



THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

## WATER RESOURCE MANAGEMENT PRINCIPAL ENGINEER

<b>Group-Section:</b> Water Resource Management Group - Resource Implementation Section	<b>FLSA Status:</b> Exempt <b>Bargaining Unit:</b> MAPA	<b>Salary Grade:</b> 064 <b>Job #:</b> 115
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### JOB SUMMARY

Responsible for the management of multiple complex water resource projects. Areas of responsibility include identification, development, and management of water transfer, exchange, storage, conservation, quality, and development projects to increase the availability of water or improve the quality of water; providing technical engineering support for water use and civil engineering issues; negotiating agreements to secure water rights, transfers, exchanges, and storage; protecting water and contract rights; coordinating activities; and leading project teams.

A project is an endeavor that has a fixed start and end date although the length is typically several years. A project may have a specific project budget or financial scope and impact, milestones to track status and completion, and there are multiple steps required for completion. Some projects, such as operation of the State Water Project are continuous. A project normally involves an internal team from multiple disciplines and external parties and involves negotiation and consensus building as part of the planning and development process.

### OVERSIGHT

**Supervision Received:** Receives direction from the Team, Unit, Section, or Group Manager.

**Supervision Given:** May exercise technical and/or functional direction over assigned staff.

### JOB DUTIES

1. Identifies potential water transfer, exchange, storage, conservation, contaminant control, and development projects; designs and reviews plans for civil engineering projects to accomplish project goals; and inspects construction projects and approves payments.
2. Determines policy implications and assists program and unit managers to develop policy principles for Board consideration.
3. Manages complex and high value projects; scopes and formulates projects or studies and develops implementation strategy based on board policies; identifies the necessary staff and resources to accomplish the intended outcome of a project; organizes the work assignments; assigns activities; reviews and provides input on the standards of performance; and performs complex professional project management work as a member of a project team.
4. Performs project management and project control including project work plan, progress, cost forecasting, variances, change management, scheduling, and close-out procedures and project summary reports; maintains schedules and informs management of potential scheduling conflicts; secures permits and regulatory approvals; and prepares and reviews scope, task, schedules, budgets, and resources.

5. Negotiates agreements for water transfer, exchange, and storage and for conservation projects; performs technical analysis, feasibility studies, and economic analysis to determine relative value of projects, document water conservation savings, impact on water quality, and other factors affecting feasibility and value of projects.
6. Provides technical and scientific support on agricultural engineering, civil engineering, and other water resource issues to attorneys, program managers, and others representing Metropolitan interest in litigation, negotiations, or other proceedings; represents Metropolitan in negotiations, hearings, and other proceedings; represents Metropolitan as policy level member of committees and work teams. Conducts and assesses complex technological applications and approaches.
7. Administers contracts and agreements; recommends implementation of or exercise of options to increase raw water delivery or improve water quality; assumes administrative responsibility for salinity control, fishery preservation, habitat restoration, and conservation projects; recommends and administers policies and procedures; and develops and recommends goals, objectives, policies, procedures, and quality assurance standards for the projects.
8. Conducts research related to the projects to determine impact of decisions; prepares findings and develops recommendations in support of goals and objectives; monitors and evaluates the efficiency and effectiveness of project administration, service delivery methods, and procedures; and allocates resources accordingly.
9. Participates in the development and administration of the project budget; and forecasts funds needed, approves expenditures, and implements budgetary adjustments as appropriate and necessary.
10. Prepares and presents reports on project status to the Board, management staff, other departments, outside agencies, and the public.
11. Prepares, reviews, and controls project schedules, activities, and operations; prepares and distributes correspondence as related to project operations; leads and participates in project team assignments; and ensures accuracy and efficiency of work performed.
12. Initiates specified correspondence independently for signature by appropriate project management staff; reviews finished materials for completeness, accuracy, format, and compliance with project quality standards and procedures.
13. Performs other related duties as required.

## **EMPLOYMENT STANDARDS**

### **MINIMUM QUALIFICATIONS**

**Education and Experience:** Bachelor's degree from an accredited college or university and ten years of increasingly responsible experience, of which two years must have been at the Senior Engineer level.

**Required Knowledge of:** Civil engineering; environmental planning, documentation, and mitigation; water system operations; water resource engineering; cost and benefit analysis; statistical analysis; risk management; team building; budgetary concepts and procedures; relevant federal, state, and local laws; negotiation techniques; project management; and contract administration.

**Required Skills and Abilities to:** Manage projects with a diverse work force; plan, organize, and review the work of project team; manage productivity and efficiency; review work products for quality and adherence to guidelines; encourage and facilitate cooperation; exercise judgment and discretion; interpret and analyze results; communicate orally and in writing on administrative and technical topics; represent Metropolitan to public agencies, businesses, regulatory bodies, special interest groups, and members of the public; represent Metropolitan in negotiations or development of joint projects with external organizations; establish and maintain collaborative working relationships with all levels within the organization, other agencies, regulatory agencies, special interest groups, and the public; use business applications such as word processing and spreadsheets, databases, presentations, and scientific applications; and presentations for executive management, Board of Directors, member agencies, regulatory agencies, and funding sources.

### **CERTIFICATES, LICENSES, AND REGISTRATIONS REQUIREMENTS**

#### **Certificates**

- None

#### **Licenses**

- Valid California Class C Driver License
- License in good standing as a California Professional Engineer

#### **Registrations**

- None

**DESIRABLE QUALIFICATIONS**

May require knowledge skill, or ability in: planning, design, and construction management; principles and practices in water supply; demand forecasting, analysis, and submittal of water order requests; water rights protection and issue resolution; runoff and supply forecasting; treatment and distribution engineering; waste discharge and drinking water quality permitting; electrical energy procurement, administration, and licensing; aqueduct equipment maintenance and rehabilitation; manage water resource and exchange projects; team building; budgetary concepts and procedures; relevant federal, state, and local laws; trends and emerging technologies in water resource; public speaking; hydraulics; surface and groundwater hydrology; diplomacy; project management concepts and techniques; water quality impacts and solutions, environmental issues, and project mitigation; and agricultural, commercial, and residential water use.

**PHYSICAL DEMANDS/WORK ENVIRONMENT**

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 essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Physical Demands:** The work is sedentary. Typically, the employee may sit comfortably to do the work. However, there may be some walking; standing; bending; carrying of light items such as paper, books, or small parts; driving an automobile, etc. No special physical demands are required to perform the work.

**Work Environment:** The work environment involves everyday risks or discomforts that require normal safety precautions typical of such places as offices, meeting and training rooms, libraries, and residences or commercial vehicles, e.g., use of safe work practices with office equipment, avoidance of trips and falls, observance of fire regulations and traffic signals, etc. The work area is adequately lighted, heated, and ventilated. May travel to various sites requiring overnight stay.

**Vision Requirements:** No special vision requirements