

15A NCAC 18A .1935 DEFINITIONS

The following definitions shall apply throughout this Section:

- (1) "Alluvial Soils" means stratified soils without distinct horizons, deposited by flood waters.
- (2) "Alternative System" means any approved ground absorption sewage treatment and disposal system other than an approved privy or an approved septic tank system.
- (3) "Approved" means that which the State or local health department has determined is in accordance with this Section and G.S. 130A, Article 11.
- (4) "Approved Privy" means a fly-tight structure consisting of a pit, floor slab, and seat riser constructed in accordance with Rule .1959 of this Section.
- (5) "Areas subject to frequent flooding" means those areas inundated at a 10-year or less frequency and includes alluvial soils and areas subject to tidal or storm overwash.
- (6) "Certified Operator" means a person authorized to operate a wastewater system in accordance with G.S. 90A, Article 3 and applicable rules of the Water Pollution Control System Operators Certification Commission.
- (7) "Collection sewer" means gravity flow pipelines, force mains, effluent supply lines, and appliances appurtenant thereto, used for conducting wastes from building drains to a treatment system or to a ground absorption sewage treatment and disposal system.
- (8) "Designated wetland" means an area on the land surface established under the provisions of the Coastal Area Management Act or the Federal Clean Water Act.
- (9) "Design unit" means one or more dwelling units, places of business, or places of public assembly on:
 - (a) a single lot or tract of land;
 - (b) multiple lots or tracts of land served by a common ground absorption sewage treatment and disposal system; or
 - (c) a single lot or tract of land or multiple lots or tracts of land where the dwelling units, places of business or places of public assembly are under multiple ownership (e.g. condominiums) and are served by a ground absorption system or multiple ground absorption systems which are under common or joint ownership or control.
- (10) "Dwelling unit" means any room or group of rooms located within a structure and forming a single, habitable unit with facilities which are used or intended to be used for living, sleeping, bathing, toilet usage, cooking, and eating.
- (11) "Effluent" means the liquid discharge of a septic tank or other sewage treatment device.
- (12) "Estimated saturated hydraulic conductivity" - means a saturated hydraulic conductivity value based upon the soil profile evaluation and description of the soil texture, soil structure, soil consistency, soil pores, and roots following the procedures in Field Book for Describing and Sampling of Soils, NRCS, USDA and comparison to soil profile saturated hydraulic conductivity data for soil input files for similar soils. The Field Book is hereby incorporated by reference, including any subsequent amendments and editions, in accordance with G.S. 150B-21.6. Copies of the Field Book may be inspected at the Division of Environmental Health Raleigh Office, 2728 Capital Boulevard, Raleigh, 27604, and copies may be downloaded at no cost from the internet at http://soils.usda.gov/procedures/field_bk/main.htm#intro, or obtained from the National Soil Survey Center, MS 34, Room 152, 100 Centennial Mall North, Lincoln, NE 68508-3866.
- (13) "Gravity distribution" means an approved drainfield utilizing gravity and not pressure to distribute effluent from the inlet to the distal end of each nitrification line.
- (14) "Ground absorption sewage treatment and disposal system" means a system that utilizes the soil for the subsurface disposal of partially treated or treated sewage effluent.
- (15) "Horizon" means a layer of soil, approximately parallel to the surface, that has distinct characteristics produced by soil forming processes.
- (16) "Horizon subdivision" - means a portion of a horizon, approximately parallel to the surface that has distinct characteristics produced by soil forming processes.
- (17) "Lateral water movement" - means the movement of water down slope on sites of at least a four percent slope and above a less permeable horizon, and as observed periodically in bore holes, excavations, or monitoring wells.
- (18) "Long Term Acceptance Rate (LTAR)" means the rate of wastewater effluent absorption by the soil in a ground absorption system after long-term use. The LTAR, in units of gallons per day per square foot (gpd/ft²), is assigned based upon soil textural class and system type, and is used to determine the

required length of nitrification trenches and size of drainfield area when designing a ground absorption system, pursuant to applicable rules of this Section.

- (19) "Local health department" means any county, district, or other health department authorized to be organized under the General Statutes of North Carolina.
- (20) "Matrix" - means a volume equivalent to 50 percent or greater of the total volume of a horizon or horizon subdivision.
- (21) "Mean high water mark" means, for coastal waters having six inches or more lunar tidal influence, the average height of the high water over a 19 year period as may be ascertained from National Ocean Survey or U.S. Army Corps of Engineers tide stations data or as otherwise determined under the provisions of the Coastal Area Management Act.
- (22) "Mottle" - means a feature(s) which occupies less than 50 percent of the total volume of a horizon or horizon subdivision.
- (23) "NEMA 4X" means an enclosure for an electrical control panel or junction box that meets standards for protection of equipment due to the ingress of water (including rain and hose-directed water) and an additional level of protection against corrosion, as set forth in Standard 250 of the National Electrical Manufacturers Association. NEMA Standard 250 is hereby incorporated by reference, including any subsequent amendments and editions. Copies may be inspected at the On-Site Wastewater Section Central Office, located at 2728 Capital Blvd., Raleigh, NC in the Parker Lincoln Building, and copies may be downloaded from the internet at <http://www.nema.org/stds/250.cfm>, or obtained from HIS/Global, 15 Inverness Way East, Englewood, CO 80112, at a cost of sixty-one dollars (\$61.00).
- (24) "NSF-40 Systems" means individual residential wastewater treatment systems (RWTS) that are approved and listed in accordance with the standards adopted by NSF International for Class I residential wastewater treatment systems under NSF/ANSI Standard 40, and approved for use pursuant to G.S. 130A-342 and the rules in this Section.
- (25) "Naturally occurring soil" means soil formed in place due to natural weathering processes and being unaltered by filling, removal, or other man-induced changes other than tillage.
- (26) "Nitrification field" means the area in which the nitrification lines are located.
- (27) "Nitrification lines" means approved pipe, specially designed porous blocks, or other approved materials which receive partially treated sewage effluent for distribution and absorption into the soil beneath the ground surface.
- (28) "Nitrification trench," also referred to as a sewage absorption trench, means a ditch into which a single nitrification line is laid and covered by soil.
- (29) "Non-ground absorption sewage treatment system" means a system for waste treatment designed not to discharge to the soil, land surface, or surface waters, including approved vault privies, incinerating toilets, mechanical toilets, composting toilets, chemical toilets, and recycling systems.
- (30) "Operator in Responsible Charge ('ORC')" means the individual designated by the person owning or controlling the system as the certified operator of record of the system who has primary responsibility for the operation of such system as defined in G.S. 90A-46 and applicable rules of the Water Pollution Control System Operators Certification Commission.
- (31) "Organic soils" means those organic mucks and peats consisting of more than 20 percent organic matter (by dry weight) and 18 inches or greater in thickness.
- (32) "Parent material" means the mineral matter that is in its present position through deposition by water, wind, gravity or by decomposition of rock and exposed at the land surface or overlain by soil or saprolite.
- (33) "Ped" means a unit of soil structure, such as an aggregate, crumb, prism, block, or granule formed by natural processes.
- (34) "Perched water table" means a saturated soil horizon or horizon subdivision, with a free water surface periodically observed in a bore hole or shallow monitoring well, but generally above the normal water table, or may be as identified by drainage mottles or redoximorphic features, and caused by a less permeable lower horizon.
- (35) "Person" means any individual, firm, association, organization, partnership, business trust, corporation, company, or unit of local government.
- (36) "Place of business" means any store, warehouse, manufacturing establishment, place of amusement or recreation, service station, foodhandling establishment, or any other place where people work or are served.

- (37) "Place of public assembly" means any fairground, auditorium, stadium, church, campground, theater, school, or any other place where people gather or congregate.
- (38) "Pressure Dispersal" means an approved system utilizing an effluent pump or siphon to distribute effluent uniformly to each nitrification line and along each nitrification line in the drainfield through a pressurized pipe network.
- (39) "Privy building" means and includes any and all buildings which are used for privacy in the acts of urination and defecation which are constructed over pit privies and are not connected to a ground absorption sewage treatment and disposal system or a public or community sewage system.
- (40) "Public management entity" means a city (G.S. 160A, Article 16), county (G.S. 153A, Article 15), interlocal contract (G.S. 153A, Article 16), joint management agency (G.S. 160A-461 -462), county service district (G.S. 153A, Article 16), county water and sewer district (G.S. 162A, Article 6), sanitary district (G.S. 130A, Article 2), water and sewer authority (G.S. 162A, Article 1), metropolitan water district (G.S. 162A, Article 4), metropolitan sewerage district (G.S. 162A, Article 5), public utility [G.S. 62-3(23)], county or district health department (G.S. 130A, Article 2), or other public entity legally authorized to operate and maintain on-site sewage systems.
- (41) "Redoximorphic features" - means a color pattern of a horizon or horizon subdivision due to a loss (depletion) or gain (concentration) of pigment compared to the matrix color, formed by oxidation/reduction of iron (Fe) coupled with its removal, translocation, or accrual; or a soil matrix color controlled by the presence of Fe+2 (see Field Book for Describing and Sampling of Soils, NRCS, USDA which is hereby incorporated by reference, including any subsequent amendments and editions, in accordance with G.S. 150B-21.6).
- (42) "Relocation" means the displacement of a residence, place of business, or place of public assembly from one location to another.
- (43) "Repair area" means an area, either in its natural state or which is capable of being modified, consistent with the rules in this Section, which is reserved for the installation of additional nitrification fields and is not covered with structures or impervious materials.
- (44) "Residence" means any home, hotel, motel, summer camp, labor work camp, mobile home, dwelling unit in a multiple-family structure, or any other place where people reside.
- (45) "Residential Wastewater Treatment Systems (RWTS)" means approved individual advanced pretreatment systems which are covered under standards of NSF International, in accordance with G.S. 130A-342 and applicable rules in this Section.
- (46) "Restrictive horizon" means a soil horizon that is capable of perching ground water or sewage effluent and that is brittle and strongly compacted or strongly cemented with iron, aluminum, silica, organic matter, or other compounds. Restrictive horizons may occur as fragipans, iron pans or organic pans, and are recognized by their resistance in excavation or in using a soil auger.
- (47) "Rock" means the body of consolidated or partially consolidated material composed of minerals at or below the land surface. Rock includes bedrock and partially weathered rock that is hard and cannot be dug with hand tools. The upper boundary of rock is "saprolite," "soil," or the land surface.
- (48) "Sanitary system of sewage treatment and disposal" means a complete system of sewage collection, treatment and disposal, including approved privies, septic tank systems, connection to public or community sewage systems, incinerators, mechanical toilets, composting toilets, recycling toilets, mechanical aeration systems, or other such systems.
- (49) "Saprolite" means the body of porous material formed in place by weathering of igneous or metamorphic rocks. Saprolite has a massive, rock-controlled structure, and retains the fabric (arrangement of minerals) of its parent rock in at least 50 percent of its volume. Saprolite can be dug with hand tools. The lower limit of saprolite is "rock" and its upper limit is "soil" or the land surface. The term "saprolite" does not include sedimentary parent materials.
- (50) "Saturated soils" - means a horizon or horizon subdivision with a free water surface at the corresponding depth and observed in a bore hole or monitoring well.
- (51) "Septic tank" means a water-tight, covered receptacle designed for primary treatment of sewage and constructed to:
- (a) receive the discharge of sewage from a building;
 - (b) separate settleable and floating solids from the liquid;
 - (c) digest organic matter by anaerobic bacterial action;
 - (d) store digested solids through a period of detention; and

- (e) allow clarified liquids to discharge for additional treatment and final disposal.
- (52) "Septic tank system" means a subsurface sanitary sewage system consisting of a septic tank and a subsurface disposal field.
- (53) "Sewage" means the liquid and solid human waste and liquid waste generated by water-using fixtures and appliances, including those associated with food handling. The term does not include industrial process wastewater or sewage that is combined with industrial process wastewater.
- (54) "Site" means the area in which the sewage treatment and disposal system is to be located and the area required to accommodate repairs and replacement of nitrification field and permit proper functioning of the system.
- (55) "Soil" means the naturally occurring body of porous mineral and organic materials on the land surface. Soil is composed of sand-, silt-, and clay-sized particles that are mixed with varying amounts of larger fragments and some organic material. Soil contains less than 50 percent of its volume as rock, saprolite, or coarse-earth fraction (mineral particles greater than 2.0 millimeters). The upper limit of the soil is the land surface, and its lower limit is "rock," "saprolite," or other parent materials.
- (56) "Soil series" - means an official series name established by NRCS, USDA and confirmed to be present on the site by detailed on-site soil profile descriptions and taxonomic classification, and not necessarily the soil series mapped on the county soil survey.
- (57) "Soil structure" means the arrangement of primary soil particles into compound particles, peds, or clusters that are separated by natural planes of weakness from adjoining aggregates.
- (58) "Soil textural classes" means soil classification based upon size distribution of mineral particles in the fine-earth fraction less than two millimeters in diameter. The fine-earth fraction includes sand (2.0 - 0.05 mm in size), silt (less than 0.05 mm - 0.002 mm or greater in size), and clay (less than 0.002 mm in size) particles. The specific textural classes are defined as follows and as shown in the Field Book for Describing and Sampling Soils, NRCS, USDA. The Field Book is hereby incorporated by reference, including any subsequent amendments and editions. Copies of the Field Book may be inspected at the On-Site Wastewater Section Central Office, located at 2728 Capital Blvd., Raleigh, NC in the Parker Lincoln Building, and copies may be downloaded at no cost from the internet at <http://soils.usda.gov/technical/fieldbook>, or obtained from the US Government Printing office at <http://bookstore.gpo.gov/> at a cost of twenty-four dollars (\$24.00).
- (a) "Sand" means soil material that contains 85 percent or more of sand; the percentage of silt plus 1.5 times the percentage of clay shall not exceed 15.
- (b) "Loamy sand" means soil material that contains at the upper limit 85 to 90 percent sand, and the percentage silt plus 1.5 times the percentage of clay is not less than 15; at the lower limit it contains not less than 70 to 85 percent sand, and the percentage of silt plus twice the percentage of clay does not exceed 30.
- (c) "Sandy loam" means soil material that contains either 20 percent clay or less, and the percentage of silt plus twice the percentage of clay exceeds 30, and contains 52 percent or more sand; or less than seven percent clay, less than 50 percent silt, and between 43 and 52 percent sand.
- (d) "Loam" means soil material that contains seven to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand.
- (e) "Silt loam" means soil material that contains 50 percent or more silt and 12 to 27 percent clay; or contains 50 to 80 percent silt and less than 12 percent clay.
- (f) "Silt" means soil material that contains 80 percent or more silt and less than 12 percent clay.
- (g) "Sandy clay loam" means soil material that contains 20 to 35 percent clay, less than 28 percent silt, and 45 percent or more sand.
- (h) "Clay loam" means soil material that contains 27 to 40 percent clay and 20 to 45 percent sand.
- (i) "Silty clay loam" means soil material that contains 27 to 40 percent clay and less than 20 percent sand.
- (j) "Sandy clay" means soil material that contains 35 percent or more clay and 45 percent or more sand.
- (k) "Silty clay" means soil material that contains 40 percent or more clay and 40 percent or more silt.

- (1) "Clay" means soil material that contains 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.
- (59) "State" means the Department of Environment and Natural Resources, Division of Environmental Health.
- (60) "Stream" means a natural or manmade channel, including groundwater lowering ditches and devices, in which water flows or stands most of the year.
- (61) "Subsurface disposal" means the application of sewage effluent beneath the surface of the ground by distribution through approved nitrification lines.
- (62) "TS-I Systems" means advanced pretreatment systems which are approved in accordance with TS-I effluent quality standards in Table VII of Rule .1970.
- (63) "TS-II Systems" means advanced pretreatment systems which are approved in accordance with TS-II effluent quality standards in Table VII of Rule .1970.
- (64) "Third-Party" means a person or body that is independent of the parties involved which does not gain financially or otherwise benefit from the outcome of the testing, and which has a knowledge of the subject area based upon relevant training and experience.

*History Note: Authority G.S. 130A-335(e) and (f);
Eff. July 1, 1982;
Amended Eff. July 1, 1995; January 1, 1990; August 1, 1988; April 1, 1985;
Temporary Amendment Eff. June 24, 2003;
Amended Eff. June 1, 2006; May 1, 2004.*