

CITY OF SAN JOSE
BIOLOGIST (5108)

CLASS PURPOSE

Under general supervision, performs professional and technical work of moderate difficulty involving the qualitative and quantitative biological and taxonomic analyses of benthic invertebrate and other estuarine communities located near sewage outfall sites. Performs related work as required.

TYPICAL DUTIES AND RESULTS (Any one position may not include all the duties listed, nor do the examples cover all the duties which may be performed.)

Performs difficult and varied biological and taxonomic analyses of benthic invertebrate and estuarine communities in the vicinity of sewage outfalls.

Performs technically difficult acute and chronic and/or critical life stage bioassay analyses to determine the toxicity of treatment plant effluent.

Performs physically demanding sampling of estuarine water through the use of oceanographic sampling equipment, and collects water quality data through the use of chemical instrumentation.

Conducts microbiological analyses of sewage treatment effluents and estuarine receiving waters for ecological diversity.

Performs the more complicated and research related biological, limnological and microbiological analyses of water, wastewater, and related samples.

Determines sampling procedures and programs, implements the quality assurance/quality control program, and recommends methods and procedures for implementation into normal laboratory operations.

Compiles records and manages laboratory data and records relating to the work performed.

May train or lead Laboratory Technicians in biological or taxonomic analyses.

DISTINGUISHING CHARACTERISTICS

This is a professional class reporting to the Aquatic Toxicologist. This class is responsible for performing the more complicated and research related biological, limnological and microbiological testing requirements, and differs from the Laboratory Technician in that the latter performs the more routine laboratory testing and analyses.

QUALIFICATIONS

Minimum Knowledges, Skills and Abilities

Knowledge of the principles of marine biology, ecology, limnology and chemistry.

Knowledge of modern laboratory procedures, techniques and equipment, and the ability to utilize such equipment.

Knowledge of microbiology, morphology and taxonomy routinely utilized in an environmental laboratory.

Knowledge of standard and sophisticated laboratory equipment, instruments and procedures.

Knowledge of local, state and federal environmental regulations.
Ability to prepare clear, accurate and concise written technical reports.
Ability to critically review environmental reports and documents.

Competency Knowledges, Skills and Abilities

Knowledge of laboratory safety and quality assurance methods and procedures.

Knowledge and ability to perform routine and sophisticated biological, ecological and microbiological determinations with regard to the environmental characterization of water, wastewater and related materials.

Training And Experience

Any combination of training and experience equivalent to a Bachelor of Science degree in biology, marine biology, ecology, or related discipline, plus two years of professional experience working in a laboratory environment.

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Conducts microbiological analyses of sewage treatment effluents and estuarine receiving waters for ecological diversity.

Performs the more complicated and research related biological, limnological and microbiological analyses of water, wastewater, and related samples.

Determines sampling procedures and programs, implements the quality assurance/quality control program, and recommends methods and procedures for implementation into normal laboratory operations.

Trains Laboratory Technicians.

Compiles records and manages laboratory data and records relating to the work performed.

DISTINGUISHING CHARACTERISTICS

This is a professional class reporting to the Senior Microbiologist. This class is responsible for performing the more complicated and research related biological, limnological and microbiological testing requirements, and differs from the Laboratory Technician in that the latter performs the more routine laboratory testing and analyses.

QUALIFICATIONS

Minimum Knowledges, Skills and Abilities

Knowledge of the principles of marine biology, ecology, limnology and chemistry.

Knowledge of modern laboratory procedures, techniques and equipment, and the ability to utilize such equipment.

Knowledge of microbiology, morphology and taxonomy routinely utilized in an environmental laboratory.

Knowledge of standard and sophisticated laboratory equipment, instruments and procedures.

Knowledge of local, state and federal environmental regulations.

Ability to prepare clear, accurate and concise written technical reports.
Ability to critically review environmental reports and documents.

Competency Knowledges, Skills and Abilities

Knowledge of laboratory safety and quality assurance methods and procedures.

Knowledge and ability to perform routine and sophisticated biological, ecological and microbiological determinations with regard to the environmental characterization of water, wastewater and related materials.

Training And Experience

Any combination of training and experience equivalent to a Bachelor's degree in biology, marine biology, ecology, zoology or related discipline, plus two years of professional experience working in a laboratory environment.

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