



Title: Associate Engineer (SCADA)

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Work Location: Los Angeles, California,

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## Description

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The Metropolitan Water District of Southern California is a consortium of twenty six cities and water districts that provides drinking water to nearly 19 million people in Southern California. Metropolitan's mission is to provide its service area with adequate and reliable supplies of high quality water to meet current and future needs in an environmentally and economically responsible way. Metropolitan's facilities include the 242-mile Colorado River Aqueduct; five conventional water treatment plants with a combined capacity of 2.6 billion gallons per day; nine surface water reservoirs; 800 miles of pipeline, ranging up to nearly 20 feet in diameter; 16 hydroelectric power plants; and numerous support facilities.

### ASSOCIATE ENGINEER (SCADA)

Metropolitan's Control System Applications Services Team within the Water Systems Operations Group has one (1) opening for an Associate Engineer available at its Headquarters in Los Angeles, California.

### SUMMARY

In the position of Associate Engineer, you will be responsible for day-to-day SCADA system operations support and Engineering capital project support. You will also support Capital Investment Projects to upgrade Metropolitan's SCADA infrastructure including control system software, communications, remote terminal units (RTUs), programmable logic controllers, and servers.

You will also have the responsibilities to configure, implement and support new SCADA RTUs, PLCs, network routers and switches, servers and perform HMI screen development; perform investigations on water system process control problems and recommend solutions to process equipment issues; perform investigations and prepare reports in regard to automatic process control applications (APC) operation and related issues.

This position requires diagnostic knowledge to troubleshoot SCADA software / hardware within specialized areas of SCADA including; client/server applications, local area networks, wide area networks, database systems, server hardware and software, remote terminal unit (RTU) and

programmable logic controller (PLC) hardware / software, field instrumentation, and Linux and Windows operating systems.

Additional responsibilities include the design, implementation and support of Automated Process Control (APC) and Programmable Logic Controller (PLC) applications for control and monitoring of Metropolitan's filtration plants, conveyance and distribution system.

Qualified candidates will possess a high-level of competence in Control Systems applications, real-time programming, and Control System Engineering practices and standards.

## JOB DUTIES

### GENERAL

1. Performs and may lead the planning, coordinating, conducting, and monitoring tests, studies, investigations.
2. May represent Metropolitan within area of responsibility with external entities.
3. Prepares technical documents and reports; prepares and may make presentations.
4. Assists with Developing and administering contracts and agreements; reviews the work of vendors, consultants and contractors.
5. Plans and coordinates project tasks within area of responsibility, including monitoring scope, quality, budget, and schedule.
6. Provides technical expertise within area of responsibility on projects and issues.
7. Assists on special assignments in support of Metropolitan initiatives.
8. Performs technical analyses and provides recommendations to support planning, design, construction, infrastructure reliability and/or operational issues.
9. Prepares and reviews design criteria, plans, specifications, submittals, cost estimates, and budgets.
10. Assists with developing standards, procedures, guidelines, and manuals.
11. May execute mathematical, statistical, and other models.
12. Performs site and construction inspections.
13. May perform emergency response duties.
14. Maintains official records, documents, and data.
15. May participate on a project team.
16. Performs other related Engineer job duties as required.

### SCADA

1. Performs factory acceptance testing and systems start-up.
2. Prepares Automatic Process Control and Programmable Logic Controller software design and operational documents.
3. Develops Automatic Process Control and Programmable Logic Controller program and simulation routines.
4. Provides SCADA system customer and infrastructure support, troubleshooting, and problem solving.
5. Plans, develops, and integrates SCADA hardware and software, configuration updates, and graphics changes.

## Required Skills

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### MINIMUM QUALIFICATIONS

Education and Experience: Bachelor's degree from an accredited college or university in a related field and four years of relevant experience, of which two years must have been at the Assistant Engineer II level; OR a Master's degree from an accredited college or university in a related field

and two years of relevant experience which must have been at the Assistant Engineer II level.

Relevant experience is defined as experience in SCADA, Control Systems, Linux and Windows Operating systems, RTUs, PLCs, Networking, Oracle SQL, Instrumentation, C/ C++, AND Function Block or Ladder Logic programming.

A Degree in a related field is defined as Electrical Engineering, Computer Engineering, Computer Science or another directly related degree.

General Required Knowledge of: Engineering principles, practices and applications in specific discipline; project schedules and budgets; applicable federal, state and local laws, codes and regulations related to area of responsibility; and current office technology and equipment.

General Required Skills and Abilities to: Analyze and interpret data; organize; project scheduling software; prepare technical reports and correspondence; use independent judgment and exercise discretion; problem solve; prioritize and multi-task; communicate clearly and concisely, both verbally and in writing; establish and maintain effective working relationships with those contacted in the course of work; work independently and in a team environment; and operate current office equipment including computers and supporting applications.

#### CERTIFICATIONS, LICENSES, AND REGISTRATION REQUIREMENTS

Required at the time of application:

- Engineer in Training (EIT)
- Valid California Class C Driver License that allows you to drive in the course of your employment

#### PHYSICAL DEMANDS, WORK ENVIRONMENT, AND VISION REQUIREMENTS

The physical demands and work environment characteristics described here are representative of those that must be met or may be encountered by an employee to successfully perform the job duties of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the job duties.

**Physical Demands:** The work requires some physical exertion such as long periods of standing; walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, or similar activities; recurring lifting of moderately heavy items such as personal computers and record boxes. The work may require specific, but common, physical characteristics and abilities such as above-average agility and dexterity.

**Work Environment:** The work involves moderate risks or discomforts that require special safety precautions, e.g., working around moving parts, carts, or machines, or irritant chemicals; etc. Employees may be required to use protective clothing or gear such as masks, gowns, coats, boots, goggles, gloves, or shields.

**Work Schedule:** 9/80 (Alternating Fridays off) Employees in this position may be required to work off-shift hours and/or rotating stand-by service to address operational needs and emergencies as required.

**Job Related Selection Criteria:**

- 40% Technical Skills and Knowledge:
  - o SCADA system hardware/software and troubleshooting
  - o Oracle database configuration and administration
  - o SCADA LAN/WAN network design, deployment and troubleshooting
  - o Proficient with MS Office (Word, Excel, and PowerPoint)
  - o Proficient with Windows 7 and Linux Operating Systems
  - o OSIsoft PI configuration, administration and report development

- o Developing and troubleshooting PLC and C/C++ process control applications
  - o Developing SCADA and PLC control graphics and supporting databases
  - o Communications devices such as Modems, Radios, Routers, Switches and Firewalls
  - o Communications protocols such as OPC, DNP3, TCP/IP, MODBUS, PROFIBUS, ControlNet, DeviceNet, EtherNet/IP and CIP
  - 20% Job Preparation (education, experience & training relevant to the position)
  - 20% Analytical Skills
  - 10% Written Communication Skills
  - 10% Oral Communication Skills
- 100% Total

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## Benefits

### Benefits:

- Competitive compensation
- Excellent medical, dental, life, vision
- Retirement plans, including pension plan and 401k
- Tuition reimbursement
- Training and advancement opportunities
- Excellent working environment
- Public transportation reimbursements and van pools
- On-site fitness center
- Hub of public transportation: Rail, subway, buses and taxis

For more information on MWD benefits, please use the following link:  
[http://www.mwdh2o.com/PDF\\_Careers/benefits.pdf](http://www.mwdh2o.com/PDF_Careers/benefits.pdf)

This job announcement has been designed to indicate the general nature and level of work being performed by employees in this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities and qualifications required of employees assigned to this job. To receive a copy of the complete job description, please send an email to [jobs@mwdh2o.com](mailto:jobs@mwdh2o.com).

The Metropolitan Water District of Southern California is committed to providing reasonable accommodations to qualified individuals with disabilities. Qualified individuals with disabilities who need a reasonable accommodation during the application or selection process, please call (213) 217-7738 or email [jobs@mwdh2o.com](mailto:jobs@mwdh2o.com).

MWD is a Federal and State EO employer - Veterans/Disabled and other protected categories.

**Kind:** Full Time

**Level:** Professional

## Apply

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To apply for this position, please copy and paste the following link into your browser address bar:  
<https://mwdh2o.contacthr.com/59408494>



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