



Madera Irrigation District Job Description

JOB TITLE: SYSTEMS ANALYST

DEPARTMENT: OPERATIONS & MAINTENANCE

SUPERVISOR: ENGINEERING TECHNICIAN SUPERVISOR

FLSA STATUS: [] Exempt [X] Non-Exempt [X] At-Will

PURPOSE

Under the general supervision of the Engineering Technician Supervisor, performs a variety of tasks pertaining to the operational success of the District's Supervisory Control and Data Acquisition (SCADA) and Geographic Information System (GIS). This includes researching, testing, and deploying new software, hardware, and system workflows that increase the District's productivity and efficiency. Maintain and develop the District's database systems, which include GIS, SCADA, and the District's computer network. Work with a variety of consultants and integrators to deploy Information Technology (IT) systems used throughout the District.

DISTINGUISHING CHARACTERISTICS

This is a single position classification reporting to the Engineering Technician Supervisor.

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

- Manages the District's Geographic Information System (GIS) and services as professional, developing modern workflows.
- Performs technical maintenance of SCADA gates/meters, radios, and other sensors deployed throughout the District.
- Coordinates with the Operations Department and SCADA developers in support of SCADA as required.
- Updates, investigate, test, resolve, calibrate, and troubleshoot SCADA applications at SCADA sites.
- Prepares and conducts training sessions as applicable for new and existing staff as it pertains to the radio SCADA system and software systems.
- Recommends water measurement methods and equipment and develops maintenance requirements.
- Maintains and plans SCADA software and hardware
- Manages District software and hardware infrastructure and peripheral equipment
- Evaluates systems using cost benefit analysis methods.
- Prepares various District reports for analysis, review and submittal.
- Manages database entry and CASGEM compliance.
- Troubleshoots communication failures on cell site modem flow recorders.
- Participates in the evaluation of network protocols, hardware, and software to determine their applicability to District needs.
- Coordinates the installation and maintenance of District computers, laptops, tablets, and other network devices and troubleshoots any issues.
- Acts as liaison to District IT consultants.

- Performs related engineering duties.
- Similar other duties as needed.

ESSENTIAL RESPONSIBILITIES

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

1. **General Knowledge** – Basic math; English grammar, spelling and punctuation, reading and writing, and general science and chemistry.
2. **Specialized Knowledge** – Advanced computer skills in Office365, (MS Word, MS Excel), GIS, ESRI Applications, SQL, Windows Server, Networking, Clear SCADA, Win911, STORM, and others as determined by the District.
3. **Resources** – District's supplies and equipment used or available for use during employment such as: MID vehicle, laptop, cellphone, keys, gas card, and reports.
4. **Communication** – Ability to communicate clearly with all District personnel, customers, consultants, general public, clients, and stakeholders of the District. Channels of communication may include mobile radio, phone, literary instructions, computer, and may also include the use of oral, written, auditory, and visual senses. Employee will display the ability to communicate with respect even in times of difficult matters.
5. **Safety** – Ability to work safely, following all District safety procedures and rules. Identify potential hazards and communicate them to authorized District safety representative.
Pay
close attention to working conditions while working around moving heavy equipment; road hazards; dense fog and rough or slippery canal banks. Always be observant for potential encounter of irate customers or illegal activity. In these types of situations, make every attempt to mitigate risk.

WORKING CONDITIONS

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Exposure to the sun: 25% to 50% work time spent outside a building and exposed to the sun.
- High Temp: Some outdoor work time in temperatures between approximately 80 to 110 + degrees.
- Humidity: Work in areas with unusually high humidity.
- Noise: Occasionally there are unusually loud sounds.
- Slippery surfaces: Occasional work on unusually slippery surfaces, water hazards in canals, rivers and streams.
- Driving on rural roads, highways, unpaved mountain roads, and canal banks.
- Oil: Some parts of the body may contact oil or grease occasionally.
- Dust: Works in or around areas with minor amounts of dust.
- Contact with electrical wiring and electric shock.
- Occasional irregular or extended work hours.

PHYSICAL REQUIREMENTS

To perform this job effectively, there are physical demands that are required of the employee. The following items are examples of physical abilities that will be necessary to perform the essential functions of this position:

- Walking on uneven ground, snow and steep terrain;
- Operates District vehicles and equipment in distribution system, construction, maintenance, and repair work.
- Must be able to carry, push, pull, reach, and lift equipment and parts weighing up to 50 pounds.
- Stands and walks for extended time periods.
- Regularly uses a telephone for communication.
- Use office equipment such as computers, copiers, and FAX machines.
- Sits for extended time periods.
- Hearing and vision within normal ranges with or without correction.
- Stoops, kneels, crouches, crawls, and climbs during field maintenance and repair work.
- Works in an environment with exposure to dust, dirt, and significant temperature changes between cold and heat.

QUALIFICATIONS

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

Education – High School Diploma/GED required. College level course work relating to information technology / engineering principles desired.

Experience – One-year related professional experience required. Knowledge of SCADA, GIS, IT, and CAD preferred. Academic instruction and engineering course completion may be substituted for professional experience.

Licenses, Registrations, Accreditation, etc.: Possession of a valid California Class C Driver License is required at the time of appointment. Possession of Clear SCADA Level 1 certification required within one (1) year of hire. Failure to obtain or maintain such required license(s) may be cause for disciplinary action. Individuals who do not meet this requirement due to a physical disability will be considered for accommodation on a case-by-case basis. Possession and proof of a driving record free of multiple or serious traffic violations or accidents for three (3) consecutive years.

I have reviewed this Job Description and agree with its contents.

Employee Signature

Date

Supervisor Signature

Date

This job description may be changed to include new responsibilities and tasks or change existing ones as management deems necessary.