

SOILS SPECIALIST

Work in this class involves conducting soil-mapping surveys to identify and classify the different soil types in North Carolina.

Employees are members of a joint team with U. S. Soil Conservation Service staff in sampling, classifying, and mapping soils in accordance with the guidelines set forth in the national cooperative soil survey provided in U. S. Public Law 46. Work involves defining mapping units, and performing detailed studies of soil characteristics in order to incorporate the survey area into the national system. Duties involve conducting field surveys, performing limited laboratory analyses of the chemical and physical properties of the soil, and writing technical reports which include a mapping legend for the unit and interpretive tables for potential usage of the soil types. Work may also involve consultation upon request to interpret technical information for planners, the agriculture industry, and regulatory groups.

I. DIFFICULTY OF WORK:

Variety and Scope - Variety of work ranges from soil sampling to preparing mapping legends. The soil types will vary from one location to another; however, the same basic procedures are used in all soil identification and mapping assignments. Scope is limited to soil characteristics throughout the State.

Intricacy - Work requires accuracy in identification and classification of soil samples. Judgment is required in determining the taxonomy of soils and placement of soil mapping boundaries.

Subject Matter Complexity - Employees should have a good understanding of soil characteristics, and soil mapping processes and techniques.

Guidelines - Technical guidelines are specific and provided by the U. S. Soil Conservation Service. Administrative guidelines are general, with established work procedures.

II. RESPONSIBILITY:

Nature of Instructions - Employees receive general instructions orally and in writing, and these instructions serve as guidelines in planning and performing work.

Nature of Review - Employees' work is reviewed on a spot-check basis by the Soil Survey party leader for quality and accuracy while in progress, and is reviewed again upon completion. Highly technical or interpretive questions are referred to the Party Leader for discussion and determination.

Scope of Decisions - Decisions could directly affect the general public or individuals that use the survey as a guide for conservation planning, forest management, and environmental planning or farm management purposes.

Consequence of Decisions - Decisions may cause inconvenience, and time and financial loss to people or organizations.

III. INTERPERSONAL COMMUNICATIONS:

Scope of Contacts- Employees have daily contacts with other Soil Conservation Service employees, the general public, and local, State, and Federal officials.

Nature and Purpose - Employees must research ownership of land and gain access to public and privately owned property. They also provide an informational resource to explain the soil survey program and interpret technical data. Associations within the professional group primarily involve planning and implementation of the soil survey program.

IV. OTHER WORK DEMANDS:

Work Conditions - Employees spend the majority of the time in fieldwork which involves exposure to rough terrain and adverse weather conditions. The remaining time is spent in a general office environment.

Hazards - Employees are exposed to domestic and wild animals, poisonous plants and snakes, dust, fumes, and insects while working in the field. Other potential hazards are those normally associated with vehicular travel.

V. RECRUITMENT STANDARDS:

Knowledge, Skills and Abilities - Considerable knowledge of soil characteristics and soil classification system. Considerable knowledge of identification and classification procedures for differing soil types. Skill in the use of instruments, tools and equipment used in making surveys. Ability to interpret aerial photographs. Ability to establish and maintain effective working relationships with landowners, the public, and representatives from educational and governmental agencies. Ability to prepare technical description of individual mapping units recognize photographic patterns, and draw soil-mapping boundaries. Ability to understand complex oral and written instructions.

Minimum Education and Experience - Bachelor's degree in soil science, agronomy or a related curriculum from an appropriately accredited institution and one year of experience in soil survey work; or an equivalent combination of education and experience.

Minimum Education and Experience for a Trainee Appointment - Bachelor's degree in soil science, agronomy or a related curriculum from an appropriately accredited institution; or an equivalent combination of education and experience.