

COUNTY OF SOLANO

GEOGRAPHIC INFORMATION SYSTEMS COORDINATOR

Est. 11/06

DEFINITION

Plans, organizes, implements and administers a comprehensive Geographic Information System (GIS) program for the County; oversees design, development, deployment, use, and maintenance of GIS applications and technology; provides technical leadership and oversees County-wide work of technical staff, consultants, contract employees and others in the generation of maps, reports, files and other information. Represents the County in regional GIS data sharing and coordinating efforts.

CLASS CHARACTERISTICS

This single position class is responsible for the development, deployment, administration, use, and maintenance of the County's GIS. The incumbent is responsible for establishing and maintaining system standards and participates in the development of long-range technology plans. The incumbent communicates with all departments to understand business processes related to location and spatial data. The incumbent provides technical advice and recommends policies, procedures, enhancements and acquisition of GIS hardware, software and services. The incumbent is expected to possess and apply strong project management skills. This classification is distinguished from the Systems and Programming Manager in that the latter has management responsibility over a division.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from the Systems and Programming Manager

Provides technical assistance and functional oversight to professional, technical, and clerical staff.

EXAMPLES OF DUTIES - *Duties may include but are not limited to the following:*

Leads the development of standards and operating procedures for deployment of GIS technology and usage including programming standards, workflow processes and data update maintenance procedures.

Acts as project manager/team leader; plans and oversees projects to completion; identifies scope and deliverables, establishes schedules, identifies project resources, monitors expenditures and adherence to timelines, and communicates with customers.

Provides leadership to the County in the deployment of GIS technology; provides technical advice and recommends policies, procedures, enhancements and services regarding GIS data and applications; designs and develops computer GIS applications in support of County and departmental goals; coordinates GIS efforts throughout County departments in conjunction with County GIS Policy Statement; oversees development of products to address departmental needs; integrates GIS data development processes between departments.

Responds to inquiries regarding feasibility of automating/modifying new/existing processes; reviews existing documentation and applicable regulations; presents proposed solutions to management.

Provides recommendations and participates in the development, acquisition, maintenance and quality assurance of GIS data; manages central GIS data repository.

Oversees the maintenance of GIS data layers within the County; coordinates the maintenance and sharing of data layers with outside agencies.

Works with development staff to integrate GIS with Relational Databases and Web Technologies; ensures effective deployment of GIS applications and data through both the intranet and internet.

Assures effective backup and recovery of enterprise GIS data, installation/upgrade of GIS software and compatible operation of GIS peripherals.

Organizes and conducts GIS training for County staff, outside agencies, and the public including providing broad information about GIS and providing specific and comprehensive information aimed at enabling operation of department-specific applications and processes; coordinates County wide multi-agency user groups meetings; evaluates, and identifies training needs.

Participates in negotiating and administering private and public consultant contracts for activities using GIS technology and for all computer hardware and software utilized within the Geographic Information Systems Program, determining the level of service purchased, justifying the cost, tracking expenditures for budget compliance and reviewing invoices for accuracy before payment

Oversees and manages contracts for various special projects, such as aerial photography; writes RFP's and oversees the bid process; ensures quality work is performed

Acts as an initial resource and interface between departmental users and technical support, application programmers, and hardware/network maintenance contractors/personnel; monitors process and follows up to ensure users' needs are met.

Meets with vendors and technical consultants to identify problems and potential solutions; participates in negotiation of service contracts with vendors and consultants.

Coordinates system upgrades; reviews management summaries; addresses potential problems with DoIT staff and management; develop implementation plan; coordinate testing with key departments; confirms test results; reports problems and confirms resolution.

Prepares, receives, completes, processes, and maintains a variety of forms, reports, correspondence, and logs.

Attends meetings as needed; represents the County with external agencies regarding GIS based data standards, techniques and services; assists in developing multi-agency MOUs.

Monitors and keeps informed of policy issues that affect GIS operations, such as public information act responses; keeps up to date on current trends, including new hardware/software technologies and professional practices; evaluates their impact and recommends policy and procedural modifications as necessary.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Knowledge of:

Policies, procedures, and activities of the County and of departmental practices as they pertain to the performance of duties relating to the position; agency goals and purposes; terminology, principles, and methods utilized within the department.

Principles, practices, standards, terminology and trends in GIS at both local and national levels, including National Mapping Accuracy Standards, projections and datum; of GPS theory, field collection, and post-processing; of land surveying standards and practices; of the technical literature, research studies, and current developments in the field of GIS and spatial data.

Current industry standard GIS software.

Relational databases, database capabilities and design techniques used in GIS applications, object-based application design principles, distributed network architectures, and web-based distribution methods.

Spatial and geographic data, cartographic principles, and geographic data analysis.

GIS systems architecture, functions, and capabilities, programming languages and limitations.

Standards-based information processing and management principles including geographic data standards, metadata standards, and map and data standards of County departments and relevant State and Federal agencies.

Techniques of project management.

Computerized information systems utilized by the assigned department.

Standard and accepted procedures necessary to maintain the integrity and security of data in networked systems; database security techniques; data backup, recovery, and maintenance procedures.

Local area network (LAN) and wide area network (WAN) network hardware/software vendors and products.

Methods and techniques associated with user training.

Basic budget development and tracking methods and techniques.

Standard and accepted bidding and procurement methods and techniques.

Skills to:

Operate computer hardware/software systems and basic office equipment.

Ability to:

Effectively exercise control over complex technical GIS projects; to plan, perform, and coordinate technical spatial data field collection activities, including the use of computers; analyze potential GIS applications to determine feasibility and determine needs of customer.

Effectively participate in GIS application programming and testing activities; reason logically and clearly with symbolic information.

Prepare written summaries, specifications, and presentation graphics.

Communicate orally, in writing; establish, and maintain cooperative and effective relationships with those contacted in the course of work.

Manage projects comprised of DoIT staff, County departmental staff and external contractors to provide quality products and services to address customer needs on time and within budget.

Make independent actions or decisions on technical issues such as establishing mapping standards; observe, review, and check the work of staff members and contract employees to ensure conformance to these standards

Understand the enterprise GIS data model, and develops/implements standards and processes that support the model; monitor GIS system utilization and recommends appropriate revisions to processes and procedures

Understand and interpret program objectives in relation to departmental goals and processes.

Operate a variety of usual/specialized software programs at a level sufficient for successful job performance.

Conduct and integrate assigned functions/activities in a cohesive and effective service delivery system; secure cooperation and teamwork among departmental staff and other departments or contractors.

Collect and analyze data to identify needs/problems, evaluate program/system effectiveness, research and analyze alternative solutions, draw logical conclusions, and recommend/implement most appropriate actions to be taken.

Establish and maintain designated documentation and records in an accurate, timely manner.

Maintain confidentiality of records and information per pertinent laws/regulations.

Communicate clearly and concisely, both orally and in writing produce written reports using clearly organized thoughts and proper sentence construction and grammar; make oral and written presentations of system analysis, design and operational data in a clear, concise and non-technical manner

Establish, maintain, and foster positive and harmonious working relationships with those contacted in the course of work, establishes positive working relationships with representatives of community-based organizations, other agencies, County management and staff, and the public.

Experience and Education/Training

Five (5) years of experience performing progressively responsible journey level data analysis, geographic data creation, GIS applications, programming, project planning, database administration, information systems development/deployment and enterprise systems management **AND** equivalent to an Associate's degree (*Bachelor's Degree is highly desirable*) with major course work in geography, geographic information systems, computer science, engineering, environmental science, urban planning, information systems, business administration or a related field **OR** one hundred twenty hours of designated coursework and/or certification training

SPECIAL REQUIREMENTS

Possession of, or ability to obtain, a valid Class C California Driver's License may be required.

Incumbents are required to work outside normal business hours including nights, week-ends, holidays, and on an emergency basis, as needed. Independent travel may be required.

Candidates for positions in this classification will be required to pass a background investigation in accordance with applicable law regulation, and/or policy.

ADA COMPLIANCE

Physical Ability: Tasks require the ability to exert light physical effort in sedentary to light work, but which may involve some lifting, carrying, pushing and/or pulling of objects and materials of light weight (5-10 pounds). Tasks may involve extended periods of time at a keyboard or work station.

Sensory Requirements: Some tasks require visual perception and discrimination. Some tasks require oral communications ability.

Environmental Factors: Essential functions are regularly performed without exposure to adverse environmental conditions.

Director of Human Resources

Established Date: 11/8/06

BOS Date:

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