

SCIENTIST

This class specification indicates, in general terms, the type and level of work performed as well as the responsibilities of employees in this classification. The job functions described are not to be interpreted as being all-inclusive to any specific employee.

DEFINITION

Under direction, serves as subject matter expert and demonstrates advanced-level technical expertise in several cross-functional scientific areas; serves as a project or team leader; directs daily technical activities of lower-level staff; participates in developing and planning scientific research projects and special studies and ensures the quality and performance of those projects and studies; regularly communicates with senior management at OC San and higher-level officials of regulatory and other external agencies; recommends new or revised policies to management; and performs duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from assigned supervisory and/or managerial staff. Exercises no direct supervision of staff. May coach and/or mentor less experienced staff.

CLASS CHARACTERISTICS

This classification is the first of two levels within the scientist job series. Incumbents develop and manage scientific research projects and special studies, participate in optimizing assigned methods, processes, and/or operating policies and procedures, serve as a lead in developing new methods of analyses and/or new processes in response to new or changing regulations, and serve as project or team leader in area(s) of expertise, often with broad cross-divisional responsibilities. Positions require the use of considerable discretion, the professional background, qualifications, and experience to master all processes, procedures, methods, analyses, instruments, equipment, projects, and programs in their area(s) of specialty, and the ability to work cooperatively with other technical specialists to provide multi-dimensional analyses to management. Assignments are given with general guidelines and positions are responsible for establishing objectives, timelines, and methods to deliver work products or services. Work is typically reviewed upon completion for soundness, appropriateness, and conformity to policy and requirements. This class is distinguished from the Senior Scientist in that the latter has overall technical and management responsibility for the quality and performance of assigned programs, special projects, and research activities affecting OC San and have broader regional ramifications.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS (Illustrative Only)

The following essential job functions are typical for this classification. Incumbents may not perform all of the listed job functions and/or may be required to perform additional or different job functions from those set forth below to address business needs and changing business practices.

- Participates in developing and planning assigned programs, special projects, and research studies; assists in developing appropriate study objectives, methodologies, budget, project timeline, and quality assurance/quality control plans; participates in field and office activities to ensure study objectives and compliance activities are met.

- Performs research in support of OC San analyses and monitoring efforts; conducts literature searches on project related topics; validates analytical procedures; analyzes, evaluates, and interprets collected data.
- Conducts Strategic Process Studies (SPS); schedules required samplings for analyses; trains and certifies staff members for certain laboratory analyses.
- Serves as a lead in developing new methods of analysis and new processes of environmental compliance in response to new or changing regulations.
- Directs projects independently with regular review by management; oversees, schedules, and reviews the activities of staff and contractors hired to assist with research activities; implements procedures and methods to improve and continuously monitor the efficiency and effectiveness of environmental protection, monitoring, and compliance programs; identifies opportunities for improvement and recommends to assigned supervisor; assists in the preparation of performance reviews; coordinates project activities with other groups internal and external to OC San in accomplishing project goals and objectives.
- Writes technical procedures; leads the preparation of and prepares technical papers and reports; coordinates with various stakeholders to gather required data for report completion; provides quality control review of applicable compliance reports; prepares and makes presentations to management, staff, the public, and professional groups.
- Participates in related working groups and committees within OC San, with regulatory agencies, and with outside organizations to provide, monitor, and gather information as part of policy making procedures; formulates and makes recommendations on policy decisions; maintains current knowledge and understanding of scientific advances in assigned area.
- Performs the most highly complex and specialized studies, tests, analyses, and research activities within assigned functional area(s); participates in optimizing methods, processes, and/or operating policies and procedures.
- Attends and participates in professional group meetings; stays abreast of new trends and innovations in assigned area of expertise; researches emerging products and enhancements and their applicability to OC San's needs.
- Provides leadership and guidance to others on programs and/or projects; as a program and/or project leader, may direct, assign, train, monitor, and review the work activities of team members; determines work priorities; oversees quality and quantity of work performed and ensures adherence to established procedures by instructing employees accordingly; is a resource to employees by possessing specialized skills; and develops and implements work improvements.
- Ensures safety and health procedures and precautions are adhered to, corrects unsafe work conditions/practices, and/or reports unsafe work conditions/practices to assigned supervisory or managerial staff.
- Performs duties as assigned.

QUALIFICATIONS

Knowledge of:

- Principles, practices, methods, and techniques of assigned area of expertise, such as environmental chemistry, wastewater chemistry, microbiology, organic and inorganic chemistry, marine and pollution ecology, atmospheric chemistry and biology, chemical, biological, and physical oceanography, watershed systems, zone coastal management, applied physics, and/or air quality.
- Principles and operations of wastewater collection systems and wastewater processing, including pretreatment methods, source control, system design, wastewater engineering, industrial operations, wet processes, and categorization, and wastewater flows and characteristics.
- Principles and practices of program and project management.
- Principles and applications of critical thinking and analysis.

- Principles and practices of field sampling methods, data measuring and management techniques, statistical testing and analysis, and scientific writing.
- Principles and practices used in the deployment, operation, maintenance, calibration, and troubleshooting of monitoring equipment and related systems.
- Principles of quality assurance and quality control programs.
- Occupational hazards and standard safety precautions utilized in an environmental sciences laboratory including principles used in the safe handling of contaminants and hazardous wastes.
- Principles and procedures of record keeping and reporting.
- Applicable federal, state, and local laws, codes, and ordinances relevant to area(s) of responsibility.
- Techniques for effectively representing OC San in contacts with governmental agencies, community groups, and various business, professional, educational, regulatory, and legislative organizations.
- Techniques for providing guidance and training to less experienced staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Current equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Perform chemical, biochemical, biological, bacteriological, and physical analysis.
- Analyze the results of such tests and make appropriate recommendations for OC San operations.
- Develop and plan special scientific and/or research projects and strategic process studies.
- Make effective public presentations.
- Plan, schedule, assign, and oversee activities of assigned workgroups or teams on a project and/or ongoing basis and promote the individual professional growth and development of less experienced staff; train others on work procedures; identify and implement effective course of action to complete assigned work; inspect the work of others and maintain established quality control standards.
- Resolve conflict through workable solutions and alternative approaches.
- Apply critical thinking and analysis to a broad range of situations and in decision-making and problem solving.
- Collect, chart, compile, and analyze data and participate in the preparation of clear and concise reports.
- Identify problems, research and analyze relevant information, and develop and present recommendations and justification for solution.
- Operate a motor vehicle and travel to various OC San sites, projects, and/or meetings.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Perform difficult mathematical and statistical calculations.
- Effectively represent the department and OC San in meetings with governmental agencies, contractors, vendors, and various businesses, professional, regulatory, and legislative organizations.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Use tact, initiative, prudence, and independent judgment within general policy, legal, and procedural guidelines.
- Comply with safe work practices and procedures in the workplace.
- Provide a high level of customer service by effectively dealing with the public, vendors, contractors, and OC San staff.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Employment Standards:

Any combination of education and experience that provides the required knowledge, skills, and abilities may be qualifying as determined by OC San.

1. Bachelor's degree from a college or university accredited by the U.S. Department of Education, with major coursework in a science, or a related field.
2. Five (5) years of work experience in scientific research projects or environmental compliance with project management responsibilities.

Licenses and/or Certifications:

- Must possess a valid California Class C Driver's License.

Disaster Service Workers:

All Orange County Sanitation District employees are designated Disaster Service Workers through state law (California Government Code Section 3100-3109). Employment with the Orange County Sanitation District requires the affirmation of a loyalty oath to this effect. Employees are required to complete all related training as assigned, and to return to work as ordered in the event of an emergency.

PHYSICAL DEMANDS

- Mobility to work in a laboratory and standard office setting and use laboratory and standard office equipment, including a computer; standing in work areas and walking between work areas is required; occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information.
- Mobility to work in the field at various OC San sites, including traversing uneven terrain, climbing ladders, stairs, and other temporary access points; ability to operate a motor vehicle to travel to various OC San sites, projects, and/or meetings.
- When assigned to work on OC San's marine vessel, must be capable of working in wet, unstable conditions, at times while the vessel is under way to the next sampling location.
- Perform light to medium physical work; standing in work areas and walking between work areas, within treatment plants, and in the field and to conduct assigned work.
- Lift, carry, push, and pull materials and objects up to 51 pounds.
- Vision to read printed materials and a computer screen.
- Vision to inspect and operate equipment.
- Hearing and speech to communicate in person and over the telephone.
- Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate laboratory and standard office equipment.
- Finger dexterity to operate and repair tools and equipment.

ENVIRONMENTAL ELEMENTS

- Office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances.
- Field work with exposure to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, chemicals, mechanical and/or electrical hazards, hazardous physical substances and fumes, dust, and air contaminants.
- Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

OTHER REQUIREMENTS

- Probationary Period: All OC San employees, except classifications considered “at-will”, are subject to the probationary period provisions as specified in the applicable Memorandum of Understanding, policies, and/or resolutions. Employees who have not yet successfully completed their initial probationary period serve “at-will” and may be released from employment without cause or recourse to any appeal or grievance procedures.
- Pre-Employment: All employment offers are contingent upon successful completion of OC San’s pre-employment process, which includes a background investigation, a physical examination, and a drug screen.
- Work Location Assignment: Employees will be assigned to a work location based on business needs which may be located at any/all of OC San locations; this work location may be changed at any time.