

**TITLE:**                    **WATER UTILITY MECHANIC I-III**

**DEFINITION:**        Performs a variety of heavy manual, semi-skilled and skilled work in the installation, maintenance, construction, operation, modification, repair and testing of water distribution and sewer collection systems, equipment, and components.

**DISTINGUISHING CHARACTERISTICS:**

Grade Level I - Under immediate supervision or lead, performs the entry level duties of classification. Completes basic job duties and assists with more complex job functions. Participates in both classroom and field training to enhance knowledge of water and wastewater science and operations. Does not act in a lead capacity.

Grade Level II - Under general supervision or lead, performs journey-level duties of classification. Performs more complex functions and processes. May serve as a lead or an acting Water Utility Supervisor I on an as-needed basis if all necessary certifications are held by the employee.

Must have served in the capacity of a Water Utility Mechanic I, or equivalent, for a minimum of one (1) year and must possess the certifications required by specific divisions as follows:

- Sewer Operations: California Water Environment Association Grade I (CWEA 1) Sewer Collection System Maintenance Certification.
- Water Operations: State Water Resources Control Board Water Distribution Grade I (D1) Certification.

Grade Level III - Under minimal supervision, serves as a section/crew lead, exercises independent judgement, and performs the most complex duties of the classification. Coordinates with outside agencies for after-hours emergencies. May collaborate with Supervisors on strategic initiatives and increasing operational efficiency. May develop work plans, schedules, and coordinate personnel and resources/equipment. May train employees in work methods and procedures, use of tools and equipment, and safety procedures. May serve as an acting Water Utility Supervisor I on an as-needed basis. Must have served in the capacity of a Water Utility Mechanic II, or

equivalent, for a minimum of one (1) year and must possess the certifications required by the specific divisions as follows:

- Sewer Operations: California Water Environment Association Grade I (CWEA 1) Collection System Maintenance Certification and State Water Resources Control Board Water Distribution Grade II (D2) Certification.
- Water Operations: State Water Resources Control Board Water Distribution Grade II (D2) Certification and one of the following: California Water Environment Association Grade I (CWEA 1) Sewer Collection System Maintenance Certification or State Water Resources Control Board Water Treatment Grade I (T1) Certification.

**EXAMPLES OF DUTIES:**

*The functions of the classification may include, but are not limited to, those listed below:*

- Loads, transports, and operates a variety of pneumatic and hydraulic tools and related construction equipment used in the operation, maintenance, construction, and repair of the water distribution and sewer collection systems, such as jackhammers horizontal boring tool, vibrating plate, pipe cutters, rock drills, gasoline-powered abrasive saws, impact wrenches, concrete saw, clay spades, and tapping machines;
- Rotates among tasks of operating equipment, cleaning sanitary sewer lines or other collection system facilities, and inspecting sanitary sewer lines utilizing closed-circuit television equipment;
- Operates commercial vehicles, machines, and heavy equipment such as high-velocity jettors, backhoes, forklifts, mobile cranes, pressure washers, dump trucks, air compressors, air quality monitoring instruments and others;
- Maintains and repairs sewer lines, maintenance holes, pressure hoses, mains, parts, and other related facilities and equipment to ensure compliance with established practices;
- Operates and maintains closed-circuit television system and equipment to inspect underground wastewater collection pipes, lateral connections, and associated appurtenances to locate leaks, breaks, infiltrations, and the buildup of dirt, debris, roots, and other materials on a scheduled preventative maintenance basis;
- Examines, maintains, cleans, and unplugs collection lines with a variety of specialized equipment, including hydro-cleaning equipment and closed-circuit television devices (CCTV);

- Provides installation and repair of wastewater mains and laterals; digs up and repairs damaged sections of pipes; cuts, installs, and assembles new pipe;
- Sets up safety barricades, delineators, cones, signboards, flagging, warning signs, message boards, traffic trench plates and directs traffic to designate job sites in accordance with applicable work zone safety standards;
- Responds to emergency call-outs on a 24-hour basis and reports to the Operations Service Center within a 30-minute timeframe; performs work related to water or sewer emergencies;
- Performs maintenance, installation, and repair of water mains, water services, meters, and appurtenances including excavation, backfilling, compaction, cuts, threads, fits and joins pipes and tubing, and makes taps on water mains;
- Reads, interprets, corrects/redlines, and maintains blueprints, construction drawings, street maps, atlases, as-builts, survey markings, and underground utility markings/signage in performance of work;
- Responds to and addresses customer inquiries such as water pressure, high-water consumption, meter obstruction, water distribution shutdowns, Department Rules and Regulations, and billing;
- Prepares a variety of written and electronic reports, including daily work reports, sanitary sewer overflow reports, material requests, Department of Transportation vehicle inspection reports, and vehicle accident reports;
- Occasionally performs confined space entry work, utilizing proper safety techniques and equipment in accordance with departmental safety policies and procedures;
- Conducts investigations to identify service defects, sewer odors, street flooding, unauthorized use, water leaks, sewer blockages, and sewer overflows;
- Performs a variety of functions associated with the water distribution system including, but not limited to, meter repair and replacement, small and large-valve maintenance, backflow testing, hydrant flushing, hydrant flow testing, raising vaults, obtaining water quality samples, and performing turn-on and offs;
- Performs a variety of functions associated with the sewer collection system including, but not limited to, inspecting, and detecting defects in sewer mains and laterals, maintaining sewer cameras, maintaining proper flow in lines, flushing the system, and inspecting and maintaining sewer maintenance holes;
- Marks Underground Service Alerts (USAs);

- Removes and pours concrete;
- Participates in safety training and observes safety rules and regulations at all times;
- Maintains vehicles and equipment;
- Checks assigned vehicles and equipment for fluid levels and safe operation;
- Keeps vehicle and equipment clean and prepares Vehicle Repair Report Form, as needed;
- Maintains adequate stock on vehicle and equipment as to be able to perform job duties while away from Operations Service Center;
- Performs other related duties as required.

**MINIMUM QUALIFICATIONS:**

Must meet requirements of Option A or B:

- A. A minimum of one (1) year\* full-time, equivalent paid experience in one or more of the following areas: water or sewer pipeline construction; installation, maintenance, and repair of water meters, backflow units, services, mains, valves, production and/or distribution systems; cleaning sewer collection system via hydrojet or jetter/vactor; inspecting sewer collection system via closed-circuit television; or closely-related work at a water treatment, water distribution, sewer collection, or wastewater treatment facility.
- B. A minimum of two (2) years\* full-time, equivalent paid experience in one or more of the following areas: general construction and repair, operation of various types of building or construction-related equipment, mechanical repair and maintenance, gas/oil pipeline infrastructure, plumbing, carpentry, welding, or other trade-related work.

Six (6) months of the required experience may be substituted by either: a.) any valid State of California Water Distribution or Water Treatment, or California Water Environment Association Sewer Collection System Maintenance Certification; **OR** b.) 3.0 semester units of a Water or Wastewater class.

Valid Class C California Driver's License.

Valid Class A or B Commercial Driver's License with Tanker Endorsement before the completion of probation.

**KNOWLEDGE, SKILLS, AND ABILITIES:**

- Knowledge of basic principles of water distribution or sewer collection systems, including methods, equipment, terminology, basic arithmetic, and apply this knowledge to implement an appropriate response;
- Knowledge of principles and procedures of asphalt paving and patching, street and infrastructure construction, and maintenance;
- Knowledge and implementation of construction safety regulations/practices, safety hazards, traffic control, tools, equipment, and personal protective equipment;
- Knowledge of basic arithmetic for, but not limited to, the calculations of pavement restorations measurements, backfill materials requirements, thrust block volume, and pipe fitting;
- Knowledge of proper valve operation to reduce the risk of poor water quality as a result of improper valve positioning and/or valve failures;
- Skilled in the safe operation of tools, machinery, and equipment necessary to work on water distribution or sewer collection systems;
- Ability to inspect a construction site in preparation for equipment operation to ensure adequate clearances, such as Underground Service Alerts;
- Ability to follow, understand, and communicate written and verbal instructions effectively;
- Ability to conduct field investigations and make determinations that would best resolve whatever issue is being investigated;
- Ability to respond to emergency call-outs on a 24-hour basis within 30 minutes of being contacted while on standby;
- Ability to perform construction, modification, maintenance, and repair work on streets, water distribution, and wastewater collection systems, facilities, and equipment such as found in the Department;
- Ability to obtain a Class A or B Commercial Driver's License and endorsements before completion of probation;
- Ability to read maps and navigate local streets, locations, and geography.

- Ability to operate light-, medium-, and heavy-vehicles including, but not limited to a backhoe, dump truck, crane, forklift;
- Ability to read, redline, and make corrections to construction drawings, blueprints, plans, and maps of water distribution and/or sewer collection systems;
- Ability to establish and maintain good working relationships with coworkers and supervisors and professionally represent the department when dealing with customers, outside contractors, agency officials, and the general public;
- Ability to use written, electronic, and verbal communication to effectively interact with all levels of City staff, including customers and vendors;
- Ability to use computer software such as MS Office Suite (e.g., Word, Excel, etc.) and other applications related to assigned job duties;
- Ability to lift, carry, push, and pull items weighing up to 90 pounds.

**HISTORY:**

Adopted: 09/01/1966- Incorporated and revised Water Caulker Mechanic

Revision: 02/18/1973-Water Utility Mechanic

06/09/1982- Graded out

02/25/1998- Consolidated with Water Emergency Service Investigator I-II and Meter Mechanic I-II

Civil Service Commission Approval/Adoption Date: 12/14/1988; 03/02/2022