

**WATER AND WASTEWATER GEOGRAPHIC  
INFORMATION SYSTEM ANALYST**

**DEFINITION**

Under general supervision, performs specialized technical work involved in the administration, design, development, and implementation of the Geographic Information System (GIS); provides GIS and mapping services to the Department of Water and Wastewater Resources (DWWR); and performs other related duties as required.

**EXAMPLES OF DUTIES**

Conducts GIS needs assessment including functional, database, and application requirements; plans, sequences, and implements processing steps for GIS database creation; inputs data into the GIS including, but not limited to, spatial data for the DWWR's infrastructure (Water and Wastewater), land use, and other engineering data; reads and interprets planning and engineering maps and documents; develops and implements quality control, maintenance, and improvement procedures for the GIS database; develops GIS and database applications to facilitate map production and database management; develops efficient linkage between GIS database and City's Northstar utility billing system (maintained by the City's Finance Department) which contains the maintenance history of the City's infrastructure; refines, customizes, tests, and documents relevant software programs and applications; maintains documentation of GIS operations; plans and implements DWWR GIS service delivery; trains staff on the use of the system; coordinates maintenance of computer hardware and software with Information Services Division; performs related research and analysis and writes reports; estimates GIS development costs; makes clear, effective presentations; maintains a variety of databases, records, and documents; oversees the installation of hardware and software; interfaces with user personnel to define geographic system requirements; and may train, supervise, schedule, and monitor the projects of subordinate technical staff.

**MINIMUM QUALIFICATIONS**

**Knowledge of:** Geographical information systems and related software/hardware; drafting and mapping; concepts of GIS and computerized mapping systems; ESRI Products: ArcGIS Pro, Python, Geodatabase (SQL Server) maintenance and editing; computer operating systems and database systems; municipal government GIS and mapping applications; Asset management systems (Central Square).

JOB SPECIFICATION

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**Ability to:** Read and interpret design or construction plans; assess and understand user needs and prepare reports to meet those needs; use specific computer systems and application packages; perform GIS implementation and analysis and related technical work; operate City's GIS software; communicate effectively with other City staff on a technical level; prepare technical documents and written reports; manage, organize, and control multiple technical projects; monitor trends in computer software/hardware upgrades and make recommendations to improve City's GIS efficiency; interact positively and cooperate with co-workers, respond politely to customers, work as a team member, function under demanding time pressure, respond in a positive manner to supervision, and attend work and perform duties on a regular and consistent basis.

**Education:** Bachelor's Degree in Computer Science, Engineering, Land Surveying, Geography, Mathematics, or a related field; up to two years of additional qualifying experience may be substituted for the required degree on a year-for-year basis.

**Experience:** Two years of recent full-time experience in GIS implementation and analysis.

**License:** Possession of a valid Class C California Driver's License.

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