APPROVED BY: THE CHIEF OPERATING OFFICER

EFFECTIVE: November 2025

ASSOCIATE ENGINEER - CIVIL

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 general supervision, performs a variety of civil engineering assignments in support of the planning, design, construction, operation, and maintenance of the District's facilities and systems including, but not limited to, conducting engineering studies and preparing, reviewing, and/or commenting on complex reports, designs, and construction plans and specifications; provides engineering, hydrogeologic, and scientific support in the management of the District's water supply; manages projects through all phases including planning, design, construction and implementation, and close-out; serves as a technical resource in assigned field/specialty of engineering; may plan, schedule, assign, review, and evaluate the work of assigned staff on an on-going, day-to-day basis within assigned unit; and performs a variety of tasks relative to assigned area of responsibility.

DISTINGUISHING CHARACTERISTICS

This is the fully competent, journey level within the professional engineering class series. Incumbents at this level are distinguished from other levels within this classification by the performance of the full range of duties assigned with only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the work unit. Incumbents use independent judgment and decision-making authority to resolve problems. Positions independently manage assigned projects or serve as a technical resource in assigned field/specialty of engineering. Work is typically reviewed upon completion for technical soundness, appropriateness, and conformity to policy; and requirements and the methodology used in arriving at the end results are not reviewed in detail. This class is distinguished from the Senior Engineer in that the latter serves as a subject matter expert in a field/specialty of engineering, exercises a greater level of independence and decision-making authority, and requires the possession and maintenance of a valid license as a Professional Engineer issued by the California Board for Professional Engineers, Land Surveyors, and Geologists.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from assigned supervisory and managerial staff. The assigned duties for employees within this class require the exercise of judgment or choice among possible actions, sometimes without clear precedents and with concern for the consequences of the action. Employees may or may not work in proximity to their supervisor.

May exercise lead direction or full supervision over assigned staff.

TYPICAL DUTIES

The duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this position. Management reserves the right to add, modify, change, or rescind the work assignments of different positions.

1. Some positions may plan, organize, schedule, assign, review, supervise and evaluate the work of assigned staff.

2. Manage projects through all phases including planning, design, construction and implementation, and close-out; lead project teams in the execution of projects; develop work plans consisting of mission, objectives, scope of work, budget, schedules, and baseline requirements; identify strategic, project management, and external issues, recommend solutions, and under guidance of higher-level staff, implement solutions to manage risks and issues.

3. Serve as a technical resource in a specific field/specialty of engineering including formulating projects, assessing program effectiveness, and analyzing a variety of unusual conditions, problems, or questions; oversee quality assurance and quality control activities.

4. Initiate solicitations, including requests for proposals and sole source requests to provide materials and services; coordinate and participate in the evaluation of submittals; negotiate and execute contracts; prepare and submit Board Agenda items for contract approval; administer and manage contracts ensuring compliance with all requirements.

5. Conduct engineering studies, investigations, and analyses regarding issues such as the environmental, hydraulic, geotechnical, seismic, hydrologic, geomorphic, water quality, and treatment process aspects of water supply and flood control facilities and sites and water supply planning, numerical modeling and analysis, forecasting and risk analysis, hydrogeological studies, feasibility studies, water resources systems simulations, water quality and chemistry studies, financial analyses and pricing scenarios, and other statistical analysis; apply engineering principles and practices to varied problems, such as infrastructure fragility and vulnerability analyses, condition assessments, feasibility reports, event incident/root cause analysis, and testing for system deficiencies, code non-compliance conditions, and system/structural anomalies; prepare engineering calculations; research, collect, and analyze engineering data, statistics, and surveys.

6. Prepare and negotiate water supply contracts, imported water delivery schedules, construction plans, designs, and specifications, and other agreements related to assigned projects and programs.

7. Prepare engineering specifications, drawings, sketches, and other supporting documentation for proposed engineering projects; review and comment on drawings, plans, and other work submitted by external consultants, engineers, contractors, and developers for conformance with professional codes, standards, and District specifications; prepare technical and administrative correspondence and reports.

8. Provide support to District construction projects, including inspecting contractor installations, reviewing and approving design changes, submittals, and requests for information from contractors, interpreting contract documents, and negotiating and approving change orders and claims.

9. Prepare technical and regulatory reports and documentation regarding various engineering-related issues such as water supply operations and management, groundwater monitoring, contamination, and protection, surface water and groundwater quality, National Pollutant Discharge Elimination Systems (NPDES) permit compliance, and long-term water supply modeling and analysis.

10. Prepare procurement specifications for systems and equipment; review and comment on vendor designs and drawings to ensure compliance with District standards and specifications; witness original equipment manufacturer (OEM) manufactured equipment testing to ensure compliance with specifications and conduct site qualification inspections; evaluate, test, and select vendor products; resolve vendor problems.

11. Develop and review periodic and technical staff reports related to engineering activities and services; present to various commissions, committees, and boards; may present information to the Board of Directors.

12. Coordinate regulatory, environmental, and/or construction permit activities and processes within the District and with outside agencies.

13. Register, classify, create preventive maintenance plan for, perform risk assessment of, and provide replacement cost and cycles for assets.

14. Serve as a liaison for assigned projects and/or area of responsibility to other District units, divisions, and outside agencies; represent the project/program/unit with outside agencies and community groups; participate in negotiation and resolution of significant and controversial issues.

15. Attend and participate in professional group meetings; stay abreast of and interpret new trends, laws, regulations, technology, and innovations in the related field of engineering and their impact on the District; develop and recommend compliance strategies.

16. Oversee the development and maintenance of various databases and computer files and use specialized engineering software.

17. Oversee and participate in planning and implementation of water quality, water supply and operations regulatory compliance programs.

18. Pursuant to California Government Code Section 3100, all public employees are required to serve as disaster service workers subject to such disaster service activities as may be assigned to them by their supervisors or by law.

19. Employees have a responsibility for safety; for following safety regulations and safety policies and procedures applicable to their work.

20. Perform related duties and responsibilities as required.

QUALIFICATIONS

The level and scope of the knowledge, skills and abilities listed in this section are related to the job duties as defined under Distinguishing Characteristics.

Knowledge of:

Principles and practices of employee supervision, including work planning, assignment, review and evaluation, and the training of staff in work procedures.
Principles, practices, concepts, and standards of civil engineering as applied to assigned field/specialty of engineering, water resources management, natural resource management and planning, engineering, hydrogeology, geology, hydrology, hydraulics, and/or environmental sciences.
Principles and practices of numerical modeling and analysis, natural resource modeling, forecasting and risk analysis, and statistical analysis.
Principles, practices, theories, and methods of water supply planning, operations, and management, groundwater monitoring, contamination, and protection, water quality, and long-term water supply modeling and analysis.
Principles of advanced mathematics and its application to civil engineering work.
Principles and practices of project budgeting, cost estimation, funding, project management, and contract administration.
Practices of researching engineering and design issues, evaluating alternatives, making sound recommendations, and preparing and presenting effective and technical reports.
Recent and on-going engineering related developments, including information technology, current literature, and sources of information related to the operations of assigned area of responsibility.
Applicable federal, state, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
Office practices, methods, and computer equipment and applications related to the work.
English usage, grammar, spelling, vocabulary, and punctuation.
Principles and techniques for providing customer service by effectively dealing with the public, vendors, contractors, and District staff.
Each employee shall possess a reasonable understanding of their roles and responsibilities as defined in the District's Injury and Illness Prevention Program.

Ability to:

Plan, organize, schedule, assign, train, review, and evaluate the work of staff.
Recommend and implement work plans and effectively manage engineering projects and project teams.
Apply engineering principles, practices, concepts, and standards to engineering problems.
Apply water resources principles, practices, concepts, and standards to water supply planning, operations, and management, groundwater monitoring, contamination, and protection, and water quality problems.
Prepare, understand, and interpret construction plans, specifications, drawings, and other engineering documents.
Independently conduct comprehensive engineering studies, investigations, and analyses.
Perform engineering calculations and statistics.
Prepare clear and concise reports, correspondence, and other written materials.
Analyze, interpret, summarize, and present technical engineering information and data.
Interpret, apply, explain, and ensure compliance with applicable federal, state, and local policies, procedures, laws, and regulations, and District engineering policies and procedures.
Conduct engineering research projects, evaluate alternatives, make sound recommendations, and prepare effective technical reports.
Use office equipment including computer equipment and specialized software applications programs.
Organize and prioritize multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
Make sound, independent decisions within established policy and procedural guidelines, and best engineering practices.
Communicate clearly and concisely, both orally and in writing.
Establish and maintain effective working relationships with those contacted in the course of work.

Training and Experience Guidelines

The following combination represents the minimum training and experience requirements for this classification:

Training

Graduation from an accredited four-year college or university with major coursework in civil engineering or a field related to assigned functional area(s).

OR

Possession of a valid California Engineer-in-Training (EIT) Certificate with two (2) years of associated paraprofessional engineering experience.

Experience

Four (4) years of professional engineering experience.

License or Certificate

Possession of a valid California Driver's License and a satisfactory driving record may be required at the time of appointment and as a condition of continued employment, but only when driving is an essential function of the position. If the Driver's License requirement applies to a particular classification, it will be clearly stated in the job posting.

Some positions may require registration with the State of California as a Professional Engineer (PE).

WORKING CONDITIONS

Environmental Conditions

Office and field environment; some positions require frequent field visits or occasional field assignments; travel from site to site; work closely with others or alone; exposure to electrical and radiant energy; irregular work hours including overtime and possible rotating shifts; some positions may involve exposure to inclement weather; heat, cold, dampness, chilling and dry atmospheric conditions; uneven terrain; slippery surfaces; work in confined spaces; work at elevated heights, work with machinery; work around moving vehicles and around high traffic; exposure to biohazards; dirt, dust, fumes, vapors, smoke, gases, noise, poison oak, chemicals, biological and chemical contaminants, wildlife, and other conditions associated with construction sites, water treatment plants and urban and remote field conditions.

Physical Conditions

Essential and other important functions may require maintaining physical condition necessary for walking, standing or sitting for extended periods of time; audiovisual acuity; manual dexterity; moderate lifting; operating motorized equipment and vehicles, walking on uneven surfaces including hard terrains, uneven slopes, and inclined surfaces; stooping, pushing, pulling, squatting, crawling, twisting, kneeling, climbing, and bending at neck and waist; simple grasping; fine manipulation; power grasping; work above and below shoulder and in awkward positions.

CLASS LEGEND

Established Date:		
Employee Groups:	ES	
Revisions Dates:	1/2018, 5/2019, 11/2025	
FLSA Status:	Non-Exempt	
	Current	Previous
Class Code:	ED5	
Series Code:	2EC	
Family Code:	E01	
Previous Titles:	N/A	Associate Engineer (Civil)
Analyst:	FD	