CITY OF CARLSBAD CLASS SPECIFICATION

JOB TITLE: GEOGRAPHIC INFORMATION SYSTEMS MANAGER

DEPARTMENT: INFORMATION TECHNOLOGY

BASIC FUNCTION:

Under general direction, perform highly responsible administrative and technical work in the development, activities, and operations of the enterprise Geographic Information System (GIS) including citywide planning, strategy, and budgeting. Provide GIS services for all city departments in order to achieve the strategic business objectives of the City of Carlsbad. Assume day-to-day management responsibility for Geographic Information System (GIS) services including participating in the work, supervising, assigning, and reviewing staff responsible for providing various GIS services. Ensure work quality and adherence to established policies and procedures and perform related responsibilities as required.

DISTINGUISHING CHARACTERISTICS:

This position manages the activities of the GIS division, including overseeing personnel, the processing and delivery of product and service requests, data creation, database management activities, and specialized GIS application programming. The technical maintenance aspects of the computer systems, network and database are coordinated through the Information Systems Department. This role designs architecture and informs the network team of needed servers and equipment.

KEY RESPONSIBILITIES:

Plan, organize, and direct the implementation of the city's enterprise GIS services; develop goals and objectives.

Identify opportunities and provide direction for GIS to deliver innovative services to staff and to the public.

Establish priorities and budget for the program; determine resource availability for program activities; supervise various aspects of GIS including database design and creation, geoprocessing and modeling activities, and product and service delivery.

Recommend and implement policies, procedures, and standards relating to enterprise Geographic Information Systems and technology activities.

Supervise the design, development, installation and maintenance of enterprise GIS to meet the needs of user departments; determine information requirements, and further define the nature of projects.

Assign work to subordinate personnel, providing instructions and answering questions; coordinate the scheduling and completion of work by determining operational priorities and resolving work load problems; review work for accuracy and completeness; evaluate work techniques and methods for conformance to established GIS standards and policies. Roles that report to this position are: 1) GIS Analyst; 2) GIS Associate Analyst; 3) GIS Administrator.

Provide technical guidance and assistance to subordinates, to department users and to consultants in the development and implementation of systems and applications.

Develop policies, rules and procedures for the effective operation of the department, including establishing goals, objectives and priorities.

Advise and otherwise provide assistance to the Director and other city personnel regarding GIS related issues, applications, services or equipment; supervise and participate in the training of city personnel in the uses and capacities of GIS and technical equipment.

Conduct research and perform analysis; prepare and present reports regarding project feasibility, equipment utilization, project development, and the cost of applications.

Prepare and administer the GIS division budget; monitor and approve expenditures with budget limits; make recommendations regarding staffing needs, equipment, materials, and supplies.

Work with Information Technology personnel (including the Application Team) to ensure system compatibility; recommend hardware and software for GIS applications; process hardware and software procurement documents; coordinate with outside vendors and in-house Information Technology personnel for maintenance and repair work; troubleshoot system malfunctions.

Attend conferences, meetings or other functions as the department representative; may provide information or participate in discussions regarding GIS activities.

Participate in continuous learning in order to keep knowledge current for GIS technology trends and developments.

Represent the city (within the county) for cross-agency GIS coordination and joint services or interests.

Schedule GIS work; ensure data backup and system security; resolve technical difficulties with assistance of Information Technology personnel; prepare detailed long and short-term operations plans; conduct cost analysis; prepare proposals and presentations for various project phases.

Perform other related responsibilities as assigned.

QUALIFICATIONS:

To perform a job in this classification, an individual must be able to perform the essential duties as generally described in the specification. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties in a specific job. The requirements listed below are representative of the knowledge, skill and/or ability required.

Knowledge of:

- Principles of enterprise GIS technology such as: ArcGIS software applications, including ArcGIS Desktop, ArcGIS Enterprise, ArcGIS Server, and ArcGIS Portal or current comparable product.
- Principles and practices of organization, administration, budgeting and personnel management.
- Principles, practices, and techniques of GIS management and general administration.
- Operation and applications of information processing equipment, methods, principles, and practices as related to municipal operations and management information systems.
- Systems and programming, including knowledge of data base systems and languages compatible with the city's computer systems.
- Database management theory and application; knowledge of database, information systems design, implementation and maintenance. Geographic Information System theory, tools, software, its application and the role of geospatial information in organization-wide management of operations, decision-making, and policy formulation.
- Supervisory techniques and administrative practices and principles, including budget preparation and monitoring; ability to apply these principles and techniques.
- Research methods and techniques and methods of report presentation.

Ability to:

- Plan, develop, manage, coordinate and promote a GIS system to all potential users citywide.
- Exercise sound judgment to interpret, apply, and explain applicable municipal laws, codes, policies, and regulations.
- Select, supervise, train, and evaluate assigned staff.
- Establish and maintain effective relationships with subordinates and other interdepartmental and external contacts.
- Provide professional consulting services to departments to conceptualize and analyze user needs, develop practical systems, and determine essential resources.
- Communicate effectively (orally and in writing) including translating technical information for the lay-person and educating others in effective use of systems.
- Analyze problems, identify alternative solutions, project consequences of proposed actions, and implement recommendations in support of goals.
- Exercise good judgment, flexibility, creativity, and sensitivity in response to changing situations and needs.
- Work well under pressure to meet deadlines.

EXPERIENCE AND EDUCATION:

Any combination equivalent to the experience and education that could likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Equivalent to a bachelor's degree from an accredited college or university with major course work in geography, mathematics, or computer database administration or related discipline, and five years' professional experience in the use of geographic information systems, with a minimum of two years' supervisory experience.

PHYSICAL/MENTAL DEMANDS AND ENVIRONMENTAL SETTING:

While performing the duties of this class, an employee is regularly required to sit, to move to access office equipment and other workplace appurtenances; and to communicate, in person and by telephone. An employee is frequently required to move within and between city facilities and other locations. Abilities required by this job include reading documents and operating office equipment as necessary during the course of the work assignments.

While performing the duties, employees of this class are regularly required to use written and oral communication skills; read and interpret financial and statistical data, information and documents; analyze and solve problems; use math and apply mathematical reasoning and abstract statistical concepts; observe and interpret people and situations; learn and apply new information or skills; perform highly detailed work on multiple, concurrent tasks; work under intensive deadlines; and interact with staff, Council members and others encountered in the course of work.

The employee works under typical office conditions and the noise level is usually quiet. Employees may be required to travel to work sites or other sites for meetings; attend evening meetings; work under pressure and potentially stressful situations.

This is an at-will management classification.

DATE APPROVED: May 8, 2018