GENERAL DESCRIPTION

Performs complex (journey-level) geographic information system work. Work involves input and manipulation of geographic information to create, maintain, display, update, and produce accurate maps and other representation of data. May provide guidance to others. Works under general supervision, with moderate latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Creates and modifies maps, graphs, or diagrams using geographic information software and related equipment.

Compiles, evaluates, and interprets geographic data from various sources including censuses, field observations, satellite imagery, aerial photographs, and existing maps; enters required data into a geographic information system.

Digitizes, analyzes, and maintains spatial databases of relevant information, documents procedures, validates data for accuracy and completeness, completes approved metadata forms, and produces maps of the resulting information.

Translates data from outside sources and converts data to assist users.

Provides technical assistance and support for geographic information system projects, applications, and data

Imports, creates, reformats, and processes data to produce spatial distribution maps for various studies.

Maintains and updates databases using applicable geographic software; enters, corrects, and debugs records.

Writes programs and develops user interfaces, menus, and macro-level commands to meet user needs.

Resolves record or mapping discrepancies through data research and addresses inquiries.

Assists in providing consulting services in fields such as resource development and management, environmental hazards, regional cultural history, and urban social planning.

May provide guidance to others.
Performs related work as assigned.

GENERAL QUALIFICATION GUIDELINES

EXPERIENCE AND EDUCATION

Experience in geographic information systems analysis and design work. Graduation from an accredited four-year college or university with major coursework in computer science, computer information systems, geography, geographic information systems technology, management information systems, or a related field is generally preferred. Education and experience may be substituted for one another.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of terminology related to geographic information systems, including legal descriptions, cartography, engineering, construction plans, aerial photography, and orthophotography.

Skill in solving problems; in testing, installing, and implementing geographic information system programs; in the use of applicable software; and in troubleshooting system issues.

Ability to analyze geographic information systems and procedures; to read and interpret surveys, legal descriptions, cartography, engineering documents, construction plans, aerial photography, and orthophotography; to communicate effectively; and to provide guidance to others.