

PADRE DAM MUNICIPAL WATER DISTRICT CLASS SPECIFICATION

CLASS TITLE: GIS/CAD Specialist

DEPARTMENT: Information Systems	ACCOUNTABLE TO: Information Systems Manager	FLSA STATUS: Non-Exempt
SALARY RANGE:	20, 22, 24	
CLASS SUMMARY: This class is required to process and support the maintenance and dissemination of data and applications in the District's Enterprise Geographic Information System (GIS).		
DISTINGUISHING CHARACTERISTICS: The GIS/CAD Specialist is distinguished from the GIS Coordinator in that the GIS Coordinator is responsible for implementing and maintaining all spatial databases, client-side and server-based GIS applications, and ensuring that data quality and information is reliable and consistently maintained.		

Salary Grade 20	Salary Grade 22	Salary Grade 24	DUTY NO.	ESSENTIAL DUTIES: (These duties are a representative sample; position assignments may vary.)
C	P	P	1.	Creates, updates, and generates graphic figures and maps utilizing the GIS and CAD systems.
	C	P	2.	Assists with maintenance of GIS data utilizing the appropriate software in line with District standards.
C	P	P	3.	Interprets as-built drawings using coordinate geometry (COGO) to update CAD basemaps.
C	C	P	4.	Collaborates with various departments and end-users of all levels to determine data needs, provide problem solving and assistance, respond to inquiries, and produces customized GIS products.
	C	P	5.	Creates and maintains web maps, web and mobile applications and integrates into system of record.
C	C	P	6.	Integrates data from diverse sources into GIS and CAD environments.
	C	P	7.	Performs data analysis that includes but is not limited to raster, statistical, geospatial (2D/3D), and non-spatial.
	C	P	8.	Assists with the development of data quality and cartographic standards.
	C	P	9.	Makes recommendations to the GIS Coordinator and the Information Systems Manager on GIS software acquisition and configurations.
C	C	P	10.	Maintains and creates technical documentation and training materials. Trains and assists District staff in the use of GIS/CAD software.

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C	P	P	11.	Utilizes various scripting tools within the GIS environment to customize and automate GIS processes and models.
	C	P	12.	Utilizes relational database concepts and applies them in the GIS environment.
C	P	P	13.	Manipulates raster imagery (scanning, transforming and mapping). Able to scan using pre/post process techniques in order to georeferenced hard copy documents (maps, images, plats).
C	C	P	14.	Utilizes Global Positioning System (GPS) devices to collect field data and post-process the results to the GIS.
P	P	P	15.	Continual education to Regularly stays abreast of new trends, skill sets, GIS functionalities, and applications through continuing education in the field of GIS.
P	P	P	16.	Performs other duties of a similar nature or level as assigned.

- Salary Grade (SG) 20 - GIS/CAD Specialist I salary grade of the GIS/CAD Specialist series.
- Salary Grade (SG) 22 - GIS/CAD Specialist II salary grade of the GIS/CAD Specialist series.
- Salary Grade (SG) 24 - GIS/CAD Specialist III salary grade of the GIS/CAD Specialist series.

C = Competent - Having requisite or adequate ability or qualities.

P = Proficient - A through competence derived from training and practice.

Note: The GIS/CAD Specialist position is broad band, and the department policy has always been that a promotion through each step is not automatic. Each employee must demonstrate proficiencies at each step on a consistency basis before a promotion is recommended. The GIS/CAD Specialist will be required to demonstrate proficiency in a salary grade before a promotion will be considered. Ultimately, the recommendation from the supervisor will require approval from the department head and the General Manager.

Knowledge (position requirements at entry):

- Cartographic and mapping principles;
- General knowledge of municipal agency GIS uses, within planning, public utilities operations, and parks and recreation;
- Relational and object-oriented database design principles and development;
- ESRI ArcGIS software; Enterprise platform and architecture
- Computer-aided drafting (MicroStation and/or AutoCAD);
- Microsoft Office products;
- GIS concepts including techniques of spatial analysis, and geographical concepts of location, scale, resolutions and generalization.
- Basic knowledge of cyber security
- Basic troubleshooting techniques
- Basic programming skills including abilities to write scripts for GIS.

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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;
- Reading and interpreting maps, record drawings, and legal descriptions;
- Preparing charts, graphs and displays;
- Field data collection techniques and principles;
- Technical writing;
- Troubleshooting GIS applications and processes;
- Communication, interpersonal skills as applied to interaction with coworkers, supervisor, the 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 emphasis 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.

Safety Priorities: Knowledge of general office and field safety, safety when working around traffic in the public right of way, use and care of Personal Protective Equipment and defensive driving techniques. Understanding of: Padre Dam's Safety Rules and Regulations, accident and injury reporting policies, Padre Dam's Policy and Procedures for Violence in the Workplace. Ability to: complete safety training and work in a safe and efficient manner.

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; 10/13, 08/16, 03/19