

ALABAMA STATE COMMITTEE OF PUBLIC HEALTH
ALABAMA DEPARTMENT OF PUBLIC HEALTH
BUREAU OF ENVIRONMENTAL SERVICES
DIVISION OF COMMUNITY ENVIRONMENTAL PROTECTION
ADMINISTRATIVE CODE

CHAPTER 420-3-1
ONSITE SEWAGE TREATMENT AND DISPOSAL

420-3-1-.04 Definitions.

- (1) **ADEM** -- the Alabama Department of Environmental Management.
- (2) **ADPH** -- the Alabama Department of Public Health, the administrative arm of the Board, including variations in the name such as State of Alabama Department of Public Health, State Department of Public Health, State Health Department, or Public Health Department.
- (3) **Advanced Treatment (Effluent)** -- treatment that results in a minimum level of effluent quality attainable by secondary treatment as defined in 40 C.F.R. §133.102 before discharge into the environment. See Secondary Effluent Standard.
- (4) **Advanced Treatment System (ATS)**-- a treatment system that is capable of producing secondary treatment as defined by these rules. This term may include advanced treatment units (ATU).
- (5) **Agent** -- a legally authorized representative of another person.
- (6) **Aggregate or Drain Media** -- hard, clean gravel or rock that has been washed with water under pressure over a screen during or after grading to remove fine material, and that has a hardness value of three or greater on Mohs Scale of Hardness (aggregate that can scratch a copper penny without leaving any residual rock material on the coin would have a Mohs hardness of three), or other equivalent ADPH approved media, material, or device used for the subsurface distribution of effluent. Properly sized loose aggregate has a minimum size of onequarter (1/4) inch and a maximum size of two and one-half (2-1/2) inches. The drain media, material, or device is durable and inert; will maintain its integrity and not collapse or disintegrate with time; will not generate a harmful leachate; and will not be detrimental to the system or the environment.
- (7) **ANSI** -- the American National Standards Institute.
- (8) **AOWB** -- the Alabama Onsite Wastewater Board.

(9) **Approval for Use** -- the authorization issued to the responsible person to operate an 088 or EDS. This is issued by the local health department (LHD) after all conditions of these rules and permits are satisfied.

(10) **ASTM** --ASTM International.

(11) **Average Seasonal High Extended Saturation (ASHES)** -- a zone or layer 6 or more inches thick that becomes saturated at least once during most years for a significant duration, typically 20 or more consecutive days or 30 or more cumulative days. This zone is restrictive and is approximated by the shallowest occurrence of contemporary redoximorphic features containing 2 percent or more chroma two or less (Munsell or equivalent) colors. See Table 7.

(12) **Bed** -- an EDF infiltrative surface utilizing secondary treatment with no internal trench walls that does not meet the definition of a pad. See Table 11 for sizing.

(13) **Bedrock** -- a general term for the consolidated rock that underlies the soil and other unconsolidated material or that is exposed at the surface. Practical application of the Mohs scale: When hit with a spade, a definite ring indicates a Mohs rating of three or greater. If no ring but more of a thud occurs, it indicates a rating less than three.

Hard bedrock is known as a lithic contact and is described as a boundary between soil and continuous, coherent, underlying material. The underlying material shall be sufficiently coherent to make hand-digging with a spade impractical. Typical hardness is three (Mohs scale), and gravel size chunks do not disperse with 15 hours shaking in water or sodium hexametaphosphate solution. Soft bedrock is known as a paralithic contact and is similar to a lithic contact except that it is softer and can be dug with difficulty with a spade. Typical hardness is less than three (Mohs scale), and gravel size chunks will partially disperse within 15 hours shaking in water or sodium hexametaphosphate solution.

(14) **Board**-- the Alabama State Board of Health, as defined by §22-2-1, Code of Ala. 1975.

(15) **Building Development** -- a change in the characteristics of a lot, tract or parcel of land, or other real property by an action including the sale of or conveyance of any interest in the land that could be expected to lead to human habitation or creation of an establishment. Such change includes, but is not limited to, clearing plant life from property, other than minimal clearing for soil and substrate evaluation; alteration to any degree of the naturally occurring topography of the property; constructing roads; installing surface drainage systems or similar facilities; providing utility services or connections within the lot, tract, or parcel of land; constructing or placing shelters or dwellings, or providing sites for the same; installing or accessing public or

private water or public or private sewer systems; planning or constructing individual, or other means of sewage disposal; recording the plat of the property as a largeflow development of lots of any size in the Office of the Probate Judge; recording an easement or covenant relative to an OSS or EDS for an individual lot; filing a plot plan with the LHD; or openly or by implication advertising a lot, tract, or parcel as being for residential, overnight recreational, or establishment uses, or as being part of an existing or planned large-flow development.

(16) **Building Drain** -- the part of the lowest piping of a drainage system which receives the discharge from waste drainage pipes inside the walls or under a habitable structure and conveys it to the building sewer, ending 30 inches from the exterior wall of the structure.

(17) **Building Sewer** -- the part of a structure's drainage system which extends from the end of the building drain, and which receives the discharge of a building drain and conveys it to a public or private sewer system.

(18) **Certificate of Economic ViabWty** -- a document issued by the Alabama Public Service Commission (PSC) that certifies the financial viability of a wastewater management entity pursuant to the requirements of §22-25B-1 et al., Code of Ala. 1975.

(19) **Cluster Wastewater System** -- see Onsite Sewage Treatment and Disposal System (OSS).

(20) **Combined Treatment and Disposal System (CTD)** -- an ATS comprised of proprietary distribution media and treatment media that is capable of meeting secondary effluent standards as defined by these rules. See Table 11 for sizing.

(21) **Community Wastewater System** -- see Onsite Sewage Treatment and Disposal System (OSS).

(22) **Composting Toilet** -- a dry toilet that treats human waste within an aerobic, vented environment to cause decomposition of the waste by dehydration and digestion of organic matter, yielding a composted residue that is removed for sanitary disposal.

(23) **Conventional Onsite Sewage System (OSS)** -- a system for treating sewage that involves the use of a septic tank or proprietary advanced treatment unit that has been issued a Product Permit followed by non-pressurized dispersion of effluent in an effluent disposal field (EDF) such that the trench bottom and sidewalls are located completely in unaltered natural soil and the bottom of the trench is at a depth not greater than 60 inches below the unaltered natural ground surface. Such systems do not require an engineer design. A shallow placement system is a Conventional OSS. See also Shallow Placement System.

(24) **Crossover** -- a non-perforated pipe that connects one EDF pipe to another and installed as specified in these rules or in the applicable product manuals.

(25) **Design Flow** -- the flow of sewage to a system dictated by good engineering practices, comparable systems, or literature on which the design is based. This flow is generally considered to be the average daily flow that the treatment system and disposal field will receive with appropriate consideration given to maximum flow periods, equalization, and organic loading.

(26) **Developer** -- a person who engages in building development.

(27) **Drainage System (Surface)** -- a drainage ditch, drainage way, drainage structure, swale, trench, culvert, or any apparatus or method for directing the flow of water over land.

(28) **Drainage Way** -- a general term for a course or channel along which water moves in draining an area. Also, restricted to small, roughly linear, or arcuate depressions that move concentrated water at some time, and either lacks a defined channel (e.g., head slope or swale) or has a small defined channel (e.g., low order stream). See also Gully, Ravine, and Ephemeral Stream.

(29) **Drip Irrigation System** -- a system that relies on advanced treatment and filtration of the treated effluent. Final disposal occurs in the upper limits of the soil horizon and is distributed through small diameter tubes that have emitters that slowly drip the treated water into the soil.

(30) **Dwelling** -- a house, manufactured or mobile home, recreational vehicle, shelter, structure or building, or portion thereof, that is or could be expected to be occupied in whole or in part as the home, residence, or sleeping place of one or more person(s).

(31) **Effective Liquid Capacity** -- the liquid volume of a tank below the liquid level line (outlet invert).

(32) **Effluent** -- the discharge from a sewage treatment device. See Primary Effluent Standard, Secondary Effluent Standard, and Advanced Treatment.

(33) **Effluent Disposal Field (EDF)** -- a minimum area as calculated per these rules into which sewage treated to at least Primary Effluent Standards is dispersed into the soil.

(34) **Effluent Disposal Field (EDF) Pipe** -- perforated pipe or ADPH permitted equivalent placed in the EDF for the purpose of dispersing effluent.

(35) **Effluent Line** -- a watertight pipe in an OSS or EDS that conveys sewage from one component, such as a septic tank or

treatment unit, to another, such as an EDF, distribution box, or header line.

(36) **Engineered OSS** -- all systems, other than those meeting the definition of Conventional OSS, that require engineer design. This includes, but is not limited to, controlled fill mound systems, advanced treatment (except proprietary advanced treatment followed by a conventional EDF), drip irrigation, low pressure pipe (LPP), non-proprietary uniform distribution, constructed wetlands, and systems with a septic tank, followed by an EDF where any portion of the EDF protrudes above the unaltered natural soil surface.

(37) **Ephemeral Stream** -- a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater run-off is the primary source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water. For the purposes of these rules, an ephemeral stream is considered a drainage way. See Gully and Ravine.

(38) **Establishment** -- a facility, other than a dwelling, that generates sewage as defined by these rules.

(39) **Failure** -- a breakage, weakness, or defect that causes a malfunction in the treatment, distribution, disposal, or dispersal of effluent into the EDF, or that causes a wash-out or disruption of the EDF as evidenced by one of the following:

- (a) Surfacing or ponding of effluent (not by design) at, over, or around any component of the OSS or EDS.
- (b) Backing up of sewage within a dwelling or establishment as a result of a malfunction of the OSS or EDS.
- (c) The contamination of ground or surface waters by an OSS or EDS.

(40) **Flooding** -- the temporary covering of the soil surface by flowing or standing water from any source, such as streams overflowing their banks, runoff from adjacent or surrounding slopes, inflow from high tides, or any combination of sources, and of a severity that damages or prohibits the normal use of the property. The frequency of the event determines the limitation assigned to each category. See Ponding.

- (a) Rare -- flooding unlikely but possible under unusual weather conditions; 1 to 5 percent chance of flooding in any year or 1 to 5 times in 100 years.

(b) Occasional -- flooding occurs infrequently under usual weather conditions; 5 to 50 percent chance of flooding in any year or more than 5 to 50 times in 100 years (moderate limitations).

(c) Frequent -- flooding is likely to occur often under usual weather conditions; more than a 50 percent chance of flooding in any year or more than 50 times in 100 years (severe limitations).

(41) **Floodplain Easement** -- an entitlement in perpetuity allowing the holder of the easement to flood and inundate land up to a specified contour elevation.

(42) **GPD** -- gallons per day.

(43) **Gravel Field Standard EDF** -- the standard sizing of the EDF when gravel is used as the disposal medium as required by 420-3-1-.53 Gravel Field Standard EDF Sizing for Dwellings. See Table 2 and Table 3 for sizing.

(44) **Gravitational Water** -- water that moves into, through, or out of the soil under the influence of gravity. Can also be called free water.

(45) **Grease Interceptor** -- a watertight receptacle that traps grease, is located within the structure, and is integrated into the building sewer.

(46) **Grease Trap** -- a watertight tank or receptacle in which the grease present in sewage is intercepted, where a baffle wall may or may not be present, and that meets the design and structural requirements as provided by these rules.

(47) **Gully** -- a small channel with steep sides caused by erosion and cut in unconsolidated materials by concentrated but intermittent flow of water usually during and immediately following heavy rains. A gully is an obstacle to wheeled vehicles and too deep (greater than 18inches) to be obliterated by ordinary tillage. See also Drainage Way, Ravine, and Ephemeral Stream.

(48) **High Shrink-Swell Soils** -- soils that have relatively high clay content and a dominant mineral type that causes significant swelling when wet and shrinking when dry such as montmorillonite, which is a member of the smectite family. These soils are inherently slowly or very slowly permeable. Most Vertisols and Vertie Intergrades have a high shrink-swell potential. COLEs (Coefficient of Linear Extensibility) are usually greater than or equal to 0.09.

(49) **Holding Tank** -- a water-tight, in-ground receptacle specifically manufactured for the purpose of the collection and temporary retention of sewage and that meets the design and

structural requirements as provided by these rules, This term does not include self-contained sewage collection tanks on a recreational vehicle/travel trailer, or a toilet vault used in rural locations without water under pressure.

(50) **Hydric Soils** -- soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. Hydric soil determinations shall be made using the USDA-NRCS document, "Field Indicators of Hydric Soils in the United States," herein adopted by reference.

(51) **IAPMO** -- International Association of Plumbing and Mechanical Officials.

(52) **Immediate Family** -- an individual's children, including adopted children and stepchildren, brothers, sisters, spouse, parents, including adoptive parents and spouse's parents. The term also includes those in a guardian relationship and relatives that require special care because of age, sickness, or infirmity.

(53) **Innovative Effluent Discharge System (EDS)** -- A treatment and surface discharge system that has been designed by an engineer for installation under specific site conditions.

(54) **Intermittent Stream** -- a well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the conveyance of water. For the purposes of these rules, an intermittent stream is considered surface water.

(55) **International Plum.bing Code (IPC)/International Private Sewage Disposal Code (IPSDC)** -- the latest version of these codes as published by the International Code Council, Inc., which is herein adopted by reference.

(56) **Landform** -- any physical, recognizable form or feature on the earth's surface having a characteristic shape and range in composition and produced by natural causes; it can span a wide range in size (e.g., dune encompasses both parabolic dune, which can be several tens-of-meters across, as well as seif dune, which can be up to 100 kilometers long). Landforms provide an empirical description of similar portions of the earth's surface.

(57) **Large-Flow Development** -- a building development on a single parcel or multiple adjacent parcels that singularly or as a group would result in 13 bedrooms or more in a dwelling or dwellings, or an establishment with a design flow of more than 1,800 gpd. Unless subject to an exception provided in these rules, a group of residences or establishments that are constructed in phases and

that will share infrastructures such as roads, entrances, water lines, etc., are considered to be a Large-Flow Development. This flow is development flow and not system flow. It establishes planning requirements, and it is the combined flow in the planned development whether it is going to one or more OSS systems.

(58) **Large-Flow OSS** -- any system that has a design flow of more than 1,800 gpd but less than 15,001 gpd.

(59) **Laundry Waste** -- the liquid waste from a washing machine, laundry sink, or other receptacle used for laundering purposes. Also referred to as one type of graywater.

(60) **Local Health Department (LBD)** -- a county health department.

(61) **Lot** -- a legally described parcel of land.

(62) **Lot Modification** -- an activity that alters a lot or parcel of land in a manner which changes the natural characteristics of the land and may improve or impair a site's ability to use an OSS or EDS.

(63) **Maintenance** -- periodic actions to sustain an OSS or EDS such as pumping the tank, cleaning or replacing the filter, replacing a non-perforated component (such as solid supply lines, solid headers, and crossovers), and any type of electronic/mechanical work. Other maintenance may include activities to evaluate or improve structural integrity of the tank or lid or repairing a baffle, inlet or outlet fixture. See Repair and Relocation.

(64) **Mine Spoil** -- the waste material consisting of earth and rock excavated from a mine and generally left or placed in no specific order. Materials usually vary greatly in size and percentages. Excessive voids between coarse fragments and over compaction of soil size materials are two of the major challenges for sewage disposal.

(65) **Minimum Vertical Separation (MVS)** -- the minimum allowable vertical separation between the bottom of the EDF and a restrictive layer or horizon.

(66) **MPI** -- Minutes per inch.

(67) **Natural Ground Surface** -- the naturally occurring surface of the earth which has not been significantly altered or disturbed by artificial means such as cutting and/or filling (does not include plowing for agricultural purposes). Except where severely eroded, the ground surface normally begins with a dark, organic matter enriched layer (topsoil) of varying thickness followed usually with a brighter colored layer (subsoil) increasing in clay content with depth. May also be referred to as in-situ soils.

(68) **NSF** -- NSF International.

(69) **Observation Pits** -- soil inspection trenches that shall be a minimum of 3 feet wide and 60 inches deep unless hard bedrock is encountered. Pits shall be constructed in such a fashion as to be safely accessible for the evaluator, parallel to the contour, and level.

(70) **Onsite Sewage Treatment and Disposal System (OSS)** -- a system that collects, transports, treats, and provides subsurface disposal of sewage from establishments or dwellings. Subsets of this definition are:

(a) **Cluster Wastewater System** -- an integrated wastewater collection system or treatment system, or both, or multiple systems serving a single development or contiguous developments, which collectively have design flow of 15,000 gpd or less and is designed and permitted for discharge of the treated wastewater to a subsurface distribution system but excluding systems that discharge directly to surface waters of the state. The system must be designed by and certified by a licensed professional engineer to comply with design and permit requirements established by ADPH. The term does not include a small-flow cluster system.

(b) **Small Flow Cluster Wastewater System** -- A wastewater system serving four or fewer dwellings, apartment units, or other establishments whether owned by a single person or multiple persons, including individual single-user septic tank systems but excluding systems that discharge directly to the waters of the state. For permitting and planning purposes, these systems shall include the entire development and are equivalent to a Small-Flow OSS as defined by these rules.

(c) **Community Wastewater System** -- An integrated wastewater collection system or treatment system, or both, or multiple systems serving a single development or contiguous developments, which collectively have a design flow of more than 15,000 gpd and is designed and permitted for discharge of the treated wastewater to a subsurface distribution system, but the term specifically excludes systems that discharge directly to surface waters of the state. The system must be designed and certified by a licensed professional engineer to comply with the design and permit requirements established by ADEM. For the purpose of these rules, a single development does not include individual lots.

(71) **Pad** -- an EDF infiltrative surface utilizing advanced treatment with proprietary distribution or uniform distribution with timed dosing. See Table 10 for sizing.

(72) **Performance Permit** -- a permit required for Large-Flow Systems and other systems where effluent monitoring is required to protect the public's health or the environment. This permit may also be referred to as an operational permit.

(73) **Permeability** -- the long-term rate at which soil will accept water.

(74) **Permeameter** -- as used in these rules, refers to a constant head borehole permeameter or constant head well permeameter designed for the in-situ measurement of saturated hydraulic conductivity (Ksat) of the unsaturated (vadose) zone. Readings should be converted to min/in using an acceptable method that is typically provided by the manufacturer.

(75) **Person** -- an individual, firm, partnership, corporation, state agency, municipal corporation, party, company, association, or other public or private legal entity.

(76) **Pit Privy** -- an enclosed, non-portable toilet, into which non-waterborne human waste is deposited to a subsurface storage chamber that is not watertight.

(77) **Pits** -- see Observation Pits.

(78) **Plat (Preliminary)** -- a to-scale layout of the proposed development prepared by a professional land surveyor showing approximate locations of lots, streets, drainage, and other improvements.

(79) **Plat (Surveyed)** -- a property drawing or map, prepared by a professional land surveyor, and drawn to a scale of 1 inch equal to no more than 100 feet. It shall be suitable for recording and depict the location and boundaries of the parcel and of all lots (if subdivided) and include all details required by the appropriate application requirements of ADPH Forms CEP-2 and CEP-3.

(80) **Plot Plan** -- a to-scale drawing prepared by a professional as defined by these rules, complying with the application requirements of ADPH Forms CEP-2 and CEP-3. This drawing shall identify the size and location of required items in these applications.

(81) **Plumbing Code** -- the local plumbing code or if no local plumbing codes exist, the IPC, IRC, or IPSDC.

(82) **Ponding** -- standing water in a depression that is removed only by percolation, evaporation, and/or transpiration and that is of sufficient size that it lasts more than 7 days, or is of sufficient size, location, or duration to adversely affect the operation of an OSS or EDS.

(83) **Primary Effluent Standard** -- effluent of a lower quality than secondary effluent usually produced by a septic tank with no further treatment. For the average household, it is usually a 30-day .average of 250 milligrams per liter (mg/l) of Biological

Oxygen Demand (BOD). See also Secondary Effluent Standard and Advanced Treatment.

(84) **Private Sewer System** -- an OSS which serves dwellings or one or more establishments so long as all the dwellings/establishments share a common owner, such as a shopping center. Compare to Public Sewer System.

(85) **Product Permit**-- a permit issued by ADPH for proprietary products.

(86) **Professional Engineer (PE)** -- an individual as defined by the Alabama Board of Licensure for Professional Engineers and Land Surveyors,

(87) **Professional Geologist (PG)** -- an individual as defined by the Alabama Board of Licensure for Professional Geologists.

(88) **Professional Land Surveyor (PLS)** -- an individual as defined by the Alabama Board of Licensure for Professional Engineers and Land Surveyors.

(89) **Professional Soil Classifier (PSC)** -- an individual as defined by the Alabama Board of Registration for Professional Soil Classifiers.

(90) **Proprietary Product** -- a product owned by a private individual or corporation under a trademark or patent.

(91) **Public Health Environmental Site Specialist (PBESS)** -- a full-time employee of ADPH or an LHD who has completed the required training, testing, and certification requirements for evaluating EDF sites using soil morphology.

(92) **Public Sewer System** -- a properly permitted sewer system to which the public has access, be it privately or publicly owned. The definition includes Cluster and Community Systems as defined in § 22-25B-1, Code of Ala. 1975, and is sometimes referred to as a sanitary sewer system. Compare to Private Sewer System.

(93) **Public Water Supply** -- a water supply system that is defined and permitted by ADEM as a Public Water System.

(94) **Ravine** -- a small stream channel that is narrow, steep-sided, commonly V-shaped in cross section and larger than a gully, cut in unconsolidated materials. See also Drainage Way, Gully, and Ephemeral Stream.

(95) **Recreational Vehicle (RV)** -- a vehicle, that is self-propelled or towed which may have self-contained fixtures and facilities for collecting sewage. This term includes recreational trailers, mobile tiny houses, and campers, but excludes manufactured or mobile homes.

(96) **Recreational Vehicle (RV) Park** -- a park with more than two recreational vehicles that meets the requirements of 420-3-1-.31 Recreational Vehicle Parks.

(97) **Redoximorphic (Redox) Features** -- features formed by the processes of reduction, translocation, and/or oxidation of iron (Fe) and manganese (Mn) oxides. These features were formerly called mottles and low chroma colors. Redox features are indicators of current conditions of saturation, usually of significant duration.

(98) **Relocation** -- an action to replace an existing OSS or existing EDF/EDS when BOD or flow has changed, when requested by the applicant, or when there is an overriding environmental or health reason to require a new OSS/EDS. A replacement OSS/EDF/EDS is considered a new system and shall meet all current rules of a new OSS / EDS.

(99) **Repair** -- a corrective action taken to modify a failing portion of an existing OSS/EDS (any component) where the design parameters (BOD or flow) have not changed. Repair does not include replacement/relocation of an EDF/EDS, or any activity defined as maintenance.

(100) **Replacement Effluent Disposal Field (REDF)** -- a minimum defined and documented area, separate and apart from the EDF, set aside to be used in case the EDF must be replaced. See Effluent Disposal Field (EDF).

(101) **Responsible Person** -- in the case of a private dwelling, it is the property owner. In the case of a corporation, it is a principal executive officer. In the case of a partnership, it is a general partner. In the case of a sole proprietorship, it is the proprietor. In the case of a municipal, state, federal, or other public entity, it is either a principal executive officer or ranking elected official. May also be referred to as "applicant."

(102) **Restrictive Layer or Horizon (Water Movement)** -- a layer in the soil 3 or more inches thick that significantly slows the downward movement of water or hinders acceptable treatment of effluent. A restrictive layer or horizon generally has redoximorphic features, bedrock, or soil permeability that could form a restrictive layer or horizon that would slow the downward movement of water and restrict the use of or dictate the design of an EDF.

(103) **Sanitary Sewer System** -- a public or private sewer system. See Cluster Wastewater System, Small-Flow Cluster Wastewater System, and Community Wastewater System.

(104) **Sanitary Station** -- a holding tank used for receiving sewage from motor homes or coaches, recreational vehicles, travel

trailers, auto campers, or other temporary dwellings or shelters. The term may also be referred to as a dump station.

(105) **Saturation** -- a condition where the larger soil pores are full or almost full of water, having a positive or zero pressure potential. Thus, water can freely flow into an open bore hole, except in cases where certain soils are dominated by small pores.

(106) **Scarify**-- to break up and loosen the surface of the soil in preparation for the application of fill material.

(107) **Secondary Emuent Standard** -- effluent that meets the standard as defined by 40 CFR §133.102 of a 30-day average of 25 milligrams per liter (mg/l) of Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS), a 7-day average of 30 mg/l of BOD and TSS and 6 to 9 pH before discharge into the environment. See also Primary Effluent and Advanced Treatment.

(108) **Septage** -- the solids and liquids removed during the pumping of an OSS/EDS pretreatment device. For the purposes of these rules, the term septage shall exclude marine sanitation and portable toilet wastes that have not been pre-treated in a manner approved by the Board.

(109) **Septic Tank** -- a tank that receives sewage, provides treatment to the primary effluent standard, and that meets the design and structural requirements provided by these rules. This does not include tanks or grease traps that are connected to a public sewer system.

(110) **Septic Tank Manufacturer** -- a person who manufactures, makes, or constructs septic tanks.

(111) **Sewage** -- for the purpose of these rules, the term refers to the following:

(a) Sewage -- waterborne waste of similar composition and strength as may be found in the typical residence or dwelling and that typically has a concentration of 250 mg/l of BOD, Total Suspended Solids - 250 mg/l, Ammonia - 10 mg/l, and Total Phosphorus - 9 mg/l.

(b) High Strength Sewage -- waterborne waste from establishments, such as kitchen waste, that is of similar composition but of higher strength than would be found in a typical dwelling. This may be permitted at the discretion of the LHD.

(c) Graywater -- the portion of sewage generated by a water-using fixture, excluding toilet and food preparation waste from dwellings and regulated establishments. It is of similar composition but of lower strength than sewage. See Laundry Waste.

(d) Processed Septage -- waterborne waste of similar composition and strength found in a typical residence or establishment where the solids have been removed through a dewatering process.

(112) **Sewage Tank** -- any tank that receives sewage, is a component of an OSS/EDS, and meets the design and structural requirements as provided by these rules.

(113) **Shallow Placement System** -- a Conventional OSS where the trench bottom and sidewalls are located in unaltered natural soil that requires some amount of fill material above the EDF in order to provide a minimum soil cover of 12 inches.

(114) **Shoulder** -- the profile position that forms the convex, erosional surface near the top of a hillslope. If present, it comprises the transition zone from summit to backslope.

(115) **Shrink-Swell Potential** -- the relative change in soil volume to be expected with changes in moisture content. Soils that have relatively high clay content (greater than 30 percent clay) and dominant smectitic clay mineralogy shrink and swell markedly upon wetting and drying and are inherently slowly or very slowly permeable. A "high" shrink-swell potential is indicated by a Coefficient of Linear Extensibility (COLE) of 0.06-0.09. A COLE of more than 0.09 defines the "very high" shrink-swell class. Most Vertisols and soils in Vertic subgroups have a "high" or "very high" shrink-swell potential.

(116) **Single-Family Dwelling** -- a house, manufactured or mobile home, house trailer, shelter, structure or building, or portion thereof, which is occupied as a distinct and separate home, residence, or sleeping place of one or more persons.

(117) **Sinkhole** -- a natural depression formed as a result of subsurface removal of soil or rock materials and causing the formation of a collapse feature that exhibits internal drainage. The existence of a sinkhole is typically indicated by closed depression contour lines on a United States Geological Survey 7.5-minute quadrangle topographic map, or as determined by field investigation. A sinkhole begins at the outer margins of the depression, as determined at the site by a professional geologist.

(118) **Site Development Plan (SDP)** -- a process required for Large-Flow Developments that initiates early involvement of the LHD to determine suitability of a site for an OSS(s) and protection of the EDF/REDF. Instructions are outlined in ADPH Form CEP-3.

(119) **Slope (Gradient)** -- the difference in elevation between two points and is expressed as a percentage. For example, a difference in elevation of 1 meter over a horizontal distance of 100 meters is a slope of 1 percent. Slope gradient influences the retention and movement of water, the potential for soil slippage and

accelerated erosion, the ease with which machinery can be used, soil-water states, and the engineering uses of the soil. Different slope positions (geomorphic components) and landform shapes handle surface and sub-surface water differently and shall be considered when locating EDF areas. Concave shaped landforms should be avoided. Drainage ways are unsuitable and shall be avoided.

(120) **Small-Flow Development** -- a building development on a single parcel or multiple adjacent parcels that singularly or as a group would result in 12 or fewer bedrooms in a dwelling or dwellings or an establishment or establishments with an average daily design flow from all planned or projected sewage systems of 1,800 gpd or less. This flow is development flow and not system flow, The design flow establishes planning requirements, and it is the combined flow of all systems in the planned development whether it is going to one or more systems.

(121) **Small-Flow OSS** -- a system with an average daily design flow of 1,800 gpd or less, or that serves 12 bedrooms or less.

(122) **Smectitic** -- a group of clay minerals, including montmorillonite, that causes soils to exhibit a high degree of shrinking and swelling when it is the dominant clay mineral occurring in the soil.

(123) **Spa** -- a water-holding unit designed for recreational and therapeutic use that may be drained, cleaned, or refilled for each use.

(124) **State Health Officer** -- the Health Officer for the State of Alabama, as defined by §22-2-8, Code of Ala. 1975, or his or her designee.

(125) **Strip Development** -- a linear, multi-lot development where the lots front an existing publicly maintained road with established infrastructure. Lots within a strip development must meet the minimum lot sizes in Table 17, have individual OSSs (no cluster OSSs), individual access to a publicly maintained road (no shared access), and no access to an existing largeflow development except by publicly maintained road. Flag lots are excluded from this definition.

(126) **Structure** -- any site built or any manufactured building including, but not limited to, dwellings, offices, stores, establishments, manufacturing facilities, storage buildings, warehouses, barns, garages, and any other roofed area where it would be expected that sewage or high strength sewage will be generated, or that will have an impact on a system's EDF/EDS or REDF.

(127) **Summit** -- the topographically highest position of a hillslope profile with a near level (planar or only slightly convex) surface. Compare with shoulder, backslope, footslope,

toeslope, and crest. A general term for the top or highest area of a landform such as a hill, mountain, or tableland. It usually refers to a high interfluvial area of relatively gentle slope that is flanked by steeper slopes, e.g., mountain fronts or tableland escarpments.

(128) **Surface Saturated Soils** -- soils that, due to their inherent wetness, cannot be used for a conventional OSS. Examples are soils in wetlands, hydric soils, and soils with less than 6 inches to ASHES.

(129) **Surface Water** -- water above the surface of the ground, including, but not limited to, waters of a bay, river, stream, watercourse, pond, lake, swamp, wetland, spring, or artesian well, located partially or wholly within the state, including the Gulf of Mexico. Generally, these features exhibit some characteristic(s) indicating a degree of permanence (i.e., a riverbank, a depression that holds water for a few days after a rain, or a wet weather spring does not qualify).

(130) **Surveyed Plat** -- see Plat (Surveyed).

(131) **Trash Trap** -- a tank required by some designs to precede an advanced treatment system that may not meet non-structural septic tank specifications, depending on the requirements of the advanced treatment device manufacturer.

(132) **Uniform Distribution** -- the even and consistent dispersal of effluent across the EDF. Such methods may be proprietary or non-proprietary.

(133) **Vertisols (and Vertic Soil Characteristics)** -- soils which contain clays dominated by high shrink-swell potential and that meet the requirements set forth by the USDA publication "Soil Taxonomy,, or have vertic characteristics as described by the same. See also Shrink-Swell Potential.

(134) **Wastewater** -- see Sewage.

(135) **Wastewater Management Entity** -- an entity that exercises sole responsibility for the operation and maintenance of one or more Cluster or Community Wastewater Systems.

(136) **Water of the State** -- subsurface or surfaced ground water, including aquifers, and surface water of a river, stream, watercourse, reservoir, pond, lake, or coast, wholly or partially within the state, natural or artificial. This does not include waters that are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless the owner or others use such waters in the conduct of interstate commerce.

(137) **Wetland** -- a transitional area between aquatic and terrestrial ecosystems that is inundated or saturated for long enough periods to produce hydric soils and support hydrophytic vegetation. See also Ponding.

(138) **Wet Season** -- that portion of the year receiving the highest amount of rainfall, creating the most unfavorable conditions for the proper functioning of an OSS because of soil characteristics such as, but not limited to, shrink-swell potential, perched or apparent high water table, or other such conditions. Generally, the wet season in Alabama is December 1 through April 30, but it may vary during the year in a given location.

Author: Thad Pittman, Leigh Salter, Patricia Lindsey, Matthew Conner, Ken Stephens, Bob Bright, Natalie Parsons

Statutory Authority: Code of Ala. 1975, §§22-2-2(4); 22-2-2(6); 22-10-1, et seq.; 22-26-1 et seq.; 22-25B-1 et seq.

History: Filed July 20, 1988. **Amended:** Filed June 19, 1992.

Repealed and New Rule: Filed December 16, 1999; effective January 20, 2000. **Repealed and New Rule:** October 20, 2005; effective November 24, 2005; operative March 19, 2006. **Amended:** Filed October 19, 2006; effective November 23, 2006. **Repeal and New Rule:** Filed January 19, 2017; effective March 5, 2017. **Repealed and New Rule:** Published December 30, 2022; effective February 13, 2023.

Ed. Note: Previous Rule .01 was renumbered .04 per certification published December 30, 2022; effective February 13, 2023.