GEOGRAPHIC INFORMATION SYSTEMS (GIS) TECHNICIAN

Class Purpose:

Under the general direction of the Systems Division Supervisor, the GIS Technician performs a variety of tasks to create and maintain electronic maps, GIS layers, reports, and geographic computer files to support the public safety communications mission of Santa Cruz Regional 9-1-1.

Distinguishing Characteristics:

GIS Technicians exercise judgment and function under general supervision rather than direct supervision. The incumbent in this position will be familiar with computer GIS system applications and continuously develops the knowledge and ability to perform a variety of higher level GIS related duties.

Typical Tasks:

Develop and maintain computerized maps and map layers to support the public safety mission of SCR9-1-1 while adhering to pre-established GIS mapping conventions and following pre-established procedures and sequences.

Interpret and apply data, plans, and other material to enter graphic and attribute information into multiple GIS databases.

Work with user agencies to identify GIS opportunities and organize projects and work products.

Facilitate communication with various system users in a variety of formats including (but not limited to) meetings, presentations, newsletters, e-mail, phone calls, written correspondence, and website postings.

Responsible for on-going maintenance and programming of specific programs and/or systems as assigned, which may include (but are not limited to) Master Street Address Guide (MSAG), fire run books, Computer-Aided Dispatch (CAD), and mobile data computer geofiles.

Perform quality assurance to validate GIS layers for accuracy; identify and correct geofile errors.

Determine scale, line size, and color to print hard copies of computerized maps using a plotter.

Collect, store, and access data from additional sources and integrate with GIS data to provide ad hoc reports including pin maps.

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Responsible for the maintenance of information files and databases within assigned system(s) in order to ensure that automated systems are up-to-date and current, and that management information reports are readily available.

Assist in providing specialized training courses and education for new and existing dispatch and User Agency personnel; may teach classes or individuals as appropriate or assigned. Assist in the setup of computer labs and training centers.

Respond to system users by phone, e-mail, and on-site visits.

Operate various types of geographic information workstations and related equipment including printers, plotters, and digitizers.

Keep informed regarding developments in GIS technology and related issues.

Prepare documentation and maintain records for assigned projects.

Perform other duties as assigned.

Qualifications:

Knowledge of:

- Computer-based geographic information systems tools, specifically the ESRI ArcGIS software suite.

- Principles and practices of geographic information systems and GIS data management

- Principles, procedures, practices, techniques, and nomenclature associated with mobile data computer, microcomputer, and data-communication systems and operations

- Capabilities and limitations of related hardware including PC's, monitors, printers, disk storage, and communication devices

- Capabilities and limitations of mobile data computers, microcomputer software, including operating systems

- Microsoft workstation and server operating systems: Windows 7/8/10 and Server 2008/2012

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- Specific data-management applications such as Microsoft Access, Excel, and/or SQL Server.

- Preferred: Working knowledge of Python or other scripting language

- Preferred: Experience working in public safety and/or local government; knowledge of public safety specific mapping and map data requirements

Skill and Ability to:

- Interpret and apply rules, regulations, policies, and procedures to GIS-related projects, specifications, guidelines, and enhancements.

- Identify and implement innovative and practical approaches to respond to the public safety communications information and GIS needs of the Center and its User Agencies.

- Work closely with numerous and diverse organizations and personnel to accomplish GIS related tasks and projects.

- Establish and maintain effective working relationships with personnel both internal and external to SCR9-1-1.

- Instruct personnel on the proper use and operation of various systems and equipment necessary for their use.

- Effectively deal with equipment malfunctions, deadlines, and fluctuating workloads.

- Give continuous and meticulous attention to detail.

- Work safely, particularly around electronic equipment.

- Perform repetitive motion such as using a computer keyboard and mouse with precision.

- Develop and maintain appropriate documentation.

- Work with and maintain the confidentiality of sensitive information.

- Communicate effectively in both oral and written modes.

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Training and Experience:

Any combination of training and experience which would provide the required knowledge, skills and abilities is qualifying. A typical way to obtain the knowledge, skills and abilities would be the equivalent of graduation from high school supplemented by college level course work in GIS, geography, information systems, or related subjects**.** Directly relevant experience may be substituted for education. Specific experience in public safety dispatching and/or technical system experience within a police, fire, emergency medical, or consolidated emergency communications center is highly desirable.

Minimum Employment Standards:

The minimum employment standards for all classifications are established by Policy No. 1021 and detailed within the *Critical/Essential Job Functions* for the position.

Licenses/Certificates:

Possession of a valid driver's license authorizing the operation of a motor vehicle within the State of California is required (within 30 days of employment).