

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

ASSISTANT WATER RESOURCES ENGINEER

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

DEFINITION

Under supervisory direction of a Professional Engineer, the incumbent performs engineering duties relating to watershed management, water supply projects, and hydrologic analysis; to assist with implementation of major engineering and environmental management programs to restore and enhance Carmel River streamside resources; and to perform a variety of technical tasks relative to assigned area of responsibility.

DISTINGUISHING CHARACTERISTICS

This is the experienced level class within the Engineer series. Incumbents in this class work under general supervision and may be assigned specific projects with minimal supervision. Employees at this level are expected to understand basic principles and theories, laws and regulations. Incumbents may solicit and administer grants, serve as a District representative on construction projects, prepare plans, specifications, and estimates and work with other professional and technical staff on multi-divisional projects. This position is distinguished from the Water Resources Engineer by the latter position's management responsibility for more complex projects involving multiple agencies and parties, and representation of District interests in agency and public meetings.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from the Water Resources Engineer, Senior Water Resources Engineer, or Planning and Engineering Manager/District Engineer; coordinates activities of other District staff, consultants, and contract employees on special projects.

ESSENTIAL AND MARGINAL FUNCTION STATEMENTS

The following duties are typical for positions in this classification. Any single position may not perform all of these duties and/or may perform similar related duties not listed here:

Essential Functions:

1. Participate in the Integrated Regional Water Management Plan (IRWMP), a comprehensive planning effort, involving multiple stakeholders, to document and manage water resources in the Carmel River watershed, Seaside Groundwater Basin, and Monterey Peninsula area. Assist senior staff to implement the IRWMP.
2. Assist with review of consultant work to provide river stabilization and maintenance services for the Carmel River.
3. Conduct preliminary assessments of Carmel River streambank areas regarding stream bank stabilization and repair and confer with a supervising engineer; conduct field and office engineering studies related to the planning, design, and modification of stream bank stabilization and repair, confer with other District staff and consultants to coordinate projects and activities; provide assistance with obtaining authorizations and permits from Federal, State, and local regulatory agencies; prepare plans, specifications, cost and quantity estimates; maintain accurate records, and prepare periodic and special reports.
4. Participate in construction field activities including mark and layout field work locations; coordinate with the supervising engineer to interpret plans and resolve problems during construction; review

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compliance with permit conditions; perform long-term monitoring including photo documentation, surveys, and prepare periodic reports.

5. Assist the Riparian Projects Coordinator in planning and implementing riparian planting projects and irrigation systems.
6. Review applications for District River Work permits and work with the Riparian Projects Coordinator to make recommendations to the Planning & Engineering Manager regarding conformance to District standards; inspect authorized work; make recommendations to permittee and/or the Planning and Engineering Manager regarding conformance with river work permits.
7. Gather and interpret hydrologic data including photos, cross-sections, profiles and sediment transport.
8. Inspect the Carmel River with the Riparian Projects Coordinator to identify and document erosion hazards, riparian ordinance violations, and opportunities for enhancement; make recommendations to the Planning and Engineering Manager regarding appropriate corrective projects and actions.
9. Assist in the preparation of the following documents: requests for proposals and calls for bids; contract plans and specifications; participate in the review of contractor work activities.
10. Maintain constant awareness of progress on assigned projects to ensure compliance with designated time and cost schedules for project completion.
11. Inspect construction projects; document onsite conditions; represent the District on site; provide reports and recommendations to senior staff as required to complete project construction.
12. Provide cost estimate information as required for project budgets.
13. Review project needs with appropriate management staff; allocate resources accordingly.
14. Coordinate and manage the District's Water Distribution System Permit program.
15. May represent the District with senior staff at governmental and regulatory agency meetings, professional and community groups and others; answer questions and provide information to the public; investigate complaints and recommend corrective actions as necessary to resolve complaints.
16. Perform related duties and responsibilities as required.

QUALIFICATIONS

Knowledge of:

Civil engineering principles and practices related to one or more of the following:

Watershed management
Hydrology and Meteorology
Open channel hydraulics, river mechanics, or fluvial geomorphology.
Fluid dynamics as applied to water supply pipelines and pumps
Engineering economics
Construction management
Engineering surveying

Terminology, methods, practices, and techniques used in technical civil engineering report

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preparation.

Principles of mathematics and physics as applied to engineering work.

Recent developments, current literature, and sources of information regarding civil engineering of stream and river restoration projects, construction of new and recycled water supply projects, and projects to enhance anadromous fisheries.

Modern office procedures, methods, and computer software and hardware as related to the solution of engineering problems.

Pertinent federal, state, and local laws, codes, and regulations governing civil engineering, construction, and water quality including Section 401 and 404 of the federal Clean Water Act, the federal and state Endangered Species Acts, the California Environmental Quality Act, the California Department of Fish and Wildlife Code, and Monterey County Ordinances.

Ability to:

Work with technical staff and consultants.

Assist in managing complex engineering projects.

Ensure project compliance with appropriate federal, state, and local rules, laws, and regulations.

Prepare progress reports.

Analyze problems, identify alternative solutions, and coordinate with senior management to project consequences of proposed actions.

Conduct engineering studies and develop appropriate recommendations.

Perform technical research and solve difficult engineering problems.

Prepare and maintain technical civil engineering records and prepare reports.

Compile rough technical data and prepare statistical and narrative reports from field studies.

Under direction, develop civil engineering plans, designs, and specifications.

Identify threatened and endangered species in the field.

Understand pertinent sections of the federal and state Endangered Species Acts.

Incorporate measures to protect threatened species into project designs and project maintenance.

Use sophisticated word processing, spreadsheet, modeling, and graphical design programs.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

Maintain physical condition appropriate to the performance of assigned duties and responsibilities.

Experience and Training Guidelines — *Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

Experience

Two years of experience working with other Civil Engineering professionals.

Training

Equivalent to a Bachelor's degree from an accredited college or university with major course work in civil engineering or closely related field.

License or Certificate:

Possession of or ability to obtain a valid certificate of registration as an Engineer -in-Training in the State of California within 18 months of appointment.

Possession of, or the ability to obtain, an appropriate, valid driver's license.

WORKING CONDITIONS

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to

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perform the essential job functions.

Environmental Conditions:

Office and field environment; travel from site to site; exposure to atmospheric conditions; work around moving water; work with computers.

Physical Conditions:

Essential functions may require maintaining physical condition necessary for sitting, standing and walking for prolonged periods of time in and around river beds; operating motorized vehicles.

Vision:

See in the normal visual range with or without correction; vision sufficient to read small print, computer screens and other printed documents.

Hearing:

Hear in the normal audio range with or without correction.

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