

# **SAN BERNARDINO MUNICIPAL WATER DEPARTMENT CLASSIFICATION SPECIFICATION**

**TITLE: ENGINEER**

**DATE: 07/01/2021**

**JOB CODE: 51837**

**FLSA STATUS: EXEMPT**

**UNIT REPRESENTATION: MID-MGMT**

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.*

## **DUTIES SUMMARY**

Under general direction, to perform diverse and complex water, sewer, and wastewater engineering assignments; manage assigned projects, review and evaluate drawings and designs; issue and renew cost summaries and developer agreements; review and investigate compliance; prepare compliance and permitting documents; assist in development and maintenance of engineering and GIS data and databases, and provide supervision and direction to technical staff as assigned.

## **DISTINGUISHING CHARACTERISTICS**

The class of Engineer is distinguished from the Engineering Associate by a required designation as a registered professional engineer in the State of California. Incumbents in this class perform the more difficult engineering design and hydraulic evaluation assignments, serve as a signatory, and are expected to provide difficult technical analysis and support of engineering projects and programs. Supervision may be exercised over subordinate engineering staff. Supervision may be received from the Engineering Manager or Principal Engineer.

## **EXAMPLES OF DUTIES**

*The following duties are typical essential duties for positions in this classification. Any single position may not perform all of these duties and/or may perform similar related duties not listed here.*

- Provide courteous and expeditious customer service to the general public and City and Department staff;
- Supervise subordinate engineering staff as assigned;
- Perform studies of technical, environmental and economic feasibility, engineering field studies and related duties pertaining to proposed and existing facilities;
- Coordinate the work of contractors and consultants; review, check and inspect the work of contractors and consultants; act as liaison between contractors/consultants and SBMWD staff;
- Identify long-term projects to improve plant operations and assure regulatory compliance;
- Prepare detailed layout and design drawings for construction and maintenance projects, structures and other facilities; instruct other staff in the production of drawings, maps, tables and other documents; review designs for completeness and conformance to established standards;

- Sign and seal technical documents, reports, and plans;
- Coordinate engineering design projects with other departments and agencies;
- Prepare and/or review cost estimates, records, files, reports and correspondence;
- Serve as project manager for small to medium facilities expansion or refurbishment projects designed in-house or by consultants;
- Assist with construction management and inspections for construction projects performed by outside contractors and Department personnel;
- Prepare and maintain records and maps for water and sewer atlases, real property, tie-sheets and GIS database;
- Provide technical support for walk-in customers, phone calls, e-mails and other agencies and departments;
- Represent the Department with utilities, cities, engineering firms, contractors, developers, contractors, and manufacturers; coordinate projects with other agencies.
- Provide information and training to other personnel on various technical topics;
- Operate Department vehicles;
- Routinely adhere to and maintain a positive attitude toward City and Department goals; and
- Perform related work as required.

## **QUALIFICATIONS**

*Any combination of education, training, and experience that would likely provide the knowledge, skills, and abilities to successfully perform in the position is qualifying. A typical combination includes:*

### **Knowledge of:**

- Principles and practices of civil and structural engineering and other engineering disciplines used in the utility industry pertaining to water, sewer, wastewater
- Drafting principles, methods, and equipment, including AutoCAD and GIS;
- Sources of engineering information; knowledge of regulatory codes applicable to utility engineering;
- Field survey methods, procedures, and instruments;
- Statistics and graphic presentation of materials;
- General research and report writing methods;
- Engineering economics and cost estimating;
- Hydraulic principles and operation of computerized hydraulic modeling;
- Plan check methods;
- Construction management and inspection methods;
- Principles of supervision, training and performance evaluation;

**Ability to:**

- Read and utilize field survey notes in the preparation of maps and plans;
- Write clear and concise technical reports;
- Interpret and analyze technical information and make independent judgments;
- Interpret construction and professional service contracts and construction contract documents;
- Make complex engineering calculations;
- Apply civil and engineering principles and practices to the solution of difficult problems;
- Work in a variety of environmental conditions, indoors and out, including wide temperature variations;
- Operate computerized hydraulic modeling software and analyze results;
- Adhere to and comply with safety standards and the proper use of safety equipment;
- Operate a vehicle observing legal and defensive driving practices;
- Understand and carry out oral and written instructions;
- Establish and maintain effective relationships with those contacted in the course of work;
- Lift up to 50 pounds in normal duties;
- Work under moderate or high stress conditions;
- Maintain a driving record that meets vehicle code standards and is acceptable to the Department and its insurance carrier.

**MINIMUM QUALIFICATIONS**

*An employee within this classification may be designated as a "key responder" and as such shall be required to respond to non-normal working hour emergency operational conditions.*

**Education:** Bachelor's degree in Civil, Mechanical, or Environmental Engineering, physical sciences, or related fields

And

**Experience:** Two (2) years of closely related engineering work experience

Or

**Education:** Graduation from High School or equivalent

And

**Experience:** Six (6) years of closely related engineering work experience which would have provided the required level of knowledge, ability and proficiency required to perform technical engineering duties.

**Certificates:** A valid certificate of registration as a professional engineer issued by the State of California is required upon application.

And

Must obtain and maintain a valid California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 2 and an SWRCB Water Treatment Operator Grade 2 certificates within 36 months of appointment.

And

Possession of a valid California Class "C" driver's license required upon application. NOTE: For out-of-state applicants, a valid driver's license is required and a valid California Class "C" driver's license is required within ten (10) days of appointment (CA Vehicle Code 12505c)

### **NECESSARY SPECIAL REQUIREMENTS**

Must be able to respond to callouts or emergencies including being on-call.

### **PHYSICAL TASKS AND ENVIRONMENTAL CONDITIONS**

Work involves exposure to potential physical harm, hazardous chemicals, and infectious disease. There is frequent need to stand, sit, stoop, walk, and perform other similar actions during the course of the workday.

Incumbents require sufficient mobility to work in variety of environmental and weather conditions; to climb stairs and ladders daily; to transport materials and supplies weighing up to 50 pounds; to work in a boom truck with lift of 30 to 60 feet; and to work to heights of 150 feet. Must be able to see in the normal visual range with or without correction. Must be able to hear in the normal audio range with or without correction. Employee accommodations for physical or mental disabilities will be considered on a case-by-case basis.

### **CAREER LADDER**

**From:** Engineer

**To:** Principal Engineer

#### **Job Description:**

BOWC Approved: (Associate Engineer with P.E.)

Rev:

Rev, with title chg to Engineer

Rev:

2/7/2012

8/15/2017

8/13/2019

6/22/2021

**Testing Standards:** App Review/ Supp App Review