

# PADRE DAM MUNICIPAL WATER DISTRICT CLASS SPECIFICATION

## CLASS TITLE: Engineer

<b>DEPARTMENT:</b> Engineering	<b>ACCOUNTABLE TO:</b> Engineering Manager	<b>FLSA STATUS:</b> Non-Exempt (Range 29) Exempt (Ranges 33, 36)
<b>SALARY RANGE:</b>	<b>29, 33, 36</b>	

**CLASS SUMMARY:** This is a wide classification that includes the full spectrum of range of duties from entry-level, non-registered duties such as skilled design, drafting and plan check activities for public and private development capital projects to experienced, registered civil engineering duties such as designing, planning and providing project management for engineering related activities. Duties may include, depending on qualifications, registration and assignments: performing plan checks on improvement projects; planning out and design of water, sewer and recycled water pipelines, pump stations and water reservoirs; designing and checking recycled water pipelines and landscape irrigation plans for conformance with standards; performing field review of proposed projects, preparing project estimates; meeting with customers, developers and engineers regarding the design of their projects; researching and maintaining planning data; providing construction management; assisting in the preparation and administration of the capital improvement budget and cost center budgets; performing engineering analysis, design and design calculations for materials and structural integrity; determining specifications; preparing proposed cost estimates; planning analysis and coordinating with other Padre Dam departments; administering contracts with contractors and consultants; providing project management to include determining scope of project, design criteria and resources required to complete the project; planning and analyzing future projects; and, providing direction, mentoring, training and project lead for support staff.

**DISTINGUISHING CHARACTERISTICS:** The Engineer is the third level of a four level engineering series. The Engineer is distinguished from the Engineering Technician which does not require a Bachelor’s Degree or have lead or supervisory responsibility over other staff. The Engineer is further distinguished from the Engineering Manager in that the Engineering Supervisor has full supervisory authority over Engineers and is responsible for multiple departmental functional groups.

<b>DUTY NO.</b>	<b>ESSENTIAL DUTIES:</b> (These duties are a representative sample; position assignments may vary based on qualifications, experience and registration.)
1.	Performs a variety of professional engineering activities including design layout of water, sewer and recycled water pipelines, pump stations and water reservoirs utilizing industry standard guidelines.
2.	Performs review and plan checks of projects in order to verify accuracy, completeness and conformance to specifications and standards of Padre Dam and State and Regional regulatory agencies.
3.	Acts in project management capacity for completion of Padre Dam projects in coordination with design consultants and contractors.

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DUTY NO.	ESSENTIAL DUTIES: (These duties are a representative sample; position assignments may vary based on qualifications, experience and registration.)
4.	Acts in construction management capacity for completion of Padre Dam projects during construction including monitoring, documentation and verification of compliance with construction documents; coordination with contractors, consultants, Padre Dam staff and other agencies for completion of work and preparing construction change orders and design modifications.
5.	Meets and coordinates with other Padre Dam departments, customers, developers, engineers, City, County and regulatory agency representatives regarding planning, design and coordination of projects/phases.
6.	Provides direction to support staff to include: assigning and monitoring work, mentoring, training and providing feedback.
7.	Oversees preparation of plans, specifications and cost estimates for Padre Dam projects and facilities and verifies conformance to all standard practices and regulations.
8.	Assists in the preparation and administration of the capital improvement budget and cost center budget by estimating costs, determining staffing requirements and prioritizing projects.
9.	Researches and performs statistical analysis of planning data including demographics, land use, water and sewer system demands, and computer modeling.
10.	Performs engineering analysis and design requiring material selection, sophisticated calculations, and statistical variations.
11.	Performs other duties of a similar nature or level.

**Knowledge** (position requirements at entry, depending upon assigned position):

- Engineering theories, principles, and standards;
- Computer software applications including word processing, spreadsheets, databases, graphics and project scheduling and management;
- Construction materials, equipment and tests;
- Construction practices, including facility location techniques;
- Applicable laws and regulations;
- Drafting standards and practices;
- Mathematics including geometry, trigonometry, calculus, and statistics;
- Basic surveying principals;
- Safety procedures;
- Supervisory theories and principles;

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### **Skills** (position requirements at entry, depending on assigned position):

- Prioritizing project activities;
- Checking and reviewing plans;
- Reading and interpreting maps, blueprints and legal descriptions;
- Reviewing and interpreting survey data;
- Prioritizing inspection, location and project management activities;
- Administering and managing multiple contracts and projects;
- Preparing and writing reports;
- Performing facility planning studies;
- Providing engineering support to water operations staff relative to water quality and systems operations issues;
- Reviewing, analyzing and/or participating in the preparation of environmental documentation;
- Preparing and tracking project schedules;
- Leading and training other technical staff;
- Estimating project costs;
- Performing complex mathematical calculations and statistical analysis;
- Drafting drawings with the computer and by hand;
- Using computers and related specialized computer applications such as Computer Aided Design;
- Communication, interpersonal skills as applied to interaction with coworkers, supervisor, the general public, etc. sufficient to exchange or convey information and to receive work direction.
- Inspecting construction projects;
- Monitoring and evaluating staff;
- Preparing budgets and cost estimates.

### **Training and Experience** (position requirements at entry):

Bachelor's Degree in Engineering or related field and two years experience in civil engineering design and project management; or, an equivalent combination of education and experience sufficient to successfully perform the essential duties of the job such as those listed above.

### **Licensing Requirements** (position requirements at entry, depending on area of assignment):

- Valid California Driver's License
- Registration as a Civil Engineer - or -
- Engineering-In-Training (EIT) (Entry Level)
- Water Distribution Operator Grade D-3 certificate from the State of California, Dept. of Health Services within three test cycles of date of hire.

### **Physical Requirements:**

Positions in this class typically require: sitting, standing, walking, fingering, talking, hearing, climbing, balancing, stooping, kneeling, crouching, crawling, reaching, grasping, feeling, seeing and repetitive motions. Incumbents may be subjected to moving mechanical parts, electrical currents, vibrations, fumes, odors, dusts and travel.

Light Work: Exerting up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or negligible amount of force constantly to move objects. If the use of arm and/or leg controls requires exertion of forces greater than that for Sedentary Work and the worker sits most of the time, the job is rated for Light Work.

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**Classification History:**

Date: 4/98; 1/02; 5/04; 1/05