SANDERS COUNTY

Wastewater Treatment Regulations

Sanders County Board of Health

Adopted March 15, 1995
Revised March 1, 1999
Revised August 1, 2007
Revised March 29, 2017

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#7211

SANDERS COUNTY RESOLUTION 2017-04

A RESOLUTION TO ADOPT THIS REVISED SANDERS COUNTY WASTEWATER TREATMENT REGULATIONS FOR THE SANDERS COUNTY BOARD OF HEALTH, SUPERSEDING ALL OTHER WASTEWATER TREATMENT REGULATIONS

BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF SANDERS COUNTY, MONTANA, as follows:

WHEREAS, the Board of County Commissioners desires to establish uniform policies for wastewater regulations and the sanitarian/environmental health administration;

NOW, THEREFORE, BE IT RESOLVED that this Sanders County Treatment Regulations for the Sanders County Board of Health be adopted, effective March 29, 2017.

Passed and adopted by the Board of County Commissioners of Sanders County, Montana this 29th day of March, 2017.

Board of County Commissioners
Sanders County, Montana

ATTEST:

Roberta M. Christensen, Deputy
Nichol Scribner
Clerk & Recorder-Assessor-Surveyor

By: absent
Carol Brooker, Presiding Officer

By: Glen E. Magera
Glen E. Magera, Commissioner

By: Anthony B. Cox
Anthony B. Cox, Commissioner

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1. INTRODUCTORY

(A) Title. These regulations shall be known as the "Sanders County Wastewater Treatment Regulations" and shall govern the onsite subsurface treatment of wastewater from public and private buildings and the location, design, installation, use, alteration, and extension of onsite individual and multi-family wastewater treatment systems, within Sanders County.

(B) Purpose. The purpose of these regulations is to protect public and environmental health from risks associated with improper disposal of wastewater within Sanders County. These regulations require all onsite wastewater treatment be accomplished in a manner that prevents the creation of health hazards, adverse environmental effects, the pollution of Montana's high quality surface and ground water resources, and promotes the environmentally responsible use and enjoyment of property.

(C) Authority. Authority for this rule is provided for in 50-2-116, MCA, under which local boards of health are required to adopt necessary regulations that are not less stringent than state standards for the control and disposal of wastewater from private and public buildings and facilities.

(D) Adopted by Reference.

(1) This regulation adopts by reference the following documents:

(a) Department of Environmental Quality, *Circular DEQ 4, Montana Standards for Subsurface Wastewater Treatment Systems,* 2013, or current edition.

(b) Department of Environmental Quality, *How to Perform a NonDegradation Analysis for Subsurface Wastewater Treatment Systems (SWTS) Under the Subdivision Review Process, 2015 or current version*.

(c) Onsite Wastewater Treatment Systems Manual, Environmental Protection Agency, 2002, or current edition.

(d) The Wisconsin Mound Soil Absorption System Siting, Design, and Construction Manual, January 2000, or current edition.

(2) For discrepancies between the above referenced documents and this regulation, the most stringent regulation shall be applied.

2. DEFINITIONS AND ACRONYMS

(A) The following definitions and acronyms apply to this regulation:

(1) **Absorption area** means that area determined by multiplying the length and width of the bottom area of the disposal trench or bed.

(2) **Absorption bed** means an absorption system that consists of excavations greater than 3 feet in width where the distribution system is laid for the purpose of distributing

pretreated waste effluent into the ground.

(3) **Absorption system** means any secondary treatment system, including absorption trenches, elevated sand mounds, evapotranspiration absorption (ETA), gray water irrigation, and subsurface drip systems, used for subsurface disposal of pretreated waste effluent.

(4) **Absorption trench** means an absorption system that consists of excavations 18 to 36 inches in width where the distribution system is laid for the purpose of distributing pretreated waste effluent into the ground.

(5) **Accessory building** means a subordinate building or structure on the same lot as the main building, which is under the same ownership as the main building, and which is devoted exclusively to an accessory use such as a garage, workshop, art studio, guest house, or church rectory.

(6) **Advanced treatment** means a treatment process that provides effluent quality in excess of primary treatment.

(7) **Aerobic wastewater treatment unit** means a wastewater treatment plant that incorporates a means of introducing air and oxygen into the wastewater so as to provide aerobic biochemical stabilization during detention period. Aerobic wastewater treatment facilities may include anaerobic processes as part of the treatment system.

(8) **Alteration** means to have physically changed an individual sewage treatment system by lengthening, shortening, building structures over or changing volume of wastewater flow into the system. This shall not be construed to mean changing dwelling units in a campground or trailer court currently licensed by the Montana Department of Public Health and Human Services.

(9) **Applicant** means any person who submits an application for a permit to install, alter, extend, repair, or increase the load of an individual sewage treatment-system. An application may be submitted by a person authorized by the owner of record, but the owner of record must sign the application.

(10) **Approval** means official consent given in writing, or verbally in the case of an emergency, by the Sanders County Board of Health, the Sanders County Environmental Health Department or the Board of Health's designated representative.

(11) **As-Built** or record drawing means an accurate drawing submitted by the installer showing the measured placement of all subsurface wastewater treatment system components relative to property boundaries, common reference points, and sensitive receptors.

(12) **ARM** is the acronym for Administrative Rules of Montana.

(13) **Backfill** means the material used to refill an excavated area. Backfill material may include material removed directly from the excavation or a specified material.

(14) **Bedrock** means material that cannot be readily excavated by hand tools, material that does not allow water to pass through, or material that does not provide for the adequate treatment and disposal of wastewater.

(15) **Bedroom** means any room that is or may be used for sleeping. An unfinished basement is considered an additional bedroom. Facilities for dumping wastewater from an RV is considered an additional bedroom with a wastewater flow rate of 50 gallons per day per if no water hookup is provided and 100 gallons per day if water hookup is provided.

(16) **Blackwater** means any wastewater that includes waste from toilets.

(17) **Board of Health (BOH)** means the legally designated Board of Health for Sanders County, Montana.

(18) **BOD5** (5-day biochemical oxygen demand) means the quantity of oxygen used in the biochemical oxidation of organic matter in 5 days at 20 degrees centigrade under specified conditions and reported as milligrams per liter (mg/L).

(19) **BOH** is the acronym for Board of Health.

(20) **Building** drain means the pipe extending from the interior plumbing to a point 2 feet outside the foundation wall.

(21) **Building sewer** means the pipe connecting the house or building drain to the public sewer or private sewer.

(22) **Camping** means the temporary placement of tents or cabins, or the parking of trailers or recreational vehicles for the purpose of sleeping. A travel trailer or recreational vehicle that has skirting installed or has been connected to either electrical or sewage services in a permanent manner is not considered camping.

(23) **Certificate of survey** means a drawing of a field survey prepared by a registered surveyor for the purpose of disclosing facts pertaining to boundary locations.

(24) **Certificate of subdivision approval (COSA)** means a subdivision approved pursuant to ARM 17.36.110.

(25) **Cesspool** means a covered underground receptacle which receives untreated sewage from a building and permits the untreated sewage to seep into surrounding soil.

(26) **Circular** means the current edition of any of Montana Department of Environmental Quality's standards design and construction of sanitation facilities.

(27) **Cistern** means a water-tight receptacle of non-toxic material which is designed for storage of potable water.

(28) **Cleanout** means access to a sewer line, extending from the sewer line to the ground surface or inside the foundation, used for access to clean a sewer line.

(29) **Commercial unit** means the area under one roof occupied by a business. For example, a building housing two businesses under one roof is considered two commercial units.

(30) **Composting toilet** means a system consisting of a compartment or a vault that contains or will receive composting materials sufficient to reduce human waste by aerobic decomposition.

(31) **Connection** means a line that provides water or sewer service to a single building or main building with accessory buildings. The term is synonymous with "service connection."

(32) **Conventional-subsurface sewage treatment system** means the process of sewage treatment in which primary treatment settles out the solids from the raw wastewater, and secondary treatment treats the effluent below the soil surface by distribution through horizontal perforated pipes or chambers.

(33) **COSA** is the acronym for Certificate of Subdivision Approval.

(34) **DEPARTMENT** means the Sanders County Environmental Health Department, which is responsible for environmental issues. The Department is under the direction of the Sanders County Board of Health. The Registered Sanitarian is assigned to work in the Environmental Health Department.

(35) **DEQ** is the acronym for the Montana Department of Environmental Quality.

(36) **Design flow** means the flow used for sizing hydraulic facilities, such as pumps, piping, storage, and absorption systems.

(37) **Distribution box** means a watertight receptacle that receives septic tank effluent and distributes it equally into two or more pipes leading to the absorption area.

(38) **Distribution pipe** means a perforated pipe used in the dispersion of septic tank or other treatment facility effluent into a subsurface wastewater treatment system.

(39) **Dosed system** means any system that utilizes a pump, siphon, or actuated valves to deliver treated effluent to a subsurface absorption area.

(40) **Dosing frequency** means the number of times per day that effluent is applied to an absorption system or sand filter. Dosing tank means a watertight receptacle receiving effluent from the septic tank or another treatment device, equipped with a siphon or a pump designed to discharge effluent.

(41) **Dosing volume** means the volume of effluent, in gallons applied to an absorption system or sand filter each time a pump is activated or each time a siphon functions.

(42) **Dosing tank** means a water-tight receptacle placed after the septic tank or other treatment device approved by the Department, equipped with an automatic siphon or pump designed to discharge effluent.

(43) **Drainageway** means a course or channel along which storm water moves in draining an area.

(44) **Drain rock** means the rock or coarse aggregate used in an absorption system, sand filter, or seepage pit. Drain rock must be washed, be a maximum of 2.5 inches in diameter and larger than the orifice size unless shielding is provided to protect the orifice, and contain no more than 2 percent passing the No. 8 sieve. The material must be of sufficient competency to resist slaking or dissolution. Gravels of shale, sandstone, or limestone may degrade and may not be used.

(45) **Drop box** means a watertight structure that receives septic tank effluent and distributes it into one or more distribution pipes and into an overflow leading to another drop box and/or absorption system located at a lower elevation.

(46) **Effective size** means the sieve size in millimeters (mm) allowing only 10 percent of the material to pass as determined by wet-test sieve analysis method ASTM C 117-95.

(47) **Effluent** means partially treated wastewater from a primary, advanced, or other treatment facility.

(48) **Effluent filter** means an effluent treatment device installed on the outlet of a septic tank designed to prevent the passage of suspended matter larger than 1/8 inch in size.

(49) **Effluent pump** means a pump used to convey wastewater that has been partially treated from a septic tank or other treatment facility. This wastewater has had settleable or

floatable solids removed.

(50) **EHD** is the acronym for Environmental Health Department or Environmental Health Office.

(51) **Ejector pump** means a pump that transports raw sewage.

(52) **Emitter** means orifices that discharge effluent at controlled rates, usually specified in gallons-per-hour (gph). Emitters are typically found in subsurface drip irrigation systems.

(53) **Existing system** means a system that is in operation or capable of operation without special preparation and is physically attached to a structure designed for continuous occupancy.

(54) **Existing system (subdivision review only)** means a water supply or wastewater disposal system, in a proposed subdivision, which was installed prior to the submittal of a subdivision application under this subchapter.

(55) **Facilities** means public or private facilities for the supply of water or disposal of sewage or solid waste and any pipes, conduits, or other stationary method by which water (including storm water), sewage, or solid wastes might be transported or distributed.

(56) **Failed Wastewater Treatment and Disposal System** means a system; with an absorption system that does not accept waste at the rate of application; a system that no longer provides the treatment or disposal for which it was intended; a septic tank that suffers structural failure; or whenever a system violates Section 3.01 of this regulation.

(57) **Fats, oils, grease (FOG)** means a component of wastewater typically originating from food stuffs (animal fats or vegetable oils) or consisting of compounds of alcohol or glycerol with fatty acids (soaps and lotions).

(58) **Fill** means artificially placed soil.

(59) **Final plat** means the final drawing of a subdivision and dedication required by MCA Title 76 Chapter 3. Local Regulation of Subdivisions to be prepared for filing for record with the county clerk and recorder and containing all elements and requirements set forth in MCA Title 76 Chapter 3 and any regulations adopted pursuant to MCA Title 76 Chapter 3.

(60) **Floodplain** means the area adjoining the watercourse or drainageway which would be covered by the floodwater of a flood of 100-year frequency except for sheet flood areas that receive less than one foot of water per occurrence and are considered zone B or a shaded X zone by the Federal Emergency Management Agency. The floodplain consists of the floodway and the flood fringe, as defined in ARM 36.15.101.

(61) **Flood-prone areas**: areas where information indicates that the land is subject to flooding in a one hundred (100)-year flood event but not included on Flood Insurance Rate Maps.

(62) **Gravity dose** means a known volume (dose) of effluent that is delivered to an absorption system in a specific time interval. The effluent is delivered either by a siphon or by a pump to a drop box, distribution box, or manifold. The drop box, distribution box, or manifold then distributes effluent into a non-pressurized absorption system.

(63) **Gray water** means wastewater that is collected separately from a sewage flow and that does not contain industrial chemicals, hazardous wastes, or wastewater from toilets.

(64) **Grease trap** means a device designed to separate fats, grease, and oils from the effluent.

(65) **Grinder pump** means a pump that shreds solids and conveys wastewater through a sewer to primary or advanced treatment.

(66) **Groundwater table** means the upper surfaces of groundwater in the zone of saturation of a geologic formation. The upper surface of a perched water table is included in this definition.

(67) **Health officer** means the Sanders County Health Officer or a designated representative

(68) **High-strength waste** means effluent from a septic tank or other treatment device that has BOD5 greater than 300 mg/L, TSS greater than 150 mg/L, or fats, oils, and grease greater than 25 mg/L.

(69) **Holding tank** means a watertight receptacle that receives wastewater for retention and does not, as part of its normal operation, dispose of or treat the wastewater.

(70) **Horizon** means a layer in a soil profile that can be distinguished from each of the layers directly above and beneath it by having distinctly different physical, chemical, and/or biological characteristics.

(71) **Impervious layer** means any layer of material that has a percolation rate slower than **240** minutes per inch (mpi).

(72) **Incinerating toilet** means a self-contained unit consisting of a holding tank and an adequate heating system to incinerate waste products deposited in the holding tank. The incineration by-products are primarily water and a fine ash.

(73) **Increased use** means the enlargement or change in use of a structure served by a wastewater treatment and disposal system where the enlargement or change would potentially increase the effluent flow from the structure in excess of approved limits. Increased use includes, but is not limited to, enlargement of a residence by adding one or

more spaces which can be used as bedrooms. It also includes increasing a room or a building's total square footage in a way that could lead to increased use in the future. The Environmental Health Department has sole discretion to determine if an enlargement or change in use is an increased use.

(74) **Individual wastewater system** means a wastewater system that serves one living unit or one commercial unit. The term does not include a public sewage system as defined in 75-6- 102, MCA.

(75) **Industrial wastewater** means any waste from industry or from the development of any natural resource, together with any sewage that may be present.

(76) **Infiltrative surface** means the soil interface that receives the effluent wastewater below the drain rock or sand.

(77) **Infiltrators** or leaching chambers means plastic (often polyolefin) chambers with an open bottom, structurally designed to carry the earth loading. The Environmental Health Department considers leaching chambers to be conventional systems.

(78) **Influent** means the wastewater flow stream prior to any treatment.

(79) **Irrigation** means those systems that provide subsurface application of wastewater to any planted material by means of a piping system.

(80) **Key** means to hollow out in the form of a groove.

(81) **Leaching chambers**, gravelless chambers, or infiltrators means plastic (often polyolefin) chambers with an open bottom, structurally designed to carry the earth loading. The Environmental Health Department considers leaching chambers to be conventional systems.

(82) **Licensed installer** is the person holding a current license, issued by the Environmental Health Department, to install, construct, extend or alter wastewater treatment systems regulated by the Sanders County Board of Health.

(83) **Licensed septic tank pumper** means a person licensed under state law to pump and clean sewage treatment systems and to remove septic system residues and deposit them in an approved manner at a site approved by the Montana Department of Environmental Quality.

(84) **Licensed site evaluator** is any person holding a current license, issued by the Environmental Health Department, as a qualified site evaluator and regulated by the Sanders County Board of Health.

(85) **Limiting layer** means bedrock, an impervious layer, or seasonally high ground water.

(86) **Living unit** means the area under one roof that can be used for one residential unit and which has facilities for sleeping, cooking, and sanitation. A duplex is considered two living units.

(87) **Lot layout** (or plot plan) means an accurate drawing or map indicating the dimensions, acreage and location of property lines, buildings, water supply systems, all components of individual sewage treatment systems, water courses, geographical features and other pertinent information as required Section 4. Permitting of this regulation.

(88) **Main** means any line providing water or sewer to multiple service connections, any line serving a water hydrant that is designed for firefighting purposes, or any line that is designed to water or sewer main specifications.

(89) **Manhole** means an access to a sewer line for cleaning or repair.

(90) **Manifold** means a solid (non-perforated) wastewater line that distributes effluent to individual distribution pipes.

(91) **Mixing zone** means an area established in a permit or by a non-degradation analysis where water quality standards may be exceeded, subject to conditions imposed by the Montana Department of Environmental Quality and consistent with rules adopted by the Montana Board of Environmental Review.

(92) **MCA** is the acronym for Montana Code Annotated.

(93) **Mottling** or redoximorphic features means soil properties associated with wetness that result from the reduction and oxidation of iron and manganese compounds in the soil after saturation and desaturation with water.

(94) **Multiple-user wastewater system** means a wastewater system that serves, or is intended to serve, more than two living units or commercial units or a combination, but which is not a public sewage system as defined in 75-6-102, MCA. In estimating the population that will be served by a proposed residential system, the reviewing authority shall multiply the number of living units times 2.5.

(95) **Multiple user water supply system** means a water supply system that serves, or is intended to serve, more than two living units or commercial units or a combination, but which is not a public water supply system as defined in 75-6-102, MCA. In estimating the population that will be served by a proposed residential system, the reviewing authority shall multiply the number of living units times 2.5.

(96) **Natural** soil means soil that has developed in place through natural processes and to which no fill material has been added.

(97) **Nuisance** means any condition which affects an indefinite number of persons, or all the residents of a particular locality, or all persons coming within the extent of its range or operation by being injurious to health, annoying, or indecent or offensive to the senses, although the extent of the effect on individuals may vary.

(98) **Operation and maintenance manual** shall mean a comprehensive instruction manual as described in Circular DEQ-4, 2013 Edition, Appendix D.

(99) **Orifice** means an opening or hole through which wastewater can exit the distribution pipe.

(100) **Owner** means the person who is the owner of record of the land on which an individual sewage treatment system is to be constructed, altered, extended or used of Environmental Quality.

(101) **Parcel** means a part of land which is created by a division of land or a space in an area used for recreational camping vehicles or mobile homes. The term is synonymous with "tract" and "lot" for purposes of this chapter.

(102) **Percolation test** means a standardized test used to assess the infiltration rate of soils performed in accordance with Circular DEQ-4, Appendix A.

(103) **Permit** means a written authorization issued by the Environmental Health Department or Sanders County Board of Health permitting the construction, installation, alteration, extension, repair or use of an individual sewage treatment facility.

(104) **Permit effective dates** means October 2, 1991 for the State of Montana and March 14, 1995 Sanders County.

(105) **Person** means any individual, partnership, firm, association, municipality, public or private corporation, subdivision or agency of the state, trust, estate or any other legal entity.

(106) **Pit privy** means a structure allowing for disposal of human excreta into a pit or vault.

(107) **Plasticity** means the ability of a soil sample to be rolled into a wire shape with a diameter of 3 mm without crumbling.

(108) **Plat** means a graphical representation of a subdivision showing the division of land into lots, parcels, blocks, streets, alleys, and other divisions and dedications.

(109) **Preliminary plat** means a neat and scaled drawing of a proposed subdivision showing the layout of streets, alleys, lots, blocks, and other elements of a subdivision that furnish a basis for review by a governing body.

(110) **Pressure distribution** means an effluent distribution system where all pipes are pressurized and the effluent is pumped, or delivered by siphon, to the next portion of the treatment system in a specific time interval or volume.

(111) **Pretreatment** means the wastewater treatment that takes place prior to discharging to any component of a wastewater treatment and disposal system including, but not limited to, pH adjustment, oil and grease removal, BOD5, and TSS reduction, screening, and detoxification.

(112) **Primary treatment** means a treatment system, such as a septic tank, that provides retention time to settle the solids in raw wastewater and that retains scum within the system.

(113) **Private sewer** means a sewer receiving the discharge from one building sewer and conveying it to the public sewer system or a wastewater treatment system.

(114) **Professional engineer** means an engineer licensed or otherwise authorized to practice engineering in Montana pursuant to Title 37, Chapter 67, MCA.

(115) **Proprietary system** means a wastewater treatment method holding a patent or trademark.

(116) **Public wastewater system** means a system for collection, transportation, treatment, or disposal of wastewater that serves 15 or more families or 25 or more persons daily for any 60 days or more in a calendar year. In estimating the population that will be served by a proposed residential system, the reviewing authority shall multiply the number of living units times 2.5 people per living unit, so that 10 or more proposed residential connections will be considered a public system.

(117) **Public water supply system** means a system for the provision of water for human consumption from a community well, water hauler for cisterns, water bottling plant, water dispenser, or other water supply that has at least 15 service connections or that regularly serves at least 25 persons daily for any 60 or more days in a calendar year. In estimating the population that will be served by a proposed residential system, the reviewing authority shall multiply the number of living units times 2.5, so that ten or more proposed residential connections will be considered a public system.

(118) **Qualified site evaluator** means a soils scientist, professional engineer, registered sanitarian, hydrogeologist, or geologist who has experience and knowledge of soil morphology. Other individuals will be considered qualified after providing, to the

reviewing authority, evidence of experience describing soils or experience conducting necessary test procedures. Current Sanders County licensed site evaluators meet this definition.

(119) **Raw wastewater** means wastewater that has not had settleable solids removed through primary treatment or other approved methods.

(120) **Record drawing** or as-built means an accurate drawing submitted by the installer showing the measured placement of all subsurface wastewater treatment system components relative to property boundaries, common reference points, and sensitive receptors.

(121) **Recreational camping vehicle (RV)** means a vehicular unit designed primarily as temporary living quarters for recreation, camping, travel, or seasonal use, and that either has its own power or is mounted on, or towed by, another vehicle. The basic types of RVs are camping trailer, fifth-wheel trailer, motor home, park trailer, travel trailer, and truck camper.

(122) **Redoximorphic** or mottling features means soil properties associated with wetness that result from the reduction and oxidation of iron and manganese compounds in the soil after saturation and desaturation with water.

(123) **Registered sanitarian** is an individual licensed by the Montana Board of Sanitarians per MCA Title 37, Subchapter 40. In Sanders County, the Registered Sanitarian works in the Environmental Health Department.

(124) **Repairs** mean the restoration or renewal of any portion of an individual sewage disposal system which has become decayed or destroyed or which has malfunctioned for any reason. Repairs are considered only repair of piping and not repair of a drainfield.

(125) **Replacement area** is an area for a second drainfield the same area size as the primary drainfield. The parcel or lot must have sufficient size for a suitable drainfield when the primary drainfield fails. This site is to be identified on the lot layout.

(126) **Replacement** system means a wastewater treatment and disposal system installed to replace an existing system that is failed, failing, or is a contaminating system. New systems that serve an expanded home, or installed to relocate an existing system, are not replacement systems unless the system is replacing a failed, failing, or contaminating system.

(127) **Residence** or dwelling means one or more structures or portion thereof, which is intended, designed, or used for human occupancy and provides independent living facilities including provisions for sleeping, cooking, and sanitation.

(128) **Residential strength wastewater** means effluent from a septic tank or other treatment device with a BOD5 less than or equal to 300 mg/L, TSS less than or equal to 150 mg/L, and fats, oils, and grease less than or equal to 25 mg/L.

(129) **Reviewing authority** means the Montana Department of Environmental Quality, a local department or board of health certified to conduct reviews under 76-4-104, MCA, a division of local government delegated to review public wastewater systems pursuant to ARM 17.38.102, a local unit of government that has adopted these standards pursuant to 76-3-504, MCA, or a local board of health that has adopted these standards pursuant to 50-2-116, MCA.

(130) **Sanitation facility** means public or private facilities for the supply of water or disposal of sewage or solid waste and any pipes, conduits, or other stationary method by which water, sewage, or solid wastes might be transported or distributed.

(131) **Scarify** means to make shallow cuts in order to break the surface.

(132) **Sealed component** shall mean a receptacle which is watertight on the sides, bottom and possibly the top in which wastewater is held for primary treatment or effluent is held for intermittent conveyance to an additional treatment component.

(133) **Seasonally high groundwater** means the closest point below the natural ground surface to which water rises at any time of the year. Depth to groundwater is the distance from the surface of the ground to either the highest level of groundwater or evidence of past groundwater levels. Groundwater seeping in the wall of the soil profile hole is evidence of high groundwater. Evidence of past high groundwater levels is staining or mottling in the soil. Any questionable area must be tested with groundwater monitoring. The term also means the upper surface of a perched water table.

(134) **Seasonal use** means use for not more than a total of four months (120 days) during any calendar year.

(135) **Secondary treatment, conventional** means treatment after a septic tank that consists of a drainfield, and includes systems that use infiltration chambers, gravity distribution, or pressure distribution.

(136) **Secondary treatment, adequate** means secondary treatment that is similar to or better than the treatment provided by a drainfield meeting all requirements of Section 11. Absorption beds qualify when minimum separations are met and there is not enough room for a drainfield. Seepage pits qualify when minimum separations are met and there is not enough room for a drainfield or absorption bed. If a replacement system will not meet minimum separations, the Department can require elevated or alternative treatment systems.

(137) **Secondary treatment, advanced** means a system designed to lower BOD and TSS to 7 day averages of 40mg/L & 45mg/L or 30 day averages of 25mg/L & 30mg/L respectively, and when necessary, also lower fecal coliform levels in wastewater effluent.

(138) **Seepage pit** means a variation of secondary treatment in which a covered underground receptacle receives wastewater after primary treatment and permits the wastewater to seep into the pit floor and surrounding wall.

(139) **Septic tank** means a wastewater settling tank in which settled sludge is in immediate contact with the wastewater flowing through the tank while the organic solids are decomposed by anaerobic action.

(140) **Service connection** means a line that provides water or sewer service to a single building or main building with accessory buildings. The term is synonymous with "connection."

(141) **Sewage** is synonymous with "wastewater" for purposes of this Circular.

(142) **Sewer invert** means the inside bottom, or flow line, of a sewer pipe.

(143) **Shared wastewater system** means a wastewater system that serves, or is intended to serve, two living units, two commercial units, or a combination of one living unit and one commercial unit. The term does not include a public sewage system as defined in 75-6-102, MCA.

(144) **Shared water system** means a water system that serves, or is intended to serve, two living units or commercial structures units or a combination. The total number of people served may not exceed 24 term does not include a public sewage system as defined in 75-6-102, MCA.

(145) **Significant alteration** means when a structure has suffered fifty (50) percent or greater destruction and is being replaced or restored. The destruction can be intentional or unintentional, resulting from things like fire, flood, or remodeling. Replacement of a mobile home with a permanent structure is considered significant alteration. Replacement of a single wide mobile home with another single wide mobile home or replacement of a double wide mobile home with another double wide mobile home with the same number of bedrooms is not significant alteration.

(146) **Siphon** means a pipe fashioned in an inverted U shape and filled until atmospheric pressure is sufficient to force a liquid from a reservoir in one end of the pipe over a carrier and out the other end.

(147) **Slope** means the rate that a ground surface declines in feet per 100 feet. It is expressed as percent of grade.

(148) **Soil consistence** means attributes of soil material as expressed in degree of cohesion and adhesion or in resistance to deformation or rupture. For the purposes of this Circular consistence includes resistance of soil material to rupture, resistance to penetration, plasticity, toughness, and stickiness of puddled soil material, and the manner in which the soil material behaves when subject to compression. Although several tests are described, only those should be applied which may be useful.

(149) **Soil profile** means a description of the soil strata to a depth of eight feet using the United States Department of Agriculture (USDA) soil classification system method in Circular DEQ-4, Appendix B.

(150) **Soil texture** means the amount of sand, silt, or clay measured separately in a soil mixture.

(151) **Spring** means an opening in the earth's surface from which water issues or seeps.

(152) **Structure** means that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed or parts joined together in some definite manner, including but not limited to: dwelling units, mobile homes, sleeping quarters, business establishments, grandstands, amphitheaters, and warehouses.

(153) **Subdivision** means a division of land or land so divided that creates one or more parcels containing less than 20 acres, exclusive of public roadways, in order that the title to or possession of the parcels may be sold, rented, leased, or otherwise conveyed and includes any re-subdivision or re-write of a previous subdivision approval and any condominium or area, regardless of size, that provides permanent multiple space for recreational camping vehicles or mobile homes.

(154) **Surface water** means any water on the earth’s surface including, but not limited to: streams, lakes, ponds, reservoirs, irrigation drainage systems or other water on the earth’s surface. Water bodies that are part of an approved sewage treatment or approved storm drainage system are not considered surface water for the purposes of this regulation.

(155) **Surge tank** means a watertight structure or container that is used to buffer flows.

(156) **Synthetic drainage fabric** means a nonwoven drainage fabric with a minimum weight per square yard of 4 ounces, a water flow rate of 100 to 200 gallons per minute per square foot, and an apparent opening size equivalent to a No. 50 to No. 110 sieve.

(157) **System** means an on-site subsurface wastewater treatment system that receives wastewater for purposes of treatment, storage, or disposal. The term includes all disposal methods described in the 2013 version of Circular DEQ 4.

(158) **Total Suspended Solids (TSS)** means solids in wastewater that can be removed by standard filtering procedures in a laboratory and is reported as milligrams per liter (mg/L).

(159) **Transport pipe** means the pipe leading from the septic tank or dose tank to the distribution box or manifold.

(160) **Uniformity coefficient (UC)** means the sieve size in millimeters (mm) that allows 60 percent of the material to pass (D60), divided by the sieve size in mm allowing 10 percent of the material to pass (D10), as determined by ASTM C 117-95 (UC=D60/D10).

(161) **Uniform distribution** is a means to distribute effluent into a pressure dosed absorption system or sand filter such that the difference in flow, measured in gallons per day per square foot, throughout the treatment system is less than 10 percent.

(162) **Useable acreage** means the total area of a lot minus flood plain or flood prone area.

(163) **Vaulted (sealed) pit privy** is a watertight, covered, enclosed receptacle designed to receive non-water-carried toilet wastes and store the sewage for a period of time. The vault must be accessible for the periodic removal of its contents by a licensed septic system pumper.

(164) **Waste segregation** means a method by which human toilet waste is disposed of through composting, chemical, dehydrating, or incinerator treatment, with a separate disposal method for gray water.

(165) **Wastewater** means water-carried waste including, but not limited to, household, commercial, or industrial wastes, chemicals, human excreta, or animal and vegetable matter in suspension or solution.

(166) **Wastewater treatment system** or wastewater disposal system means a system that receives wastewater for purposes of treatment, storage, or disposal. The term includes all disposal methods described in the 2013 version of Circular DEQ 4.

(167) **Watercourse** or surface water is defined but not limited to any stream, intermittent stream drainage way, unlined irrigation ditch, river, pond, lake, swamp, or reservoir.

(168) **Well** means an artificial excavation that derives water from the interstices of rocks or soil which it penetrates.

(169) **Wet well** means a chamber in a pumping station, including a submersible pump station, where wastewater collects.

(170) **Zone of saturation** means that area beneath the ground in which all open spaces are filled with groundwater.

3. GENERAL PROVISIONS

(A) Prohibited Activities

(1) No person may construct, alter, extend, or utilize an on-site wastewater treatment and disposal system that may:

(a) contaminate any actual or potential drinking water supply;

(b) cause a public health hazard as a result of access to insects, rodents, or other possible carriers of disease to humans;

(c) cause a public health hazard by being accessible to persons or animals;

(d) violate any law or regulation governing water pollution or wastewater treatment and disposal, including the rules contained in these regulations;

(e) pollute or contaminate state waters, in violation of 75-5-605, MCA;

(f) degrade state waters unless authorized pursuant to 75-5-303, MCA; or

(g) cause a nuisance due to odor, unsightly appearance or other aesthetic consideration.

(2) Construction, alteration, repair, or increased use is prohibited without primary and secondary treatment unless permitted in accordance with these regulations.

(3) A person may not discharge wastewater onto the ground unless it does not cause a public nuisance and meets one of the exceptions provided below:

(a) wastewater discharged into an approved surface application wastewater treatment and disposal system;

(b) wastewater discharged onto a DEQ approved disposal site by licensed pumpers;

(c) wastewater discharged from a floor drain meeting the requirements of this section;

(d) wastewater discharged from a swimming pool or spa;

(e) gray water discharged from a dry structure without running water or without plumbing extended into or out of the structure; or

(f) de minimis gray water discharged from camping. This does not include wastewater from an RV or any plumbed fixture.

(4) Unless an Underground Injection Control (UIC) permit is obtained from the U.S. Environmental Protection Agency pursuant to 40 CFR 144, a person may not install or use any sump, dry well, or wastewater treatment and disposal system for disposal of wastewater from the washing, servicing, maintenance, or storage of any vehicle, equipment, or components that are associated with an internal combustion engine.

(5) No person may use an on-site wastewater treatment and disposal system that is located in a floodplain unless the system was installed according to the regulations effective at the time of installation. No person may increase use to a wastewater system in the floodplain.

(6) No person may use a wastewater treatment system that does not have a valid permit issued by Sanders County if one was required at the time of construction.

The effective permitting date for the State of Montana is October 2, 1991 and the effective permitting date for Sanders County is March 14, 1995.

(7) No person may dispose of high strength wastewater into a wastewater absorption system.

(B) System Required

(1) Structures designed and constructed for occupancy by people must maintain a wastewater treatment system or other approved toilet facilities.

(2) Structures in (3)(B)(1) must not be occupied unless;

(a) Connected to a publically owned wastewater treatment system if the structure is served by a piped water supply; or

(b) A wastewater treatment system meeting all requirements of this regulation is installed and maintained to serve the structure if served by a piped water supply; or

(c) There is access to an existing wastewater treatment system or approved toilet facilities meeting all requirements of this regulation within 200 feet of the structure.

(C) Connection to a Public Wastewater Treatment System

(1) Unless excluded, a person owning real property, with a structure that generates wastewater must connect to a public wastewater treatment system in accordance with ARM 17.36.328 (1) or ARM 17.36.914 (6), whichever is applicable to the specific parcel.

(2) If a structure on a parcel is connected to a publically owned wastewater system, all new wastewater generating structures on that parcel must be connected to a publically owned system if the owner or managing entity of the public wastewater system approves the connection.

(D) Reuse of an Existing System

(1) A new structure may be connected to an existing wastewater treatment system provided the system meets all of the following criteria:

(a) A permit exists for the existing system in Department files demonstrating compliance with state and local laws and regulations applicable at the time of installation;

(b) The existing system is capable of operating without risk to public health and without polluting state waters;

(c) Use is not increased;

(d) The existing system is compliant with current setback and separation requirements;

(e) The existing system meets current design and construction standards;

(f) The existing system has adequate capacity to treat anticipated maximum daily wastewater discharges as related to current minimum standards;

(g) There is no evidence of failure as demonstrated by pumping the septic tank and observing the drainfield for hydraulic failure.

(2) A person desiring to reuse an existing system shall submit a standard application, a review fee, and supporting documentation to the Department. The Department shall issue a permit upon review and acceptance of application materials.

(3) Existing cesspools and pit privies may not be reused and must be replaced by an approved wastewater treatment system.

(E) Replacement

(1) A person desiring to replace an existing system shall submit a standard application, a review fee, and supporting documentation to the Department. The Department shall issue a permit upon review and acceptance of application materials.

(2) Replacement systems must comply with Circular DEQ-4 and these regulations.

(3) Seepage pits may be permitted to replace an existing system under the following conditions;

(a) The existing system has failed;

(b) The site does not have adequate space or contains geographic features that prevent installation of a conventional subsurface drainfield;

(c) Groundwater is a minimum of twenty-five (25) feet below the bottom of the proposed seepage pit; and,

(d) There is no access to public wastewater services.

(4) Absorption beds may be permitted to replace an existing system and must fully comply with Circular DEQ-4, Chapter 6.11 Absorption Beds, and these regulations.

(F) Use and Increased Use of an Existing System

(1) Use or maintenance of a legally installed existing wastewater treatment system may be continued unless the system causes violation to these regulations or other applicable regulations, or is ordered disconnected by the Board of Health or other jurisdiction having authority. It shall be unlawful to alter, enlarge, repair, or extend such system without submitting a standard application, a review fee, and supporting documentation to the Department in accordance with Section 4 Permitting.

(2) Existing cesspool or septic tank systems may remain in service until ordered disconnected by the Board of Health or other jurisdiction having authority, or until the system fails as defined in this section.

(3) A permit is required prior to operating an existing wastewater treatment system that serves a structure if the structure undergoes significant alteration that has potential to increase wastewater flow.

(4) Increased use is allowed providing the person desiring to increase the use of an existing system submits a standard application, a review fee, and supporting documentation to the Department in accordance with Section 4 Permitting.

(a) Permanent increased use must meet the requirements of this section.

(b) Temporary increased use of an existing system that does not meet the requirements of this section must be requested as a Board of Health variance as outlined in Administration Regulations, Section 6 Variances.

(G) Abandonment of Wastewater Treatment Systems

(1) Whenever the use of a wastewater system is discontinued following connection to a public sanitary sewer, the replacement of a substandard system with a wastewater system that meets all requirements of this regulation, or will no longer be used, the existing system shall be considered abandoned and any further use of the system for any purpose is prohibited.

(2) Upon abandonment, the septic tank, seepage pit, or cesspool must be pumped of its entire contents by a licensed wastewater pumping contractor and the empty septic tank must be:

(a) filled with sand, gravel, or other suitable material; or

(b) broken into pieces with the resultant hole being filled with suitable material; or,

(c) removed with the resultant hole being filled with suitable material.

(H) Gray Water, Waterless Systems, Floor Drains, Portable Chemical Toilets, and Camping

(1) Gray water disposal shall meet requirements in ARM 17.36.319 or ARM 17.36.919, whichever is applicable to the specific parcel, and Circular DEQ-4 and shall not be discharged directly onto the ground.

(2) Waterless, non-discharging toilets such as composting toilets, incinerator toilets, and non-portable chemical toilets are allowed. Design, construction, and use must comply with Circular DEQ-4.

(3) Floor Drains

(a) Floor drains may be used in areas used for parking or storing vehicles, equipment, or components that are associated with an internal combustion engine under the following conditions:

i. The structure may not house a business that washes, works on, repairs or rebuilds vehicles, equipment or components that are associated with an internal combustion engine;

ii. Wastewater from washing vehicles, equipment, or components associated with an internal combustion engine may not be discharged into a floor drain;

1. Washing must occur on an exterior concrete, asphalt, or similar apron graded to allow wastewater to flow onto a semi-pervious gravel surface;
2. Biodegradable soap should be used.

iii. Floor drains may only be used to convey snow melt and rainwater from a structure;

iv. No deleterious substances may be disposed of in the floor drain;

v. The floor drain may not accept wastewater from a plumbed fixture; and,

vi. The drain line extending from the floor drain:

1. may not cause wastewater to travel onto neighboring property;

2. must dispose of the wastewater on the same parcel as the structure is located;
3. must not dispose of wastewater into waters of the state;
4. must dispose of the wastewater at least 10 feet from property lines and at least 100 feet from wells and surface water;
5. must dispose of the wastewater above ground onto pervious soil;
6. may not discharge into a sump or injection well; and,
7. must dispose of the wastewater in a location that can be easily located and routinely observed by the structure's occupants.

(4) Portable chemical toilets may be used for temporary events, construction sites, and other locations where a permanent wastewater system is not required. Portable chemical toilets may not be used as a permanent wastewater system for structures. Portable chemical toilets are not subject to permitting requirements, but must meet horizontal setback requirements of a sealed component.

(5) Camping may require the submittal of a waste disposal plan meeting the requirements of these regulations when a tent, recreational vehicle, camper, or other temporary structure is placed for the purpose of camping in one area for thirty (30) or more days outside of a licensed campground or recreational vehicle park.

(I) Circumvention

(1) A person may not knowingly make false statements, representations, or certifications in, or omit information from, or knowingly alter, conceal or fail to file or maintain any notice, application, record, report, permit, plan, or other document required to be filed or maintained in order to evade these regulations.

(2) A person may not divide a property or adjust a boundary line in order to evade these regulations.

4. PERMITS

(A) Permit Required

(1) No person may install, modify, repair, replace, or increase use of a wastewater treatment and disposal system within Sanders County without first obtaining a permit from the Department, except for activities and systems described in (A)(2) and (A)(3).

(2) The following activities do not require a permit from the Department:

(a) Maintenance activities including, but not limited to, effluent filter cleaning, replacement of effluent pump(s) with an equivalent pump, removal of blockages not requiring substantial excavation of the drainfield, and pumping the septic tank.

(b) Investigative activities to determine location of systems, dimensions of systems, or to determine the cause of failure. A certified installer, property owner, or an authorized agent must contact the Department prior to any excavating of the absorption area.

(c) Surface application of wastewater from swimming pools or spas.

(d) Disposal of de minimis wastewater generated from camping. This does not include wastewater from RVs or any other plumbed fixture.
(e) Discharge of gray water from a dry structure without running water or without plumbing extended into or out of the structure.

(3) The following systems do not require a permit from the Department:
(a) Sumps receiving wastewater from only water softeners, swimming pools, or spas.
(b) Floor drains meeting the requirement of Section 3 of this regulation.

(B) General Requirements for Permits
(1) Parcels must be recorded with the County Clerk and Recorder before a permit may be issued by the Department.
(2) Permits must be issued in the name of the parcel's owner, but may be received and executed by an authorized agent.
(3) The Department shall issue a permit within thirty (30) days following the submittal of all required fees, a complete and accurate permit application, and other necessary information demonstrating compliance with all applicable regulations. If more information is needed in order to process an application, the department shall notify the applicant.
(4) The Department may place any other conditions on a permit, which will facilitate compliance with the provisions of this regulation or subdivision approval.
(5) The Department may require enforceable, binding agreements which reflect representations of use made at the time of permitting. The Department may require agreements under this section to be filed at the Clerk and Recorder's office.
(6) A permit may not be issued for a system when use of the system would constitute a violation of any ordinance, rule, law or conditional approval including but not limited to a Certificate of Subdivision Approval.
(7) Notice of denial. Written notice that a permit has been denied must be given to the applicant. The notice must list deficiencies and reasons for the denial.
(8) Unapproved changes. Unapproved changes in plans, specifications, or stated use after a permit has been issued or any falsification or significant error in information submitted by an applicant invalidates the permit.

(C) Permit Applications
(1) A complete application for a permit must be submitted on forms provided by the Department, be accompanied by the application fee, and include the following information:
(a) Name and address of applicant and owner;
(b) A complete legal description and physical address of the property where the wastewater treatment and disposal system is or will be located;
(c) A scaled site plan, showing all property boundaries, no larger than eleven (11) inches by seventeen (17) inches illustrating that the proposed site meets the minimum requirements in Section 8 of this regulation;

(d) Floor plans of any structure to be served on paper no larger than eleven (11) inches by seventeen (17);
(e) A plan and relevant design specifications of the proposed wastewater treatment and disposal system; and,
(f) Other relevant information as required by the Department to substantiate that the proposed installation, modification, repair, replacement, or increased use complies with this regulation and applicable statutes and rules.

(2) Applications for new or increased use must also include:
(a) an acceptable site evaluation as described in Section 8 or DEQ Certificate of Subdivision Approval; and,
(b) evidence that non-degradation requirements of ARM 17.30, Subchapters 5 & 7 have been satisfactorily addressed.

(D) Expiration of Permits and Applications
(1) A permit expires if the system is not installed, inspected, and approved by the Department within two (2) years of issuance.
(2) If a permit is not issued, the application expires one (1) year after submittal.

(E) Applicable Regulations. Permits are subject to the regulations in effect at the time of permit issuance.

(F) Construction without Permit. The Department shall charge a fee three (3) times the permit and application fees when the installation, repair, modification, replacement, or increased use of a system starts prior to a valid permit being issued.

(G) Permits for Temporary Repairs or Increased Use
(1) The Department may issue a temporary repair permit for a failed seepage pit, cesspool, or drainfield in areas that have received construction grants or loans, and where a government entity is actively organizing the public funding, RSID or SID necessary to install public sewer interceptor or collector systems. Temporary repairs may be accomplished by the addition of absorptive area to a currently existing system.
(2) The Department may issue a temporary permit for increased use or for the enlargement of a structure without requiring an upgrade to an existing seepage pit, cesspool, or drainfield in areas which have received construction grants or loans and where a government entity is actively organizing the public funding, RSID, or SID necessary to install public sewer systems. Such temporary increased use may be permitted by the Department only for systems which are currently accepting waste at the rate of application from the source.
(3) The Department shall charge a minimal administrative fee as established by the Board for a temporary repair or increased use permit. The Department is not required to inspect such repairs. Inspections must be performed by licensed installers and submitted to the Department.

(4) Prior to the issuance of a temporary repair permit, the owner of the property must execute any contracts, petitions, or agreements required by the utility, the Department, or other entity for the creation of SIDs or RSIDs and must meet other conditions which the municipality, the Department, or utility may require. The homeowner shall sign a document indicating that he or she will connect to public sewer within 180 days after the installation of the sewer mains designed to service the property.

(5) A temporary repair or increased use permit satisfies the requirements of Section 3, which establishes requirements for replacement systems.

(6) Applicants for temporary permits may instead apply for a normal replacement permit, using the established fees and requirements of the Department.

(7) The granting of a temporary permit for repair or increased use does not guarantee a life expectancy or operation of the system and if the system fails prior to availability of public sewer, further repairs or upgrades to the system may be required by the Department.

(H) Emergency Permits

(1) Emergency situations may dictate immediate action to alleviate a threat to public health and safety or avoid a nuisance. In these urgent situations, the Department may grant verbal permission for installation of a septic tank only. Fees shall be received within three (3) working days after verbal permission is granted. The applicant and the Department shall process the permit as quickly as possible.

(2) Emergency replacement activities must meet current wastewater treatment regulations.

(I) Installation without Permit. Installation of a system without a valid permit will result in revocation of the installer's license for a period of no less than one (1) year.

(J) Permit Denial

(1) The Department shall disapprove an application for a permit if it is determined that any of the following conditions exist:

(a) The system will not comply with local, State, or other applicable regulations;

(b) The application is incomplete;

(c) The permit fee has not been paid in full;

(d) The tract of land on which the system is proposed is in the process of being reviewed under the Sanitation and Subdivisions Act; or,

(e) The system is not within substantial compliance with the provision of a Certificate of Subdivision Approval Statement and approved lot layout from the MDEQ.

(2) When requested by an applicant, written notice that a permit has been denied must be provided to the applicant by personal service or certified mail within ten (10) business days of receipt of a request. The notice must list deficiencies and reasons for the denial.

(3) A permit denial may be appealed to the Sanders County Board of Health as provided in ARM 17.36.922 LOCAL VARIANCES. The appeal must be made in writing and submitted to the Sanders County Board of Health within thirty (30) days of the denial. The Board of Health shall act on the appeal within sixty (60) days. The applicant shall be notified, in writing, of the Board of Health's approval or denial of a variance. The Sanders County

Board of Health's letter of decision will be sent by registered mail. If a request for variance is denied by the Sanders County Board of Health, the appellant may seek variance from the State, according to the provisions in ARM 17.36.924 VARIANCE APPEALS TO THE DEPARTMENT.

5. INSTALLER LICENSING

(A) General

(1) Installation, modification, replacement, or repair of a wastewater treatment and disposal system that requires a permit in accordance with Section 4 must be supervised by a person who has passed, with a score of at least **85%,** an examination administered by the Department to ensure they have sufficient knowledge and training to complete the work in compliance with this regulation.

(2) A licensed installer must install a system according to all conditions on the permit and all applicable regulations.

(3) A licensed installer, or licensed foreman or subordinate employee, must be on site at all times during installation.

(4) A licensed installer must have evidence of certification at the installation site available for inspection by the Department and a copy of the appropriate permit.

(5) The Department may not approve a system if a licensed installer is not present during the installation. The Department may approve the system if a certified installer completes the system or the uncertified installer takes and passes the required licensing exam(s) and the system meets all requirements.

(B) Homeowner installation

(1) A homeowner may install an on-site wastewater treatment system under the following conditions:

(a) The homeowner passes the installer exam with a score of at least **90%**;

(b) the wastewater treatment system is a standard gravity system (no ETA beds, sand mounds, advanced treatment, or similar systems); and,

(c) the system is located on the parcel owned by the homeowner.

(2) A builder who owns several parcels of land and who builds structures on these parcels for sale, rent or lease and not for the purpose of personally residing in said structures shall not be considered a "homeowner."

(C) Licensing and Renewal

(1) Licenses are not transferable.

(2) An installer is licensed for the calendar year in which the exam was taken and passed. Licenses expire annually on December 31st.

(3) Applications for licensing and renewal must be in writing on forms provided by the Department and must include the name, address and phone number of the applicant and the name of the business that the applicant is representing.

(4) Applications must be accompanied by an application fee determined by the Board to defray the costs for training and exams.

(5) Licensed installers must complete one of the following to renew:
   (a) pass an annual exam for re-certification; or,
   (b) attend and provide documentation of 4 hours of relevant continuing education every two years.

(D) Installer Employee Licensing
   (1) A licensed installer may allow a subordinate employee, such as a foreman, to install wastewater treatment systems and be the inspection contact provided the foreman maintains a valid installer license.
   (2) The foreman must pass the installer exam with a score of at least **85%.**
   (3) The foreman must comply with Section 5 (C).
   (4) A foreman or subordinate employee is not required to pay the annual license fee if working directly for a licensed installer.
   (5) If used as the licensed individual for the job site, the licensed foreman or subordinate employee must be on site at all times during installation.

(E) Revocation of License
   (1) Licenses are the property of the Board of Health, are not a property right of the license holder, and may be revoked by the Board of Health at any time for the following reasons:
      (a) A single occurrence of installing or attempting to install a system without a valid permit;
      (b) A single occurrence of deliberately falsifying an inspection;
      (c) A single occurrence of failing to correct deficiencies noted on the inspection form;
      (d) Repeated mistakes within a two (2) year period in installing a system in accordance with this regulation or failure to submit self-inspection forms in a timely manner. The Department must have issued a Notice of Violation within a two (2) year period prior to revoking an installer's certification for repeated installation mistakes.

   (2) Revocation of license may extend for up to one (1) year.
   (3) When revoking a license, the Department shall provide the installer with a written explanation of the reasons for the revocation in the form of a Notice of Violation.

6. INSPECTION, FINAL APPROVAL, DOCUMENTATION, OPERATION AND MAINTENANCE

(A) All systems must receive final approval from the Department for a permit to remain valid.

(B) Inspection
   (1) Wastewater treatment and disposal systems require an inspection prior to covering the system unless specific permission has been granted by the Department to backfill a portion of the system for a justified reason.
   (2) The applicant or installer must notify the Department not less than **two (2)** business days prior to a system being ready for a final inspection.
   (3) When there is no certified installer on site during an inspection the Department may charge a re-inspection fee to return and re-inspect the system when a certified installer is

on site. The Department may waive the requirement to have a certified installer on site during an inspection by arrangements made prior to the inspection.

(4) Certified installers, after receiving permission from the Department, may inspect their own installations and certify the system is installed in compliance with these regulations on forms provided by the Department when Department personnel are unable to inspect the system within two (2) business days of the requested inspection time. The installer must submit a completed inspection of the system, including a drawing and location of the disposal system, and photo documentation, to the Department within two (2) business days after receiving permission to self-inspect.

(5) Acceptance of a permit by the applicant confers upon the Department the authority to access the installation site at reasonable times to inspect or to collect samples. The Department may also inspect existing systems that have been subject to complaint(s), create health hazard(s), or have become public nuisances.

(C) Inspection of Pressure Dosed Systems

(1) Observed hydraulic analysis must:

(a) Include the entire pressure distribution system before backfill, including observation of all orifices;

(b) Show no greater than 10% variation in distribution of dose across the entire distribution system; and,

(c) Demonstrate a minimum pressure of 1 psi (2.3 feet of head) at the end of each distribution line. For orifices smaller than 3/16-inch, the minimum pressure must be 2.16 psi (5 feet of head) at the end of each distribution line.

(2) In certain circumstances, a portion of the system may be covered and the squirt test observed at the ends of each lateral. There must be qualifying site conditions that present potential to cause damage to the drainfield. The certified installer must obtain prior approval to cover a portion of the system without observation.

(D) Final Approval

(1) The installer may backfill all system components upon issuance of final approval.

(2) When final approval is withheld, a written notice of deficiencies and required corrective action must be given to the certified installer or property owner. The certified installer or property owner must notify the Department upon correction of all deficiencies. The Department shall confirm the deficiencies have been corrected prior to granting final approval. If re-inspection is required the Department shall charge a re-inspection fee established by the Board.

(3) When final approval is granted by the Department, but a deficiency requiring correction exists, the Certified Installer must correct the deficiency. The Department may require that the Certified Installer provide evidence that the deficiency has been corrected.

(4) Deviations from the approved plans, which do not violate the regulation, may be approved by the Department. Approved deviations must be noted on the inspection form.

(E) Documentation of Installation

(1) The Department shall maintain records of all documentation submitted. Records shall be open to public access upon request.

(2) Installers must submit to the Department a signed original or copy of the system as-built, a statement of accuracy attesting that the system has been installed in compliance with the permit and approved lot layout, pump specifications, and operation and maintenance manual.

(3) As-built submittals shall include a drawing containing at minimum;

(a) All parcel boundaries;
(b) Distances between the system and at least two parcel boundaries;
(c) North arrow;
(d) Triangular (swing tie) measurements from two corners of the house or serviced structure to the tank access;
(e) If a house or serviced structure is not constructed, the installer may use other features such as a substantial outbuilding or the well head.
(f) Measurement of pipe from house to tank;
(g) Measurement of pipe from tank to D-box or manifold;
(h) Measurement of pipe from D-box or manifold to each lateral;
(i) Length of drainfield laterals;
(j) Number of drainfield laterals;
(k) If seepage pits are used, the number of pits, size, and distance from the septic tank to each pit;
(l) Distance from tank to sensitive receptors such as well heads and surface water; and,
(m) Distance from drainfield to sensitive receptors such as well heads and surface water.

(4) As-built submittals must be provided to the Department within thirty (30) business days of completion of the system.

(5) Installers with **three (3)** or more outstanding as-built submittals shall be unqualified to install wastewater treatment systems until the installer comes into compliance.

(6) When a signed copy of the 'as built' plans for an engineered system is required by DEQ 4, Appendix D, the owner or authorized agent must submit the plans as described in DEQ 4 to the Department within **90 business days** following the final inspection.

(F) Operation and Maintenance Manual

(1) Installers must provide the system owner with an operation and maintenance manual specific to the installed system and individual components. Operation maintenance manuals must meet requirements in Circular DEQ-4, Appendix D.

7. SITE EVALUATOR QUALIFICATION AND LICENSING

(A) General

(1) A site evaluation must be conducted by an approved site evaluator who has passed an examination administered by the Department to demonstrate knowledge of soils and site characteristics and how they relate to the design and function of wastewater treatment

and disposal systems.

(2) The following persons may be approved site evaluators and may conduct site evaluations within Sanders County without examination:
   (a) Professional Engineers specializing in civil, environmental, sanitary, or agricultural engineering; or,
   (b) Persons possessing a B.S. degree in geology, hydrogeology, or soils science; or,
   (c) Registered Sanitarians with sufficient soils course work or specialized soils training; or,
   (d) Other persons with equivalent expertise or experience, as determined by the Department.

(3) Qualified site evaluators must notify the Department at least 5 working days prior to any site evaluation activities within Sanders County.

(4) Qualified site evaluators must conduct all work in accordance with these regulations, adopted, references, and accepted industry practices and references.

(5) The Department may refuse to license site evaluators or accept site evaluations from persons who have a documented history of supplying inaccurate site evaluations or incomplete information. This includes work performed within and outside of Sanders County.

(B) Sanders County Licensing and Renewal
   (1) Licenses are not transferable.
   (2) Sanders County site evaluator licenses are valid for the calendar year in which the exam was taken and passed. Licenses expire annually on December 31st.
   (3) Applications for licensing and renewal must be in writing on forms provided by the Department and must include the name, address and phone number of the applicant and the name of the business that the applicant is representing.
   (4) Applications must be accompanied by an application fee determined by the Board to defray the costs for training and exams.
   (5) Licensed site evaluators must complete one of the following to renew:
      (a) pass an annual exam for re-certification; or,
      (b) attend and provide documentation of 8 hours of relevant continuing education every two years.

(C) Revocation of Sanders County Licenses
   (1) The Department may revoke a license from an individual or from an employer and its employees for any of the following reasons:
      (a) Having provided false evidence or information to obtain approval of a site;
      (b) Failure to submit required documentation;
      (c) Failure to give proper notice for on-site assessment;
      (d) Repeated mistakes in site evaluation with regards to state and local regulatory requirements.

(2) Revocation of license may extend for up to one (1) year per violation.
(3) When revoking a license, the Department shall provide the site evaluator with a written explanation of the reasons for the revocation in the form of a Notice of Violation.

(D) Revocation of Site Evaluation Privileges within Sanders County
(1) Site evaluators not licensed in Sanders County are privileged to conduct work within the County and are expected to conduct work in accordance with these regulations and inferred references.
(2) The Department may revoke the ability to conduct site evaluations in Sanders County from an individual or from an employer and its employees for any of the following reasons:
(a) Having provided false evidence or information to obtain approval of a site;
(b) Failure to submit required documentation;
(c) Failure to give proper notice for on-site assessment; or,
(d) Repeated mistakes in site evaluation with regards to state and local regulatory requirements.

(3) Revocation may extend for up to one (1) year per violation.
(4) The Department shall provide the site evaluator with a written explanation of the reasons for the revocation in the form of a Notice of Violation.

8. SITE EVALUATION

(A) When a site evaluation is required, the evaluation must be performed by an approved site evaluator.

(B) A site evaluation must be conducted in the location of each proposed system. The following factors must be evaluated: size and shape of the lot, soil conditions, slope of natural and finished grade, depth to groundwater, proximity to existing and proposed water supplies, proximity to existing systems, proximity to surface water, floodplain and flood prone areas, escarpments, and area available for the system and its designated replacement area.

(C) Soil conditions. Where the Department determines adequate soils information is not available, soil conditions must be obtained by digging two (2) pits, one to a depth of at least ten (10) feet and a second to a depth of at least five (5) feet, located at each end of the proposed absorption system site.

(D) The U.S. Department of Agriculture's "Soils Classification System" must be used to describe and determine soil texture (see Circular DEQ 4 Appendix B). The following factors must be included in any soils evaluation:
(1) Thickness of layers or horizons of soil profile.
(2) Texture and structure of horizons.
(3) General color, and color variation (mottling).

(4) Depth to water (if observed) or a statement that groundwater depth exceeds six feet throughout the entire year based on evidence from pits, borings, or other physical substantiation.
(5) Depth to bedrock or impervious layer (if observed).
(6) Other prominent features that would have a bearing on a site's compatibility for use as a wastewater absorption site. Additional soils information may be required.
(7) The site of the soil testing must be clearly identified by placing a perforated pipe to a depth of nine (9) feet in the soil profile hole and extending two (2) feet above ground.

(E) The Department may require as many soil profile holes be dug in the area of the proposed absorption system as the Department determines is necessary to describe and evaluate the soils of the site.

(F) A person performing a site evaluation on a parcel shall submit to the Department all data and locations of all test holes and percolation tests performed on the parcel.

(G) Percolation Tests and Exceptions
(1) Percolation tests, when required, must be performed in accordance with Circular DEQ 4, Appendix A.
(2) If a potential impervious layer is present less than six (6) feet below ground level, percolation tests must be conducted in this layer unless other testing (e.g. hydrometer, permeameter, or other approved hydraulic conductivity test) is provided that substantiate the layer is not impervious.
(3) Percolation tests must be conducted by a Qualified Site Evaluator.

(H) Non-Degradation and Mixing Zones
(1) All new and increased sources of wastewater must provide documentation demonstrating compliance with:
(a) Administrative Rules of Montana, Title 17, Chapter 36, Sub-chapter 5 Mixing Zones in Surface and Ground Water; and,
(b) Administrative Rules of Montana, Title 17, Chapter 30, Sub-chapter 7 Non-Degradation of Water Quality.

(2) Non-degradation analyses shall be performed using the Department of Environmental Quality's *How to Perform a NonDegradation Analysis for Subsurface Wastewater Treatment Systems (SWTS) Under the Subdivision Review Process, 2015 or current version*.

9. LOCATION AND DESIGN OF WASTEWATER TREATMENT AND DISPOSAL SYSTEMS

(A) General
(1) All systems must be located and designed in accordance with Circular DEQ 4 unless a more specific requirement is included in this regulation.
(2) Minimum Horizontal Setbacks must conform to ARM 17.36.323 or ARM 17.36.918, whichever is applicable to the specific parcel.

(3) Applicants proposing a new wastewater treatment and disposal system, or increased use of a system must designate a full sized separate replacement area that meets all the criteria for the initial drainfield or absorption system without any sizing reductions.
(4) The Department may require that both the primary and replacement drainfield areas be identified by staking prior to construction.
(5) A structure, movable or immovable, may not be located over, or moved onto, any part of the drainfield. Vehicles may not be driven over the drainfield after installation, except those portions properly designed to accept traffic loads. The drainfield or other absorption system must be located and protected in a manner that prevents vehicles from passing over or parking on top of the system. This area must be kept free of all obstructions, including pavement, which will prevent air from penetrating the soil.
(6) Fill may not be used to overcome minimum vertical or horizontal separation distances, except for sealed components.

(B) Design
(1) Wastewater Systems may be designed by the Department, a licensed professional engineer, a sanders county licensed evaluator, or a registered sanitarian. A Sanders County licensed installer may submit a wastewater system design for approval in cooperation with one of the entities listed above.
(2) The Department may require a wastewater system be designed by a professional engineer or a registered sanitarian in the event the system cannot be designed by the Department within thirty (30) days of the submitted permit application or if the system is beyond the capabilities of current professional staff.
(3) The Department may require a wastewater treatment system be designed and installed by a professional engineer or a registered sanitarian when the system:
(a) is an experimental system;
(b) is an alternative system;
(c) is an advanced treatment system;
(d) requires a Request for Variance from regulations;
(e) serves a commercial or industrial establishment;
(f) serves a multi-family residence; or
(g) is located on a site with difficult site conditions.

(C) Prohibited Locations
(1) Steep slopes
(a) No system or any portion of a system may be located on a slope that exceeds 35%.
(b) Systems may not be located on slopes between 15% and 35% unless a registered professional engineer or a person qualified to evaluate and identify soil in accordance with the Natural Resource Conservation Service standards submits adequate evidence that conditions are such that there will be no visible outflow of effluent down slope from the installation of the system.

(2) Pressure-dosed systems installed on a sloping site must include means for controlling pressure differences caused by varying distribution pipe elevations across the entire distribution area.

(3) Floodplain or flood-prone areas

(a) Effluent absorption systems may not be located within 100 feet of a floodplain or flood-prone area as delineated by the most current Federal Emergency Management Agency (FEMA) floodplain maps.

(b) Effluent absorption systems may not be located within 100 feet of any swamp or seep.

(c) No person may use an on-site wastewater treatment and disposal system that is located in a floodplain unless the system was installed according to the regulations effective at the time of installation. No person may increase use to a septic system in the floodplain.

(d) If the floodplain has not been designated and its elevation relative to a wastewater treatment system is in question, the applicant must submit evidence adequate to establish the location of the floodplain.

(e) When property within the designated FEMA floodplain can be shown to be above base floodplain elevation, an official action from FEMA is required to remove the area from the floodplain before a permit may be issued by the Department. If the property is within shaded Zone X floodplain, written approval from the Floodplain Administrator is sufficient.

(f) Replacement of systems legally installed in the floodplain or flood-prone area are allowed as described in these regulations in Section 3.

(g) A parcel containing Zone A approximate floodplain must have the base flood elevation determined by a licensed professional engineer through hydrologic and hydraulic analysis, or another method approved by the Floodplain Administrator before the Department may:

i. approve a subdivision or,

ii. issue a wastewater treatment system permit.

(4) Waterways. A subsurface treatment and disposal system may not be located within a drainage way or within a natural or manmade intermittent watercourse.

(5) Groundwater

(a) Groundwater depth at any time of less than six (6) feet from the natural ground surface precludes the use of conventional subsurface wastewater treatment and disposal systems. There must be a minimum separation of at least four (4) feet of natural soil between the bottom of the drainfield and the maximum high groundwater elevation.

(b) The Department may require one (1) year of groundwater monitoring conducted by the Department to delineate the highest groundwater level.

(c) If the groundwater is within seven (7) feet of the ground surface, or if there is any reason to believe that the groundwater will be within seven (7) feet of the natural ground surface during any time of the year, groundwater monitoring is required.

(d) The applicant must provide groundwater test holes and piping to a depth of at least nine (9) feet within the boundary of the proposed drainfield to determine the high groundwater during its peak occurrence. If shallow groundwater or an impervious layer is encountered during excavation of the test holes at a depth less than nine (9) feet, the piping may be placed at that depth.

(e) The Department may refuse to accept seasonal high groundwater data when total precipitation for the previous year (defined as May 1 of the previous year through April 30 of the current year), or April 1 snowpack water equivalent, measured at the nearest officially recognized monitoring station, is more than 20 percent below the historical average.

(f) The Department may consider soil morphology data and data from nearby groundwater monitoring sites with similar soil, geology and proximity to streams or irrigation ditches, if available, to determine maximum groundwater elevation. Morphology data may only be substituted if groundwater monitoring was conducted and precipitation or snowpack for the monitoring period is more than 20 percent below the historical average. The Department may charge a fee to be determined by the Board for review of morphology data.

(6) Bedrock and impervious layers. Four (4) feet of natural soil must be present between the bottom of the absorption system and bedrock or an impervious layer throughout the proposed drainfield site and replacement area.

10. PRIMARY TREATMENT REQUIREMENTS

(A) All new and replacement wastewater treatment and disposal systems must provide a primary treatment device prior to disposal in an absorption system.

(B) The primary treatment device must consist of a septic tank that conforms to the design and construction requirements in Circular DEQ 4.

(1) All septic tanks and access ports must have lids. The lids must be of durable construction and be secured with hex screws, lag bolts, locks, or other methods to prevent unauthorized access.

(2) All septic tanks must have safety basket screens (child catchers) secured with proper fasteners.

(3) Any person who removes a septic tank lid for observation, maintenance, or other reasons must reinstall the lid as to prevent unauthorized access.

11. CONVENTIONAL SECONDARY TREATMENT REQUIREMENTS

(A) Except as specified in this section, conventional secondary treatment shall conform to applicable chapters in Circular DEQ 4.

(B) Wastewater flow rates for non-residential, industrial, recreational, and commercial establishments shall be determined by:

(1) Circular DEQ 4, Chapter 3; or,

(2) Applicable tables and charts found in the EPA Design Manual for Onsite Wastewater Treatment and Disposal Systems; or,
(3) Metered flow data which has been approved by the Department gathered from comparable facilities.

(C) Drainfield Application Rates
(1) Circular DEQ 4 Table 2.1-1 shall be used to determine drainfield application rates.
(2) The most conservative of soils profile report or percolation rate will be used to select the applicable square footage.

(D) Drainfield Construction
(1) Except as specified in the following regulations, drainfield construction shall conform to Circular DEQ 4.
(2) Distribution boxes for gravity dosed systems
(a) Septic tank effluent may be pumped to a distribution box for gravity dosing into the distribution system;
(b) Effluent pumps must be sized so the distribution box is not surcharged;
(c) The distribution box must have a baffle that provides equal distribution to each drainfield lateral; and,
(d) The installer must conduct a field test to verify equal distribution to each drainfield lateral.

(3) Leaching chambers
(a) Reduction of drainfield size up to 25% may be allowed per Table 4 and if a specific drainfield type allows reduction per Circular DEQ 4.
(b) Reduction may require new non-degradation analysis if the full sized system was designed and sized specifically to meet non-degradation requirements.
(c) In silty, clayey, and very fine sand soils, the space between the louvers of chamber systems and the trench wall must be filled with loam or sandy soil; sandy soil must be no finer than medium sand.
(d) Leaching chambers may be bedded in at least two (2) inches of drain rock or other approved material for placement on soils finer than medium sand.

Table 4
Drainfield Reduction Table

Soil Texture	**Percolation Rate (mpi)**	**Application Rate (gpd/sf)**	**Reduction % (a)(b)**
Gravel, gravelly sand, or very coarse sand	<3	0.8	25%
Loamy sand, coarse sand	3 - <6	0.8	25%
Medium sand, sandy loam	6 - <10	0.6	20%
Fine sand, fine sandy loam, loam	10 - <16	0.5	15%

Very fine sand, sandy clay loam, silt loam	16 - <31	0.4	10%
Clay loam, silty clay loam	31 - <51	0.3	0%
Sandy loam	51 - <121	0.2	0%
Clays, silts, silty clays	121 - <240	0.15	0%
Clays, silts, silty clays	>240	TBD	0%

(4) Sand Mound Sand Specifications

(a) Alternative sand specifications may be approved by application for deviation as outlined in Circular DEQ 4, 1.1.4. Deviations.

12. ADVANCED SECONDARY TREATMENT

(A) Except as specified in this section, advanced secondary treatment systems shall conform to Circular DEQ 4 or otherwise be approved by the MDEQ.

(B) Advanced treatment systems typically allow reduction of subsurface absorption areas. These systems must be designed by a professional engineer, a registered sanitarian, or other design professional approved by the Department. Detailed plans, specifications, and an operation and maintenance plan must be provided.

(C) Alternative advanced treatment systems shall be approved on a case-by-case basis. These systems must be designed by a professional engineer. Detailed plans, specifications, and an operation and maintenance plan must be provided.

(D) Certification and as-built plans, meeting minimum requirements of Circular DEQ-4, Appendix D, are required for all advanced treatment systems.

13. EXPERIMENTAL SYSTEMS

(A) Experimental systems, if not listed in either Circular DEQ-4 or otherwise approved for use by the MDEQ, shall be approved by waiver on a case-by-case basis. These systems must be designed by a professional engineer, a registered sanitarian, or other design professional approved by the MDEQ and the Department. Detailed plans, specifications, and an operation and maintenance plan must be provided.

(B) Certification and as-built plans, meeting minimum requirements of Circular DEQ-4, Appendix D, are required for all experimental systems.

14. WASTEWATER PUMPING AND DISPOSAL LICENSING

(A) A person may not engage in the business of cleaning cesspools, septic tanks, portable toilets, privies, grease traps, car wash sumps, or similar treatment works, or disposal of wastewater and other wastes from these devices, unless licensed by the Montana Department of Environmental Quality.

(B) A person who removes wastewater without a valid license shall be in violation of these regulations.

(C) A person who wishes to become licensed, or have a disposal site licensed, shall be approved by the Department and Montana Department of Environmental Quality in accordance with the Administrative Rules of Montana, Title 17 Chapter 50 Subsection 8.

(D) After conducting business, a person licensed in the business of cleaning cesspools, septic tanks, portable toilets, privies, grease traps, car wash sumps, or similar treatment works, or disposal of wastewater and other wastes from these devices, must:

(1) Ensure access lids are secured with hex screws, lag bolts, locks, or other methods to prevent unauthorized access; and,

(2) Reinstall existing safety basket screens (child catchers) and secure with proper fasteners.

15. VARIANCE

(A) A local board of health, as defined in 50-2-101, MCA, may grant variances in accordance with the board of environmental review from the requirements in this subchapter and in Circular DEQ-4, except for requirements established by statute.

(B) Variance procedures are described in Sanders County Environmental Health Regulations, Administrative Regulations Section 6.

16. VIOLATION AND PENALTIES

(A) These regulations, and violation thereof, shall be enforced in accordance with 50-1-103, MCA.

(B) Enforcement procedures are described in Sanders County regulation, Administrative Regulations Section 3.