



## Utility Technician

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### Summary

Perform highly skilled field and office work in the implementation and administration of special programs such as backflow prevention, leak detection, meter repair, valve control, utility locating and system plumbing programs; inspect devices for compliance with mandated standards and investigate and resolve complaints from the public in assigned service areas.

### Class Characteristics

General supervision is provided by a higher-level supervisor or manager; responsibilities may include the indirect supervision of support staff.

The Utility Technician is a skilled class requiring a thorough knowledge of utility system operation and hydraulics, and specific technical knowledge of such programs as backflow prevention. This class is distinguished from other water utility maintenance or operations classes by the specialized program administrative and field nature of the work.

### Essential Duties, Skills, and Demands of the Position

*The duties, skills, and 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 a disability to perform the essential duties, skills, and demands.*

#### Duties:

Perform highly skilled field and office work in the implementation and administration of special programs such as backflow prevention, leak detection, meter repair, valve control, utility locating, and system plumbing programs.

Analyze residential plumbing installations to determine if cross connection hazards exist; meet with property owners to explain the cross-connection/backflow prevention program.

Meet with local plumbers to explain the backflow program and to inform them of the proper methods used in the selection and installation of devices.

Determine the type of backflow device required; develop standards and drawings for the proper installation of backflow devices; maintain records of all private wells or other conditions that would require backflow protection.

Inspect device installations for conformance to mandated standards; schedule, test, and inspect all backflow devices at least once per year; prepare letters to residents, businesses, and contractors regarding the status of tests and inspections.

Administer leak detection program; utilize sonic leak detection equipment to locate leaks on City or private property; arrange for corrective action to be taken; conduct follow up to ensure leaks are repaired.

Administer valve control programs; install and read hydrant meters; explain usage requirements to contractors; update distribution system maps to accurately locate and label all valves.

Test meters in the shop; disassemble, rebuild, and seal meters; maintain meter inventories; order and stock meters.

Identify flushing procedures for all water distribution lines; identify appropriate valves to open and close; determine what hydrants to use for flushing activities.

Maintain records and prepare reports of work performed.

Collect ground water samples to be sent to the laboratory for analysis.

As assigned, may provide assistance to the Operations division in related duties.

As assigned, may investigate water quality problems in the distribution system; respond to questions from the public to ensure satisfactory complaint resolution; may direct or perform skilled repair of underground water production and distribution systems and appurtenances.

Ensure safe work methods and safety regulations pertaining to field and underground maintenance work.

On a relief basis, may perform duties and handle operational activities such as: standby emergency response duties for after hours distribution system operational emergencies; installing, tapping, re-lining, disinfecting, testing, and connecting water mains and appurtenances; shutdown, repair, disinfect, and test broken water mains; oversee the flushing, cleaning, and pigging of exiting water mains.

Perform related duties as assigned.

Skills/Abilities:

Develop and administer specialized water distribution programs including backflow prevention, leak detection, valve control, and flushing.

Analyze and determine backflow prevention requirements for residential and commercial customers.

Develop standards and drawings for backflow prevention device installation.

Conduct inspections on backflow prevention devices. Install and test backflow prevention devices and varied water meters.

Perform skilled work in the installation, maintenance, and repair of mains, services, valves, meters, hydrants, and other water system equipment.

Determine materials, equipment, and supplies required to complete assigned work.

Read, interpret, and prepare drawings and blueprints.

Ensure compliance with mandated program standards.

Ensure work conducted is carried out in a safe manner.

Exercise independent judgment and initiative within general procedural guidelines.

Maintain accurate program records.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of the work.

Physical Demands and Work Environment:

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, or feel; reach with hands and arms; and talk or hear. The employee frequently is required to stand, walk, and sit. The employee is occasionally required to climb or balance; stoop, kneel, crouch, crawl; and smell. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus. The employee must be able to perform heavy physical labor, including having sufficient strength to lift and carry tools and materials weighing up to 90 pounds. While performing the duties of this job the employee is occasionally exposed to outside weather conditions, wet and/or humid conditions, moving mechanical parts, fumes or airborne particles, toxic or caustic chemicals, and vibration. The noise level in the work environment may be moderate to loud depending on working conditions. The employee will be required to work emergency overtime or off-shift hours as necessary.

**Qualifications**

Knowledge of:

Operations, maintenance, and activities of utility systems.

Principles and practices of program development and administration in specialized areas such as backflow prevention, leak detection, valve control, and flushing.

Operational characteristics of materials and equipment, and the methods and techniques utilized in the installation, maintenance, repair and testing of various backflow prevention devices.

Methods and techniques of repairing water meters.

Principles and practices of water distribution mathematics such as water measurements, formulas, units and conversion factors, and water pressure.

Principles and practices of water distribution system operation such as purpose, configuration, and operation, pipe materials, water storage facilities, meters, hydrants, leak detection and repair, corrosion, flushing and cleaning, water meter testing, maintenance and repair, maintenance of pumps, and electric motors.

Methods and techniques of water and distribution system installation, maintenance, and repair. Occupational health and safety practices.

Principles and practices of record keeping.

Federal, state, and local laws, codes, and regulations in assigned program areas.

Education and Experience

*Any combination equivalent to the education and experience likely to provide the required knowledge and abilities would be qualifying. A typical way to gain such knowledge and abilities would be:*

Education:

Equivalent to graduation from high school.

Experience:

Three years of experience in the operation or maintenance of water system production and distribution facilities.

Certifications/Licenses:

Possession of a California Department of Health Services Grade I Water Treatment Certificate

Possession of a California Department of Health Services Grade II Water Distribution Certificate.

Obtain a General Tester Certification, issued by American Water Works Association, within one year of placement in the position.

Obtain a California Department of Health Services Grade III Water Distribution Certificate within one year of placement in the position.

Possession of a valid California Class C driver's license.

Desirable:

Possession of a California Department of Health Services Grade II Water Treatment Certificate.

Possession of a California Department Water Environment Association, Certification Grade I.

Possession of a California Department of Health Services Grade III Water Distribution Certificate.

Established: 03/93

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