UTILITY GEOGRAPHIC INFORMATION SYSTEMS ANALYST
==

DEFINITION

Under general direction, performs professional level work related to the development and implementation of various applications, systems, and databases used to in designing, installing, managingadminister, integrateing, test and updateing a geographic information systems (GIS) for use in the management and analysis of electric utility functions and services; creates maps and reports by manual and automated means; creates, and maintains, and administers various databases and applications including web mapping applications to gather, verify, analyze, prepare and display spatial and tabular dataspecialized GIS databases; performs other related work as required.

DISTINGUISHING FEATURES

Positions in this classification are journey level and employees at this level receive only occasional instruction or assistance as new, unusual or unique situations arise and are fully aware of standard operating procedures and policies. Positions exercise technical or functional supervision over lower professional, technical and administrative support personnel.

EXAMPLES OF DUTIES

1. Analyzes a variety of GIS data and prepares associated reports for use by Alameda Municipal Power (AMP); trains users and analyzes, reviews and ensures accuracy of mapping and related data prepared by staff or consultants for inclusion in various reports.
2. Designs and/or modifies GIS programming as necessary to accommodate the needs of a variety of users; verifies accuracy of digitized data to ensure accuracy and quality of automated information.
3. Develops and designs databases related to GIS database mapping functions and mapping layers; performs geospatial data building, modeling, and analysis using spatial and tabular data analysis; builds and maintains GIS integration with other systems and applications.
4. Coordinates GIS functions and uses with other sections, divisions, departments, agencies/jurisdictions, vendors, consultants, engineers, developers, and the general public; provides support to departments, agencies, and the public regarding GIS and identify and resolve related concerns.
5. Administers and maintains backend GIS functions including server configuration and testing and installing hardware and software updates, upgrades, and patches.
6. Coordinates GIS integration to other systems and applications.
7.6. Ensures security and privacy levels are maintained in GIS and related systems.
8.7. Develops, documents, and regularly updates procedures for use of GIS functionalities; prepares related protocols; provides related training to a variety of GIS users.
9.8. Participates in emergency preparedness planning and implementation activities to facilitate the work of AMP and other city departments, other public agencies; provides information and training regarding GIS functions related to emergency functions.
10.9. Advises on and implements database standards for electric utilities; mMonitors GIS database performance against established standards; detects and troubleshoots problems.
11.10. Updates a variety of maps including utility, assets, zoning, reference, topographic, political boundary, parcel, address maps, etc.
12.11. Read and interprets civil plans and specifications for extraction of data to GIS utility system and data layers; uses GIS to analyze data for engineering and planning purposes.
13.12. Works with engineering staff to Pprepares improvement plans for the repair, rehabilitation, or construction of utility or public improvement projects.
14.13. Prepares maps, line drawings, color graphics, charts, graphs, architectural renderings and other documents or materials for use in brochures, reports, and presentations to the Public Utility Board, City Council, other city boards and commissions, and other public agencies.
15.14. Prepares, codes and digitizes maps and geographic feature data into the GIS database following established procedures and sequences to update layers within the system.
16.15. Participates, as assigned, in city committees and groups to provide input to GIS planning and implementation strategies and work plans; provides technical assistance as needed.
17.16. Utilizes Global Positioning System (GPS) equipment to acquire and record GIS positional and attribute data.
18.17. Assists in the development of policies and procedures; oversees implementation and enforcement of policies and procedures.

EMPLOYMENT STANDARDS

Education/Experience
Any combination equivalent to education and experience likely to provide the required knowledge and abilities. A typical way to obtain the knowledge and abilities would be:

Education: Graduation from an accredited four year college or university with major course work in geographic information systems, computer science, computer information systems, engineering, or related field.

Experience: Two years of responsible experience geographic information system administration, data processing, programming, systems analysis, or system design.

Knowledge
Knowledge of principles and practices of GIS and computer operating systems and standards including concepts and analytical techniques involving computerized mapping and digital data conversion, manipulation and analysis; algebra, geometry, and trigonometry, as related to the computation of distances, angles, and areas; computer aided drafting and mapping tools and programs, including AutoCAD software, GIS software, and related applications; records and information storage and handling techniques including database administration principles and methods; computer operating methods, languages, and procedures; GIS related hardware and software including application development tools for the installation and administration of GIS related databases; methods of advanced research, analysis, and management related to GIS applications and databases; technical report writing techniques.

Ability
Ability to independently perform professional level work in GIS integration, management and analysis and related databases; analyze work papers, reports and special projects; identify and interpret technical and numerical information; observe and problem solve operational and technical policy and procedures; design and develop sequential processing of tasks and perform complex analytical tabular and spatial analysis; analyze , diagnose, and troubleshoot GIS database application problems; prepare written protocols for difficult and complex GIS system and database usage; train or instruct GIS users in GIS functionality; research sources of geographic data; collect, interpret and integrate data from various sources to prepare map manuscripts and reports; prepares a variety of reports and maintains accurate records and files; establish and maintain accurate records; maintain level of knowledge required for satisfactory job performance; establish and maintain effective working relationships with vendors and staff at all levels.

Special Requirements
Willingness and/or ability to work outside regularly scheduled hours to meet operational needs and to respond to after hours emergency calls as required.

Other Requirements
Possession of a valid California Driver's License and satisfactory driving record at the time of appointment is required as a condition of initial and continued employment only if the operation of a vehicle, rather than the employee's ability to get to/from various work locations in a timely manner, is necessary to perform the essential functions of the position. Selected positions may require possession of a valid California Driver's License and satisfactory driving record as a condition of initial and continued employment.