Midpeninsula Regional Open Space District

GEOGRAPHIC INFORMATION SYSTEM PROGRAM MANAGER

DEFINITION

Under general direction, plans, organizes, coordinates, and manages the Geographic Information System (GIS) program and administrative activities including enterprise GIS platforms, databases, and applications; oversees GIS governance, data integrity, infrastructure, support services, and interdepartmental coordination; coordinates projects and activities with other District departments and outside agencies; provides highly responsible staff assistance to the Information Systems and Technology Manager in areas of expertise; and performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from the Information Systems and Technology Manager. Exercises direct supervision over technical and professional staff.

CLASS CHARACTERISTICS

This classification is responsible for planning, organizing, and managing the operations of the geographic information system program. Incumbents are responsible for performing diverse, specialized, and complex work involving significant accountability and decision-making responsibilities in overseeing the day-to-day operations of the program. Employees serve as a specialist, liaison, and advocate for the program, with regular contact and interactions with District senior management positions, other public agencies, public and private community organizations, regulatory and governmental agencies, and members of the public.

EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)

Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so qualified employees can perform the essential functions of the job.

- Plans, develops, administers, implements, and oversees the daily functions, operations, and activities of the District's GIS program including applications, databases, data services, system architecture, and map products.
- Participates in the development and implementation of goals, objectives, policies, and priorities for the program; recommends within department policy, appropriate service, and staffing levels; recommends and administers policies and procedures.
- Develops, administers, and oversees program budget(s); determines funding needed for staffing, software licenses, equipment, materials, and supplies; conducts studies to forecast spending and cost benefits for assigned special projects and potential services; monitors expenditures and submits invoices for professional services, software licenses, supplies, and equipment; ensures compliance with budgeted funding.
- Supervises GIS staff; plans and assigns work; conducts evaluations; develops training and professional development plans; recommends hiring, disciplinary action, and terminations when necessary.
- Develops and manages multi-year GIS workplans; oversees technical projects; prepares cost estimates and return on investment analyses; monitors project quality and compliance.

- Provides GIS technical leadership and direction across the organization; consults with departments to assess needs; recommends and implements GIS solutions; oversees the GIS service request desk; establishes support processes, monitors service delivery, and identifies opportunities for improved efficiency and automation.
- Develops and implements GIS governance policies, standards, and best practices; enforces procedures for GIS platforms, databases, and applications; sets metadata and cartographic standards.
- Directs acquisition and integration of external data; oversees database design and schema management; manages open data platform and enforces data sharing protocols.
- Develops and implements the vision and comprehensive strategy for the GIS Program; maintains the GIS Strategic Plan; sets goals and priorities; monitors key performance indicators and conducts strategic planning workshops.
- Evaluates emerging AI technologies and recommends AI solutions by assessing operational needs, ensuring adherence to District standards and cybersecurity requirements.
- Collaborates with IT on infrastructure strategies; oversees GIS software deployment, maintenance, and troubleshooting and manages software licenses.
- Provides presentations and training on GIS technology; promotes GIS adoption; authors reports and educational materials.
- Oversees creation of technical documentation, user guides, and training materials; manages help resources and portals.
- Develops consultant requests for proposals and qualifications for professional services; evaluates proposals and recommends project award; develops, negotiates, and reviews contract terms and amendments; ensures contractor compliance with District and department standards and specifications and time and budget estimates.
- Serves as liaison for assigned functions with other District departments, divisions, and outside agencies; provides staff support to commissions, committees, and task forces, as required.
- Provides highly complex staff assistance to the Information Systems and Technology Manager, prepares reports and correspondence concerning new or ongoing programs and program effectiveness; prepares statistical reports as required; establishes and maintains working and official program files; ensures the proper documentation of operations and activities.
- Represents the District in meetings with members of other public and private organizations, community groups, contractors, and the public.
- Attends and participates in professional group meetings; stays abreast of contemporary trends and innovations in the field of geographic information systems.
- Monitors changes in regulations and technology that may affect operations; implements policy and procedural changes after approval.
- Answers questions and provides information to the public; investigates and responds to complaints and inquiries from citizens, other departments, and agencies.
- Ensures staff observe and comply with all District and mandated safety rules, regulations, and protocols.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of:

- Principles and practices of employee supervision, including work planning, assignment review and evaluation, discipline, and the training of staff in work procedures.
- Principles and practices of leadership.
- Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.
- Principles and practices of budget development and administration.

- Principles and practices of contract administration and management.
- General principles of risk management related to the functions of the assigned area.
- Methods, procedures, and techniques of enterprise GIS technology planning, design, implementation, administration, and maintenance.
- Organizational practices for staffing, performance management, and retention.
- Project management principles, including planning, execution, monitoring, and close-out.
- Principles, rules, and methods of database design, data modeling, and integration.
- Current and emerging GIS technologies, including trends and innovations relevant to enterprise systems and geospatial artificial intelligence (GeoAI).
- Principles and practices of GIS application configuration, development, testing, deployment, and upgrading.
- Advanced data management theory and practices as applied to GIS services and programs.
- Computer programming languages for scripting, automation, and workflow optimization.
- Cybersecurity principles and best practices for GIS systems.
- Methods and techniques used in spatial analysis and ecological modeling.
- Cartographic principles and methods for producing high-quality map products, data visualizations, and graphics.
- Complex arithmetic and statistical techniques.
- Research methods and techniques.
- Recent and on-going developments, current literature, and sources of information related to the operations of the assigned program.
- Record keeping principles and procedures.
- Methods and techniques of preparing technical and administrative reports, and general business correspondence.
- Applicable federal, state, and local laws, codes, and regulations as well as industry standards and best practices pertinent to the assigned area of responsibility.
- Accessible design guidelines and standards for web and digital content, including GIS maps, graphics, and applications.
- District and mandated safety rules, regulations, and protocols
- Techniques for providing a high level of customer service, by effectively dealing with the public, vendors, contractors, and District staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Plan, organize, oversee, develop, implement, and administer a comprehensive GIS program.
- Assist in developing and implementing goals, objectives, practices, policies, procedures, and work standards.
- Select and supervise staff, provide training and development opportunities, ensure work is performed effectively, and evaluate performance in an objective and positive manner.
- Prepare and administer budgets; allocate limited resources in a cost-effective manner.
- Coordinate and manage assigned projects and programs.
- Conduct strategic planning for assigned projects.
- Develop and coordinate a broad-based GIS program with effective databases, applications, and tools for internal and external stakeholders.
- Evaluate and develop improvements in operations, procedures, policies, or methods.
- Direct, coordinate, and manage large-scale technology projects and multiple concurrent initiatives.
- Gather business requirements and evaluate technology investment strategies and Return on Investment.

- Configure, maintain, administer, and implement complex GIS systems, software, applications, and databases.
- Design, manage, and integrate databases and datasets; develop and maintain authoritative web services.
- Write and update scripts and query statements for automation and customization.
- Train and instruct users on GIS applications; develop documentation and user resources.
- Interpret and communicate technical information effectively, both orally and in writing.
- Perform mathematical calculations quickly and accurately.
- Research, analyze, and evaluate emerging technologies and new service delivery methods, procedures, and techniques.
- Prepare, maintain, and update accurate detailed records and files.
- Interpret and evaluate statistical data.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Effectively represent the division and the District in meetings with governmental agencies, community groups, various business, professional, and regulatory organizations, and in meetings with individuals
- Prepare clear and concise reports, correspondence, documentation, and other written materials.
- Use tact, initiative, prudence, and independent judgment within general policy and procedural guidelines.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.

Education and Experience:
Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Education:

- Equivalent to a bachelor's degree from an accredited college or university with major coursework in geography, geographic information systems, computer science, information technology, or a closely related field.

Experience:

- Seven (7) years of increasingly responsible experience with geographic information system management, integration, project management, and administration with three (3) years at a supervisory or lead level.

Licenses and Certifications:

- Possession of a valid California Driver's License to be maintained throughout employment.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; to operate a motor vehicle and visit various district sites; vision to read printed materials and a computer screen, as well as interpret colored warning and alarm lights on computer equipment; and hearing and speech to communicate in person and over the telephone. This is primarily a sedentary office

classification although standing in work areas and walking between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 10 pounds.

ENVIRONMENTAL CONDITIONS

Employees work primarily in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may be required to travel to District field sites where exposure to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, and mechanical and/or electrical hazards are possible. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing divisional policies and procedures.

EFFECTIVE: December 2010
REVISED: October 2026
FLSA: Exempt