



## Water Operations Analyst I/II

### DEFINITION

Under general supervision (Water Operations Analyst I) or direction (Water Operations Analyst II), performs a variety of technical analyses and administrative tasks required for operation and maintenance of water supply, conveyance, treatment and distribution facilities, water supply planning, replenishment, and management; coordinates water supply management activities with other staff within ACWD and with outside agencies; and performs related work as required.

### DISTINGUISHING CHARACTERISTICS

**Water Operations Analyst I** is the entry-level class in the Water Operations Analyst series. Under close to general supervision, within a framework of established policies and procedures, incumbents perform less complex technical and administrative tasks, covering the entire field of water supply operations and other related technical disciplines. A basic knowledge of hydrology and water supply fundamentals is required. As experience and proficiency are gained, assignments become more varied and complex, and the level of independent action increases within established guidelines. Assignments are given in general terms and are subject to review upon completion by the assigned Supervisor. There is limited latitude for independent judgment and action in well-defined areas of work.

This classification is distinguished from the Water Operations Analyst II, in that the latter is the experienced, journey-level classification and performs the full range of work assignments and tasks. The Water Operations Analyst I and II classifications are flexibly staffed. Upon recommendation of the immediate supervisor and approval by the department manager, incumbents in this class may advance to the Water Operations Analyst II classification after two (2) years at the first level and with demonstrated proficiency to meet the job requirements of the Water Operations Analyst II classification.

**Water Operations Analyst II** is the experienced, journey-level class in the Water Operations Analyst series. Under direction, within a framework of established policies and procedures, incumbents perform the full range of technical and administrative tasks, covering the entire field of water supply operations and other related technical disciplines. A general knowledge of hydrology and water supply fundamentals is required. Assignments are given in general terms and are subject to review upon completion by the assigned Supervisor. There is significant latitude for independent judgment and action in well-defined areas of work.

### TYPICAL DUTIES

#### TYPICAL EXAMPLES OF DUTIES MAY INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

- Develops and maintains hydrologic databases and develops hydrologic models.
- Assists in preparation, review, and assessment of field reports and other monitoring data to determine impacts of upstream activities on watershed lands and, where applicable, verifies these activities are in compliance with permitted conditions protective of the

District's water supply operations.

- Analyzes data and prepares a variety of routine and special reports; prepares charts, maps, graphs, and flow diagrams in support of such reports; prepares data input and develops programs for computer processing and analysis of various data concerning water supply and use.
- Represents the District at various water-related meetings; coordinates project activities with internal departments and outside agencies and organizations; provides information and assistance to outside agencies on water supply and water quality issues.
- Reviews and coordinates with appropriate personnel the implementation of federal, state, and local laws and regulations pertaining to water quality and reclamation projects.
- Reviews proposed regulations for impacts on the District's water and reclamation operations; recommends changes in programs and operations to comply with new regulatory requirements; provides advice and technical assistance to District officials/staff regarding water and reclamation treatment processes.
- Performs data collection, interpretation, econometric and trend forecasting, regression, and other technical analysis and research in support of water resources planning, water supply development, environmental planning, and water management programs.
- Operates and maintains hydrologic and operational models to assist in planning system operations, optimizing water supply management, and anticipating impacts of proposed system configurations and construction projects.
- Works in concert with the Water Supply Supervisor and the Emergency and Security Services Supervisor to coordinate appropriate responses to hazardous materials spills in the watershed and ensure protection of surface water quality.
- Collects, analyzes and evaluates data on the effects of water diversions, pollutant discharges, water and land use development patterns and other environmental issues.
- Performs other related work as required.

## **REQUIREMENTS**

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

### **Education and Experience:**

Possession of a Baccalaureate degree from an accredited college or university with a major in civil engineering, hydrology, environmental science, or a related field; and

**Water Operations Analyst I:** No previous work experience.

**Water Operations Analyst II:** Two (2) years of full-time hydrology, civil engineering, or related experience, which includes one (1) year of responsibility for monitoring and addressing water

quality and/or water supply issues.

**Knowledge, Skills, and Abilities:**

Knowledge of: principles, procedures, standards, practices, trends, and information sources in the field of water resources; hydrology fundamentals, including collecting, analyzing, processing, maintaining, and interpreting hydrologic data; the methods and techniques associated with collecting, measuring, and testing hydrographic and meteorological data as applied to water supply and use; engineering terminology and concepts relative to water supply and water resources management; principles and practices of groundwater and surface water resources management programs; terminology, symbols, and techniques used in water resources planning; civil, mechanical, and structural engineering principles and practices; hydraulic principles; the operation of pumps, motors, and other mechanical devices; techniques and procedures of engineering project management; contract administration principles; modern approaches to watershed management; federal and state laws and regulations relating to hazardous spills response, watershed management and groundwater recharge; basic water chemistry; OSHA regulations and safe work practices; modern office practices, methods, and computer equipment and applications related to the work, including word processing, database, and spreadsheet software.

Skill and Ability to: review and interpret engineering, topographic, hydrographic, hydrologic, and groundwater maps, charts, graphs, and tables; analyze and evaluate technical and statistical data and to reach sound conclusions; represent District interests effectively with other federal, state, and local agencies; coordinate and manage assigned projects; conduct studies, evaluate data, and form accurate conclusions; prepare clear, concise and accurate reports including developing associated charts, graphs, tables, forms, and other documentation; exercise sound, independent judgment and initiative within established guidelines; develop sound decisions and recommendations; apply engineering and/or scientific principles and techniques to the solution of technical problems; read land surveys and legal property descriptions; understand and interpret water supply contract provisions; operate modern office equipment including computer equipment and specialized software applications programs; communicate clearly and concisely, both orally and in writing; establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

**Additional Requirements:**

- Must possess a valid California driver's license and have a satisfactory driving record.
- Position may be required to be on call 24 hours a day and be required to work unusual or long hours, weekends, and holidays.

**Working Conditions/Physical Requirements:**

On a routine basis, must be able to monitor weather reports and local hydrological conditions outside of normal business hours and lead and/or direct water control activities as needed. On a routine basis, sit at a desk for periods of time in front of a computer screen; intermittently twist to reach equipment or supplies surrounding desk; perform simple grasping and fine manipulation; use telephone and computer keyboard on a daily basis; intermittently work out of doors under varying climatic conditions on irregular terrain; climb ladders; and lift access lids at groundwater recharge facilities. Must be able to lift, push or pull up to 20 lbs. frequently and occasionally up to 55 lbs. Must have a good field of vision and ability to distinguish basic colors. Must be able to work weekends, holidays, and off-hours as necessary. Incumbents must be able to perform the

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able to perform the essential functions of the job including the ability to sit for extended periods of time; to reach above and below shoulder height; hear, speak, and see sufficiently to perform essential job functions; periodically drive vehicle on paved as well as dirt roadways to conduct inspections.

The essential functions of these classifications require driving due to the need for frequent travel to water treatment plants, pump stations, reservoirs, field sites, meetings, and/or other agency facilities; transportation of time-sensitive/confidential materials, equipment, or water samples; and/or the ability to respond to emergencies, and service disruptions. Alternative transportation is not suitable due to security concerns, logistical challenges, and critical response time requirements.

Revised: 03/2025

Approved:   
Human Resources/Risk Manager