

**GEOGRAPHIC INFORMATION SYSTEM MANAGER 2****Nature of Work**

Under administrative direction, performs advanced level administrative and supervisory duties in directing the geographic information systems within State agencies with comprehensive, full-range functions. Activities supervise include Global Positioning System use, Avenue or Arc Macro Language (AML) programming, GIS spatial analysis, GIS database administration, GIS technical systems administration or remote sensing. Directly, or through lower level supervisors, schedules work and sets agency-wide geographic information systems priorities and provides for the most efficient utilization of equipment and personnel. Fully responsible for hardware and software problem resolution and the coordination of system usage by agency personnel. Provides advice and assistance to top management. Performs related work as required.

**Distinguishing Characteristics**

Geographic Information Systems Manager 2 is distinguished from Geographic Information Systems Manager 1 by the oversight of several units of professional, paraprofessional, technical and supervisory staff such as geographic information systems applications programming, global positioning system support, remote sensing, spatial analysis, decision support and other technical computing needs. It is further distinguished by the size, scope and complexity of the GIS program. The incumbent has wide latitude in the planning and implementation of agency-wide automation needs.

**Examples of Work**

- Organizes, assigns, directs and reviews the work of a group of professional or technical personnel in the operation of a large and comprehensive 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.

**GEOGRAPHIC INFORMATION SYSTEM MANAGER 2 (CONT'D)****Examples of Work (cont'd)**

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

Assists management in special studies requiring geospatial technologies and geospatial analysis.

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, Skills, and Abilities**

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.

Knowledge of proposal preparation, program budgeting, and contract management.

Knowledge of the uses and potentials of modern geographic information systems equipment and their respective advantages and limitations.

Knowledge of the principles underlying geographic information systems operations, modern business methods and procedures, concepts of process flow charting and evaluation, and appropriate business recovery principles and requirements.

Knowledge of state purchasing rules and guidelines in order to write, evaluate and negotiate equipment and software procurement.

Ability to plan the activities of and supervise geographic information systems personnel.

Ability to make decisions based on factual data and to evaluate progress or success of computerized projects and systems.

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 establish and maintain liaisons with other agencies, public officials and employees.

**GEOGRAPHIC INFORMATION SYSTEM MANAGER 2 (CONT'D)****Knowledge, Skills, and Abilities (cont'd)**

Ability to communicate effectively through oral and written communication skills, including technical writing skills.  
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:** Six 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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