

City of San José
CLASS SPECIFICATION

Title: Biologist (5108)

DEPARTMENT	ACCOUNTABLE TO	FLSA STATUS
Environmental Services Department	Varies	Non-exempt

CLASS SUMMARY

Under general supervision, performs professional scientific and technical work of moderate difficulty designing, planning, leading, and conducting biological laboratory and fieldwork in the lower South San Francisco Bay and tributary areas. Performs related work as required.

DISTINGUISHING CHARACTERISTICS

The Biologist is a professional class reporting to the Supervising Environmental Services Specialist, Environmental Program Manager, or similar supervisory classification. The Biologist class is responsible for performing moderately complicated to complicated research related to biological, ecological, toxicological, and general water chemistry evaluations, testing, and monitoring requirements. Biologists may serve as a key member of a project team or as a project lead.

QUALIFICATIONS

Minimum Qualifications

Education and Experience

Bachelor of Science degree in biology, marine biology, zoology, ecology, environmental biology, aquatic toxicology, or related scientific discipline, plus two (2) years of experience working in an outdoor field/habitat or a laboratory environment.

Acceptable Substitution

Master's degree or higher in biology, marine biology, zoology, ecology, environmental biology, aquatic toxicology, or related discipline can be substituted for one (1) year of experience working in an outdoor field/habitat or laboratory environment.

One (1) year of experience conducting biological evaluations or monitoring in marine or aquatic habitats can be substituted for two (2) years of experience working in a field or laboratory environment.

Required Licensing (such as driver's license, certifications, etc.)

Possession of a valid driver's license authorizing operation of a motor vehicle in California.

Other Qualifications

(Incumbents may be required to have different combinations of the listed qualifications, or more specific job-related qualifications depending on the position.)

Basic Competencies

(Needed at entry into the job in order to perform the essential duties.)

- Job Expertise – Demonstrates knowledge of and experience with applicable professional/technical principles and practices, Citywide and departmental procedures/policies and federal and state rules and environmental regulations.

Knowledge of:

- The principles of marine biology, ecology, limnology, and chemistry.
- Modern field and laboratory procedures, techniques, and equipment, and the ability to utilize such equipment.

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- Biology, morphology, and taxonomy routinely utilized in an environmental laboratory.
- Standard and sophisticated field sampling and monitoring equipment, instruments, and procedures.

Ability to:

- Critically review environmental reports and documents.
 - Read and interpret applicable ordinances, codes, laws, rules, and regulations
- **Communication Skills** - Effectively conveys information and expresses thoughts and facts clearly, orally and in writing; demonstrates effective use of listening skills and displays openness to other people's ideas and thoughts.
 - **Computer Skills** - Experienced with common business computer applications including but not limited to: MS Outlook, MS Word, MS PowerPoint, MS Access, and MS Excel.
 - **Teamwork & Interpersonal Skills** - Develops effective relationships with co-workers and supervisors by helping others accomplish tasks and using collaboration and conflict resolution skills.
 - **Analytical Thinking** - Approaching a problem or situation by using a logical, systematic, sequential approach.
 - **Reliability** - Completes quality work assignments in a timely and efficient manner; fulfills responsibilities and maintains confidentiality as appropriate.
 - **Creativity** - Addresses objectives and problems while questioning traditional assumptions/solutions in order to generate creative ideas and new ways of doing business; exhibits creativity and innovation when contributing to organizational and individual objectives; seeks out opportunities to improve, streamline, reinvent work processes.

Additional Competencies and/or Desirable Qualifications

(Competencies, knowledge, skills and abilities that are more position specific and/or likely to contribute to more successful job performance.)

Knowledge of:

- Field safety, environmental sampling, and quality assurance procedures to ensure accurate, reproducible, defensible data of environmental conditions.
- Laboratory safety and quality assurance methods and procedures.

Ability to:

- Perform routine and sophisticated chemical, biological, toxicological, and ecological determinations with regard to the environmental characterization of water, wastewater and related materials (e.g. sediment, air).

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DUTY NO.	TYPICAL CLASS ESSENTIAL DUTIES: (These duties and estimated frequency are a representative sample; position assignments may vary depending on the business needs of the department.) Duties may include, but are not limited to, the following:	FREQUENCY*
1.	Plans, conducts, and may lead difficult and varied boat and field sampling events to collect water and environmental samples in compliance with state and federal permits and in support of special studies.	Weekly
2.	Provides technical review of federal, state, and regional regulations associated with water quality criteria, sediment quality criteria, and biological criteria regulations affecting the City. Drafts summaries of technical review documents for City staff. Reviews a variety of technical and specialized analyses and studies to evaluate future compliance with new and proposed environmental regulations in the watershed area of the City of San Jose Water Pollution Control Plant and stormwater drainage areas.	Intermittent
3.	Performs difficult and varied biological and taxonomic sample collection and analyses of estuarine communities, including benthic invertebrates, in the vicinity of sewage outfalls.	Intermittent
4.	Performs technically difficult acute and chronic and/or critical life stage bioassay analyses to determine the toxicity of treatment plant effluent.	As Required
5.	Performs physically demanding sampling of estuarine water through the use of oceanographic sampling equipment, and collects water quality data through the use and deployment of water chemistry instrumentation.	Weekly
6.	Analyzes and interprets field and laboratory data from wastewater, stormwater, and estuarine sources for the purposes of determining monitoring priorities; selection sampling methodologies; drafting or preparing technical reports and summaries of results and findings.	Weekly
7.	Performs complicated research related to biological, limnological, and microbiological analyses of water, wastewater, and related samples and results.	Weekly
8.	Determines sampling procedures and programs, implements the quality assurance/quality control program, and recommends methods and procedures for implementation into normal laboratory or field operations.	Intermittent
9.	Compiles, records, and manages field and laboratory data and records relating to the work performed.	Daily
10.	May train or lead colleagues in biological or taxonomic analyses.	As Required
11.	Maintains and regularly evaluates condition of testing facilities and monitoring equipment including boats, chemical testing meters, sonde units, oceanographic sampling equipment, calibration logs, water baths, deionized water filters, etc. Includes tracking/scheduling necessary maintenance and repairs with appropriate staff or vendors and may include troubleshooting problems.	Daily
12.	Performs other related work as required.	As Required

*Frequency defined as Daily/Several Times, Daily, Weekly, Intermittent, or As Required

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PHYSICAL/ENVIRONMENTAL ELEMENTS

- Medium work: Exerting up to 50 pounds of force occasionally, and/or up to 20 pounds of force frequently during preparation, deployment, and retrieval of field monitoring equipment and samples.

Possess ability to:

- wear and use laboratory PPE;
- move between/within work areas, including but not limited to sitting, talking, hearing, kneeling, lifting, grasping, feeling, reaching, standing, walking, pushing, and making repetitive hand movements;
- board and disembark from a boat;
- operate and/or be a passenger aboard a small motorized boat to conduct environmental; monitoring, observations, and sample collection following strict protocols to ensure data integrity;
- travel on foot across uneven terrain that can be vegetated or unvegetated including open fields, earthen levees, and up and down moderately steep slopes;
- operate a motor vehicle to visit field monitoring sites; at times while towing a boat.

CLASSIFICATION HISTORY *Created 04/92, Rev. 06/92, Rev. 09/23*