

CLASS SPECIFICATION

SAN DIEGO CITY CIVIL SERVICE COMMISSION

GEOGRAPHIC INFORMATION SYSTEMS ANALYST II - 1142

DEFINITION:

Under direction, at the journey-level, to perform a variety of technical and analytical duties related to the development, testing, implementation, integration, and modification of complex geographic information systems (GIS) datasets and GIS related applications; to provide technical support to end users in the day-to-day operation of GIS; and to perform related duties.

DISTINGUISHING CHARACTERISTICS:

This is the fully experienced or journey-level class in the Geographic Information Systems Analyst series. Employees in this class are expected to perform their duties with only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the department. Positions classified at this level may be underfilled with a Management Trainee, Geographic Information Systems Technician, or Geographic Information Systems Analyst I in accordance with the City's Career Advancement Program.

* **EXAMPLES OF DUTIES:**

- Creates, manipulates, and analyzes geographic data and designs map layers using program language;
- Assists in the development of GIS applications by assembling source material and consulting with others to gain information and determine needs;
- Integrates current data systems with proposed GIS applications;
- Digitizes raw map data and other data for input into GIS;
- Creates and adds layers of data to systems;
- Maintains and updates geospatial databases and systems for data entry, storage, and reporting and selects appropriate datum;
- Prepares user documentation and trains users on applications;
- Collects field data using GPS or other equipment, as needed;
- Provides technical support to end users to include developing user guides and solving application problems;
- Develops methods of use of GIS for end users such as data entry screens, inquiry screens, and report capabilities;
- Develops, prepares, and tests a wide variety of map products/services;
- Develops, implements, and maintains new GIS applications;
- Designs, develops, maintains, and updates configured GIS solutions and GIS modeling programs;
- Performs complex GIS mapping, geoprocessing analysis, and development to include project management and budget oversight;
- Develops and designs visual representations of geospatial data;

* **EXAMPLES OF DUTIES** performed by employees in this class. The class may not include all required duties, nor are all listed tasks necessarily performed by everyone in this class.

- Creates, acquires, and converts data between various spatial formats and projects and loads data into spatial databases and geographic data models including topology, dynamic segmentation, and geometric networks;
- Designs, develops, analyzes, and implements geocoding algorithms;
- Performs complex spatial analysis including elevation modeling, visibility analysis, flow modeling, and hydrographic modeling;
- Conducts feasibility studies for projects and prepares reports detailing results of analysis;
- Manages projects related to GIS operations;
- Oversees the work of vendors;
- Creates spatial products, services, and reports using GIS data;
- Conducts analysis of software and programming languages;
- Prepares user documentation and trains users on applications;
- Performs problem and/or process identification and recommends improvements, modifications, and solutions;
- Researches and recommends new computer hardware and software;
- Develops tools and extensions utilizing GIS software;
- Designs applications and processes including scripting, automation, and GIS data standards;
- May lead and/or supervise the work of subprofessional staff.

MINIMUM QUALIFICATIONS:

Please note: the minimum qualifications stated below are a guide for determining the education, training, experience, special skills, and/or license which may be required for employment in the class. These are re-evaluated each time the position is opened for recruitment. Please refer to the most recent Job Announcement for updated minimum qualifications.

A Bachelor's degree or equivalent education (i.e., minimum completed units equal to 120 semester/180 quarter units); **AND** two years of full-time professional geographic information systems experience (within the last 5 years).