

GEOGRAPHIC INFORMATION SYSTEM MANAGER 1**Nature of Work**

Under administrative direction, performs full-performance level administrative and supervisory duties directing the geographic information systems implementation and operations of a smaller agency program or as a first level or specialty function administrator in a large, comprehensive GIS program. Activities supervise include Global Positioning System use, Avenue or Arc Macro Language (AML) programming, GIS spatial analysis, GIS plot and mapping production, GIS database administration, GIS technical systems administration or remote sensing; schedules work and sets unit priorities for the most efficient utilization of equipment and personnel. Resolves equipment problems and coordinates system usage by agency personnel. Provides advice and assistance to management. Performs related work as required.

Distinguishing Characteristics

Geographic Information Systems Manager 1 is distinguished from Geographic Information Systems Manager 2 by the size, scope and lesser complexity of a geographic information system program.

Examples of Work

Organizes, assigns, directs and reviews the work of a small group of professional or technical personnel in the operation of an agency geographic information systems function.

Plans work schedules and set priorities to make the most efficient use of available personnel and equipment.

Analyzes agency operations and determines feasibility and/or costs for all phases of geographic information system implementation.

Analyzes and establishes geographic information system unit procedures and work standards; sets standards for equipment maintenance and troubleshooting.

Advises staff and coordinates the resolution of hardware and software problems.

Directs the design, development and implementation of new systems and new applications; reviews system expansion proposals and recommends the purchase of new equipment; may develop equipment specifications proposals or new system evaluation standards; may coordinate the installation of new equipment.

Knowledge of spatial data structures, automated mapping, spatial information processing methods and their applications.

Knowledge of capabilities of automated mapping and geographic information processing systems.

GEOGRAPHIC INFORMATION SYSTEM MANAGER 1 (CONT'D)**Knowledge, Skills and Abilities**

- Knowledge of the uses and potentials of modern geographic information systems equipment and their respective advantages and limitations.
- Knowledge of state purchasing rules and guidelines in order to write, evaluate and negotiate equipment and software procurement.
- Ability work effectively with users, geographic information systems personnel, and vendor representatives in resolving equipment and operations problems.
- Ability to prepare and present written and oral reports on equipment utilization and individual and group performance characteristics.
- Ability to plan the activities of and supervise geographic information systems personnel.
- Ability to devise work and production schedules to meet user requirements as well as modify these same schedules to meet changing demands on personnel and equipments in emergency situations.
- Ability to work effectively with agency officials and the general public.
- Ability to communicate effectively, orally and in writing.
- Ability to evaluate equipment and operational problems and working with technicians to identify problems and formulate solutions.

Minimum Qualifications

- TRAINING:** Bachelor's degree, including six semester hours in computer science or GIS from an accredited college or university. Preference may be given to those with degrees in computer science, geography, natural or earth sciences, cartography, geology, forestry, planning, environmental science, engineering, engineering technology, mathematics or a related field.
- EXPERIENCE:** Three years of full-time or equivalent part-time paid experience in GIS systems design, operation, and management or GIS applied research.
- SUBSTITUTION:** Master's degree or a doctorate from an accredited college or university in the above preferred fields may be substituted for two years of the required experience. OR Master's degree plus a doctorate from an accredited college or university in the above preferred fields may be substituted for three years of the required experience.

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