters within the jurisdiction of this state, including all rivers, streams, lakes and other bodies of surface and subsurface water lying within or forming a part of the boundaries of the state which are not entirely confined and located completely upon lands owned, leased, or otherwise controlled by a single person or by two (2) or more persons jointly or as tenants in common. *[These waters also include waters of the United States lying within or adjacent to the state.]*

Comment [ETC193]: AIP 7/13/16 adds "The term "water", or "waters," is often used in this document in place of "waters of the state". Perhaps we should add something similar?

Comment [ETC194]: RSMo 644.016(27)

(193) Watertight. Condition ascribed to a device that is constructed so that no water can move into or out of it except by design through inlets and outlets.

Comment [ETC195]: Harwood 9/23/16

Used in 8.120, 8.125, 8.130, 8.140, etc.

(183/194) Water quality limited segment. A segment where water quality does not meet and/or is not expected to meet applicable water quality standards even after the application of effluent limitations.

Comment [ETC196]: 10 CSR 20-6.010

(184/195) Weekly average. The total mass or concentration of all daily discharges sampled during any calendar week divided by the number of daily discharges sampled or measured during that week.

Comment [ETC197]: 10 CSR 20-7.015 also common in MSOP permits

(196) Wet Well. A wet well is a below-grade structure of a pumping station into which the liquid flows and from which the pumps draw suction.

Comment [ETC198]: Proposed 8.130

(185/197) Whole body contact area. Waters of the state which are used for recreational activities in which complete body submergence may occur. Some of these areas are designated in **10 CSR 20-7.031, Water Quality Standards.**

Comment [ETC199]: 10 CSR 20-7.031