



GIS ANALYST

Job Status: Non-Exempt
Date Adopted: 01-2015
Date Modified: 03-16-2023

Safety Sensitive Position

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

DEFINITION

Under general supervision, performs a variety of Geographic Information System (GIS) duties. Provides technical support for internet-based strategies and initiatives for GIS software; ensures the development and maintenance of applications based upon spatially referenced data and digital mapping; develops customized GIS related applications; and maintains, updates, analyzes and supports the District's Geographic Information System, and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

Incumbents are experienced and perform the full range of tasks common to the classification series, under minimal supervision, while exercising discretion and independent judgment within established guidelines. Incumbents also provide project management and coordinate the efforts of outside contractors and CVWD field and engineering staff. Incumbents at this level will work in a lead role.

SUPERVISION RECEIVED AND EXERCISED

Direction supervision is received from the Senior Associate Engineer, and/or Engineering Manager (Planning & Water Resources).

Provides technical or functional work direction to GIS Technicians I/II as assigned.

ESSENTIAL AND MARGINAL FUNCTION STATEMENTS

Essential and other important responsibilities and duties may include, but are not limited to, the following:

Essential Functions:

1. Manages, organizes, prioritizes, monitors, and maintains the District's ESRI Geographic Information System and related databases to ensure data integrity through integration of the GIS with other District systems and databases.
2. Performs GIS data capturing, data conversion, and data entry work; maintains the integrity of the database using quality control procedures.
3. Provides assistance to professional engineering staff regarding engineering capital projects or other special assignments as needed.
4. Performs a variety of GIS tasks in support of planning studies, and demographic analyses to compile critical data in a variety of formats to generate and document solution alternatives for comparison which involves establishing relationships with other local agencies; makes modifications to data.

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Essential Functions (continued):

5. Provides support to system users regarding custom data and mapping products, and provides training to users on GIS software and uses expertise to assist end users.
6. Uploads data into District's GIS database from city and county sources; visually audits uploaded information for errors or inconsistency.
7. Inputs information into the GIS database from as-built plans and information provided by CAD Technicians; updates land base and street centerline information as required for local development.
8. Utilizes the Global Positioning System (GPS) to collect geographic information in the field; locates District assets, resolves accuracy issues using GPS and integrates GPS data into GIS database.
9. Generates various specific, high-quality cartographic and thematic maps and provides spatial analysis database for any requesting department, internal meetings, or Board of Directors meetings or study sessions; produces water/wastewater system atlas maps for all departments.
10. Receives and formats data records and/or facilitates the transfer of electronic files into Geographic Information System (GIS) from CAD database; works with CAD Technicians to improve database interface.
11. Generates reports, maps, diagrams, exhibits, and displays to present to the Board, general public, and external agencies.
12. Performs related duties as assigned.
13. District employees are expected to work overtime, weekends, evenings, and holidays as required to accommodate the District's needs, in addition to responding as a Disaster Emergency Service Worker.
14. Regular attendance at the work site.

Marginal Functions:

1. Performs data scripting.
2. Updates facility data and/or maps.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of:

Geographic Information System principles and practices.

AutoCAD equipment and software.

Cartographic, surveying, and engineering principles related to GIS.

Methods and techniques used in the collection, analysis of data obtained from Global Positioning System;

Standard engineering terminology, symbols, mathematics, and records keeping;

Methods and techniques used for the design and construction of public water and sewer facilities.

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Knowledge of (continued):

Skill in operating a personal computer including ARCGIS software and the use of engineering surveying and measurement equipment, including GPS, plotting and digitizing equipment.

Ability to:

Read and interpret engineering maps and maintain a database for the collection of District water and wastewater information.

Read and understand blueprints, maps and civil engineering plans and specifications;

Format and enter data GIS system database.

Communicate clearly and concisely both orally and in writing.

REQUIRED QUALIFICATIONS

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

Job Title	GIS Analyst
Experience	<ul style="list-style-type: none">• Five (5) years of experience in Geographical Information Systems (GIS) environment and other enterprise Data Management system.
Education/Training	<ul style="list-style-type: none">• Equivalent to a Bachelor's degree in Computer Science, Engineering, Geographical Information Systems, or a related field.
Required License/Certification	<ul style="list-style-type: none">• Possession of a Certificate in Geographic Information Systems (GIS), or equivalent.
Desirable Degree/License/Certification	<ul style="list-style-type: none">• Master's degree in Computer Science, Engineering, Geographical Information Systems, or a related field.• Valid D2.• CWEA, Collection System Maintenance Certificate, Grade I.
DMV Class	<ul style="list-style-type: none">• Possession of a valid California Class C driver's license and a satisfactory driving record.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The physical demands and working environment demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

Environment:

Incumbent usually works under typical office conditions where the noise level is generally quiet; may regularly be required to work in special no-light or low-light areas.

Physical:

While performing the duties of this class, incumbents is regularly required to use oral communications, skills, read and interpret information and documents; analyze and solve problems; observe and interpret situations; us math/mathematical reasoning; learn and apply new information and skills; and perform highly detailed work on multiple, concurrent tasks.

Incumbent is regularly required to walk, stand and sit; talk and hear both in person and by telephone; use hands to finger, handle, feel or operate standard office equipment; and reach with hands and arms. The incumbent is regularly required to lift objects weighing up to 10 pounds and occasionally up to 50 pounds.

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Physical Demands and Working Environment (Continued):

Vision:

Specific vision abilities required by this job include close vision, color vision, and ability to adjust focus.

Hearing:

Hear in normal audio range with or without correction.