



Class Code: 04-0433
FLSA: Non Exempt
EEO: 02
Bargaining Unit: 04
Revised: 10/2020

WATER RESOURCES ENGINEER, SENIOR

DEFINITION

Under general direction, coordinates, and performs a variety of water resources related engineering work for the Water Resources Department, including surface and groundwater hydrology and hydraulics, design of storm water facilities, and administration of the National Flood Insurance Program; reviews water resources engineering plans and projects; assists the public with questions about water resource and flood control laws, regulations, and requirements; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

This is the registered, advanced journey level class in a specialized, professional Water Resources Engineer series. The incumbent has day-to-day responsibility for coordinating and performing a variety of specialized professional water resources engineering duties. This class is distinguished from Water Resources Engineer series in that the classification requires registration as a professional engineer in the State of California.

SUPERVISION RECEIVED AND EXERCISED

Receives immediate or general supervision from assigned supervisor. Exercises no direct supervision over staff. May provide technical and functional direction to assigned staff.

EXAMPLES OF ESSENTIAL DUTIES

Class specifications are intended to present a descriptive list of the scope of duties performed by employees in this class and are not intended to reflect all duties performed within the job.

- Develops engineering plans and specifications for Water Resources Department projects, especially those related to water resources and flood control.
- Provides hydrology and hydraulic engineering analyses.
- Develops programs and projects and applies for grants for water resources and flood control projects.
- Audits flood control assessments and calculates adjustments due to parcel segregations or combinations.
- Coordinates the operation and maintenance of county flood control projects with advisory committees and the public, ensuring that equipment and facilities are operated and maintained in accordance with State and federal standards.
- Has responsibility for day-to-day administration of the National Flood Insurance Program.
- Administers engineering contracts and oversees and reviews the work of consultants.
- Inspects and recommends maintenance and repairs to water resource and flood control structures and facilities.
- Interprets applicable ordinances, rules, and regulations and ensures compliance of water resource and flood control related permits.
- Performs complex calculations and prepares estimates of time and materials costs.
- Reviews and checks completed work performed by technical support staff.
- Develops solutions to a variety of engineering problems; researches publications and sources for information to be incorporated into projects.
- Develops revised design and construction standards for water resources and flood control projects and structures.

- Investigates field problems affecting property owners and contractors.
- Performs plan checks and reviews for private developments.
- Prepares special engineering studies and projects.
- Provides a variety of engineering consultation on water resource and flood control issues.
- Coordinates projects with other county departments and government agencies.
- Serves as a liaison with the public and contractors explaining department policies and requirements on engineering issues.
- May patrol flood control projects and coordinate emergency flood control activities, as necessary.
- Performs related duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

- Principles, practices, and methods of Civil Engineering as applied to the design, construction, and maintenance of roads, bridges, drainage systems, flood control, and transportation facilities.
- Principles, methods, and practices of hydrology and hydraulic engineering, especially as they relate to water resource and flood control projects.
- Laws, rules, ordinances, and regulations impacting water resource and flood control projects.
- Preparation of designs, plans, and specifications for engineering projects.
- Construction methods, materials, and equipment.
- Contract development and administration.
- Capital improvement planning.
- Proper inspection methods and procedures.
- Research and statistical methods.
- Engineering project planning and administration.
- Principles of lead direction, work coordination, and training.
- Proper English spelling, grammar, and punctuation.
- Applicable business equipment and software applications.

Ability to:

- Maintain day-to-day responsibility for the Water Resources Department water resource and flood control projects and enforcement.
- Plan, organize, and complete a variety of engineering projects.
- Provide lead direction, work coordination, and training as assigned.
- Perform a wide scope of complex professional engineering work in the preparation of plans, designs, and specifications for water resource and flood control facility development, construction, and maintenance.
- Perform comprehensive engineering reviews of designs, plans, and specifications prepared by others.
- Prepare comprehensive engineering reports.
- Analyze and evaluate engineering and statistical data and information, developing sound recommendations.
- Develop accurate records, sketches, and notes.
- Perform construction inspections, ensuring compliance with contracts, plans, and specifications.
- Make accurate engineering calculations.
- Effectively represent the County Water Resources Department with the public and other government agencies.
- Communicate effectively, both orally and in writing.
- Regularly work well under pressure, meeting critical deadlines.
- Utilize a computer, relevant software applications, and/or other equipment as assigned.

- Constantly demonstrate cooperative behavior with colleagues, supervisors, customers, clients, and the public.

Licensing and Certifications:

Possession of, or ability to obtain, a valid California driver's license.

Possession of a valid registration as a professional Civil Engineer from the California Board of Registration for Professional Engineers, or the ability to obtain registration by reciprocity within six months from date of appointment.

Education and Experience:

Bachelor's degree from an accredited four-year college or university with major coursework in civil engineering or a related field.

Three (3) years of increasingly responsible professional engineering experience in the planning, development, construction, and maintenance of water resources and flood control facilities, including specific background in hydrology and hydraulic engineering.

Additional directly related experience and/or education may be substituted.

WORKING CONDITIONS, ADA, AND OTHER REQUIREMENTS

The County of Lake is an equal opportunity employer. The County of Lake will comply with its obligations under the law to provide equal employment opportunities to qualified individuals with disabilities.

Positions in this class typically require: sitting, stooping, kneeling, crouching, reaching, standing, walking, pushing, pulling, lifting, fingering, grasping, talking, hearing, seeing, and repetitive motions.

Sedentary Work: Exerting up to 10 pounds of force occasionally and/or a negligible amount of force frequently or constantly to lift, carry, push, pull or otherwise move objects. Sedentary work involves sitting most of the time. Jobs are sedentary if walking and standing are required only occasionally and all other sedentary criteria are met.

Light Work: Exerting up to 25 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or a 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.

Medium Work: Exerting up to 50 pounds of force occasionally, and/or up to 25 pounds of force frequently, and/or up to 10 pounds of force constantly to move objects.

Incumbents generally work in a typical office environment with adequate light and temperature. There may be occasional exposure to extreme temperatures, loud noise, fumes, noxious odors, dust, mist, gases, and poor ventilation; underground, confined, or restricted workspaces; and heights more than five stories above ground level.

Incumbents generally work outside of a typical office environment and may be exposed to extreme temperatures, loud noise, fumes, noxious odors, dust, mist, gases, and poor ventilation; underground, confined, or restricted workspaces.

Positions in this class may require local and statewide travel, as necessary.

Disaster Service Workers: As members of the County of Lake Emergency Services Organization, all Lake County employees are designated as Disaster Service Workers during a proclaimed emergency and may be required to perform certain emergency services at the direction of the department/county.

The contents of this class specification shall not be construed to constitute any expressed or implied warranty or guarantee, nor shall it constitute a contract of employment. The County of Lake assumes no responsibility beyond the general accuracy of the document, nor does it assume responsibility for any errors or omissions in the information contained herein. The contents of this specification may be modified or revoked without notice. Terms and conditions of employment are determined through a “meet and confer” process and are subject to the Memorandum of Understanding currently in effect.