

SOIL SCIENTIST I

Work in this class involves the technical characterization of soils to determine their suitability for efficient assimilation of residential and industrial wastes.

Employees characterize physically the soils on proposed residential sites, subdivisions, mobile home parks, industrial parks, and other related project sites recommendations to county environmental officials concerning their suitability for the type of wastes to be received and the disposal systems proposed. Work includes consultation and alternate recommendations to engineers, contractors, and other personnel associated with a project when the planned disposal system does not appear appropriate. Duties also include studies and recommendations to planning and zoning officials concerning the sound development of overall county soil resources. Work is performed under the general supervision of a county sanitation director and may include other duties as assigned.

I. DIFFICULTY OF WORK:

Variety and Scope - Employees are generally responsible for consultative work in a county or section of a large county. Work includes the evaluation of the soils of individual lots and proposed subdivisions for their suitability for construction of septic system(s), the recommendation of alternate disposal systems where traditional systems are inappropriate, advising zoning boards and county Boards of Commissioners on the suitability of sections of the county not served by sewage systems for development.

Intricacy - Soils on each site are generally of a different type and/or mix with a different capacity for assimilating waste products. The site's capacity must be weighed against the level of proposed development to determine if development is warranted. Employees determine the best design for the site considering several variables and several design options.

Subject Matter Complexity - Employees must be knowledgeable of the mapping and classification of soils, the physical characteristics of soils and their ability to assimilate waste products, and local and state regulations concerning the disposal of waste products in the ground.

Guidelines - Employees must work within local and state guidelines concerning the location, design and construction of ground absorption sewage treatment systems. Many decisions on the suitability of land for such a system are not clear cut and require considerable judgement.

II. RESPONSIBILITY:

Nature of Instructions - As employees are generally the only soil scientist in their respective county, instructions are general in nature only including the situation than needs investigating.

Nature of Review - Technical review within the county is not available. If questions arise, employees refer them to state level soil scientists.

Scope of Decisions - Decisions affect individual lot landowners as well as owners of large parcels of land.

Consequence of Decisions -- Decisions could result in a landowner not being able to construct on or sell their land, and failing sewage treatment systems which would cause expense to system owners and environmental degradation on a local level.

III. INTERPERSONAL COMMUNICATIONS:

Scope of Contacts - Employees have contacts with landowners, developers, real estate agents, county officials and members of the general public.

Nature and Purpose - Employees must explain decisions regarding the suitability of land for a ground absorption sewage system, consult with landowners and others on options available for the construction of systems, and advise county officials on zoning questions.

IV. OTHER WORK DEMANDS:

Hazards - Employees may be exposed to moving machinery on construction sites.

Work Conditions- Employees may be exposed to inclement weather, odors and sewage while completing field investigations.

V. RECRUITMENT STANDARDS:

Knowledges, Skills, and Abilities - Considerable knowledge of the mapping and classification criteria applied in the characterization of soils. Considerable knowledge of the physical characteristics of soils and their probable implications regarding waste disposal systems. Ability to read and understand construction site plans and blueprints. Ability to propose alternate solutions in problem situations that accomplish sanitation objectives and are reasonable from a construction viewpoint. Ability to handle with tact, consistency and sound judgement the variety of situations encountered in consultative services and enforcement. Ability to prepare technical reports. Ability to communicate effectively both orally and in writing.

Minimum Training and Experience Requirements - Graduation from a four-year college or university with a major in soil science, agronomy, or a related curriculum and two years of experience in the field of soil sciences; or an equivalent combination of training and experience.

Minimum Training and Experience Requirements for Trainee Appointment -Graduation from a four-year college or university with a degree in agronomy, soil science, or a closely related curriculum.