

PADRE DAM MUNICIPAL WATER DISTRICT CLASS SPECIFICATION

CLASS TITLE: GIS/Mapping Specialist

DEPARTMENT: Engineering	ACCOUNTABLE TO: GIS/Mapping Administrator	FLSA STATUS: Non-Exempt
SALARY RANGE:	20, 22, 24	

CLASS SUMMARY: Incumbents are responsible for the administration and maintenance of data input into Padre Dam’s computer mapping (CAD) and Geographical Information Systems (GIS). Duties might include: inputting data into the GIS and utility mapping information systems; maintaining the Geographic Information System (GIS) and base and utility mapping information systems; performing geospatial analysis of data, populate GIS databases, export data to/from GIS software, and display data on GIS maps; preparing charts, graphs and displays; transferring engineering files between software programs; coordinating system needs with other departments; defining requirements for end users; assisting in the development of CAD/GIS standards and providing departmental CAD/GIS support; defining system limitations and developing methods for systems (CAD/GIS) maintenance; researching and recommending engineering computer hardware and software products; troubleshooting and repairing problems with hardware and software; coordinating services with contract consultants for maintenance agreements and purchases; researching information from records, surveys and assessor maps; performing field data collection; providing software training to end users including preparing training manuals; writing basic code for customization of software applications; supporting the Engineering LAN, printers and plotters; and, performing system wide backups and restoring lost data.

DISTINGUISHING CHARACTERISTICS: The GIS/Mapping Specialist is a broadband position in a two level GIS/mapping series. The GIS/Mapping Specialist is distinguished from the GIS/Mapping Administrator in that the Administrator has design and implementation responsibility and full supervisory authority.

DUTY NO.	ESSENTIAL DUTIES: (These duties are a representative sample; position assignments may vary.)
1.	Assists all areas within Engineering to perform preliminary Engineering analysis as it relates to mapping for Design, Development Services and Right of Way.
2.	Creates, updates, and generates maps utilizing the GIS and CAD systems which can also include preparing a variety of charts, graphs and other related displays.
3.	Maintains the GIS and CAD systems for the cadastral and utility mapping information which includes: researching and entering data from record drawings, change orders, field notes, survey maps, assessor maps and legal descriptions; and collecting data from the field.
4.	Assists with the CAD and GIS administration which includes: coordinating system needs with other departments, defining requirements for end users, defining system limitations and providing training and support for CAD and GIS end users.

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DUTY NO.	ESSENTIAL DUTIES: (These duties are a representative sample; position assignments may vary.)
5.	Assists with supporting the Engineering LAN which includes: developing methods for maintenance, configuring PCs, installing software, troubleshooting and repairing problems with hardware and software, researching computer hardware and software products, performing system wide backups and restoring lost data.
6.	Performs administrative duties which including: coordinating services with contract consultants for maintenance agreements and purchases, preparing purchase orders, assisting in the budget process, writing correspondence and preparing training manuals.
7.	Performs data conversions to include the transferring of engineering data files between engineering software programs.
8.	Manipulates raster imagery (scanning, transforming and mapping).
9.	Performs geospatial analysis of data.
10.	Assists with the customization of various software products which can include basic skills using script languages, VBA and ArcObjects.
11.	Creates and maintains relational databases (tables, forms and reports) particularly in Microsoft and/or SQL Server.
12.	Performs other duties of a similar nature or level.

Knowledge (position requirements at entry):

- Basic mapping and civil engineering (reading and interpreting records drawings/plans and profile drawings);
- Relational and object-oriented database design principles and development;
- Geographic Information Systems (ESRI);
- Computer-aided drafting (Microstation);
- Microsoft operating systems (Windows);
- Word processing, spreadsheets and databases;
- Cartographic principles;
- Basic programming skills.

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Skills (position requirements at entry):

- Maintaining GIS and CAD utility mapping systems
- Inputting data into GIS and utility mapping systems;
- Preparing training manuals;
- Troubleshooting hardware and software problems;
- Preparing charts, graphs and displays;
- Field data collection techniques and principles;
- Communication, interpersonal skills as applied to interaction with coworkers, supervisor, the general public, etc. sufficient to exchange or convey information and to receive work direction.

Training and Experience (position requirements at entry) (depending on area of assignment):

- Associate's Degree, GIS certification or vocational training in GIS (Geographic Information Systems), Computer Aided Drafting (CAD) and two years experience in GIS, CAD and field data collection;
- OR
- Bachelor's Degree in GIS or a related field with classes in GIS;
- OR
- An equivalent combination of education and experience sufficient to successfully perform the essential duties of the job such as those listed above.

Licensing Requirements (position requirements at entry):

- Valid California Driver's License.

Physical Requirements:

Positions in this class typically require: climbing, balancing, stooping, kneeling, reaching, sitting, standing, walking, lifting, fingering, talking, hearing, seeing and repetitive motions.

Incumbents may be subjected to odors and dusts.

Light Work: Exerting up to 30 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or negligible amount of force constantly to move objects. If the use of arm and/or leg controls requires exertion of forces greater than that for Sedentary Work and the worker sits most of the time, the job is rated for Light Work.

Classification History:

Date: 4/98; 1/02; 1/05