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# Ohio Administrative Code

## Rule 3701-29-07 Soil evaluation and soil evaluators.

Effective: January 1, 2015

(A) Soil evaluators shall have the knowledge and experience to facilitate the review of site and soil conditions, information provided by the homeowner, and these rules to identify appropriate areas for the siting of STS or GWRS. Soil evaluators shall be knowledgeable of the requirements of this chapter, available STS technologies, and the science of pedology. Soil evaluations shall be completed by:

(1) A soil scientist or soil classifier certified by the soil science society of America (SSSA) completing the soil evaluation while acting as an independent agent of the owner or board of health;

(2) A SSSA associated professional soil scientist that is supervised by a SSSA certified soil scientist completing the soil evaluation while acting as an independent agent of the owner or board of health;

(3) A soil professional registered by a state or national organization with equivalent minimum qualifications and/or demonstration of competency for soil evaluation as approved by the director of health;

(4) A registered sanitarian employed by the board of health having jurisdiction where the soil evaluation is to take place completing the soil evaluation on behalf of the board of health when the employee is determined by the board of health to be capable of meeting the tasks in paragraph (C) of this rule; or

(5) Other persons approved under a certification program or other training program as approved by the director of health.

(B) Any board of health that completes soil evaluations in compliance with paragraph (A) of this rule may adopt a fee for the cost associated with performing the soil evaluation provided the fee is in compliance with rule 3701-36-14 of the Administrative Code. Nothing shall prevent an owner from securing a soil evaluation from an independent agent in compliance with paragraph (A) of this rule in

lieu of a soil evaluation completed by the board of health and the associated fee.

(C) For the purposes of this chapter, soil evaluators shall perform the following tasks required for soil evaluations through submission of complete and accurate soil evaluations:

(1) Describe all limiting conditions within the soil depth investigated as defined in paragraph (III) of rule 3701-29-01 of the Administrative Code;

(2) Use the NRCS field book for describing and sampling soils to describe:

(a) Munsell color table to accurately describe soil color (hue, value, and chroma) and redoximorphic features (concentrations and depletions) to accurately estimate depth to saturated soil;

(b) Describe soil horizons and the depth of each horizon;

(c) Describe the soil texture of each horizon (class, percentage clay, percentage rock fragments);

(d) Describe the structure of each soil horizon (grade, size and shape of structural units);

(e) Describe the moist consistence of the soil for each horizon;

(f) Describe the slope and surface contours as applicable to STS or GWRS designs;

(3) Describe and document the extent of the suitable soil; and

(4) Have sufficient knowledge of this chapter.

(D) The soil evaluator shall visit the site where the STS or GWRS is to be located during the soil evaluation to observe the site conditions and observe and document the soil profile at a sufficient number of locations as determined by the board of health and the soil scientist to accurately reflect the variation in soil and site conditions across the proposed sewage treatment system soil absorption areas, by the use of soil borings and/or excavations of sufficient depth to determine the presence of all limiting conditions but no greater than sixty inches.

(1) The soil evaluator shall document the soil profile using a form prescribed by the department of health for the most representative soil borings and/or excavations and identify the area for which each soil boring and/or excavation is representative.

(2) The location of described soil borings and/or excavations and the representative area for each soil boring and/or excavation shall be staked or flagged on site by the soil evaluator. Staking of representative areas may not be required when they can be identified using natural or in-place markers.

(3) Documentation submitted to the board of health shall be legible and contain sufficient detail to demonstrate compliance with the provisions of this chapter.

(E) At a minimum the soil evaluation shall include:

(1) A site drawing. The site drawing shall be scaled or include sufficient dimensions to identify locations of all soil borings and/or excavations, locations of the representative area for described soil borings and/or excavations and applicable site features as determined by the board of health. The evaluator may use previously prepared or otherwise available drawings such as a survey prepared by a registered professional surveyor, an aerial photograph or digital orthophotograph prepared from a geographical information system, or other similar drawing. The drawing shall include the assessment and documentation of the following:

(a) Any existing dwellings and/or structures and any proposed dwellings and/or structures, if known;

(b) Any site disturbances such as excavated or fill areas, existing driveways and other hardscapes and proposed hardscapes, or related site disturbances, if known;

(c) Location of all private water systems, abandoned wells, or geothermal systems if known, and surface water features on the lot and within fifty feet of the areas identified for possible system installation;

(d) North orientation arrow;

(e) Identification of all soil borings and/or excavations;

(f) Identification and dimensions of spatial areas for which each soil profile description is representative and where the soil has capacity for the treatment and/or dispersal of effluent. The soil evaluation shall include the entire lot or sufficient area to support a primary system and replacement area on the site;

(g) Identification of areas with conditions that would prohibit or impact the siting of a STS or GWRS in accordance with this chapter including, but
not limited to: sinkholes, wetland vegetation, bedrock outcrops, areas with a slope greater than twenty five per cent, soils prone to slippage on slopes greater than six per cent, and existing or abandoned drainage tiles, if known; and

(h) Identification of known or observed easements and right-of-ways.

(2) Record of the site and soil characteristics for each soil boring and/or excavation location designated in this paragraph using the nomenclature from the NRCS field book for describing and sampling soils on a form prescribed by the director of health, including but not limited to:

(a) Site descriptions, including but not limited to, landscape position, slope, vegetation, drainage features, rock outcrops, erosion and other natural features;

(b) Detailed soil profile descriptions, including but not limited to, color, texture, grade, shape, structure, consistence, and the depth of each soil horizon or layer including fill or mine spoils where present;

(c) The identification of limiting conditions as defined in paragraph (III) of rule 3701-29-01 of the Administrative Code;

(d) If evident or visible, provide documentation of any relevant surface hydrology, geologic and hydrogeologic risk factors such as bedrock outcrops, sinkholes or karst features on the specific site or in the surrounding area that may indicate vulnerability for surface water and ground water

contamination; and

(e) Provide documentation of any geologic risk factors affecting the soil's ability to treat and/or disperse effluent including dense tills and fragipan.