



**AGENDA AND MEETING NOTICE  
OF THE NORTH TAHOE PUBLIC UTILITY DISTRICT  
PERSONNEL COMMITTEE**

**Friday, September 6, 2024, at 2:00 p.m.**

**North Tahoe Public Utility District  
Administrative Offices  
875 National Avenue  
Tahoe Vista, CA 96148**

**Welcome to a meeting of the North Tahoe Public Utility District  
Personnel Committee**

A meeting of the North Tahoe Public Utility District Personnel Committee will be held on Friday, September 6, 2024, 2:00 p.m. at the North Tahoe Public Utility District Administrative Offices, 875 National Ave. Tahoe Vista, CA 96148

The District welcomes you to its meetings. Your opinions and suggestions are encouraged. The meeting is accessible to people with disabilities. In compliance with Section 202 of the Americans with Disabilities Act of 1990 and in compliance with the Ralph M. Brown Act, anyone requiring reasonable accommodation to participate in the meeting should contact the North Tahoe Public Utility District office at (530) 546-4212, at least two days prior to the meeting.

All written public comments received by 1:00 p.m. on Friday, September 6, 2024 will be distributed to the District Board Committee Members for their consideration at the meeting. Written comments may be emailed to [mmoga@ntpud.org](mailto:mmoga@ntpud.org), mailed or dropped-off at NTPUD's Administrative Offices located at 875 National Ave., Tahoe Vista, CA. 96148.

- 1. CALL TO ORDER/OPEN SESSION**
- 2. PUBLIC COMMENT** – *Any person wishing to address the Personnel Committee on items of interest to the committee not listed on the agenda may do so at this time.*
- 3. OPEN SESSION**
  - a. [Review, Discuss, and Provide Direction on the Proposed Maintenance Technician Division Reorganization, Job Descriptions, and Wage Ranges](#)  
(Pages 2-64)
- 4. ADJOURNMENT**



## NORTH TAHOE PUBLIC UTILITY DISTRICT

**DATE:** September 6, 2024

**ITEM:** 3-a

**FROM:** Office of the General Manager

**SUBJECT:** Review, Discuss, and Provide Direction on the Proposed Maintenance Technician Division Reorganization, Job Descriptions, and Wage Ranges

### **RECOMMENDATION:**

That the Personnel Committee review, discuss, and provide direction to staff on the proposed Maintenance Division reorganization including:

- Proposed changes to the District's Organizational Chart.
- Job descriptions for the proposed Maintenance Technician & Water Quality Superintendent, Lead Instrumentation and Electrical (I&E) Technician, and Lead Mechanical Technician positions.
- Proposed modifications to the job descriptions for the existing Utility Operations Superintendent, Maintenance Technician I/II, and Maintenance Technician III positions.
- Wage ranges for the proposed positions.
- Proposed modifications to the incentive certification program for the Maintenance Technician positions.

### **BACKGROUND:**

Staff has recognized that the tasks and responsibilities of the Utility Operations Technician and Water Quality Divisions have transformed over the past few years. To ensure adequate management, oversight, and efficiency within these Divisions and to promote specialization of needed skill sets, staff is proposing the following job position additions and changes:

- Addition of the Maintenance Technician & Water Quality Superintendent management position to oversee the Maintenance Technician and Water Quality Divisions.
- Reclassification of the existing Lead Maintenance Technician into a Lead Mechanical Technician.
- Reclassification of an existing Maintenance Technician I/II or III into a new Lead Instrumentation and Electrical Technician.
- Minor edits (mostly grammatical) to the existing Maintenance Technician I/II and III job description.
- Revision of the Utility Operations Superintendent job description to correctly reflect the physical demands and environmental conditions of the position.

Based on market comparisons and internal equity analysis, the proposed Fiscal Year (FY) 2024/25 wage ranges for these positions is outlined in the table below.

Position	Proposed Bi-Weekly Wage Range Schedule					
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Maintenance Technician & Water Quality Superintendent	4,528.80	4,755.20	4,992.80	5,242.40	5,504.00	5,779.20
Lead Instrumentation & Electrical Technician	3,728.80	3,915.20	4,110.40	4,315.20	4,530.40	4,756.80
Lead Mechanical Technician	3,728.80	3,915.20	4,110.40	4,315.20	4,530.40	4,756.80

The proposed wage range for the Maintenance Technician & Water Quality Superintendent is identical to the wage range for the existing Utility Operations Superintendent position. The proposed wage ranges for the Lead Instrumentation and Electrical Technician, and Lead Mechanical Technician are identical to the existing Lead Maintenance Technician position.

The proposed changes to the incentive certification program for the Maintenance Technician Division are indicated in the attached document.

By approving the proposed changes, the District will see improved service to District ratepayers and streamlined processing in the Maintenance Technician and Water Quality Divisions. It will also provide improved operational and managerial redundancy for the Utility Operations Manager (UOM) and support the District’s succession planning effort for the incumbent UOM.

The proposed reorganization, job description additions and changes, the proposed wage ranges, and modifications to the certification incentive program is currently being reviewed with Local 39 via formal Meet and Confer meetings. Management will consider feedback from Local 39 as well as the Personnel Committee prior to drafting a final recommendation to the Board of Directors.

**FISCAL ANALYSIS:**

The necessary budget for the proposed Maintenance Technician & Water Quality Superintendent, Lead Instrumentation and Electrical (I&E) Technician, and Lead Mechanical Technician positions are included in the approved Fiscal Year 2024/25 Operating Budget.

**STRATEGIC PLAN ALIGNMENT:**

Goal 1: Provide safe, efficient, sustainable water and wastewater services with a focus on industry best practices and continuous improvement – Objective A: Comply with all regulatory mandates and environmental standards.


Goal 3: Enhance District governance and partnerships – Objective A: Maintain best practices in public agency governance throughout all levels of the District.


Goal 4: Sustain and strengthen organizational resources, expertise, and culture – Objective A: Ensure the District can recruit and retain a qualified and skilled workforce – Tactic 4: Annually review organization chart and evaluate personnel gaps, technical needs and skills to meet District core function and priorities.

**ATTACHMENTS:**

- Approved Fiscal Year 2024/25 Organizational Chart
- Proposed Organizational Chart
- Proposed Job Description additions and revisions (clean and redline versions) –
  - Maintenance Technician & Water Quality Superintendent (new)
  - Utility Operations Superintendent (revised)
  - Lead Instrumentation and Electrical (I&E) Technician (new)
  - Lead Mechanical Technician (reclass from Lead Maintenance Technician)
  - Maintenance Technician I/II (revised)
  - Maintenance Technician III (revised)
- Proposed Incentive Certification Program

**REVIEW TRACKING:**

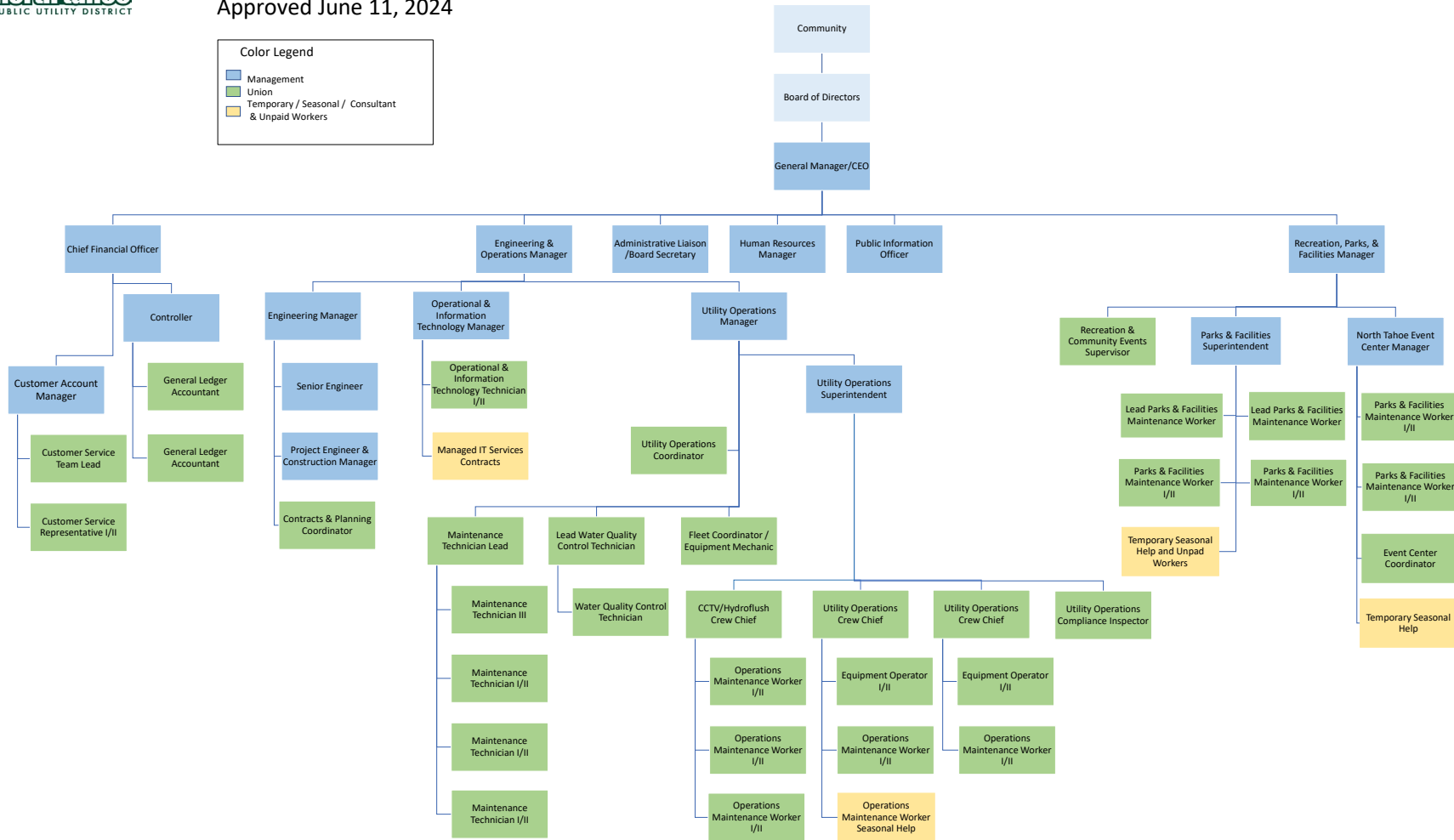
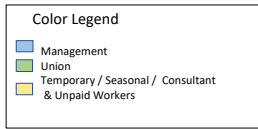
Submitted By:   
Joseph J. Pomroy, P.E  
Engineering & Operations Manager

Approved By:   
Bradley A. Johnson, P.E.  
General Manager/CEO

Reviewed By:   
Kim Harris  
Human Resources Manager

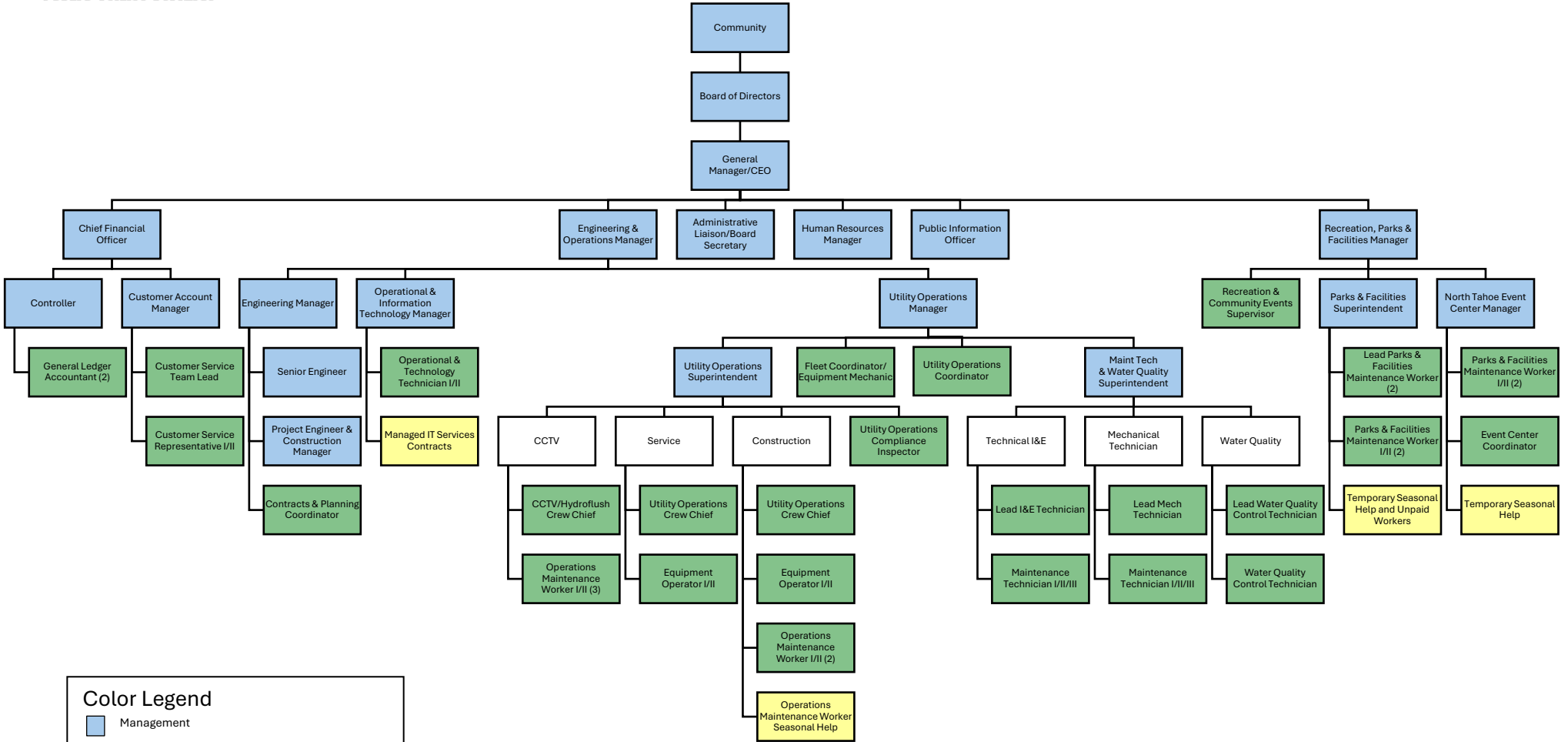


**FISCAL YEAR 2024/2025  
ORGANIZATIONAL CHART**  
Approved June 11, 2024





FISCAL YEAR 2024/2025  
 Proposed Organizational Chart  
 September 16, 2024



**Color Legend**

- Management
- Union/MOU
- Temporary, Seasonal, Consultant, Unpaid Workers
- Specialty Crews



# Maintenance Technician & Water Quality Superintendent

## DEFINITION:

Under limited direction of the Utility Operations Manager, responsible for leading and managing the Maintenance Technician and Water Quality Division, plans, schedules, assigns, supervises, and reviews the work in a wide range of installation, modification, operation, maintenance and repair, and of the District's water production and distribution and wastewater collection and pumping systems. Plans and coordinates a comprehensive computerized maintenance program and oversees operators and multiple crew activities; and performs related work as required.

## SUPERVISION RECEIVED AND EXERCISED:

Receives limited direction from the Utility Operations Manager. Exercises direct supervision over the Maintenance Technician Division and the Water Quality Division., and supportive supervision over the Utility Operations Fleet, technical, and administrative support staff.

## CLASS CHARACTERISTICS:

This is a full supervisory level classification responsible for exercising independent judgment on diverse and specialized operations and maintenance within the Operations Department. Incumbents are responsible for planning, organizing, supervising, reviewing, and evaluating the work of assigned staff and for providing technical level support to management in a variety of areas. Performance of the work requires independence, initiative, and discretion within established guidelines.

## EXAMPLES OF ESSENTIAL 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*

- Supervises the work of assigned Maintenance Technician staff involved in the installation, operation, repair, calibration, troubleshooting, optimization, and maintenance of District water production and distribution and wastewater collection and pumping systems, including , booster pumps, deep wells, pump control valves, disinfection equipment , chemical feed systems, PLCs, variable frequency drives, analyzers, remote terminal units, SCADA systems, software-controlled units and equipment, telemetry systems, small and large motors and associated components up to 600 volts.
- Supervises the work of assigned Water Quality staff involved in performing a variety of technical and general water quality analyses and reporting involving water quality compliance with State and Federal regulatory agencies, reading District water meters including processing, interpretation, and associated reporting, repair and/or replacement of improperly registering or non-functioning water meters, enforcement of the District's Cross Connection

Control Program, and resolving customer concerns and complaints on water and wastewater issues.

- Directs emergency preparedness and response actions in operations for the District service area. Oversees emergency water and wastewater repair and maintenance activities.
- Participates in the development and implementation of goals, objectives, policies, and priorities for the operations department; identifies resource needs; recommends and implements policies and procedures, including standard operating procedures for assigned maintenance operations.
- Estimates time and costs of projects to make the most economical use of District labor and materials.
- In conjunction with the Utilities Operations Coordinator, schedules, plans and coordinates staffing levels, equipment, and supplies to complete designated tasks and within established budget parameters. Monitors operations and activities of work unit; identifies opportunities for improving service delivery methods and procedures; provides recommendations concerning process changes; reviews with appropriate management staff; implements improvements; maintains a variety of records and prepares routine reports of work performance.
- Performs duties of Chief Operator Treatment Plant as designated by State regulations. Participates in the annual budget preparation process; identifies resource needs; prepares detailed cost estimates with justification.
- Evaluates employee performance; trains staff in work procedures; counsels employees and effectively recommends initial disciplinary action; assists in selection and promotion.
- Answers questions and provides information to the public; investigates inquiries, concerns, and complaints; recommends corrective actions to resolve issues.
- Supervises and monitors the work of service contractors to ensure compliance with contract requirements.
- Ensures work of crews is performed in a safe and efficient manner; trains subordinates in semi-skilled and skilled operations, work methods, and safety practices and procedures.
- Plans and lays out maintenance work projects; monitors, controls, and supplies appropriate equipment; orders supplies and tools as necessary; prepares documents for equipment procurement; participates in the bid process for maintenance and repair projects.
- Performs timeclock management responsibilities in accordance with District policies and procedures for responsible personnel and serves as back-up for the Utility Operations Manager as needed.
- Directs staff and the functions of the Computerized Maintenance Management System (CMMS) work orders, records, and report preparation.
- Assist in the development of departmental standard operating procedures and emergency response policies and procedures for utility maintenance operations.
- In the event of staff absence, emergency, or other unexpected circumstances, perform work of assigned staff as necessary.
- Responds to emergency situations as necessary.
- Performs other duties as assigned.

<b>MINIMUM QUALIFICATIONS:</b>
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*Any combination of education and/or experience that provides the required knowledge, skills, and abilities to perform the essential functions of the position. A typical combination includes:*

#### EDUCATION AND EXPERIENCE:

Requires high school graduation or equivalent, with the ability to read and follow safety procedures and job-related instructions as required and six (6) years journey-level experience in water/wastewater/utility works or similar industry. Requires demonstrated ability to direct assigned crews including two years of lead or supervisory experience.

#### KNOWLEDGE OF:

- Principles and practices of employee supervision, including work planning, assignment review and evaluation, discipline, and the training of staff in work procedures.
- Principles and practices of leadership.
- Principles and practices of budget development and monitoring.
- Principles and practices of public contract administration and evaluation.
- Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.
- Principles and practices of administration, including goal setting, policy and procedure development and implementation, evaluation and work standards.
- Basic engineering principles relative to hydraulics and fluid mechanics; principles, methods, techniques, tools and equipment used in the installation, maintenance and repair of electrical and mechanical equipment and machinery common to a large water works system; safety practices, safe work methods and safety regulations pertaining to the work.
- Safe Drinking Water Act and relevant state and Federal regulations; computer applications related to the work; codes, ordinances and regulations pertaining to the work.
- Principles, methods, techniques, tools, and equipment used in the installation, operation, maintenance (predictive, preventive, and corrective) and repair of industrial/mechanical equipment and machinery used in the operation of water distribution, water treatment plant equipment and wastewater collection systems, including underground wastewater collection lines.
- Principles of Cross-Connection Control (Backflow prevention).
- Proper water quality sampling techniques for physical and micro-biological sampling; chemical storage and dosing.
- Methods and techniques of configuring communication between devices such as Programmable Logic Controllers (PLC), Remote Telemetry Units (RTU), and field devices, and the tools used in installing, monitoring, servicing, and repairing various electronic equipment.
- Basic engineering principles relative to electricity, electronics, and electromagnetism principles, methods, techniques, tools and equipment used in the installation, maintenance and repair of electrical systems, devices and equipment
- Basic construction knowledge as it related to facilities and components maintenance.
- Mathematical principles.
- Pertinent Federal, State, and local laws, codes and safety regulations.

- The operation and maintenance of a variety of hand and power tools, vehicles, and power equipment used in assigned maintenance area, District and mandated safety rules, regulations, and protocols.
- Record-keeping principles and procedures.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

#### ABILITY TO:

- Select and supervise staff, provide training and development opportunities, ensure work is performed effectively, and evaluate performance in an objective and positive manner.
- Assist in developing and implementing goals, objectives, practices, policies, procedures, and work standards.
- Organize, implement, and direct assigned maintenance and operations activities.
- Identify problems, research, and analyze relevant information, develop, and present recommendations, and justification for solution.
- Perform the most complex maintenance and operations duties assigned to the division.
- Develop cost estimates for supplies and equipment.
- Read, and interpret, drawings, blueprints, maps, and specifications.
- Safely and effectively use and operate hand tools, mechanical equipment, power tools, light and heavy vehicles and equipment required for the work.
- Make accurate arithmetic calculations.
- Prepare clear and concise reports, correspondence, procedures, and other written materials.
- Interpret, apply, explain, and ensure compliance with federal, state, and local policies, procedures, laws, and regulations.
- Participate in the Duty Supervisor On-Call rotation and respond to after-hours emergency callouts.
- Establish and maintain a variety of filing, record-keeping, and tracking systems.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

## LICENSES AND CERTIFICATIONS:

### Required

- Possession of a valid driver's license along with a driving record acceptable to the District and the District's insurance carrier.
- Possession or the ability to obtain within (18) eighteen months from date of hire, a California State Water Resource Control Board (SWRCB) Water Treatment Plant Operator Grade 2 (T2) certification
- Possession or the ability to obtain within (18) eighteen months from date of hire, a California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 2 (D2) certification desirable

### Desirable

- California Water Environment Association (CWEA) Collection System Operator Grade 1 (C1) certification desirable.
- Possession of a CA-NV Section AWWA Cross Connection Specialist certification desirable.
- California State Water Resource Control Board (SWRCB) Water Treatment Plant Operator Grade 3 (T3) certification desirable

## TOOLS AND EQUIPMENT USED:

Trucks, and power tools, scientific instruments, computers, grinders, drills, air compressors, logbooks, charts, graphs, radios, VFD's and PLC.'s, telephones, cell phones, two-way radio; traffic control devices; personal computers, word processing, and other office support systems and various related hand, electronic, and/or power tools used in utility operations maintenance, data gathering, meter reading and/or record keeping.

## PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job in compliance with the Americans with Disabilities Act (ADA) requirements. Reasonable accommodations may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions.

Work is performed in both an office setting and in the field. Must possess mobility to work in a standard office setting and use standard office equipment, including a computer and to operate a motor vehicle to visit various District and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. 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 light to heavy construction equipment and vehicles. 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 standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 50 pounds.

**ENVIRONMENTAL CONDITIONS:**

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

May work with hazardous chemicals such as but not limited to, sodium hypochlorite, and various acids. Exposed to fumes and odors from wastewater wet wells. May work in confined spaces above and below ground, including wet and dry wells, storage tanks, vaults, and manholes. Supervises employees and works near moving mechanical parts; on slippery and uneven surfaces; and the risk of electric shock. The noise level in the work environment is frequently loud. May be required to wear a confined space entry breathing apparatus. Works at computer workstation on regular basis.



# Utility Operations Superintendent

## DEFINITION:

Under limited direction of the Utility Operations Manager, responsible for leading and managing the Operations Maintenance Division, plans, schedules, assigns, supervises, and reviews the work in a wide range of maintenance, repair, and construction projects of the District's water distribution and wastewater collection systems. Plans and coordinates a comprehensive computerized maintenance program and oversees operators and multiple crew activities; and performs related work as required.

## SUPERVISION RECEIVED AND EXERCISED:

Receives limited direction from the Utility Operations Manager. Exercises direct supervision over the Utility Operations Maintenance Division, and supportive supervision over the Utility Operations Maintenance Technicians, Fleet, technical, and administrative support staff.

## CLASS CHARACTERISTICS:

This is a full supervisory level classification responsible for exercising independent judgment on diverse and specialized maintenance operations within the Operations department. Incumbents are responsible for planning, organizing, supervising, reviewing, and evaluating the work of assigned staff and for providing technical level support to management in a variety of areas. Performance of the work requires independence, initiative, and discretion within established guidelines.

## EXAMPLES OF ESSENTIAL 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. The following reflects the general duties and responsibilities of this position and should not be considered all-inclusive. Other duties may be assigned as prioritized by the General Manager.*

- Supervises the work of assigned staff involved in maintenance, repair, and construction activities of water distribution and wastewater collection systems, including but not limited to, sanitary sewer line cleaning, CCTV inspections, manholes, watermains, sewer mains, service lines, meters, pressure reducing stations, valves, fire hydrants, and other related systems.
- Directs emergency preparedness and response actions in operations for the District service area. Oversees emergency water and wastewater repair and maintenance activities.
- Participates in the development and implementation of goals, objectives, policies, and priorities for the operations department; identifies resource needs; recommends and implements policies and procedures, including standard operating procedures for assigned maintenance operations.
- Estimates time and costs of projects to make the most economical use of District labor and materials.
- In conjunction with the Utilities Operations Coordinator, schedules, plans and coordinates staffing levels, equipment, and supplies to complete designated tasks and within established budget parameters.

- Monitors operations and activities of work unit; identifies opportunities for improving service delivery methods and procedures; provides recommendations concerning process changes; reviews with appropriate management staff; implements improvements; maintains a variety of records and prepares routine reports of work performance.
- Participates in the annual budget preparation process; identifies resource needs; prepares detailed cost estimates with justification.
- Evaluates employee performance; trains staff in work procedures; counsels employees and effectively recommends initial disciplinary action; assists in selection and promotion.
- Answers questions and provides information to the public; investigates inquiries, concerns, and complaints; recommends corrective actions to resolve issues.
- Supervises and monitors the work of service contractors to ensure compliance with contract requirements.
- Ensures work of crews is performed in a safe and efficient manner; trains subordinates in semi-skilled and skilled operations, work methods, and safety practices and procedures.
- Plans and lays out maintenance work projects; monitors, controls, and supplies appropriate equipment; orders supplies and tools as necessary; prepares documents for equipment procurement; participates in the bid process for maintenance and repair projects.
- Performs timeclock management responsibilities in accordance with District policies and procedures for responsible personnel and serves as back-up for the Utility Operations Manager as needed.
- Directs staff and the functions of the Computerized Maintenance Management System (CMMS) work orders, records, and report preparation.
- Assist in the development of departmental standard operating procedures and emergency response policies and procedures for utility maintenance operations.
- As necessary, perform crew work, including the operation of all types of motorized and heavy equipment; may also operate equipment during training or emergency situations.
- Responds to emergency situations as necessary.
- Performs other duties as assigned.

<b>MINIMUM QUALIFICATIONS:</b>
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*Any combination of education and/or experience that provides the required knowledge, skills, and abilities to perform the essential functions of the position. A typical combination includes:*

#### **EDUCATION AND EXPERIENCE:**

Equivalent to completion of the twelfth (12<sup>th</sup>) grade, and five (5) years of experience in operation, maintenance, and construction activities related to area of assignment, including two years of lead or supervisory experience.

#### **KNOWLEDGE OF:**

- Principles and practices of employee supervision, including work planning, assignment review and evaluation, discipline, and the training of staff in work procedures.
- Principles and practices of leadership.
- Principles and practices of budget development and monitoring.
- Principles and practices of public contract administration and evaluation.
- Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.
- The operation and maintenance of a variety of hand and power tools, vehicles, and power equipment used in assigned maintenance area.
- Knowledge of testing, repair, and maintenance of all water distribution and wastewater collection system components.
- Construction or business mathematics.

- Applicable federal, state, and local laws, codes, and processes relevant to assigned areas of responsibility.
- District and mandated safety rules, regulations, and protocols.
- Record-keeping principles and procedures.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

#### ABILITY TO:

- Select and supervise staff, provide training and development opportunities, ensure work is performed effectively, and evaluate performance in an objective and positive manner.
- Assist in developing and implementing goals, objectives, practices, policies, procedures, and work standards.
- Organize, implement, and direct assigned maintenance and operations activities.
- Identify problems, research, and analyze relevant information, develop, and present recommendations, and justification for solution.
- Perform the most complex maintenance and operations duties assigned to the division.
- Develop cost estimates for supplies and equipment.
- Read, and interpret, drawings, blueprints, maps, and specifications.
- Safely and effectively use and operate hand tools, mechanical equipment, power tools, light and heavy vehicles and equipment required for the work.
- Make accurate arithmetic calculations.
- Prepare clear and concise reports, correspondence, procedures, and other written materials.
- Interpret, apply, explain, and ensure compliance with federal, state, and local policies, procedures, laws, and regulations.
- Participate in the Duty Supervisor On-Call rotation and respond to after-hours emergency call-outs.
- Establish and maintain a variety of filing, record-keeping, and tracking systems.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

#### LICENSES AND CERTIFICATIONS:

- Possession of a valid driver's license along with a driving record acceptable to the District and the District's insurance carrier.
- Possession of a California DPH Water Distribution Operator Grade 2 certification (D2).
- Possession of a California DPH Water Treatment Operator Grade 2 certification (T2).
- Possession of a California Water Environment Association (CWEA) Collection System Maintenance Grade II certification.

**TOOLS AND EQUIPMENT USED:**

Trucks, and power tools, scientific instruments, computers, grinders, drills, air compressors, log books, charts, graphs, radios, VFD's and PLC.'s, telephones, cell phones, two-way radio; traffic control devices; personal computers, word processing, and other office support systems and various related hand, electronic, and/or power tools used in utility operations maintenance, data gathering, meter reading and/or record keeping.

**PHYSICAL DEMANDS:**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job in compliance with the Americans with Disabilities Act (ADA) requirements. Reasonable accommodations may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions.

Work is performed in both an office setting and in the field. Must possess mobility to work in a standard office setting and use standard office equipment, including a computer and to operate a motor vehicle to visit various District and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. 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 light to heavy construction equipment and vehicles. 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 standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 50 pounds.

**ENVIRONMENTAL CONDITIONS:**

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

May work with hazardous chemicals such as but not limited to, sodium hypochlorite, and various acids. Exposed to fumes and odors from wastewater wet wells. May work in confined spaces above and below ground, including wet and dry wells, storage tanks, vaults, and manholes. Supervises employees and works near moving mechanical parts; on slippery and uneven surfaces; and the risk of electric shock. The noise level in the work environment is frequently loud. May be required to wear a confined space entry breathing apparatus. Works at computer workstation on regular basis.





# Utility Operations Superintendent

## DEFINITION:

Under limited direction of the Utility Operations Manager, responsible for leading and managing the Operations Maintenance Division, plans, schedules, assigns, supervises, and reviews the work in a wide range of maintenance, repair, and construction projects of the District's water distribution and wastewater collection systems. Plans and coordinates a comprehensive computerized maintenance program and oversees operators and multiple crew activities; and performs related work as required.

## SUPERVISION RECEIVED AND EXERCISED:

Receives limited direction from the Utility Operations Manager. Exercises direct supervision over the Utility Operations Maintenance Division, and supportive supervision over the Utility Operations Maintenance Technicians, Fleet, technical, and administrative support staff.

## CLASS CHARACTERISTICS:

This is a full supervisory level classification responsible for exercising independent judgment on diverse and specialized maintenance operations within the Operations department. Incumbents are responsible for planning, organizing, supervising, reviewing, and evaluating the work of assigned staff and for providing technical level support to management in a variety of areas. Performance of the work requires independence, initiative, and discretion within established guidelines.

## EXAMPLES OF ESSENTIAL 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. The following reflects the general duties and responsibilities of this position and should not be considered all-inclusive. Other duties may be assigned as prioritized by the General Manager.*

- Supervises the work of assigned staff involved in maintenance, repair, and construction activities of water distribution and wastewater collection systems, including but not limited to, sanitary sewer line cleaning, CCTV inspections, manholes, watermains, sewer mains, service lines, meters, pressure reducing stations, valves, fire hydrants, and other related systems.
- Directs emergency preparedness and response actions in operations for the District service area. Oversees emergency water and wastewater repair and maintenance activities.
- Participates in the development and implementation of goals, objectives, policies, and priorities for the operations department; identifies resource needs; recommends and implements policies and procedures, including standard operating procedures for assigned maintenance operations.
- Estimates time and costs of projects to make the most economical use of District labor and materials.
- In conjunction with the Utilities Operations Coordinator, schedules, plans and coordinates staffing levels, equipment, and supplies to complete designated tasks and within established budget parameters.

- Monitors operations and activities of work unit; identifies opportunities for improving service delivery methods and procedures; provides recommendations concerning process changes; reviews with appropriate management staff; implements improvements; maintains a variety of records and prepares routine reports of work performance.
- Participates in the annual budget preparation process; identifies resource needs; prepares detailed cost estimates with justification.
- Evaluates employee performance; trains staff in work procedures; counsels employees and effectively recommends initial disciplinary action; assists in selection and promotion.
- Answers questions and provides information to the public; investigates inquiries, concerns, and complaints; recommends corrective actions to resolve issues.
- Supervises and monitors the work of service contractors to ensure compliance with contract requirements.
- Ensures work of crews is performed in a safe and efficient manner; trains subordinates in semi-skilled and skilled operations, work methods, and safety practices and procedures.
- Plans and lays out maintenance work projects; monitors, controls, and supplies appropriate equipment; orders supplies and tools as necessary; prepares documents for equipment procurement; participates in the bid process for maintenance and repair projects.
- Performs timeclock management responsibilities in accordance with District policies and procedures for responsible personnel and serves as back-up for the Utility Operations Manager as needed.
- Directs staff and the functions of the Computerized Maintenance Management System (CMMS) work orders, records, and report preparation.
- Assist in the development of departmental standard operating procedures and emergency response policies and procedures for utility maintenance operations.
- As necessary, perform crew work, including the operation of all types of motorized and heavy equipment; may also operate equipment during training or emergency situations.
- Responds to emergency situations as necessary.
- Performs other duties as assigned.

**MINIMUM QUALIFICATIONS:**

*Any combination of education and/or experience that provides the required knowledge, skills, and abilities to perform the essential functions of the position. A typical combination includes:*

**EDUCATION AND EXPERIENCE:**

Equivalent to completion of the twelfth (12<sup>th</sup>) grade, and five (5) years of experience in operation, maintenance, and construction activities related to area of assignment, including two years of lead or supervisory experience.

**KNOWLEDGE OF:**

- Principles and practices of employee supervision, including work planning, assignment review and evaluation, discipline, and the training of staff in work procedures.
- Principles and practices of leadership.
- Principles and practices of budget development and monitoring.
- Principles and practices of public contract administration and evaluation.
- Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.
- The operation and maintenance of a variety of hand and power tools, vehicles, and power equipment used in assigned maintenance area.
- Knowledge of testing, repair, and maintenance of all water distribution and wastewater collection system components.
- Construction or business mathematics.

- Applicable federal, state, and local laws, codes, and processes relevant to assigned areas of responsibility.
- District and mandated safety rules, regulations, and protocols.
- Record-keeping principles and procedures.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

#### ABILITY TO:

- Select and supervise staff, provide training and development opportunities, ensure work is performed effectively, and evaluate performance in an objective and positive manner.
- Assist in developing and implementing goals, objectives, practices, policies, procedures, and work standards.
- Organize, implement, and direct assigned maintenance and operations activities.
- Identify problems, research, and analyze relevant information, develop, and present recommendations, and justification for solution.
- Perform the most complex maintenance and operations duties assigned to the division.
- Develop cost estimates for supplies and equipment.
- Read, and interpret, drawings, blueprints, maps, and specifications.
- Safely and effectively use and operate hand tools, mechanical equipment, power tools, light and heavy vehicles and equipment required for the work.
- Make accurate arithmetic calculations.
- Prepare clear and concise reports, correspondence, procedures, and other written materials.
- Interpret, apply, explain, and ensure compliance with federal, state, and local policies, procedures, laws, and regulations.
- Participate in the Duty Supervisor On-Call rotation and respond to after-hours emergency call-outs.
- Establish and maintain a variety of filing, record-keeping, and tracking systems.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

#### LICENSES AND CERTIFICATIONS:

- Possession of a valid driver's license along with a driving record acceptable to the District and the District's insurance carrier.
- Possession of a California DPH Water Distribution Operator Grade 2 certification (D2).
- Possession of a California DPH Water Treatment Operator Grade 2 certification (T2).
- Possession of a California Water Environment Association (CWEA) Collection System Maintenance Grade II certification.

**TOOLS AND EQUIPMENT USED:**

~~Trucks, and power tools, scientific instruments, computers, grinders, drills, air compressors, log books, charts, graphs, radios, VFD's and PLC.'s, telephones, cell phones, two-way radio; traffic control devices; personal computers, word processing, and other office support systems and various related hand, electronic, and/or power tools used in utility operations maintenance, data gathering, meter reading and/or record keeping. Personal computers, word processing, and other office support systems and various related hand, electronic, and/or power tools used in utility operations maintenance, data gathering, and/or record keeping; communication tools including telephones, cell phones, two-way radio. When assisting on a jobsite may also use motorized vehicles such as crane trucks and backhoes; light and heavy duty tools and equipment such as and jackhammers; hand and power tools such as saws and sledgehammers, ladders.~~

**PHYSICAL DEMANDS:**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job in compliance with the Americans with Disabilities Act (ADA) requirements. Reasonable accommodations may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions.

~~Work is performed in both an office setting and in the field. Must possess mobility to work in a standard office setting and use standard office equipment, including a computer and to operate a motor vehicle to visit various District and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. 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 light to heavy construction equipment and vehicles. 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 standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 50 pounds.~~

~~Work is performed mostly in office setting. Some outdoor work is required in the inspections of various land use developments, construction sites, or District facilities. Must possess mobility to work in a standard office setting and use standard office equipment, including a computer and to operate a motor vehicle to visit various District and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. This is primarily a sedentary office classification although standing and walking between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing move up to 50 pounds.~~

**ENVIRONMENTAL CONDITIONS:**

~~Employees work in both field and office environments and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures~~

~~May work with hazardous chemicals such as but not limited to, sodium hypochlorite, and various acids. Exposed to fumes and odors from wastewater wet wells. May work in confined spaces above~~

and below ground, including wet and dry wells, storage tanks, vaults, and manholes. Supervises employees and works near moving mechanical parts; on slippery and uneven surfaces; and the risk of electric shock. The noise level in the work environment is frequently loud. May be required to wear a confined space entry breathing apparatus. Works at computer workstation on regular basis.

~~Employees work mainly in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures. Employees occasionally work in outside weather conditions around moving mechanical parts and are occasionally exposed to wet and/or humid conditions, fumes, or airborne particles, toxic, or caustic chemicals. The noise level in the work standard environment is usually quiet to moderate.~~



## Lead Instrumentation and Electrical (I&E) Technician

### DEFINITION:

Leads, oversees, assigns, organizes, inspects and participates in the work of personnel involved in the installation, modification, operation, maintenance, and repair of instrumentation, electrical and mechanical equipment and machinery used in water production and distribution and wastewater collection and pumping systems; tests, troubleshoots, locates and calibrates, operates, repairs and performs preventive maintenance on instrumentation, electrical and electronic systems, components and devices.

### SUPERVISION RECEIVED AND EXERCISED:

Receives direction from assigned supervisory or management staff. Exercises technical and functional direction over and provides training to lower-level staff and seasonal workers.

### CLASS CHARACTERISTICS:

This is an advanced journey level position in the Maintenance Technician Division. Incumbents at this level are expected to perform the full range of duties as the Maintenance Technician III and distinguished from other classes within the series by the level of responsibility assumed, complexity of duties assigned, independence of action taken, providing technical and functional supervision over assigned staff and by the amount of time spent performing the duties.

Performs the most difficult and responsible types of duties assigned to classes within this series, including knowledge and maintenance of electrical systems, meters, PLC systems (Programmable Logic Controller), instrumentation and telemetry appurtenances and mechanical systems. The work involves preventive and corrective maintenance program development and implementation, assistance in contract oversight, and ensuring that the District meets all regulatory agency requirements. Acts as the back-up to the Lead Mechanical Technician in their absence for their areas of responsibility. Additionally, this position will work independently and with the Operation and Information Technology Manager on maintaining, repairing, and replacing of SCADA related components.

### EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only):

*Reasonable accommodation may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions of the job.*

- Participates and provides day-to-day leadership, training and direction to lower-level staff in performing a wide variety of skilled tasks in the installation, operation, repair, calibration, troubleshooting, optimization, and maintenance of District water production and distribution and wastewater collection and pumping systems, including PLCs, variable frequency drives, analyzers, remote terminal units, SCADA systems, software-controlled units and equipment, telemetry systems, small and large motors and associated components up to 600 volts.
- Assists in the installation, operation, maintenance and repair of, booster pumps, deep well pumps, pump control valves, disinfection equipment, including mechanical, electromechanical, chemical feed systems, and hydraulic power.

- Makes changes and program modifications to various programmable logic controllers (PLC) and their operator interface terminals; corrects defects in instrumentation.
- Troubleshoots, repairs and programs remote terminal units, including the replacement of hardware components, circuit boards, power supplies, and electronic components.
- Performs preventive maintenance and repair of plant, field and shop electrical and electronic systems, components, devices, and equipment, including hazardous chemical feed, storage systems, motors, pumps, and electrical-mechanical valves.
- Tests solid state circuitry to locate defective parts in analog and digital equipment.
- Installs conduits, wires, pull boxes, switchboards, controllers, and switches required in making additions, extensions, or alterations in industrial electrical systems.
- Trains and verifies the work of assigned staff for accuracy, proper work methods, techniques, and compliance with applicable standards, codes, regulations, and specifications; adheres to safe work practices and procedures pursuant to Federal, State, Local, and District requirements; regularly monitors performance and provides coaching for performance improvement and development subject to management concurrence.
- Carries out the District's safety program; educates employees on rules, regulations, safe work habits and potential hazards presented by their work environment.
- Provides day-to-day leadership and works with staff to ensure a high performance, customer-oriented work environment that supports achieving the Department's and the District's mission, strategic plan, objectives, and values.
- Utilizing Lucity (CMMS-Computerized Maintenance Management System) plans, schedules, assigns, coordinates and supervises the work of staff engaged in the installation, maintenance, operation and repair of instrumentation and electrical systems used in the production, treatment, storage, transmission and distribution of potable water, and the collection and transmission of wastewater; ensures the timely completion of preventive and predictive maintenance programs. Interprets and modifies work order for proper completion of requested task verifying validity and necessity of requests.
- Participates in the preparation of operating budget recommendations, monitors the purchase of materials and work activities and expenditures to control costs; orders necessary parts to maintain equipment or construct replacement parts; coordinates repair and maintenance work with supervisors, managers, and outside agency technical staff.
- Plans, lays out, inspects, and supervises the work of crews engaged in instrumentation and electrical work
- Prepares calibration, special studies, and work reports as necessary; provides technical advice and support to District engineers, technicians, SCADA personnel, supervisors, managers, and outside agency technical personnel; works closely with control systems design and engineering teams.
- Subject to weekend work and 24-hour call out on a seven-day basis; responds to emergency situations as necessary.
- Responds to inquiries and complaints from other divisions and departments. Attends meetings with other departments and District staff.
- Research new operational methods, techniques and equipment and recommend their application.
- Plans and lays out jobs from drawings, sketches or verbal instructions; maintains records in the form of drawings and specifications for industrial, wastewater and water works equipment and machinery; plans, designs, and implements instrumentation and electrical modifications to pump stations, lift stations, reservoirs, wells, disinfection systems, chemical feed systems and related systems and facilities.
- Reviews or prepares drawings and specifications for contract work and inspects work performed to determine compliance to standards and requirements.

- Develops, reviews and updates written maintenance instructions and schedules.
- May participate in long-term planning to assess future needs.
- Performs related duties as assigned.

<b>MINIMUM QUALIFICATIONS:</b>
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*Any Combination of education and/or experience that provides the required knowledge, skills, and abilities to perform the essential functions of the position. A typical combination includes:*

#### EDUCATION AND EXPERIENCE:

Requires high school graduation or equivalent, with the ability to read and follow safety procedures and job-related instructions as required and six (6) years journey-level experience in water/wastewater/utility works or similar industry. Requires demonstrated ability to direct assigned crews.

#### KNOWLEDGE OF:

- Principles of lead work supervision, including work planning, assignment, and training in work procedures and safety; District personnel rules, policies and labor contract provisions; principles and practices of effective supervision.
- Principles of preventative maintenance.
- Occupational hazards and standard safety practices necessary in area of work assigned.
- Proficiencies found in the Maintenance Technician II and III job descriptions.
- Principles and practices of administration, including goal setting, policy and procedure development and implementation, evaluation, and work standards.
- Methods and techniques of configuring communication between devices such as Programmable Logic Controllers (PLC), Remote Telemetry Units (RTU), and field devices, and the tools used in installing, servicing, and repairing various electronic equipment.
- Practices, methods, techniques, tools, and equipment used in the design, installation, testing, calibration, maintenance and repair of electrical and electronic equipment devices, and components, including those utilized in process control.
- Industry standard communication protocols for SCADA, including telemetry and networking.
- The methods, materials, and techniques commonly used with electrical and instrumentation maintenance and repair.
- Operational characteristics of programmable logic controllers (PLC) and Human Machine Interface (HMI) as they relate to SCADA system design and implementation.
- Network system (radios, software, and affiliated components) security measures related to SCADA.
- Basic engineering principles relative to electricity, electronics, and electromagnetism principles, methods, techniques, tools and equipment used in the installation, maintenance and repair of electrical systems, devices and equipment. Knowledge of hydraulics and fluid mechanics for mechanical equipment and machinery common to a large water works system. Utilizes safety practices, safe work methods and safety regulations pertaining to the work. Safe Drinking Water Act and relevant state and Federal regulations; computer applications related to the work; codes, ordinances and regulations pertaining to the work.
- Principles, methods, techniques, tools, and equipment used in the installation, operation, maintenance (predictive, preventive, and corrective) and repair of industrial/mechanical equipment and machinery



used in the operation of water distribution, water treatment plant equipment and wastewater collection systems, including underground wastewater collection lines. Proper water quality sampling techniques for physical and microbiological sampling; chemical storage and dosing.

- Basic construction knowledge as it related to facilities and components maintenance.
- Mathematical principles.
- Pertinent Federal, State, and local laws, codes, and safety regulations.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs such as Excel spreadsheets relevant to work performed.
- Record-keeping principles and procedures.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

#### ABILITY TO:

- Direct plan, organize, estimate, coordinate, assign, review, train, develop, and evaluate the work of staff.
- Troubleshoot and diagnose maintenance problems and determine materials and supplies required for repair; respond effectively to emergency situations.
- Exercise sound independent judgment within established guidelines.
- Coordinate work assignments with other divisions, departments, or agencies; communicate effectively, orally and in writing.
- Test, operate, diagnose, program, modify, calibrate, and repair a wide variety of electrical and electronic instrumentation devices, motors, machinery, and equipment.
- Install, operate, diagnose, maintain, and repair a wide variety of industrial/mechanical equipment, systems, and machinery used in the operation of water production and distribution and wastewater collection systems.
- Monitor, operate, and adjust plant control processes to maintain water quality standards.
- Collect a variety of samples and conduct appropriate tests.
- Design, fabricate, replace, and repair system equipment and components.
- Use precision and diagnostic instruments in assigned areas of responsibility.
- Operate a diverse range of tools and equipment in trade areas such as electrical, pipefitting, mechanical, cranes, and rigs.
- Read and interpret plans, specifications, manuals, and blueprints.
- Operate a variety of vehicles and equipment in a safe and effective manner.
- Maintain accurate records and prepare appropriate reports.
- Make accurate arithmetic computations.
- Be available to work weekends and 24-hour call out as needed on a seven-day basis.
- Organize your own work, set priorities, and meet critical time deadlines.

- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Effectively use computer systems, software applications, particularly Microsoft Excel, relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted during work.

## LICENSES AND CERTIFICATIONS:

### Required

- Possession of a valid driver's license along with a driving record acceptable to the District and the District's insurance carrier.
- Possession of a California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 1 (D1) certification.
- Possession of a California State Water Resource Control Board (SWRCB) Water Treatment Operator Grade 2 (T2) certification.
- Possession of, or the ability to obtain within (18) eighteen months from date of hire, California Water Environment Association (CWEA) Electrical and Instrumentation Technologist Grade 2.

### Desirable

- California Water Environment Association (CWEA) Collection System Maintenance Grade 1 (C1) certification desirable.
- California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 2 (D2) certification desirable.
- California State Water Resource Control Board (SWRCB) Water Treatment Operator Grade 3 (T3) certification desirable.
- California Water Environment Association (CWEA) Mechanical Technologist Grade 2.
- California Water Environment Association (CWEA) Electrical and Instrumentation Technologist Grade 3.

Failure to obtain and maintain the required license(s)/certification(s) may result in disciplinary action up to and including dismissal from the position.

### TOOLS AND EQUIPMENT USED:

Trucks, and power tools, scientific instruments, computers, grinders, drills, air compressors, logbooks, charts, graphs, radios, VFD's and PLC.'s, telephones, cell phones, two-way radio; traffic control devices; personal computers, word processing, and other office support systems and various related hand, electronic, and/or power tools used in utility operations maintenance, data gathering, and/or record keeping.

### PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job in compliance with the Americans with Disabilities

Act (ADA) requirements. Reasonable accommodation may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions.

Must possess mobility to work in the field; strength, stamina, and mobility to perform medium to heavy physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; frequently reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp and make repetitive hand movement in the performance of daily duties; possible entry into confined spaces and the use of confined entry equipment, to climb and descend ladders, to operate varied hand and power tools and construction equipment, and to operate a motor vehicle and visit various District sites; and vision to inspect and operate equipment. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to operate and repair tools and equipment.

Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight up to 50 pounds and frequently more than 75 pounds to a maximum of 100 pounds, all cases with the use of proper equipment and/or assistance from other staff.

Requires the ability to get and maintain an airtight seal with Self-Contained Breathing Apparatus for confined space entry.

**ENVIRONMENTAL CONDITIONS:**

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

Works with hazardous chemicals such as but not limited to, sodium hypochlorite, and various acids. Exposed to fumes and odors from wastewater wet wells. Frequently works in confined spaces above and below ground, including wet and dry wells, storage tanks, vaults, and manholes. The incumbent works near moving mechanical parts; on slippery and uneven surfaces; and the risk of electric shock. The noise level in the work environment is frequently loud. May be required to wear a confined space entry breathing apparatus. Works at computer workstation on regular basis.



## Lead Mechanical Technician

### DEFINITION:

Leads, oversees, assigns, organizes, inspects and participates in the work of personnel involved in the installation, modification, operation, maintenance, and repair of mechanical and electrical equipment and machinery used in water production and distribution and wastewater collection and pumping systems; tests, troubleshoots, locates and calibrates, operates, repairs and performs preventive maintenance on mechanical, components and devices.

### SUPERVISION RECEIVED AND EXERCISED:

Receives direction from assigned supervisory or management staff. Exercises technical and functional direction over and provides training to lower-level staff and seasonal workers.

### CLASS CHARACTERISTICS:

This is the advanced journey level in the Maintenance Technician series. Incumbents at this level are expected to perform the full range of duties as the Maintenance Technician II and distinguished from other classes within the series by the level of responsibility assumed, complexity of duties assigned, independence of action taken, providing technical and functional supervision over assigned staff and by the amount of time spent performing the duties.

Performs the most difficult and responsible types of duties assigned to classes within this series, including knowledge and maintenance of mechanical systems, electrical systems, PLC systems (Programmable Logic Controllers), instrumentation and telemetry appurtenances. The work involves preventive and corrective maintenance program development and implementation, assistance in contract oversight, and ensuring that the District meets all regulatory agency requirements. Acts as the back-up to the Lead Instrumentation and Electrical Technician in their absence for their areas of responsibility.

### EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only):

*Reasonable accommodations may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions of the job.*

- Participates and provides day-to-day leadership, training and direction to lower-level staff in performing a wide variety of skilled tasks in the installation, operation, repair, calibration, troubleshooting, optimization, and maintenance of District water production and distribution and wastewater collection and pumping systems, , including, booster pumps, deep wells, pump control valves, disinfection equipment, including mechanical, electromechanical, chemical feed systems, and hydraulic power.
- Assists in the installation, repair, calibration, troubleshooting, optimization and maintenance of PLCs, variable frequency drives, analyzers, remote terminal units, SCADA systems, software-controlled units and equipment, telemetry systems, small and large motors, and associated components up to 600 volts.

- Trains and verifies the work of assigned staff for accuracy, proper work methods, techniques, and compliance with applicable standards, codes, regulations, and specifications; adheres to safe work practices and procedures pursuant to Federal, State, Local, and District requirements; regularly monitors performance and provides coaching for performance improvement and development subject to management concurrence.
- Carries out the District's safety program; educates employees on rules, regulations, safe work habits and potential hazards presented by their work environment.
- Provides day-to-day leadership and works with staff to ensure a high performance, customer-oriented work environment that supports achieving the Department's and the District's mission, strategic plan, objectives, and values.
- Utilizing Lucity (CMMS-Computerized Maintenance Management System) plans, schedules, assigns, coordinates and supervises the work of staff engaged in the installation, maintenance, operation and repair of pumps, valves, pipes, shafts, gears and equipment, machinery and related appurtenances used in the production, treatment, storage, transmission and distribution of potable water, and the collection and transmission of wastewater; ensures the timely completion of preventive and predictive maintenance programs. Interprets and modifies work order for proper completion of requested task verifying validity and necessity of requests.
- Participates in the preparation of operating budget recommendations, monitors the purchase of materials and work activities and expenditures to control costs; orders necessary parts to maintain equipment or construct replacement parts; coordinates repair and maintenance work with supervisors, managers, and outside agency technical staff.
- Plans, lays out, inspects, and supervises the work of crews engaged in the rehabilitation and upgrading of pump and lift stations.
- Prepares calibration, special studies, and work reports as necessary; provides technical advice and support to District engineers, technicians, SCADA personnel, supervisors, managers, and outside agency technical personnel; works closely with control systems design and engineering teams.
- Subject to weekend work and 24-hour call out on a seven-day basis; responds to emergency situations as necessary.
- Responds to inquiries and complaints from other divisions and departments. Attends meetings with other departments and District staff.
- Research new operational methods, techniques and equipment and recommend their application.
- Plans and lays out jobs from drawings, sketches, or verbal instructions; maintains records in the form of drawings and specifications for industrial. wastewater and water works equipment and machinery; plans, designs, and implements mechanical modifications to pump stations, lift stations, reservoirs, wells, disinfection systems, chemical feed systems and related mechanical systems and facilities.
- Reviews or prepares drawings and specifications for contract work and inspects work performed to determine compliance to standards and requirements.
- Develops, reviews and updates written maintenance instructions and schedules.
- May participate in long-term planning to assess future needs.
- Performs related duties as assigned.

<b>MINIMUM QUALIFICATIONS:</b>
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*Any Combination of education and/or experience that provides the required knowledge, skills, and abilities to perform the essential functions of the position. A typical combination includes:*

## EDUCATION AND EXPERIENCE:

Requires high school graduation or equivalent, with the ability to read and follow safety procedures and job-related instructions as required and six (6) years journey-level experience in water/wastewater/utility works or similar industry. Requires demonstrated ability to direct assigned crews.

## KNOWLEDGE OF:

- Principles of lead work supervision, including work planning, assignment, and training in work procedures and safety; District personnel rules, policies and labor contract provisions; principles and practices of effective supervision.
- Principles of preventative maintenance.
- Occupational hazards and standard safety practices necessary in area of work assigned.
- Proficiencies found in the Maintenance Technician II and III job descriptions.
- Principles and practices of administration, including goal setting, policy and procedure development and implementation, evaluation, and work standards.
- Basic engineering principles relative to hydraulics and fluid mechanics; principles, methods, techniques, tools, and equipment used in the installation, maintenance and repair of electrical and mechanical equipment and machinery common to a large water works system; safety practices, safe work methods and safety regulations pertaining to the work.
- Safe Drinking Water Act and relevant state and Federal regulations; computer applications related to the work; codes, ordinances and regulations pertaining to the work.
- Principles, methods, techniques, tools, and equipment used in the installation, operation, maintenance (predictive, preventive, and corrective) and repair of industrial/mechanical equipment and machinery used in the operation of water distribution, water treatment plant equipment and wastewater collection systems, including underground wastewater collection lines.
- Proper water quality sampling techniques for physical and microbiological sampling; chemical storage and dosing.
- Methods and techniques of configuring communication between devices such as Programmable Logic Controllers (PLC), Remote Telemetry Units (RTU), and field devices, and the tools used in installing, monitoring, servicing, and repairing various electronic equipment.
- Basic construction knowledge as it related to facilities and components maintenance.
- Mathematical principles.
- Pertinent Federal, State, and local laws, codes, and safety regulations.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs such as Excel spreadsheets relevant to work performed.
- Record-keeping principles and procedures.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

## ABILITY TO:

- Direct plan, organize, estimate, coordinate, assign, review, train, develop, and evaluate the work of staff.
- Troubleshoot and diagnose maintenance problems and determine materials and supplies required for repair; respond effectively to emergency situations.
- Exercise sound independent judgment within established guidelines.
- Coordinate work assignments with other divisions, departments, or agencies; communicate effectively, orally and in writing.
- Test, operate, diagnose, program, modify, calibrate, and repair a wide variety of electrical and electronic instrumentation devices, motors, machinery, and equipment.
- Install, operate, diagnose, maintain, and repair a wide variety of industrial/mechanical equipment, systems, and machinery used in the operation of water production and distribution and wastewater collection systems.
- Monitor, operate, and adjust plant control processes to maintain water quality standards.
- Collect a variety of samples and conduct appropriate tests.
- Design, fabricate, replace, and repair system equipment and components.
- Use precision and diagnostic instruments in assigned areas of responsibility.
- Operate a diverse range of tools and equipment in trade areas such as electrical, pipefitting, mechanical, cranes, and rigs.
- Read and interpret plans, specifications, manuals, and blueprints.
- Operate a variety of vehicles and equipment in a safe and effective manner.
- Maintain accurate records and prepare appropriate reports.
- Make accurate arithmetic computations.
- Be available to work weekends and 24-hour call out as needed on a seven-day basis.
- Organize your own work, set priorities, and meet critical time deadlines.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Effectively use computer systems, software applications, particularly Microsoft Excel, relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted during work.

## LICENSES AND CERTIFICATIONS:

### Required

- Possession of a valid driver's license along with a driving record acceptable to the District and the District's insurance carrier.

- Possession of a California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 1 (D1) certification.
- Possession of a California State Water Resource Control Board (SWRCB) Water Treatment Operator Grade 2 (T2) certification.
- Possession of, or the ability to obtain within (18) eighteen months from date of hire, California Water Environment Association (CWEA) Mechanical Technologist Grade 2.

### Desirable

- California Water Environment Association (CWEA) Collection System Operator Grade 1 (C1) certification desirable.
- California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 2 (D2) certification desirable.
- California State Water Resource Control Board (SWRCB) Water Treatment Operator Grade 3 (T3) certification desirable.
- California Water Environment Association (CWEA) Electrical and Instrumentation Technologist Grade 2.
- California Water Environment Association (CWEA) Mechanical Technologist Grade 3.

Failure to obtain and maintain the required license(s)/certification(s) may result in disciplinary action up to and including dismissal from the position.

<b>TOOLS AND EQUIPMENT USED:</b>
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Trucks, and power tools, scientific instruments, computers, grinders, drills, air compressors, logbooks, charts, graphs, radios, VFD's and PLC.'s, telephones, cell phones, two-way radio; traffic control devices; personal computers, word processing, and other office support systems and various related hand, electronic, and/or power tools used in utility operations maintenance, data gathering, and/or record keeping.

<b>PHYSICAL DEMANDS:</b>
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The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job in compliance with the Americans with Disabilities Act (ADA) requirements. Reasonable accommodation may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions.

Must possess mobility to work in the field; strength, stamina, and mobility to perform medium to heavy physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; frequently reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp and make repetitive hand movement in the performance of daily duties; possible entry into confined spaces and the use of confined entry equipment, to climb and descend ladders, to operate varied hand and power tools and construction equipment, and to operate a motor vehicle and visit various District sites; and vision to inspect and operate equipment. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to operate and repair tools and equipment. Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight up to 50 pounds and frequently more than 75 pounds to a maximum of 100 pounds, all cases with the use of proper equipment and/or assistance from other staff.

Requires the ability to get and maintain an airtight seal with Self-Contained Breathing Apparatus for confined space entry.



**ENVIRONMENTAL CONDITIONS:**

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

Works with hazardous chemicals such as but not limited to, sodium hypochlorite, and various acids. Exposed to fumes and odors from wastewater wet wells. Frequently works in confined spaces above and below ground, including wet and dry wells, storage tanks, vaults, and manholes. The incumbent works near moving mechanical parts; on slippery and uneven surfaces; and the risk of electric shock. The noise level in the work environment is frequently loud. May be required to wear a confined space entry breathing apparatus. Works at computer workstation on regular basis.



## Lead MechanicalMaintenance Technician

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### DEFINITION:

Leads, oversees, assigns, organizes, inspects and participates in the work of personnel involved in the installation, modification, operation, maintenance, and repair of mechanical and electrical equipment and machinery used in ~~the operation of~~ water production and distribution and ~~sewerwastewater collection and pumping~~ systems; tests, troubleshoots, locates and calibrates, operates, repairs and performs preventive maintenance on mechanical~~electrical and electronic systems~~, components and devices.

### SUPERVISION RECEIVED AND EXERCISED:

Receives direction from assigned supervisory or management staff. Exercises technical and functional direction over and provides training to lower-level staff and seasonal workers.

### CLASS CHARACTERISTICS:

This is the advanced journey level in the Maintenance Technician series. Incumbents at this level are expected to perform the full range of duties as the Maintenance Technician II and distinguished from other classes within the series by the level of responsibility assumed, complexity of duties assigned, independence of action taken, providing technical and functional supervision over assigned staff and by the amount of time spent performing the duties.

Performs the most difficult and responsible types of duties assigned to classes within this series, including knowledge and maintenance of mechanical systems, electrical systems, ~~meters~~, PLC systems (Programmable Logic ~~Controllers~~Computer), instrumentation and telemetry apparatuses. The work involves preventive and corrective maintenance program development and implementation, assistance in contract oversight, and ensuring that the District meets all regulatory agency requirements. Acts as the back-up to the Lead Instrumentation and Electrical Technician in their absence for their areas of responsibility.

### EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only):

*Reasonable accommodations may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions of the job.*

➤ Participates and provides day-to-day leadership, training and direction to lower-level staff in performing a wide variety of skilled tasks in the installation, operation, repair, calibration, troubleshooting, optimization, and maintenance of District water production and distribution and wastewater collection and pumping systems, ~~water distribution systems~~, including booster pumps, deep wells, pump control valves, disinfection equipment, including mechanical, electromechanical, chemical feed systems, and hydraulic power.

➤ Assists in the installation, repair, calibration, troubleshooting, optimization and maintenance of PLCs, variable frequency drives, analyzers, remote terminal units, SCADA systems, software-

Lead MechanicalMaintenance Technician - ~~DRAFT~~

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controlled units and equipment, telemetry systems, small and large motors, and associated components up to 600 volts.

~~➤ Participates in and trains assigned staff engaged in the installation, operation, maintenance and repair of small and large motor, booster pumps, deep wells, pump control valve, disinfection equipment, and related equipment and machinery including mechanical, electromechanical, hydro-chemical systems, and hydraulic power.~~

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- Trains and verifies the work of assigned staff for accuracy, proper work methods, techniques, and compliance with applicable standards, codes, regulations, and specifications; adheres to safe work practices and procedures pursuant to Federal, State, Local, and District requirements; regularly monitors performance and provides coaching for performance improvement and development subject to management concurrence.
- Carries out the District's safety program; educates employees on rules, regulations, safe work habits and potential hazards presented by their work environment.
- Provides day-to-day leadership and works with staff to ensure a high performance, customer-oriented work environment that supports achieving the Department's and the District's mission, strategic plan, objectives, and values.
- ~~➤ Performs duties of Chief Operator Treatment Plant as designated by State regulations.~~
- Utilizing Lucity (CMMS-Computerized Maintenance Management System) plans, schedules, assigns, coordinates and supervises the work of staff engaged in the installation, maintenance, operation and repair of pumps, valves, pipes, shafts, gears and equipment, machinery and related appurtenances used in the production, treatment, storage, transmission and distribution of potable ~~and reclaimed~~ water, and the collection and transmission of wastewater; ensures the timely completion of preventive and predictive maintenance programs. Interprets and modifies work order for proper completion of requested task verifying validity and necessity of requests.
- Participates in the preparation of operating budget recommendations, monitors the purchase of materials and work activities and expenditures to control costs; orders necessary parts to maintain equipment or construct replacement parts; coordinates repair and maintenance work with supervisors, managers, and outside agency technical staff.
- Plans, lays out, inspects, and supervises the work of crews engaged in the rehabilitation and upgrading of pump and lift stations.
- Prepares calibration, special studies, and work reports as necessary; provides technical advice and support to District engineers, technicians, SCADA personnel, supervisors, managers, and outside agency technical personnel; works closely with control systems design and engineering teams.
- Subject to weekend work and 24-hour call out on a seven-day basis; responds to emergency situations as necessary.
- Responds to inquiries and complaints from other divisions and departments. Attends meetings with other departments and District staff.
- Research new operational methods, techniques and equipment and recommend their application.
- Plans and lays out jobs from drawings, sketches, or verbal instructions; maintains records in the form of drawings and specifications for industrial wastewater and water works equipment and machinery; plans, designs, and implements mechanical modifications to pump stations, lift stations, reservoirs, wells, disinfection systems, chemical feed systems and related mechanical systems and facilities.
- Reviews or prepares drawings and specifications for contract work and inspects work performed to determine compliance to standards and requirements.
- Develops, reviews and updates written maintenance instructions and schedules.

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- May participate in long-term planning to assess future needs.
- Performs related duties as assigned.
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#### MINIMUM QUALIFICATIONS:

*Any Combination of education and/or experience that provides the required knowledge, skills, and abilities to perform the essential functions of the position. A typical combination includes:*

#### EDUCATION AND EXPERIENCE:

Requires high school graduation or equivalent, with the ability to read and follow safety procedures and job-related instructions as required and six (6) years journey-level experience in water/sewer/wastewater/utility works or similar industry. Requires demonstrated ability to direct assigned crews.

#### KNOWLEDGE OF:

- Principles of lead work supervision, including work planning, assignment, and training in work procedures and safety; District personnel rules, policies and labor contract provisions; principles and practices of effective supervision.
- Principles of preventative maintenance.
- Occupational hazards and standard safety practices necessary in area of work assigned.
- Proficiencies found in the Maintenance Technician II and III job descriptions.
- Principles and practices of administration, including goal setting, policy and procedure development and implementation, evaluation, and work standards.
- Basic engineering principles relative to hydraulics and fluid mechanics; principles, methods, techniques, tools, and equipment used in the installation, maintenance and repair of electrical and mechanical equipment and machinery common to a large water works system; safety practices, safe work methods and safety regulations pertaining to the work.
- Safe Drinking Water Act and relevant state and Federal regulations; computer applications related to the work; codes, ordinances and regulations pertaining to the work.
- Principles, methods, techniques, tools, and equipment used in the installation, operation, maintenance (predictive, preventive, and corrective) and repair of industrial/mechanical equipment and machinery used in the operation of water distribution, water treatment plant equipment and wastewater collection systems, including underground wastewater collection lines.
- Proper water quality sampling techniques for physical and microbiological sampling; chemical storage and dosing.
- Methods and techniques of configuring communication between devices such as Programmable Logic Controllers (PLC), Remote Telemetry Units (RTU), and field devices, and the tools used in installing, monitoring, servicing, and repairing various electronic equipment.
- Basic construction knowledge as it related to facilities and components maintenance.
- Mathematical principles.
- Pertinent Federal, State, and local laws, codes, and safety regulations.

Lead Mechanical Maintenance Technician - DRAFT

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- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs such as Excel spreadsheets relevant to work performed.
- Record-keeping principles and procedures.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

#### ABILITY TO:

- Direct plan, organize, estimate, coordinate, assign, review, train, develop, and evaluate the work of staff.
- Troubleshoot and diagnose maintenance problems and determine materials and supplies required for repair; respond effectively to emergency situations.
- Exercise sound independent judgment within established guidelines.
- Coordinate work assignments with other divisions, departments, or agencies; communicate effectively, orally and in writing.
- Test, operate, diagnose, program, modify, calibrate, and repair a wide variety of electrical and electronic instrumentation devices, motors, machinery, and equipment.
- Install, operate, diagnose, maintain, and repair a wide variety of industrial/mechanical equipment, systems, and machinery used in the operation of water production and distribution and sewer/wastewater collection systems.
- Monitor, operate, and adjust plant control processes to maintain water quality standards.
- Collect a variety of samples and conduct appropriate tests.
- Design, fabricate, replace, and repair system equipment and components.
- Use precision and diagnostic instruments in assigned areas of responsibility.
- Operate a diverse range of tools and equipment in trade areas such as electrical, pipefitting, mechanical, cranes, and rigs.
- Read and interpret plans, specifications, manuals, and blueprints.
- Operate a variety of vehicles and equipment in a safe and effective manner.
- Maintain accurate records and prepare appropriate reports.
- Make accurate arithmetic computations.
- Be available to work weekends and 24-hour call out as needed on a seven-day basis.
- Organize your own work, set priorities, and meet critical time deadlines.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Effectively use computer systems, software applications, particularly Microsoft Excel, relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted during work.

Lead Mechanical Maintenance Technician - DRAFT

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LICENSES AND CERTIFICATIONS:

Required

- Possession of a valid driver's license along with a driving record acceptable to the District and the District's insurance carrier.
- Possession of a California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 1 (D1) certification.
- Possession of a California State Water Resource Control Board (SWRCB) Water Treatment ~~Plant~~ Operator Grade 2 (T2) certification.
- Possession of or the ability to obtain within (18) eighteen months from date of hire, California Water Environment Association (CWEA) ~~Mechanical Electrical and Instrumentation Technologist~~ Technologist/Technician Grade 2 ~~(E/H)~~.

Desirable

- California Water Environment Association (CWEA) Collection System Operator Grade 1 (C1) certification desirable.
- California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 2 (D2) certification desirable.
- California State Water Resource Control Board (SWRCB) Water Treatment-~~Plant~~ Operator Grade 3 (T3) certification desirable.
- California Water Environment Association (CWEA)- Electrical and Instrumentation Technologist Grade 2.
- California Water Environment Association (CWEA) Mechanical Technologist Grade 3.

Failure to obtain and maintain the required license(s)/certification(s) may result in disciplinary action up to and including dismissal from the position.

TOOLS AND EQUIPMENT USED:

Trucks, and power tools, scientific instruments, computers, grinders, drills, air compressors, logbooks, charts, graphs, radios, VFD's and PLC.'s, telephones, cell phones, two-way radio; traffic control devices; personal computers, word processing, and other office support systems and various related hand, electronic, and/or power tools used in utility operations maintenance, data gathering, and/or record keeping.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job in compliance with the Americans with Disabilities Act (ADA) requirements. Reasonable accommodation may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions.

Must possess mobility to work in the field; strength, stamina, and mobility to perform medium to heavy physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; frequently reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp and make repetitive hand movement in the performance of daily duties; possible entry into confined spaces and the use of confined entry equipment, to climb and descend ladders, to operate varied hand and power tools and construction equipment, and to operate a motor vehicle and visit various District sites; and vision to inspect and

Lead ~~Mechanical~~ Maintenance Technician - DRAFT

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operate equipment. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to operate and repair tools and equipment. Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight up to 50 pounds and frequently more than 75 pounds to a maximum of 100 pounds, all cases with the use of proper equipment and/or assistance from other staff.

Requires the ability to get and maintain an airtight seal with Self-Contained Breathing Apparatus for confined space entry.

**ENVIRONMENTAL CONDITIONS:**

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

Works with hazardous chemicals such as but not limited to, sodium hypochlorite, and various acids. Exposed to fumes and odors from [sewerwastewater](#) wet wells. Frequently works in confined spaces above and below ground, including wet and dry wells, storage tanks, vaults, and manholes. The incumbent works near moving mechanical parts; on slippery and uneven surfaces; and the risk of electric shock. The noise level in the work environment is frequently loud. May be required to wear a confined space entry breathing apparatus. Works at computer workstation on regular basis.



## Maintenance Technician I/II

### DEFINITION:

Under immediate (Maintenance Technician I) to general (Maintenance Technician II) supervision, performs duties in installation, operation, modification, maintenance, and repair of mechanical and electrical equipment and machinery used in water production and distribution and wastewater collection and pumping systems; tests, troubleshoots, locates and calibrates, operates, repairs and performs preventive maintenance on mechanical, electrical and electronic systems, components and devices.

### SUPERVISION RECEIVED AND EXERCISED:

Receives immediate (Maintenance Technician I) to general (Maintenance Technician II) supervision from assigned supervisory or management staff. Exercises no direct supervision over staff.

### CLASS CHARACTERISTICS:

Maintenance Technician I: This is the entry-level classification in the maintenance technician series. Initially under close supervision, incumbents perform the ongoing tasks needed for the routine maintenance, repair and operation of the mechanical and electrical equipment and machinery used in the District's water treatment plant, potable water and wastewater systems. As experience is gained, assignments become more varied, complex, and difficult; close supervision and frequent review of work lessen as an incumbent demonstrates skill to perform the work independently. Positions at this level usually perform most of the duties required of the positions at the Maintenance Technician II level but are not expected to function at the same skill level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained as they arise.

Maintenance Technician II: This is the fully qualified journey-level classification in the maintenance technician series. Positions at this level are distinguished from the Maintenance Technician I level by the performance of the full range of duties as assigned, working independently, and exercising judgment and initiative. 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.

Positions in the Maintenance Technician I/II class series are flexibly staffed; positions at the Maintenance Technician II level are normally filled by advancement from the Maintenance Technician I level; progression to the Maintenance Technician II level is dependent on (i) management affirmation that the position is performing the full range of duties assigned to the classification; (ii) satisfactory work performance; and (iii) the incumbent meeting the minimum qualifications for the classification including any licenses and certifications.



**EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only):**

*Reasonable accommodation may be made, on a case-by-case basis, to enable individuals to perform the essential functions of the job.*

*Positions at the Maintenance Technician I level may perform some of these duties and responsibilities in a learning capacity.*

- Participates in the operation and maintenance of water treatment and related equipment; calibrates and repairs instruments; inspects pumps for proper operation; services pumps and pumping equipment.
- Reads meters, gauges, and charts; regulates water flows in accordance with established procedures; maintains operating logs and records.
- Monitors water quality: performs operational adjustments to the treatment system to ensure compliance with quality and regulatory requirements; adjusts and calibrates feed machinery for a variety of chemicals to keep treatment at prescribed standards.
- Performs the operation, maintenance and troubleshooting of mechanical and electrical functions of wastewater collection facilities.
- Performs a variety of skilled duties involved in the inspection, operation, diagnosis, troubleshooting, maintenance, repair and servicing of field and shop equipment, components, facilities, and machinery used in water production and distribution systems, and wastewater collection systems.
- Maintains a diverse range of mechanical equipment and appurtenances in wastewater lift stations, pumping stations, and deep wells to ensure proper system operation.
- Installs and/or rebuilds existing pumps and valves at lift stations, wells, tanks, pumping plants and water process facilities; fabricates and installs piping for new pump installations which may include plumbing, pipe fitting, welding, and machine tool operations.
- Operates and maintains wastewater lift station facilities, equipment, and machinery by using manual, electronic and computer control systems.
- Tests, troubleshoots, locates, and calibrates, repairs, and performs preventive maintenance on a variety of electrical and electronic systems, components and devices used in water production and distribution. Installs, maintains, repairs, and replaces electromechanical, electronic, and electrical components of equipment and machinery; troubleshoots, aligns, and calibrates equipment; rebuilds equipment to manufacturer's specifications.
- Makes changes and program modifications to various programmable logic controllers (PLC) and their operator interface terminals; corrects defects in instrumentation.
- Troubleshoots, repairs and programs remote terminal units, including the replacement of hardware components, circuit boards, power supplies, and electronic components.
- Performs preventive maintenance and repair of plant, field and shop electrical and electronic systems, components, devices, and equipment, including hazardous chemical feed, storage systems, motors, pumps, and electrical-mechanical valves.
- Makes visits to all operating feed wells to collect metering data and ensure proper operation of oil dippers; clears well fails and performs minor troubleshooting duties as needed; samples and monitors well production.
- Collects water distribution samples and prepares reports when needed.
- Tests solid state circuitry to locate defective parts in analog and digital equipment.

- Installs conduits, wires, pull boxes, switchboards, controllers, and switches required in making additions, extensions, or alterations in industrial electrical systems.
- Inspects and oversees equipment installation work performed by contractors and District personnel.
- Operates District vehicle to travel to various facilities; follows established regulations, guidelines, policies, and procedures in the handling and transporting of hazardous materials.
- Works on a personal computer / tablet / cell phone; uses software to create and maintain a variety of records and reports.
- Responds to emergency situations as necessary, including after hours.
- Observes and complies with all District and mandated safety rules, regulations, and protocols.
- Performs related duties as assigned.

<b>MINIMUM QUALIFICATIONS:</b>
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*Any Combination of education and/or experience that provides the required knowledge, skills, and abilities to perform the essential functions of the position. A typical combination includes:*

#### **EDUCATION AND EXPERIENCE:**

Maintenance Technician I – Equivalent to completion of the twelfth (12<sup>th</sup>) grade, and two (2) years of experience in the design, installation, maintenance and repair of electrical and electronic equipment and devices common to water production and distribution, and wastewater collection systems.

Maintenance Technician II – Equivalent to completion of the twelfth (12<sup>th</sup>) grade, and four (4) years of progressively responsible experience in the design, installation, maintenance and repair of electrical and electronic equipment and devices common to water production and distribution, and wastewater collection systems, or two (2) years as a District Maintenance Technician I with demonstrated ability and knowledge.

*Positions at the Maintenance Technician I level may exercise some of these knowledge and abilities statements in a learning capacity.*

#### **KNOWLEDGE OF:**

- Principles, methods, techniques, tools, and equipment used in the installation, maintenance (predictive, preventive, and corrective) and repair of industrial / mechanical equipment and machinery used in the operation of water distribution and production stations and facilities.
- Basic tools and equipment used in the operation and maintenance of motors, engines, pumps, and other water treatment plant equipment.
- Principles, practices, tools, equipment, and supplies used in the maintenance and repair wastewater collection systems, including underground wastewater collection lines.
- Proper water quality sampling techniques for physical and microbiological sampling; chemical storage and dosing.
- Basic mechanical, electrical, and hydraulic principles.
- Operational and maintenance practices of electrical motors, pumps, and circuitry
- Use and operation of a diverse range of tools and equipment used in machine shops.

- Methods and techniques of configuring communication between devices such as Programmable Logic Controllers (PLC), Remote Telemetry Units (RTU), and field devices, and the tools used in installing, servicing, and repairing various electronic equipment.
- Practices, methods, techniques, tools, and equipment used in the design, installation, testing, calibration, maintenance and repair of electrical and electronic equipment devices, and components, including those utilized in process control.
- Basic construction knowledge as it related to facilities and components maintenance.
- Operating characteristics of electronic components, including programmable logic controllers, feedback devices, variable frequency drives and operator interface programs.
- Mathematical principles.
- Pertinent federal, state, and local laws, codes, and safety regulations.
- Working knowledge of computers and computer software such as word processing, spreadsheets.
- Record-keeping principles and procedures.
- District and mandated safety rules, regulations, and protocols.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

**ABILITY TO:**

- Test, diagnose, program, modify, calibrate, and repair a wide variety of electrical and electronic instrumentation devices, motors, machinery, and equipment.
- Install, diagnose, maintain, and repair a wide variety of industrial/mechanical equipment, systems, and machinery used in the operation of water production and distribution and sewer collection systems.
- Monitor and adjust plant processes to maintain water quality standards.
- Collect a variety of samples and conduct appropriate tests.
- Design, fabricate, replace, and repair system equipment and components.
- Use precision and diagnostic instruments in assigned areas of responsibility.
- Operate a diverse range of tools and equipment in trade areas such as electrical, pipefitting, mechanical, cranes, and rigs.
- Read and interpret plans, specifications, manuals, and blueprints.
- Use a variety of hand tools, such as pipe-threaders, taps, dies, measuring instruments, and laser alignment equipment.
- Respond effectively to emergency situations and troubleshoot such situations.
- Operate a variety of vehicles and equipment in a safe and effective manner.
- Maintain accurate records and prepare appropriate reports.
- Make accurate arithmetic computations.

- Organize your own work, set priorities, and meet critical time deadlines.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

## LICENSES AND CERTIFICATIONS:

### Maintenance Technician I

#### Required

- Possession of a valid driver's license along with a driving record acceptable to the District and the District's insurance carrier.
- Possession of, or the ability to obtain within eighteen (18) months from date of hire, a California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 1 (D1) certification.
- Possession of, or the ability to obtain within eighteen (18) months from date of hire, a California State Water Resources Control Board (SWRCB) Water Treatment Plant Operator Grade 1 (T1) certification.

#### Desirable

- CWEA Collection System Operator Grade 1 (C1) certification desirable.

### Maintenance Technician II

#### Required

- Possession of a valid driver's license along with a driving record acceptable to the District and the District's insurance carrier.
- Possession of a California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 1 (D1) certification.
- Possession of a California State Water Resources Control Board (SWRCB) Water Treatment Plant Operator Grade 1 (T1) certification.

#### Desirable

- CWEA Collection System Operator Grade 1 (C1) certification desirable.
- California State Water Resources Control Board (SWRCB) Water Treatment Plant Operator Grade 2 (T2) certification desirable.

Failure to obtain and maintain the required license(s)/certification(s) may result in disciplinary action up to and including dismissal from the position.

**TOOLS AND EQUIPMENT USED:**

Trucks, and power tools, scientific instruments, computers, grinders, drills, air compressors, logbooks, charts, graphs, radios, VFD's and PLC.'s, telephones, cell phones, two-way radio; traffic control devices; personal computers, word processing, and other office support systems and various related hand, electronic, and/or power tools used in utility operations maintenance, data gathering, and/or record keeping.

**PHYSICAL DEMANDS:**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job in compliance with the Americans with Disabilities Act (ADA) requirements. Reasonable accommodation may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions.

Must possess mobility to work in the field; strength, stamina, and mobility to perform medium to heavy physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; frequently reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp and make repetitive hand movement in the performance of daily duties; possible entry into confined spaces and the use of confined entry equipment, to climb and descend ladders, to operate varied hand and power tools and construction equipment, and to operate a motor vehicle and visit various District sites; and vision to inspect and operate equipment. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to operate and repair tools and equipment. Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight up to 50 pounds and frequently in excess of 75 pounds to a maximum of 100 pounds, all cases with the use of proper equipment and/or assistance from other staff.

Requires the ability to get and maintain an airtight seal with Self-Contained Breathing Apparatus for confined space entry.

**ENVIRONMENTAL CONDITIONS:**

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

Works with hazardous chemicals such as but not limited to, sodium hypochlorite, and various acids. Exposed to fumes and odors from wastewater wet wells. Frequently works in confined spaces above and below ground, including wet and dry wells, storage tanks, vaults, and manholes. The incumbent works near moving mechanical parts; on slippery and uneven surfaces; and the risk of electric shock. The noise level in the work environment is frequently loud. May be required to wear a confined space entry breathing apparatus. Works at computer workstation on regular basis.



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## Maintenance Technician I/II

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### DEFINITION:

Under immediate ([Maintenance Technician I](#)) to general ([Maintenance Technician II](#)) supervision, performs duties in installation, operation, modification, maintenance, and repair of mechanical and electrical equipment and machinery used in ~~the operation of~~ water production and distribution and ~~sewer wastewater collection and pumping~~ systems; tests, troubleshoots, locates and calibrates, operates, repairs and performs preventive maintenance on [mechanical](#), electrical and electronic systems, components and devices.

### SUPERVISION RECEIVED AND EXERCISED:

Receives immediate (Maintenance Technician I) to general (Maintenance Technician II) supervision from assigned supervisory or management staff. Exercises no direct supervision over staff.

### CLASS CHARACTERISTICS:

Maintenance Technician I: This is the entry-level classification in the maintenance technician series. Initially under close supervision, incumbents perform the ongoing tasks needed for the routine maintenance, repair and operation of the mechanical and electrical equipment and machinery used in the District's water treatment plant, ~~and~~ potable water [and wastewater](#) systems. As experience is gained, assignments become more varied, complex, and difficult; close supervision and frequent review of work lessen as an incumbent demonstrates skill to perform the work independently. Positions at this level usually perform most of the duties required of the positions at the Maintenance Technician II level but are not expected to function at the same skill level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained as they arise.

Maintenance Technician II: This is the fully qualified journey-level classification in the maintenance technician series. Positions at this level are distinguished from the Maintenance Technician I level by the performance of the full range of duties as assigned, working independently, and exercising judgment and initiative. 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.

Positions in the Maintenance Technician I/II class series are flexibly staffed; positions at the Maintenance Technician II level are normally filled by advancement from the Maintenance Technician I level; progression to the Maintenance Technician II level is dependent on (i) management affirmation that the position is performing the full range of duties assigned to the classification; (ii) satisfactory work performance; and (iii) the incumbent meeting the minimum qualifications for the classification including any licenses and certifications.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only):

Reasonable ~~accommodations~~accommodation may be made, on a case-by-case basis, to enable individuals to perform the essential functions of the job.

Positions at the Maintenance Technician I level may perform some of these duties and responsibilities in a learning capacity.

- Participates in the operation and maintenance of water treatment and related equipment; calibrates and repairs instruments; inspects pumps for proper operation; services pumps and pumping equipment.
- Reads meters, gauges, and charts; regulates water flows in accordance with established procedures; maintains operating logs and records.
- Monitors water ~~quality~~quality; performs operational adjustments to the treatment system to ensure compliance with quality and regulatory requirements; adjusts and calibrates feed machinery for a variety of chemicals to keep treatment at prescribed standards.
- Performs the operation, maintenance and troubleshooting of mechanical and electrical functions of ~~sewer-wastewater~~collection facilities.
- Performs a variety of skilled duties involved in the inspection, operation, diagnosis, troubleshooting, maintenance, repair and servicing of field and shop equipment, components, facilities, and machinery used in water production and distribution systems, and ~~sewer wastewater~~collection systems.
- Maintains a diverse range of mechanical equipment and appurtenances in ~~sewage wastewater~~lift stations, pumping stations, and deep wells to ensure proper system operation.
- Installs and/or rebuilds existing pumps and valves at lift stations, wells, tanks, pumping plants and water process facilities; fabricates and installs piping for new pump installations which may include plumbing, pipe fitting, welding, and machine tool operations.
- Operates and maintains ~~sewer-wastewater~~lift station facilities, equipment, and machinery by using manual, electronic and computer control systems.
- Tests, troubleshoots, locates, and calibrates, repairs, and performs preventive maintenance on a variety of electrical and electronic systems, components and devices used in water production and distribution. Installs, maintains, repairs, and replaces electromechanical, electronic, and electrical components of equipment and machinery; troubleshoots, aligns, and calibrates equipment; rebuilds equipment to manufacturer's specifications.
- Makes changes and program modifications to various programmable logic controllers (PLC) and their operator interface terminals; corrects defects in instrumentation.
- Troubleshoots, repairs and programs remote terminal units, including the replacement of hardware components, circuit boards, power supplies, and electronic components.
- Performs preventive maintenance and repair of plant, field and shop electrical and electronic systems, components, devices, and equipment, including hazardous chemical feed, storage systems, motors, pumps, and electrical-mechanical valves.
- Makes ~~daily~~visits to all operating feed wells to collect metering data and ensure proper operation of oil dippers; clears well fails and performs minor troubleshooting duties as needed; samples and monitors well production.
- Collects water distribution samples and prepares reports; ~~when needed~~.
- Tests solid state circuitry to locate defective parts in analog and digital equipment.

- Installs conduits, wires, pull boxes, switchboards, controllers, and switches required in making additions, extensions, or alterations in industrial electrical systems.
- Inspects and oversees equipment installation work performed by contractors and District personnel.
- Operates District vehicle to travel to various facilities; follows established regulations, guidelines, policies, and procedures in the handling and transporting of hazardous materials.
- Works on a personal computer / [tablet / cell phone](#); uses software to create and maintain a variety of records and reports.
- Responds to emergency situations as necessary, including after [hourshours](#).
- Observes and complies with all District and mandated safety rules, regulations, and protocols.
- Performs related duties as assigned.

**MINIMUM QUALIFICATIONS:**

*Any Combination of education and/or experience that provides the required knowledge, skills, and abilities to perform the essential functions of the position. A typical combination includes:*

**EDUCATION AND EXPERIENCE:**

Maintenance Technician I – Equivalent to completion of the twelfth (12<sup>th</sup>) grade, and two (2) years of experience in the design, installation, maintenance and repair of electrical and electronic equipment and devices common to water production and distribution, and [sewer-wastewater](#) collection systems.

Maintenance Technician II – Equivalent to completion of the twelfth (12<sup>th</sup>) grade, and four (4) years of progressively responsible experience in the design, installation, maintenance and repair of electrical and electronic equipment and devices common to water production and distribution, and [sewer-wastewater](#) collection systems, or two (2) years as a District Maintenance Technician I with demonstrated ability and knowledge.

*Positions at the Maintenance Technician I level may exercise some of these knowledge and abilities statements in a learning capacity.*

**KNOWLEDGE OF:**

- Principles, methods, techniques, tools, and equipment used in the installation, maintenance (predictive, preventive, and corrective) and repair of industrial / mechanical equipment and machinery used in the operation of water distribution and production stations and facilities.
- Basic tools and equipment used in the operation and maintenance of motors, engines, pumps, and other water treatment plant equipment.
- Principles, practices, tools, equipment, and supplies used in the maintenance and repair wastewater collection systems, including underground wastewater collection lines.
- Proper water quality sampling techniques for physical and [micro-biological/microbiological](#) sampling; chemical storage and dosing.
- Basic mechanical, electrical, and hydraulic principles.
- Operational and maintenance practices of electrical motors, pumps, and circuitry
- Use and operation of a diverse range of tools and equipment used in machine shops.

Maintenance Technician I/II - **DRAFT**

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- Methods and techniques of configuring communication between devices such as Programmable Logic Controllers (PLC), Remote Telemetry Units (RTU), and field devices, and the tools used in installing, servicing, and repairing various electronic equipment.
- Practices, methods, techniques, tools, and equipment used in the design, installation, testing, calibration, maintenance and repair of electrical and electronic equipment devices, and components, including those utilized in process control.
- Basic construction knowledge as it related to facilities and components maintenance.
- Operating characteristics of electronic components, including programmable logic controllers, feedback devices, variable frequency drives and operator interface programs.
- Mathematical principles.
- Pertinent federal, state, and local laws, codes, and safety regulations.
- Working knowledge of computers and computer software such as word processing, spreadsheets.
- Record-keeping principles and procedures.
- District and mandated safety rules, regulations, and protocols.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

ABILITY TO:

- Test, diagnose, program, modify, calibrate, and repair a wide variety of electrical and electronic instrumentation devices, motors, machinery, and equipment.
- Install, diagnose, maintain, and repair a wide variety of industrial/mechanical equipment, systems, and machinery used in the operation of water production and distribution and sewer collection systems.
- Monitor and adjust plant processes to maintain water quality standards.
- Collect a variety of samples and conduct appropriate tests.
- Design, fabricate, replace, and repair system equipment and components.
- Use precision and diagnostic instruments in assigned areas of responsibility.
- Operate a diverse range of tools and equipment in trade areas such as electrical, pipefitting, mechanical, cranes, and rigs.
- Read and interpret plans, specifications, manuals, and blueprints.
- Use a variety of hand tools, such as pipe-threaders, taps, dies, measuring instruments, and laser alignment equipment.
- Respond effectively to emergency situations and troubleshoot such situations.
- Operate a variety of vehicles and equipment in a safe and effective manner.
- Maintain accurate records and prepare appropriate reports.
- Make accurate arithmetic computations.

- Organize [own/your own](#) work, set priorities, and meet critical time deadlines.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

#### LICENSES AND CERTIFICATIONS:

##### Maintenance Technician I

###### Required

- Possession of a valid driver's license along with a driving record acceptable to the District and the District's insurance carrier.
- Possession of, or the ability to obtain within eighteen (18) months from date of hire, a California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 1 (D1) certification.
- Possession of, or the ability to obtain within eighteen (18) months from date of hire, a California State Water Resources Control Board (SWRCB) Water Treatment Plant Operator Grade 1 (T1) certification.

###### Desirable

- CWEA Collection System Operator Grade 1 (C1) certification desirable.

##### Maintenance Technician II

###### Required

- Possession of a valid driver's license along with a driving record acceptable to the District and the District's insurance carrier.
- Possession of a California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 1 (D1) certification.
- Possession of a California State Water Resources Control Board (SWRCB) Water Treatment Plant Operator Grade 1 (T1) certification.

###### Desirable

- CWEA Collection System Operator Grade 1 (C1) certification desirable.
- California State Water Resources Control Board (SWRCB) Water Treatment Plant Operator Grade 2 (T2) certification desirable.

Failure to obtain and maintain [requiredthe required](#) license(s)/certification(s) may result in disciplinary action up to and including dismissal from the position.

TOOLS AND EQUIPMENT USED:
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**FLSA: Non-Exempt**

Trucks, and power tools, scientific instruments, computers, grinders, drills, air compressors, ~~leg~~ ~~books~~ ~~logbooks~~, charts, graphs, radios, VFD's and PLC.'s, telephones, cell phones, two-way radio; traffic control devices; personal computers, word processing, and other office support systems and various related hand, electronic, and/or power tools used in utility operations maintenance, data gathering, and/or record keeping.

**PHYSICAL DEMANDS:**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job in compliance with the Americans with Disabilities Act (ADA) requirements. Reasonable ~~accommodations~~ ~~accommodation~~ may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions.

Must possess mobility to work in the field; strength, stamina, and mobility to perform medium to heavy physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; frequently reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp and make repetitive hand movement in the performance of daily duties; possible entry into confined spaces and the use of confined entry equipment, to climb and descend ladders, to operate varied hand and power tools and construction equipment, and to operate a motor vehicle and visit various District sites; and vision to inspect and operate equipment. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to operate and repair tools and equipment. Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight up to 50 pounds and frequently in excess of 75 pounds to a maximum of 100 pounds, all cases with the use of proper equipment and/or assistance from other staff.

Requires the ability to get and maintain an ~~air-tight~~ ~~airtight~~ seal with Self-Contained Breathing Apparatus for confined space entry.

**ENVIRONMENTAL CONDITIONS:**

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

Works with hazardous chemicals such as ~~but~~ ~~but~~ not limited to, sodium hypochlorite, and various acids. Exposed to fumes and odors from ~~sewer~~ ~~wastewater~~ wet wells. Frequently works in confined spaces above and below ground, including wet and dry wells, storage tanks, vaults, and manholes. The incumbent works near moving mechanical parts; on slippery and uneven surfaces; and the risk of electric shock. The noise level in the work environment is frequently loud. May be required to wear a confined space entry breathing apparatus. Works at computer workstation on regular basis.



## Maintenance Technician III

### DEFINITION:

Under general supervision, performs all duties required by a Maintenance Technician I / II and includes general maintenance, calibration, repair, and programming of Supervisory Control Data Acquisition (SCADA) instrumentation equipment, such as radios, HMIs, PLCs, and process control and instrumentation equipment.

### SUPERVISION RECEIVED AND EXERCISED:

Receives immediate supervision from assigned supervisory or management staff. Exercises no direct supervision over staff.

### CLASS CHARACTERISTICS:

This is an advanced journey-level classification in the maintenance technician series. Positions at this level are distinguished from the Maintenance Technician I/II level by the performance of the full range of duties as assigned, working independently, and exercising judgment and initiative. 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. Additionally, this position will work independently and with the Lead Instrumentation and Electrical Technician and the Operation and Information Technology Manager on maintaining, repairing, and replacing of SCADA related components.

### EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only):

*Reasonable accommodation may be made, on a case-by-case basis, to enable individuals to perform the essential functions of the job.*

- Participates in the operation and maintenance of water treatment and related equipment; calibrates and repairs instruments; inspects pumps for proper operation; services pumps and pumping equipment.
- Reads meters, gauges, and charts; regulates water flows in accordance with established procedures; maintains operating logs and records.
- Monitors water quality, performs operational adjustments to the treatment system to ensure compliance with quality and regulatory requirements; adjusts and calibrates feed machinery for a variety of chemicals to keep treatment at prescribed standards.
- Performs the operation, maintenance and troubleshooting of mechanical and electrical functions of wastewater collection facilities.
- Performs a variety of skilled duties involved in the inspection, operation, diagnosis, troubleshooting, maintenance, repair and servicing of field and shop equipment, components, facilities, and machinery used in water production and distribution systems, and wastewater collection systems.
- Maintains a diverse range of mechanical equipment and appurtenances in sewage lift stations, pumping stations, and deep wells to ensure proper system operation.

- Installs and/or rebuilds existing pumps and valves at lift stations, wells, tanks, pumping plants and water process facilities; fabricates and installs piping for new pump installations which may include plumbing, pipe fitting, welding, and machine tool operations.
- Operates and maintains wastewater lift station facilities, equipment, and machinery by using manual, electronic and computer control systems.
- Tests, troubleshoots, locates, and calibrates, repairs, and performs preventive maintenance on a variety of electrical and electronic systems, components and devices used in water production and distribution. Installs, maintains, repairs, and replaces electromechanical, electronic, and electrical components of equipment and machinery; troubleshoots, aligns, and calibrates equipment; rebuilds equipment to manufacturer's specifications.
- Makes changes and program modifications to various programmable logic controllers (PLC) and their operator interface terminals; corrects defects in instrumentation.
- Troubleshoots, repairs and programs remote terminal units, including the replacement of hardware components, circuit boards, power supplies, and electronic components.
- Performs preventive maintenance and repair of plant, field and shop electrical and electronic systems, components, devices, and equipment, including hazardous chemical feed, storage systems, motors, pumps, and electrical-mechanical valves.
- Makes visits to all operating feed wells to collect metering data and ensure proper operation of oil dippers; clears well fails and performs minor troubleshooting duties as needed; samples and monitors well production.
- Collects water distribution samples and prepares reports when needed.
- Tests solid state circuitry to locate defective parts in analog and digital equipment.
- Installs conduits, wires, pull boxes, switchboards, controllers, and switches required in making additions, extensions, or alterations in industrial electrical systems.
- Inspects and oversees equipment installation work performed by contractors and District personnel.
- Operates District vehicle to travel to various facilities; follows established regulations, guidelines, policies, and procedures in the handling and transporting of hazardous materials.
- Works on a personal computer; uses software to create and maintain a variety of records and reports.
- Responds to emergency situations as necessary, including after hours.
- Observes and complies with all District and mandated safety rules, regulations, and protocols.
- Performs and/or oversees programming changes to system software; develops and maintains software and control system logic.
- Develops required inventory for replacement parts and consumables for assigned systems.
- Organizes and maintains assigned systems and technical documentation, updates as necessary.
- Researches and evaluates new developments in the field of SCADA systems.
- Performs related duties as assigned.

**MINIMUM QUALIFICATIONS:**

*Any Combination of education and/or experience that provides the required knowledge, skills, and abilities to perform the essential functions of the position. A typical combination includes:*

**EDUCATION AND EXPERIENCE:**

Maintenance Technician III – Equivalent to completion of the twelfth (12<sup>th</sup>) grade, and four (4) years of progressively responsible experience in the design, installation, maintenance and repair of electrical and electronic equipment and devices common to water production and distribution, and wastewater collection systems, or two (2) years as a District Maintenance Technician II with demonstrated ability and knowledge.

*Positions at the Maintenance Technician I level may exercise some of these knowledge and abilities statements in a learning capacity.*

**KNOWLEDGE OF:**

- Principles, methods, techniques, tools, and equipment used in the installation, maintenance (predictive, preventive, and corrective) and repair of industrial / mechanical equipment and machinery used in the operation of water distribution and production stations and facilities.
- Basic tools and equipment used in the operation and maintenance of motors, engines, pumps, and other water treatment plant equipment.
- Principles, practices, tools, equipment, and supplies used in the maintenance and repair of wastewater collection systems, including underground wastewater collection lines.
- Proper water quality sampling techniques for physical and microbiological sampling; chemical storage and dosing.
- Basic mechanical, electrical, and hydraulic principles.
- Operational and maintenance practices of electrical motors, pumps, and circuitry
- Use and operation of a diverse range of tools and equipment used in machine shops.
- Methods and techniques of configuring communication between devices such as Programmable Logic Controllers (PLC), Remote Telemetry Units (RTU), and field devices, and the tools used in installing, servicing, and repairing various electronic equipment.
- Practices, methods, techniques, tools, and equipment used in the design, installation, testing, calibration, maintenance and repair of electrical and electronic equipment devices, and components, including those utilized in process control.
- Basic construction knowledge as it related to facilities and components maintenance.
- Operating characteristics of electronic components, including programmable logic controllers, feedback devices, variable frequency drives and operator interface programs.
- Mathematical principles.
- Pertinent federal, state, and local laws, codes, and safety regulations.
- Working knowledge of computers and computer software such as word processing, spreadsheets.
- Record-keeping principles and procedures.
- District and mandated safety rules, regulations, and protocols.

- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- Industry standard communication protocols for SCADA, including telemetry and networking.
- The methods, materials, and techniques commonly used with electrical and instrumentation maintenance and repair at a novice level.
- Operational characteristics of programmable logic controllers (PLC) and Human Machine Interface (HMI) as they relate to SCADA system design and implementation.
- Network system (radios, software, and affiliated components) security measures related to SCADA.

#### ABILITY TO:

- Test, diagnose, program, modify, calibrate, and repair a wide variety of electrical and electronic instrumentation devices, motors, machinery, and equipment.
- Install, diagnose, maintain, and repair a wide variety of industrial/mechanical equipment, systems, and machinery used in the operation of water production and distribution and wastewater collection systems.
- Monitor and adjust plant processes to maintain water quality standards.
- Collect a variety of samples and conduct appropriate tests.
- Design, fabricate, replace, and repair system equipment and components.
- Use precision and diagnostic instruments in assigned areas of responsibility.
- Operate a diverse range of tools and equipment in trade areas such as electrical, pipefitting, mechanical, cranes, and rigs.
- Read and interpret plans, specifications, manuals, and blueprints.
- Use a variety of hand tools, such as pipe-threaders, taps, dies, measuring instruments, and laser alignment equipment.
- Respond effectively to emergency situations and troubleshoot such situations.
- Operate a variety of vehicles and equipment in a safe and effective manner.
- Maintain accurate records and prepare appropriate reports.
- Make accurate arithmetic computations.
- Organize your own work, set priorities, and meet critical time deadlines.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

## LICENSES AND CERTIFICATIONS:

### Maintenance Technician III

#### Required

- Possession of a valid driver's license along with a driving record acceptable to the District and the District's insurance carrier.
- Possession of a California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 1 (D1) certification.
- Possession of or the ability to obtain within (18) eighteen months from date of hire a California State Water Resources Control Board (SWRCB) Water Treatment Plant Operator Grade 2 (T2) certification.
- Possession of or the ability to obtain within (18) eighteen months from date of hire a California Water Environment Association (CWEA) Electrical / Instrumentation Technician Grade 2 (E/II).

#### Desirable

- California Water Environment Association (CWEA) Collection System Operator Grade 1 (C1) certification desirable.
- California State Water Resources Control Board (SWRCB) Water Treatment Plant Operator Grade 3 (T3) certification desirable.

Failure to obtain and maintain the required license(s)/certification(s) may result in disciplinary action up to and including dismissal from the position.

### TOOLS AND EQUIPMENT USED:

Trucks, and power tools, scientific instruments, computers, grinders, drills, air compressors, logbooks, charts, graphs, radios, VFD's and PLC.'s, telephones, cell phones, two-way radio; traffic control devices; personal computers, word processing, and other office support systems and various related hand, electronic, and/or power tools used in utility operations maintenance, data gathering, and/or record keeping.

### PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job in compliance with the Americans with Disabilities Act (ADA) requirements. Reasonable accommodation may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions.

Must possess mobility to work in the field; strength, stamina, and mobility to perform medium to heavy physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; frequently reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp and make repetitive hand movement in the performance of daily duties; possible entry into confined spaces and the use of confined entry equipment, to climb and descend ladders, to operate varied hand and power tools and construction equipment, and to operate a motor vehicle and visit various District sites; and vision to inspect and operate equipment. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to operate and repair tools and equipment.



Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight up to 50 pounds and frequently in excess of 75 pounds to a maximum of 100 pounds, all cases with the use of proper equipment and/or assistance from other staff.

Requires the ability to get and maintain an airtight seal with Self-Contained Breathing Apparatus for confined space entry.

<b>ENVIRONMENTAL CONDITIONS:</b>
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Employees work in the field and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, vermin, insects, and parasites, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

Works with hazardous chemicals such as but not limited to, sodium hypochlorite, and various acids. Exposed to fumes and odors from wastewater wet wells. Frequently works in confined spaces above and below ground, including wet and dry wells, storage tanks, vaults, and manholes. The incumbent works near moving mechanical parts; on slippery and uneven surfaces; and the risk of electric shock. The noise level in the work environment is frequently loud. May be required to wear a confined space entry breathing apparatus. Works at computer workstation on regular basis.



~~10-8-1909-16-2024~~  
FLSA: Non-Exempt

## Maintenance Technician III

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### DEFINITION:

Under the general supervision of the [Maintenance Technician Lead](#), performs all duties required by a Maintenance Technician I / II and includes general maintenance, calibration, repair, and programming of Supervisory Control Data Acquisition (SCADA) instrumentation equipment, such as radios, HMLs, PLCs, and process control and instrumentation equipment.

### SUPERVISION RECEIVED AND EXERCISED:

Receives immediate supervision from assigned supervisory or management staff. Exercises no direct supervision over staff.

### CLASS CHARACTERISTICS:

This is an advanced journey-level classification in the maintenance technician series. Positions at this level are distinguished from the Maintenance Technician I/II level by the performance of the full range of duties as assigned, working independently, and exercising judgment and initiative. 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. Additionally, this position will work independently and with the [Lead Instrumentation and Electrical Technician](#) and the [Operation and Information Technology Manager GIS and SCADA System Engineer](#) on maintaining, repairing, and replacing of SCADA related components.

### EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only):

*Reasonable accommodation may be made, on a case-by-case basis, to enable individuals to perform the essential functions of the job.*

- Participates in the operation and maintenance of water treatment and related equipment; calibrates and repairs instruments; inspects pumps for proper operation; services pumps and pumping equipment.
- Reads meters, gauges, and charts; regulates water flows in accordance with established procedures; maintains operating logs and records.
- Monitors water quality, performs operational adjustments to the treatment system to ensure compliance with quality and regulatory requirements; adjusts and calibrates feed machinery for a variety of chemicals to keep treatment at prescribed standards.
- Performs the operation, maintenance and troubleshooting of mechanical and electrical functions of [sewerwastewater](#) collection facilities.
- Performs a variety of skilled duties involved in the inspection, operation, diagnosis, troubleshooting, maintenance, repair and servicing of field and shop equipment, components, facilities, and machinery used in water production and distribution systems, and [sewerwastewater](#) collection systems.
- Maintains a diverse range of mechanical equipment and appurtenances in sewage lift stations, pumping stations, and deep wells to ensure proper system operation.

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**FLSA: Non-Exempt**

- Installs and/or rebuilds existing pumps and valves at lift stations, wells, tanks, pumping plants and water process facilities; fabricates and installs piping for new pump installations which may include plumbing, pipe fitting, welding, and machine tool operations.
- Operates and maintains [sewerwastewater](#) lift station facilities, equipment, and machinery by using manual, electronic and computer control systems.
- Tests, troubleshoots, locates, and calibrates, repairs, and performs preventive maintenance on a variety of electrical and electronic systems, components and devices used in water production and distribution. Installs, maintains, repairs, and replaces electromechanical, electronic, and electrical components of equipment and machinery; troubleshoots, aligns, and calibrates equipment; rebuilds equipment to manufacturer's specifications.
- Makes changes and program modifications to various programmable logic controllers (PLC) and their operator interface terminals; corrects defects in instrumentation.
- Troubleshoots, repairs and programs remote terminal units, including the replacement of hardware components, circuit boards, power supplies, and electronic components.
- Performs preventive maintenance and repair of plant, field and shop electrical and electronic systems, components, devices, and equipment, including hazardous chemical feed, storage systems, motors, pumps, and electrical-mechanical valves.
- [Makes daily](#) visits to all operating feed wells to collect metering data and ensure proper operation of oil dippers; clears well fails and performs minor troubleshooting duties as needed; samples and monitors well production.
- [Collects water distribution samples and prepares](#) reports [when needed](#).
- Tests solid state circuitry to locate defective parts in analog and digital equipment.
- Installs conduits, wires, pull boxes, switchboards, controllers, and switches required in making additions, extensions, or alterations in industrial electrical systems.
- Inspects and oversees equipment installation work performed by contractors and District personnel.
- Operates District vehicle to travel to various facilities; follows established regulations, guidelines, policies, and procedures in the handling and transporting of hazardous materials.
- Works on a personal computer; uses software to create and maintain a variety of records and reports.
- Responds to emergency situations as necessary, including after hours.
- Observes and complies with all District and mandated safety rules, regulations, and protocols.
- Performs and/or oversees programming changes to system software; develops and maintains software and control system logic.
- Develops required inventory for replacement parts and consumables for assigned systems.
- Organizes and maintains assigned systems and technical documentation, updates as necessary.
- Researches and evaluates new developments in the field of SCADA systems.
- Performs related duties as assigned.

**MINIMUM QUALIFICATIONS:**

*Any Combination of education and/or experience that provides the required knowledge, skills, and abilities to perform the essential functions of the position. A typical combination includes:*

**EDUCATION AND EXPERIENCE:**

Maintenance Technician III – Equivalent to completion of the twelfth (12<sup>th</sup>) grade, and four (4) years of progressively responsible experience in the design, installation, maintenance and repair of electrical and electronic equipment and devices common to water production and distribution, and sewerwastewater collection systems, or two (2) years as a District Maintenance Technician II with demonstrated ability and knowledge.

*Positions at the Maintenance Technician I level may exercise some of these knowledge and abilities statements in a learning capacity.*

**KNOWLEDGE OF:**

- Principles, methods, techniques, tools, and equipment used in the installation, maintenance (predictive, preventive, and corrective) and repair of industrial / mechanical equipment and machinery used in the operation of water distribution and production stations and facilities.
- Basic tools and equipment used in the operation and maintenance of motors, engines, pumps, and other water treatment plant equipment.
- Principles, practices, tools, equipment, and supplies used in the maintenance and repair of wastewater collection systems, including underground wastewater collection lines.
- Proper water quality sampling techniques for physical and microbiological sampling; chemical storage and dosing.
- Basic mechanical, electrical, and hydraulic principles.
- Operational and maintenance practices of electrical motors, pumps, and circuitry
- Use and operation of a diverse range of tools and equipment used in machine shops.
- Methods and techniques of configuring communication between devices such as Programmable Logic Controllers (PLC), Remote Telemetry Units (RTU), and field devices, and the tools used in installing, servicing, and repairing various electronic equipment.
- Practices, methods, techniques, tools, and equipment used in the design, installation, testing, calibration, maintenance and repair of electrical and electronic equipment devices, and components, including those utilized in process control.
- Basic construction knowledge as it related to facilities and components maintenance.
- Operating characteristics of electronic components, including programmable logic controllers, feedback devices, variable frequency drives and operator interface programs.
- Mathematical principles.
- Pertinent federal, state, and local laws, codes, and safety regulations.
- Working knowledge of computers and computer software such as word processing, spreadsheets.
- Record-keeping principles and procedures.
- District and mandated safety rules, regulations, and protocols.

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**FLSA: Non-Exempt**

- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- Industry standard communication protocols for SCADA, including telemetry and networking.
- The methods, materials, and techniques commonly used with electrical and instrumentation maintenance and repair at a novice level.
- Operational characteristics of programmable logic controllers (PLC) and Human Machine Interface (HMI) as they relate to SCADA system design and implementation.
- Network system (radios, software, and affiliated components) security measures related to SCADA.

**ABILITY TO:**

- Test, diagnose, program, modify, calibrate, and repair a wide variety of electrical and electronic instrumentation devices, motors, machinery, and equipment.
- Install, diagnose, maintain, and repair a wide variety of industrial/mechanical equipment, systems, and machinery used in the operation of water production and distribution and [sewerwastewater](#) collection systems.
- Monitor and adjust plant processes to maintain water quality standards.
- Collect a variety of samples and conduct appropriate tests.
- Design, fabricate, replace, and repair system equipment and components.
- Use precision and diagnostic instruments in assigned areas of responsibility.
- Operate a diverse range of tools and equipment in trade areas such as electrical, pipefitting, mechanical, cranes, and rigs.
- Read and interpret plans, specifications, manuals, and blueprints.
- Use a variety of hand tools, such as pipe-threaders, taps, dies, measuring instruments, and laser alignment equipment.
- Respond effectively to emergency situations and troubleshoot such situations.
- Operate a variety of vehicles and equipment in a safe and effective manner.
- Maintain accurate records and prepare appropriate reports.
- Make accurate arithmetic computations.
- Organize your own work, set priorities, and meet critical time deadlines.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

LICENSES AND CERTIFICATIONS:

Maintenance Technician III

Required

- Possession of a valid driver's license along with a driving record acceptable to the District and the District's insurance carrier.
- Possession of a California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 1 (D1) certification.
- Possession of [or the ability to obtain within \(18\) eighteen months from date of hire](#) a California State Water Resources Control Board (SWRCB) Water Treatment Plant Operator Grade 2 (T2) certification.
- Possession of [or the ability to obtain within \(18\) eighteen months from date of hire](#) a California Water Environment Association (CWEA) Electrical / Instrumentation Technician Grade 2 (E/II).

Desirable

- California Water Environment Association (CWEA) Collection System Operator Grade 1 (C1) certification desirable.
- California State Water Resources Control Board (SWRCB) Water Treatment Plant Operator Grade 3 (T3) certification desirable.

Failure to obtain and maintain the required license(s)/certification(s) may result in disciplinary action up to and including dismissal from the position.

**TOOLS AND EQUIPMENT USED:**

Trucks, and power tools, scientific instruments, computers, grinders, drills, air compressors, logbooks, charts, graphs, radios, VFD's and PLC.'s, telephones, cell phones, two-way radio; traffic control devices; personal computers, word processing, and other office support systems and various related hand, electronic, and/or power tools used in utility operations maintenance, data gathering, and/or record keeping.

**PHYSICAL DEMANDS:**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job in compliance with the Americans with Disabilities Act (ADA) requirements. Reasonable accommodation may be made, on a case-by-case basis, to enable individuals with disabilities to perform the essential functions.

Must possess mobility to work in the field; strength, stamina, and mobility to perform medium to heavy physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; frequently reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp and make repetitive hand movement in the performance of daily duties; possible entry into confined spaces and the use of confined entry equipment, to climb and descend ladders, to operate varied hand and power tools and construction equipment, and to operate a motor vehicle and visit various District sites; and vision to inspect and operate equipment. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to operate and repair tools and equipment.

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**FLSA: Non-Exempt**

Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight up to 50 pounds and frequently in excess of 75 pounds to a maximum of 100 pounds, all cases with the use of proper equipment and/or assistance from other staff.

Requires the ability to get and maintain an airtight seal with Self-Contained Breathing Apparatus for confined space entry.

**ENVIRONMENTAL CONDITIONS:**

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

Works with hazardous chemicals such as but not limited to, sodium hypochlorite, and various acids. Exposed to fumes and odors from [sewerwastewater](#) wet wells. Frequently works in confined spaces above and below ground, including wet and dry wells, storage tanks, vaults, and manholes. The incumbent works near moving mechanical parts; on slippery and uneven surfaces; and the risk of electric shock. The noise level in the work environment is frequently loud. May be required to wear a confined space entry breathing apparatus. Works at computer workstation on regular basis.

North Tahoe Public Utility District	
Incentive Certification Program	
Classifications	
Lead Maintenance Technician	
Lead Instrumentation and Electrical (I&E) Technician	
Lead Mechanical Technician	
Maintenance Technician I/II/III	
Description	Incentive
S.W.R.C.B. Water Distribution Operator Grade 2	1.50%
S.W.R.C.B. Water Distribution Operator Grade 3	2.50%
S.W.R.C.B. Water Treatment Facility Operator Grade 2 (a)	2.50%
S.W.R.C.B. Water Treatment Facility Operator Grade 3	3.50%
C.W.E.A. Collection System Maintenance Grade 1 (b) (c)	1%
C.W.E.A. Collection System Maintenance Grade 2	2.50%
C.W.E.A. Collection System Maintenance Grade 3	3.50%
C.W.E.A. Collection System Maintenance Grade 4 (d)	4.50%
<del>C.W.E.A. Plaintiff Maintenance Grade 1</del>	<del>1%</del>
<del>C.W.E.A. Plaintiff Maintenance Grade 4 (c)</del>	<del>4.50%</del>
C.W.E.A. Mechanical Technologist Grade 2 (e)	2.50%
C.W.E.A. Mechanical Technologist Grade 3	3.50%
C.W.E.A. Mechanical Technologist Grade 4 (d)	4.50%
C.W.E.A. Electrical/Instrumentation Grade 2 (f)	2.50%
C.W.E.A. Electrical/Instrumentation Grade 3	3.50%
C.W.E.A. Electrical/Instrumentation Grade 4 (d)	4.50%
Specialized Individual Welding Certification	1%
Basic Welding Certification	1.50%
CA Certified General Electrician	3%
CA or NV Commercial Driver's License, Class B	2.50%
CA or NV Commercial Driver's License, Class A	5%
Bilingual Incentive: Speaking - requires passing test through a contracted professional initially and every three (3) years thereafter.	1%
Bilingual Incentive: Writing - requires passing test through a contracted professional initially and every three (3) years thereafter.	1%
College Accredited Courses, Classroom or Online:	1.50%
Successful completion of 3 Unit course or approved certification at an accredited college or university in job-related subject. Each course requires prior approval and must be completed on employee's time or during approved leave under Section 1.22.B of this MOU, at employee's expense. Upon successful completion, costs of exam, registration fee, and course materials will be reimbursed to the EMPLOYEE.	
North Lake Tahoe-Truckee Leadership Program	1.50%
(a) <del>(d)</del> Grade 2 Shall be limited to Technician I/II	
(b) <del>(a)</del> Grade 1 shall be granted a 1% incentive bonus if a written test was required for certification.	
(c) <del>(b)</del> Grade 1 shall be limited to Maintenance Technician I.	
(d) <del>(c)</del> Grade 4 Certification incentive shall be limited to Lead <del>Maintenance</del> I&E and Mechanical Technicians	
(e) Grade 2 Certification not available to Lead Mechanical Technician	
(f) Grade 2 Certification not available to Lead I&E Technician and Maintenance Technician III	