

## City of Watsonville

### Job Description

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**JOB TITLE:** Geographic Information System Technician I and II **DATE APPROVED:** August 28, 2018

**DEPARTMENT:** Information Services

**SUPERSEDES:** April 1996

**REPORTS TO:** Assigned Supervisory or Management Personnel

**EMPLOYEE UNIT:** Clerical Technical (SEIU 521)

**FLSA:** Non-exempt

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### **DEFINITION**

To perform a variety of technical duties related to the creation and maintenance of maps, tables, graphs and other geographic source data with the use of enterprise Geographic Information Systems; and to provide technical support and queried data to department staff, other City departments, outside agencies, consultants, contractors, developers and the public.

### **DISTINGUISHING CHARACTERISTICS**

Geographic Information System Technician I – This is the entry level class in the GIS Technician technical series. Positions in this class typically have little or no directly related work experience and work under immediate supervision while learning job tasks. The GIS Technician I class is distinguished from the II level by the performance of less than the full range of duties assigned to the II level. Incumbents work under immediate supervision while learning job tasks, progressing to general supervision as procedures and processes of assigned area of responsibility are learned.

Geographic Information System Technician II – This is the journey level class in the GIS Technician technical series and is distinguished from the GIS Technician I level by the ability to perform the full range of duties assigned with only occasional instruction or assistance as unusual or unique situations arise. Positions in this class are flexibly staffed and are normally filled by advancement from the GIS Technician I level.

### **SUPERVISION RECEIVED AND EXERCISED:**

#### Geographic Information System Technician I

- Receives immediate supervision from assigned supervisory or management personnel; and may receive technical and functional supervision from higher level staff.

## Geographic Information System Technician II

- Receives immediate supervision from assigned supervisory or management personnel; and may receive technical and functional supervision from higher level staff.

### **EXAMPLES OF ESSENTIAL DUTIES** – Duties may include, but are not limited to, the following:

- Produce maps, tables and graphs for internal and external use; determines and executes the appropriate sequence of data processing tasks; uses established GIS, database, and reporting software to query data and produce documents.
- Update and maintain GIS databases according to department's policies and procedures; assist in cleaning up data and making corrections in response to changes and additional data sets integrated into GIS.
- Provide a variety of ad hoc queried data to City departments and outside agencies; produce and provide maps, drawings, color graphics, charts and graphs.
- Provide first level technical support related to software troubleshooting and recommend process improvements; instruct City staff how to utilize GIS/GPS.
- Perform quality control checks to assure integrity of GIS data and applications.
- Participate in planning special GIS mapping projects to assist with a variety of analysis and development issues.
- Provide assistance to departments, outside agencies and general public in obtaining information; research and compile materials and maps; produce digital copies of City data as requested; maintain maps and records.
- Build and maintain positive working relationships with co-workers, other City employees, and the public using principles of good customer service.
- Perform related duties as assigned.

### **MINIMUM QUALIFICATIONS**

#### Geographic Information System Technician I

##### **Knowledge of:**

- Geographic Information System (GIS) automated mapping applications, and other relevant software, programs and databases and their uses
- Modern office procedures, methods and computer equipment
- Principles of algebra, geometry and trigonometry
- English usage, spelling and grammar
- Principles and practices of good customer service
- Principles and practices of work safety

**Ability to:**

- Learn to perform a variety of technical duties in support of the City's GIS application and production of reports, maps, and graphics
- On a continuous basis, know and understand all aspects of the job. Intermittently analyze work papers, reports and special projects; identify and interpret technical and numerical information; observe mapping activities and problem solve when appropriate; understand, interpret and explain Department policies and procedures; adapt to new and complex computer software
- Learn to research sources of geographic data and collect, interpret and integrate cartographic data from different sources to prepare map manuscripts and reports
- Learn to identify characteristics of aerial photographs and interpret maps; prepare maps, accurately delineating feature locations and boundaries on map manuscripts
- Work independently and as a cooperative, contributing member of a team
- Learn to organize and manage multiple priorities and perform a variety of work assignments  
Learn to use tools and equipment commonly used in GIS map production
- Communicate effectively and concisely in writing and speaking
- Establish and maintain effective working relationships with those contacted in the course of work

**PHYSICAL REQUIREMENTS**

- On a continuous basis, sit at drafting table or computer station and periodically go into the field to perform collection duties; intermittently stand at counter for long periods of time; twist and reach office equipment; write and use keyboard to communicate through written means; use keyboard to operate design and mapping computer software; visually differentiate between colors displayed on a computer monitor or on printed mediums; and regularly lift weight of 25 pounds or less.

**TRAINING AND EXPERIENCE:**

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

- Equivalent to an Associate's degree, with course work in geography, geographic information systems, computer aided drafting, global positioning systems, computer science, engineering or related field.

**LICENSE AND CERTIFICATE**

- Possession of, or ability to obtain, a valid California driver's license.

**Geographic Information System Technician II**

In addition to the qualifications for the Geographic Information System Technician I:

**Knowledge of:**

- Terminology, methods, principles, practices and techniques used in GIS/GPS and other computer operating systems related to areas of assignment.
- General principles of urban planning and land development.
- Cartographic design principles and practices used to produce high quality maps.
- Policies and procedures of the assigned department.

**Ability to:**

- Independently research sources of geographic spatial and tabular data for GIS usage, through the Internet and other sources, and collect, interpret, convert and integrate data from different sources to prepare maps.
- Independently identify characteristics of aerial photographs and interpret maps; prepare maps accurately delineating feature locations and boundaries on map manuscripts.
- Competently use relevant software, programs, and computer applications; import and export data; and use macros and other data management tools.
- Assist in the design of databases associated with the GIS base mapping and subsequent map layers.
- Research sources of geographic data and collect, interpret and integrate cartographic data from different sources.
- Perform technical GIS work involving quality insurances and control, data loading, and editing.
- Design and develop sequence-processing tasks.

**TRAINING AND EXPERIENCE**

Any combination of experience and education that would provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities is:

- Two years of technical experience similar to a Geographic Information System Technician I with the City of Watsonville.
- Equivalent to completion of an Associate's degree, with coursework in geography, geographic information systems, global positioning systems, computer science or related field.