

## WATER SYSTEM OPERATOR

### **DEFINITION**

Under general supervision, performs a variety of work in the installation, maintenance, and repair of the District's water distribution system and infrastructure; operates, controls, and maintains the District's water production systems and facilities; and performs related work as required.

### **SUPERVISION RECEIVED AND EXERCISED**

Receives general supervision from the Field Operations Supervisor. Exercises no supervision over staff. May provide technical and functional direction and training to assigned staff as needed.

### **CLASS CHARACTERISTICS**

This is a journey-level class responsible for performing the full range of technical duties required to ensure that the District's infrastructure, systems, and facilities are maintained in a safe and effective working condition. Responsibilities include inspecting and attending to assigned areas in a timely manner, and performing a wide variety of tasks in the operation, maintenance, and repair of assigned facilities and systems. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. This class is distinguished from Lead Operator in that the latter is responsible for providing technical and functional direction to lower-level operations staff and for performing the most complex operations and maintenance duties assigned.

### **EXAMPLES OF TYPICAL JOB FUNCTIONS** (Illustrative Only)

*Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.*

- Performs construction, maintenance, and repair activities of District water utilities systems and infrastructure, including fire hydrants, pipelines, water production facilities and related pumping equipment, residential and commercial water meters, valve cans, meter boxes, water distribution valves, wells, and related facilities.
- Performs water meter maintenance, including installing new meters, testing and repairing meters of various sizes, locating and repairing leaks, and replacing meters as necessary; installs service lines and accounts for the installation of new or replacement meters.
- Flushes water mains to ensure water quality meets California State Water Resources Control Board standards.
- Repairs concrete after water distribution system maintenance, including sidewalk panels, structural foundations, and temporary and final street patches.
- Uses valve-turning equipment to isolate and shut down pre-designated water lines for routine maintenance and in emergency situations; ensures proper shut-down of services by utilizing sounding equipment and flow rates; provides explanations to the public during shut-downs.

- Installs, maintains, flushes, and repairs fire hydrants.
- Utilizes Supervisory Control and Data Acquisition System to ensure efficient operation of the water treatment and distribution systems including wells, water storage tanks, pump stations, and hydrants.
- Observes variations in operating conditions by interpreting meter, gauge, graph readings, and tests results to determine pressure and flow requirements to meet demand.
- Prepares and maintains detailed logs, records, and reports on a variety of water production system operations, tests, system maintenance performed, operating conditions, and inspection results.
- Performs maintenance and repair of treatment water system facilities and equipment such as pumps, motors, valves, storage tanks, cathodic protection test stations, anodes, rectifiers, backup generators, and related equipment.
- Takes samples from sampling stations located throughout the District's service area to measure system performance and to ensure compliance with water quality standards; delivers samples for further testing and analysis; maintains records.
- Receives and responds to service calls and customer complaints regarding issues such as leaks, high or low pressure, consumption levels, and water quality; turns water service on and off; resolves or refers issues to supervisor.
- Monitors contractors working with and around underground services to ensure the work is appropriately performed to District standards and meet regulatory requirements; coordinates work with other utilities service providers; addresses discrepancies as necessary.
- Performs grounds maintenance such as mowing, weed abatement, and picking up trash and debris in and around pump stations, wells, tanks, and other District facilities.
- Reads and interprets maps and diagrams in the performance of the work.
- Observes safe work methods and makes appropriate use of related safety equipment as required.
- Operates and maintains light, medium, and heavy-duty equipment such as backhoes, skip loaders, dump trucks, forklifts, and other equipment appropriate to the functional area of assignment.
- Operates a variety of hand and power tools and equipment related to work assignment as instructed.
- Maintains work areas in a clean and orderly condition, including securing equipment at the close of the workday.
- Installs street barricades and cones, and controls traffic around work sites to ensure safe conditions for the general public and District staff.
- Inspects assigned District infrastructure for safety issues, structural integrity, and possible future work projects and programs; appropriately marks areas that need to be repaired.
- Notifies assigned supervisor of the need for repair or additional maintenance as found during routine inspection and cleaning activities; prepares work orders or notes service requirements.
- Provides needed information and demonstrations concerning how to perform certain work tasks to new employees in the same or similar class of positions.
- May provide technical and functional direction to staff in the absence of a Lead Operator and Operations Supervisor.
- Maintains accurate logs and records of work performed and materials and equipment used.
- Attends training, meetings, workshops, etc., as required to enhance job knowledge and skills.
- Responds to after-hours emergencies and assists other staff as needed in emergency or relief situations.
- Performs on-call, stand by duty on a regular basis.
- Performs related duties as assigned.

## **QUALIFICATIONS**

### **Knowledge of:**

- Principles, practices, tools, and equipment required to operate and control water distribution and production systems and facilities.
- Maintenance principles, practices, tools, and materials for maintaining and repairing water distribution systems and infrastructure.
- Basic mechanical, electrical, and hydraulic principles.
- The operation and minor maintenance of a variety of hand and power tools, vehicles, and light to heavy power equipment.
- Occupational hazards and safety equipment and practices related to the work such as handling chemicals and working in and around confined spaces.
- Applicable federal, state, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
- Traffic control procedures and traffic sign regulations.
- Principles and procedures of recordkeeping and reporting.
- Basic arithmetic.
- Safe driving rules and practices.
- Basic computer equipment and applications related to the work.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

### **Ability to:**

- Operate, control, maintain, and repair water production systems and related infrastructure, facilities, and appurtenances similar to those at the District.
- Troubleshoot maintenance problems and determine materials and supplies required for repair.
- Safely and effectively use and operate hand and power tools, mechanical equipment, and light to heavy equipment required for the work.
- Understand, apply, and ensure compliance with applicable federal, state, and local laws and regulations, and District policies and procedures.
- Make accurate arithmetic calculations.
- Set up and operate traffic area construction zones, including cones, barricades, and flagging.
- Read, interpret, and apply technical information from manuals, drawings, specifications, layouts, blueprints, and schematics.
- Follow department policies and procedures related to assigned duties.
- Maintain accurate logs and basic written records of work performed.
- Understand and follow oral and written instructions.
- Organize own work, set priorities, and meet critical time deadlines.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy and procedural, guidelines.
- Understand, and adhere to established District standards, policies, and procedures.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

**Education and Experience:**

*Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:*

Equivalent to the completion of the twelfth (12th) grade and five (5) years of experience in the construction, maintenance, and repair of water utilities infrastructure, and/or operation, maintenance, and repair of water production systems and related facilities.

Licenses and Certifications:

- Possession of, or ability to obtain, a valid California Driver's License by time of appointment.
- Possession of a valid Grade II or higher Water Distribution Operator Certificate issued by the California Department of Public Health.

**PHYSICAL DEMANDS**

Must possess mobility to work in the field; strength, stamina, and mobility to perform medium to heavy physical work, to work in confined spaces and around machines, to climb and descend ladders, to operate varied hand and power tools and construction equipment, and to operate a motor vehicle to visit various District sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone or radio. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate above-mentioned tools and equipment. Positions in this classification bend, stoop, kneel, reach, and climb to perform work and inspect work sites. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 80 pounds, or heavier weights with the use of proper equipment.

**ENVIRONMENTAL ELEMENTS**

Employees work in the field and are exposed to cold and hot temperatures, inclement weather conditions, road hazards, loud noise levels, vibration, confining workspaces, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff, public and private representatives, and/or contractors in interpreting and enforcing District policies and procedures.

**WORKING CONDITIONS**

Required to be on-call and to work various shifts or emergencies during evenings, weekends, and/or holidays.