MERCED IRRIGATION DISTRICT

ASSOCIATE ENGINEER (Civil)

FLSA Status – Exempt

DEFINITION:

Under general direction from the Deputy General Manager, Water Resources or designee, perform professional level work regarding all aspects of the Water Resources Engineering Department, including staff supervision, planning, surveying, design, capital project management, encroachments, right-of-way management, water quality programs and hydrography functions. Continued development of the departments' data management systems and support other departments, including operations, maintenance, hydro and the parks departments, as necessary.

ESSENTIAL FUNCTIONS OF THE POSITION:

- Perform engineering studies and project management activities associated with MID's water conveyance infrastructure projects, including the preparation and monitoring of project budgets, supervision of staff, consultants and vendors, acquisition of required permits, contracts and agreements.
- Under general direction, prepare contract bid packages, including plans and specifications. Perform detailed engineering calculations and design.
- Perform complex field survey work as needed to support District construction projects or special study projects.
- Oversee the various water quality programs conducted by MID and assist in developing new programs as required by local, state and federal regulations.
- Perform hydrography functions of the department, including stream flow measurements, grower delivery flow rate verification and associated data management and analysis.
- Continued development of the MID EDMS, an integration of the water delivery database, the SCADA system, the GIS system and the water records database, as well as other custom databases.
- Work with developers and growers on their private projects to ensure that impacts to the MID water system are mitigated in accordance with Board policy and MID practices.
- Assist in the development of strategic plans, policy formulation and execution of said plans and policies.
- Work with a wide variety of stakeholders on a regular basis, from District growers to local, state and federal agencies.
- Perform other duties as requested, directed, or assigned.

QUALIFICATIONS:

Any combination of experience and education that would prepare the candidate for the duties and responsibilities of the position is acceptable.

Education:

A Bachelor's Degree from an accredited college or university with major course work in civil engineering, agricultural engineering or a closely related field.

Experience:

- Two (2) years of increasingly responsible experience in the design, maintenance, construction and operation of irrigation system facilities is preferred.
- Significant working knowledge of engineering production and design software including MS Word, Excel, Project and access in addition to AutoCAD and GIS latest used versions.

Ability to:

- Communicate effectively with outside agencies and the general public.

- Multitask and meet several coequal comprehensive work product schedules with coequal deadlines and target deliverable dates.
- Maintain confidentiality.
- Perform a variety of responsible office technical and administrative duties that carry substantial responsibility; initiate and perform detailed work with little supervision.
- Answer questions where judgment and interpretation are necessary, keep complex records, assemble and prepare reports from such records, communicate effectively with all levels of management, employees and the public, work cooperatively with others.

Knowledge of:

- Civil Engineering practices related to water conveyance infrastructure design;
- Hydraulic calculations to determine the capacities of open and closed irrigation distribution systems;
- Pumps, variable frequency drives VFD's, and flow meters;
- Level control and flow control structures;
- Above average knowledge of GIS and AutoCAD, knowledge of Civil 3D is a plus; HEC-RAS modeling software is a plus
- Project initiation, CEQA requirements, design and construction;
- Familiarity with Subdivision Map Act, the use of GPS survey equipment and GIS software is a plus;
- Have a thorough understanding of basic PC computer systems and MS software including, but not limited to, Word, Excel, Project, Power Point, and Access;
- Significant understanding of hydrography and SCADA functions of the Engineering Department including stream flow measurements, grower delivery flow rates verification and associated data management and analysis;
- Bid specifications principals, bid and contracting processes and applicable laws.
- Research and analysis methodologies;
- Technical Report Preparation;

Necessary Special Requirements:

- California registration as an Engineer in Training (EIT), or ability to obtain within 6 months of hire date, is required.
- Must complete two hours of Sexual Harassment training every two years in compliance with California AB 1825.
- A valid California Class C Driver License and the ability to maintain insurability under the District's vehicle insurance program.
- Abide by all District policies, guidelines and rules.

ENVIRONMENTAL FACTORS:

- Exposure to the sun: 50% or less work time spent outside a building and exposed to the sun.
- Irregular or extended work hours: Occasionally required to change working hours or work overtime.
- Work performed in an office environment.

The mental and physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions:

ESSENTIAL MENTAL ABILITIES:

- Exercise independent judgment.
- Self-directing and organized.
- Reason objectively.

- Assess, project and plan work activities on a daily and weekly basis.
- Interpret state/ federal/agency regulations.
- Document concisely, accurately and timely.
- Handle a variety of duties which may be interrupted or changed by immediate circumstances.

TYPICAL PHYSICAL DEMANDS:

- Communicate orally and in writing with District management, co-workers, outside auditors, customers, and the public in face-to-face and one-on-one settings.
- Transport, set-up and removal of promotional equipment and materials at various public functions.
- Use of office equipment such as computer, copiers, scanners, and fax machines.
- Capable of negotiating stairways.
- Operate District vehicles.
- Must be able to carry, push, pull, reach and lift equipment and parts weighing up to 50 pounds.
- Stoops, kneels, crouches, crawls and climbs as required during performance of duties.
- Work in an environment with exposure to dust, dirt and significant temperature changes between heat and cold.
- Communicates orally with District staff and the public in face-to-face, one-on-one settings.
- Regularly use a telephone and radio for communication.

Sitting:	Remains in a seated position for up to eight (8) hours per day.
Hands/Arms:	Operates computer for up to eight (8) hours per day.
Lifting:	Raises and lowers boxes and supplies up to twenty-five (25) pounds.
Stooping:	Bends body downward and forward by bending at the knees or waist.
Talking:	Expresses ideas and shares information by means of spoken work in person and by telephone.
Hearing:	Hears well enough to receive communications in person and by telephone.
Vision:	Reads written and video messages for up to eight (8) hours per day. Operate vehicles and office equipment.

SUPERVISION:

The position receives general supervision from the Deputy General Manager, Water Resources or designee.