

SAN BERNARDINO MUNICIPAL WATER DEPARTMENT CLASSIFICATION SPECIFICATION

TITLE: GEOGRAPHIC INFORMATION SYSTEMS (GIS)/DATABASE TECHNICIAN

DATE: 8/21/2017

JOB CODE: 21820

FLSA STATUS: NON-EXEMPT

UNIT REPRESENTATION: GENERAL

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.

DUTIES SUMMARY

Under general supervision, perform a variety of activities and operations associated with Geographical Information Systems (GIS) and database development and maintenance; perform related work as required.

DISTINGUISHING CHARACTERISTICS

The class of GIS/Database Technician is a journey level technical class in the Engineering GIS/Information Systems series. Incumbents perform routine GIS and database technical duties under general supervision. Incumbents are expected to be fully trained and competent through prior work experience in the appropriate field. This class has no supervisory responsibilities. Lead direction may be received by the GIS Analyst. Supervision is received from the GIS Manager, Engineering Manager, or Principal Engineer.

EXAMPLES OF DUTIES

The following duties are typical essential duties for positions in this classification. Any single position may not perform all of these duties and/or may perform similar related duties not listed here:

- Provide courteous and expeditious service to the public and City and Department staff;
- Provide support and analysis of spatial data using Department's GIS, hydraulic modeling and AutoCAD software, including the preparation, entry, analysis, and plotting of data and production of maps, drawings, tabular and statistical reports;
- Perform physical design of database formats for user front-end entry and inquiry;
- Create standard databases and database menu formats, design database structures;

- Capture basic requirements;
- Research engineering records;
- Perform database management and administration tasks;
- Troubleshoot database and administration problems to identify the source of problems and perform or request repairs to databases ;
- Participates in developing or refining hardware, software, and data/database specifications;
- Perform database upgrades and software version management;
- Compose correspondence and interoffice memoranda;
- Compile information from daily reports for monthly and annual report preparation;
- Make a variety of mathematical and trigonometric calculations;
- Operate two-way radio;
- Routinely adhere to Department policies and procedures;
- Maintain a positive attitude toward the Department's goals;
- Perform other related work as required.

QUALIFICATIONS

Knowledge of:

- GIS concepts and software used in an engineering environment;
- Database development concepts using MS Access and SQL;
- Maps and plans, basic symbols, and terminology used in mapping;
- Microsoft Office applications, including Word, Excel, and Access;
- ESRI software tools including ArcInfo, ArcSDE, ArcGIS Server, and ArcView;
- Innovyze Infowater and AutoCAD.

Ability to:

- Operate and maintain a GIS system;
- Provide GIS application development support and maintenance using ESRI GIS software applications, Innovyze Infowater, AutoCAD, Microsoft Access, and SQL;

- Assist in the administration of GIS by installing and maintaining software programs and upgrades;
- Prepare graphs, charts, reports, correspondence, memoranda, maps, and similar documents;
- Interpret and analyze technical information;
- Write clear and concise technical reports;
- Perform difficult digitizing and graphics work;
- Establish and maintain database applications and data; perform data input, troubleshoot database issues/problems and recommend solutions;
- Maintain complex engineering and/or database records;
- Understand and carry out oral and written instructions;
- Operate a vehicle observing legal and defensive driving practices;
- Establish and maintain effective relationships with those contacted in the course of work;
- Establish and maintain a positive attitude toward City and Department goals;
- Perform related work as required;
- Provide proof of and maintain a driving record acceptable to the Department's insurance carrier;

MINIMUM QUALIFICATIONS

Education/Experience: Graduation from High School, or equivalent

AND

Bachelor's degree in GIS, geography, engineering, computer science, or environmental science, OR equivalent work experience which would have provided the required level of knowledge and abilities involving the design, implementation, and use of GIS and database applications.

Other combinations of education and/or experience that provide the necessary knowledge and abilities will be considered.

NECESSARY SPECIAL REQUIREMENTS

Possession of a valid Class "C" California driver's license. For out of state applicants, a valid driver's license is required and a valid Class "C" California driver's license must be obtained within ten (10) days of appointment (CA Vehicle Code 12505c).

PHYSICAL TASKS AND ENVIRONMENTAL CONDITIONS

There is frequent need to stand, sit, stoop, walk, and perform other similar actions during the course of the workday. Incumbents may be required to perform occasional moderately heavy physical labor. Incumbents require sufficient mobility to work in an office setting and operate office equipment, transport materials and supplies weighing up to 25 pounds, and to travel to various locations. Must be able to see in the normal visual range with or without correction with vision sufficient to read small print, computer screens, and other printed documents. Must be able to hear in the normal audio range with or without corrections. Employee accommodations for physical or mental disabilities will be considered on a case-by-case basis.

CAREER LADDER

From: GIS/Database Technician

To: GIS Analyst

Job Description:

BOWC Approved:

Rev:

12/15/1998

12/4/2001

11/6/2012

8/15/2017

Testing Standards: App Review/ Supp App Review