SAN LORENZO VALLEY WATER DISTRICT

ENGINEERING/GIS MANAGER

DEFINITION

Under administrative direction of the General Manager, plans, organizes, coordinates and administers all District engineering and geographic information systems (GIS) activities; and performs other related duties as required.

CLASS CHARACTERISTICS

This is a single position class. The incumbent performs a wide variety of engineering and geographic information systems duties with a high degree of independence and judgment. The incumbent provides technical assistance to the General Manager.

SUPERVISION RECEIVED AND EXERCISED

Supervised by: General Manager

Exercises supervision over: No supervisory responsibility

ESSENTIAL DUTIES (Duties may include, but are not limited to, the following):

Plans, coordinates, and administers engineering and GIS activities; plans, reviews and evaluates the work of outside consultants and contractors.

Conducts engineering and GIS studies and researches, collects, and analyzes data, and prepares engineering and GIS reports as required; obtains necessary permits from a variety of regulatory agencies.

Maintains and updates the District water distribution system mapping and geographic information system as well as all other original drawings, easements, and digital data related to the Engineering/GIS department.

Prepares plans and preliminary designs of water, storage, pumping and distribution facilities and sewage collection, pumping and treatment facilities.

Develops specifications and plans for projects and equipment purchases; prepares memos and coordinates with consultants during design of capital improvement projects and studies.

Provides project and construction management and construction inspection for capital improvement projects as required; coordinates with local and State agencies, consultants and contractors during design and construction of District projects.

Reviews requests for new water service and evaluate feasibility; meets with customer to

discuss costs and options.

Maintains District Standards and Specifications for construction methods and materials for water distribution and sewage collection facilities.

Explains engineering and GIS procedures, requirements and information to District personnel, elected officials, and the general public; represents the District in meetings with land developers, representatives of other agencies or customers.

QUALIFICATIONS

DEMONSTRATED KNOWLEDGE OF AND PERFORMANCE IN THE FOLLOWING AREAS:

- Engineering and Geographic Information Systems principles, practices, and methods;
- Construction practices, trades and materials;
- Project management and coordination;
- Contract administration practices and principles;
- Methods and techniques used in design and construction for planning, design, construction, installation, and inspection of water and wastewater collection, and distribution facilities;
- Methods and techniques used in geographic information systems implementation and database design;
- Federal, state, and local laws and regulations related to water/wastewater system design, and construction;
- Principles and practices of field survey work including automated survey and data collection equipment and software;
- Principles and techniques of drafting and map preparation using AutoCad and by hand;
- Principles and practices of construction inspection;
- Basic mathematics used in technical engineering;
- Safety problems and procedures.

ABILITY TO:

- Interpret and understand construction drawings and maps;
- Prepare drawings from existing drawings and design notes and sketches;
- Communicate effectively both orally and in writing;
- Perform survey work including verification of lay out, elevations, line and grade;
- Use a variety of and engineering software applications;
- Create and maintain accurate records, databases, and files;
- Prepare engineering reports and records;
- Perform mathematical computations for design and right-of-way work;
- Establish and maintain effective relationships with other agencies, contractors, consultants, customers, and staff.

PHYSICAL AND SENSORY REQUIREMENTS

- Sufficient eyesight to read fine plans and standard text and data;
- Ability to speak and hear at normal conversational levels in person and over the telephone;
- Manual dexterity to write legibly and to use calculators, computer terminal, and field survey work and draw engineering documents by hand;
- Ability to lift and carry up to forty (40); ability to reach, bend, or crouch to conduct survey work or to use files and records;
- Ability to occasionally walk on uneven and slippery surfaces;
- Exposure to outdoors and high noise levels as created by large pumps;
- Ability to travel to different sites and locations.

TRAINING AND EXPERIENCE GUIDELINES

Any combination of training and experience, which demonstrates attainment of the required knowledge and ability to perform the required work (with reasonable accommodation, if needed), typically:

EDUCATION: Equivalent to graduation from high school with college level courses in engineering and geographic information systems or closely related field. Graduation from an accredited college or university with a degree in civil engineering and geographic information systems or closely related field is highly desirable.

EXPERIENCE: Five (5) years of increasingly responsible experience related to professional-level water and wastewater system engineering, and design, implementation and administration of geographic information systems.

SUBSTITUTION: Additional qualifying experience may substitute for the education on a year for year basis.

CERTIFICATIONS, LICENSES, AND REGISTRATIONS

A valid California class C driver's license must be maintained at all times.