

**MERCED IRRIGATION DISTRICT
HYDRO ENGINEER**

FLSA Status – Exempt

DEFINITION:

Under general direction, perform engineering work in the design, plans, and specifications for mechanical and electrical systems in dams, electrical power, and pumping plants, and miscellaneous buildings.

ESSENTIAL FUNCTIONS OF THE POSITION:

- Manage all aspects of engineering studies and capital projects for the Hydro facilities, including the preparation and monitoring of feasibility studies, technical studies, project budgets, manage consultants and vendors working on projects, and acquire required permits, contracts and agreements.
- Prepare designs, detailed drawings, and specifications for Hydro systems and potential improvements to such systems.
- Conduct studies, analysis, investigations, provide reports, and make recommendation to management for current and future Hydro needs.
- Assist the Chief Dam Safety Engineer to support the District's Dam Safety Program.
- Provide engineering support to operations and maintenance personnel who are performing maintenance, repairs, modification or installation work in Hydro Electric facilities.
- Inspect and analyze project features such as dams, tunnels, penstocks, spillways, intake structures, powerhouses, electrical generators, transformers, waterwheels, and roads.
- Prepare Requests for Proposals (RFP's) and bid documents in accordance with the District's purchasing policy.
- Make public presentations to the MID Board of Directors, and local, state and federal agencies as required.
- Prepare reports, keep records, revise drawings, draft practices and internal standards, assist other trades, organize work, set priorities, meet critical deadlines, and follow up on assignments/projects.
- 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:

- Bachelor's Degree from an accredited college or university with major course work in areas such as mechanical or electrical engineering, or a related field.
- Master's Degree desirable.

Experience:

- Five (5) years of experience as an engineer with a background in capital project planning and design, construction, and project management with a focus on Hydro-Electric related projects or related field.
- Experience with data management systems (SCADA, work management system, computer maintenance management system, etc.) is highly desirable.

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Ability to:

- Work closely with District Management, other department managers, staff, constituents, consultants, contractors, other governmental agency representatives and the general public.
- Exercise leadership, authority, and management tactfully and effectively.
- Plan, organize, direct, coordinate and supervise functions and activities of the Engineering Department to achieve efficient operations and meet service goals.
- Negotiate agreements with various entities.
- Represent the District at various agencies and entities.
- Interact effectively with City/s and County governments, serving the District's best interest
- Solve problems and recommend changes in standards, procedures, and policies to best serve District constituents.
- Ensure prompt and proper response to public concerns and complaints.
- Communicate effectively both orally and in writing. Work cooperatively with staff, employees, and employee organizations.
- Handle confidential information appropriately.
- Effectively utilize various engineering software programs, spreadsheets, word processing software and other typical office software programs.
- Maintain records, analyze data, compile comprehensive technical reports and recommendations concerning various aspects of water resources management
- Represent District policies, programs and services effectively with employees, contractors, representatives of other agencies and the public.
- Operate a desktop computer to access varied databases and applicable software.
- Understand and carry out oral and written instructions
- Deal tactfully and courteously with the public.
- Initiate and maintain effective safety practices that relate to the nature of the work.
- Supervise, train, and evaluate staff's work.
- Organize, schedule, and coordinate work.
- Operate a vehicle observing legal and defensive driving practices.
- Establish and maintain effective relationships with those contacted in the course of work.

Knowledge of:

- Mechanical or Electrical Engineering practices related to hydro-electric infrastructure design and hydraulics.
- Principles of project management, regulatory requirements such as CEQA, FERC, DSOD, and NERC, design, and construction techniques.
- Public bid specification principles.
- Public bid and contracting processes and applicable laws.
- Research and analysis methodologies.
- Technical report preparation.

Necessary Special Requirements:

- A valid California registration as a Mechanical or Electrical Engineer is preferred.
- Must file a Statement of Economic Interests in compliance with Government Code Section 8100.
- Must complete a two hour Ethics training course every two years in compliance with California AB 1234.

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- 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: 30% 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 or hydro plant 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 and uneven ground from time to time.

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.

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SUPERVISION:

The position receives general supervision from the Hydro Project Manager.

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

Employee Signature/Date

Supervisor Signature/Date

The specific statements shown in each section of this job description are not intended to be all-inclusive. They represent typical elements and criteria necessary to successfully perform the job.