



## POSITION DESCRIPTION AND QUALIFICATIONS

### GIS Technician

Grade: 32

Reports to: Principal Engineer

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#### **GENERAL STATEMENT OF CLASS**

The GIS Technician position is responsible for overseeing and maintaining plans and files of the water facilities and distribution system using databases, asset management systems and Geographic Information Systems (GIS).

#### **ESSENTIAL DUTIES**

Prepares and maintains water system maps, plans and files; Works with geospatial databases and data to create and maintain mapping and asset data; Prepares various reports and other correspondence; Performs information gathering and project assistance; Works under supervision of the Principal Engineer; Interactive work with MWC Staff, agencies, utility companies, contractors, consultants, developers, and others.

#### **EXAMPLES OF WORK** *(Illustrative Only)*

- Perform routine GIS data maintenance. Input, update or maintain GIS data, verify data integrity; view and edit data using cartographic techniques to represent spatial data; enter, update and maintain data layers and relational databases, using GIS application tools.
- Perform simple spatial analysis and database queries. Develop and maintain data layers and spatial data structures using GIS tools and relational databases. Maintain metadata describing data sources, accuracy, reliability and completeness, map feature types, descriptive feature attributes and other information about GIS data layers.
- Use GIS software programs to modify and update data, and to compose map products. Prepare a variety of maps, illustrations and other graphic representations.
- Code and digitize geographic data features. Proof and review maps for completeness and adherence to standards. Operate large format plotter to produce hardcopy map products. Convert existing drawings and source data from various formats for integration into the GIS system.
- Recommend alteration, or refinement of computer assisted mapping methods, procedures, or techniques to better meet specified mapping requirements. Research various records to maintain current, accurate digital maps and databases; find and compile source information for mapping; visit field locations to collect or verify data.
- Communicate information to others such as emergency responders, utility companies, engineers or other regional government agencies in need of geographic information. Assist staff with providing the data for GIS analysis and map production needs, including evaluation of data sources, preparing simple maps and graphs, and finding locations of features.
- Maintains and provides information valve, hydrant, and other utility assets. Gathers, organizes, and maintains water facility statistical information.



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- Performs a variety of special assignments for the Principal Engineer

#### **KNOWLEDGE, SKILLS AND ABILITIES REQUIRED**

Knowledge of principles and practices of ESRI GIS applications, tools, software and hardware; Knowledge of drafting principles, principles of math, mapping practices, surveying, record keeping and PC database programs; Knowledge of CAD (computer-aided drafting) principles such as scanning, and plotting; Skill in the use of personal computers, Microsoft Office, Excel, Access, and ArcGIS programs; Skill in communication and interpersonal interaction with co-workers, supervisor, contractors and the public sufficient to exchange or convey information and to receive work direction; Ability to make accurate computations and prepare accurate engineering drawings; Ability to prioritize work and perform multiple tasks; Ability to gather data and prepare reports.

#### **KNOWLEDGE, SKILLS AND ABILITIES DESIRABLE**

A basic knowledge of civil (water, surveying, land development) infrastructure, CAD, global positioning system (GPS) and GPS hardware and software, and Autodesk Civil 3D. Ability to read plans and specifications and a general knowledge of land development process.

#### **TRAINING, EXPERIENCE, AND LICENSING REQUIRED**

Bachelor's degree in geography, computer technologies, engineering, GIS or a related field is desired. Two (2) years' experience using GIS software applications. Other post high school degree, or a high school diploma with an equivalent combination of education and experience providing the knowledge, skills and abilities sufficient or successfully perform the essential duties of the position will be considered.

Valid Oregon driver's license and acceptable driving record required.

#### **PHYSICAL REQUIREMENTS**

Positions in this class typically requires repetitive motions, reaching, standing, walking, fingering, grasping, talking, hearing and seeing.

Light work: Exerting up to 20 pounds of force occasionally and/or 10 pounds of force frequently and/or a negligible amount of force constantly to move objects.