

## CLASS SPECIFICATION

### Field Science Specialist

FLSA Status: Exempt  
Union Representation: Professional and Technical Employees (PTE)

#### GENERAL PURPOSE

Under direction, performs advanced environmental investigations and monitoring activities and projects; prioritizes, performs and directs multiple or complex weather dependent field studies for environmental permit compliance, investigations into sources of pollution, and determining ambient environmental conditions; coordinates large, multiple and/or complex natural resources and environmental monitoring and sampling projects including developing time lines, schedules and budgets; provides lead direction to field sciences staff. Incumbents utilize analytic skills and professional judgment in the independent evaluation, selection, and substantial adaptation and modification of environmental or natural resource science techniques, procedures and criteria; and perform related duties as assigned.

#### DISTINGUISHING CHARACTERISTICS

This is a lead-worker, project management and/or upper-level specialist position in an environmental field science area. Employees occupying positions of this class are responsible for directing in a lead role the work of lower level Field Sciences Technicians in all phases of a water quality and/or natural resource monitoring project. Incumbents have specific knowledge in environmental science areas of water resources planning, hazardous materials and industrial waste management, environmental impact analysis, biological or earth sciences, and regulatory process.

Field Science Specialist is distinguished from Field Science Technician by the emphasis of the former on applying advanced environmental field monitoring and sampling knowledge to satisfy environmental data needs for diverse and complex projects and problems, whereas Field Sciences Technician positions are responsible for coordinating more specialized technical and public works project monitoring and sampling duties.

The Field Science Specialist is distinguished from the Environmental Specialist by spending a majority of time in the field and its increased focus on environmental monitoring and sampling and analyzing sampling results. It requires a comprehensive knowledge of and ability to perform a vast variety of monitoring and sampling techniques including those in remote natural areas and in confined spaces.

Field Science Specialist is distinguished from environmental classes' supervisors in that incumbents in the latter classes are responsible for supervising professional and technical staff. Supervisory incumbents have less involvement in the technical and operational work and more supervisory and managerial responsibilities.

#### ESSENTIAL DUTIES AND RESPONSIBILITIES

Any one position in this class may not perform all the duties listed below, nor do the listed examples of duties include all similar and related duties that may be assigned to this class.

1. Serves as project manager; oversees or performs monitoring and sampling plan development; assists in evaluation of consultant proposals, oversees completion of project monitoring objectives and adherence to technical and administrative policies; assigns project resources; evaluates project costs and work

progress; and may present project product before the City Council or other review bodies.

2. Directs environmental investigation and field studies on complex or politically sensitive environmental or natural resource issues and their effects on public health and the environment; gathers, evaluates and interprets environmental field data for complex sources of pollution to determine regulatory compliance, ambient or pre-project conditions, trending, and cause-and-effect relationships between pollutant sources and their environmental impacts.
3. While in the field, leads groups of staff in environmental monitoring and sampling projects, including but not limited to, the collection of watershed health data, electrofishing and fish identification, macroinvertebrate collection, surface water, stormwater, industrial wastewater and groundwater monitoring, sewer flow monitoring, inline sediment sampling, surface soils and sediment sampling, in-stream sediment sampling, waste pile sampling, compost sampling and other miscellaneous environmental sampling or monitoring tasks.
4. Plans, organizes, assigns and directs the work of professional and technical staff; develops and implements standards, policies and standard operating procedures; prioritizes, plans and schedules projects and processes, often around weather forecasts and projected field conditions, and checks work; and manages work flow related to environmental monitoring projects.
5. Develops, reviews and evaluates complex sampling analysis plans, regulatory documents, reports and proposals relating to areas of environmental or natural resource monitoring and sampling; evaluates field monitoring and sampling protocols to define environmental impacts (e.g., physical, biological, and chemical measures of water quality or effects on fish, wildlife or water resources) of proposed projects or existing sources of pollution and develops and conducts follow-up reviews of monitoring and sampling strategies and evaluates effectiveness of field monitoring and sampling techniques..
6. Develops or reviews and evaluates reports, proposals, sampling analysis plans and documents related to environmental or natural resource science areas of water resources planning and management, hazardous materials or industrial waste management, environmental impact analysis, biological sciences, earth sciences, and regulatory process.
7. Writes reports describing findings, conclusions, potential for public health or environmental impacts and makes recommendations for follow-up actions; and researches special environmental or natural resource problems and writes reports of findings.
8. Provides technical expertise related to field collection of environmental data to other bureau staff, City staff, City Council, other governmental agencies, and the public to solve difficult environmental or natural resource problems; interprets rules, regulations, laws and policies on the environment to assist in providing direction and comment; drafts memos and letters; serves as staff on special advisory committees; evaluates special technical and equipment training needs for Bureau staff.
9. Assists superiors in development and implementation of short and long-range environmental monitoring and sampling goals and objectives for special or routine program areas; and evaluates current project and program effectiveness and recommends future modifications to sampling analysis plans.
10. Maintains continuous contact with representatives from other agencies to provide or obtain needed project information; maintains contact with representatives from consulting firms and contractors to discuss and resolve issues related to agreements and contracts.
11. Facilitates and works with technical committees as an expert in environmental monitoring as related to environmental investigations, long term ambient water quality studies and environmental restoration projects.

12. Assists supervisor with section budget development for environmental monitoring program and staffing and resource needs.

## **MINIMUM QUALIFICATIONS**

### **Knowledge of:**

1. Physical, biological and/or ecological sciences.
2. Trends, technological changes and developments in the environmental protection or natural resource field.
3. Theory and principles of environmental investigations, protection, restoration and management; or natural resource management.
4. Analytical techniques and scientific principles used to investigate and monitor environmental impact and sources of pollution.
5. Techniques used in analyzing data, evaluating facts and determining alternative solutions.
6. Methods as used in applying generally accepted environmental or natural resource standards to the source or problem being reviewed.
7. Mathematics, including algebra and statistics.
8. Groundwater, surface water, hazardous waste, solid waste or natural resource management, measurement and/or control principles, practices or equipment.
9. Federal, state, and local laws and regulations governing management of natural resources and/or federal lands such as the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), Resource Conservation Recovery Act (RCRA), Clean Water Act (CWA), Safe Drinking Water Act (SDWA), National Pollution Discharge Elimination System Program (NPDES), and Comprehensive Environmental Response Compensation and Liability Act (CERCLA).
10. Federal and state environmental planning, management, and regulatory processes and programs.
11. Spill plans, hazardous materials management practices and programs, stormwater pollution control plans, pollution prevention or other best management practices.
12. Spill response programs associated with sewer collection and treatment systems.
13. Field and laboratory, sampling and analytical testing practices.
14. Management of industrial pretreatment, stormwater, or other equivalent environmental programs.
15. Principles and techniques used in the management and direction of work, including goals and objectives development and work planning and organization.
16. Principles and practices of project management and evaluation.

**Ability to:**

1. Review, organize and direct the work of work group; motivate assigned staff and provide for their training and professional development.
2. Express ideas effectively orally and in writing, particularly in the presentation of technical materials and reports.
3. Drive four-wheel drive vehicles, large vans, large and small motorized watercraft and non-motorized watercraft safely.
4. Independently perform advanced assignments with initiative and creativity.
5. Perform difficult technical and policy research and analyze complex problems, evaluating alternatives and recommending or adopting effective courses of action.
6. Clearly present technical information in oral, written, graphic or other forms; conduct effective public presentations; give expert testimony in administrative hearings or court proceedings.
7. Establish and maintain effective working relationships with subordinates and management, representatives of outside agencies, members of the public and others encountered in the course of work.
8. Routinely enter confined spaces including manholes and sewers; work in rough, steep and uneven terrain; lift and carry up to 70 pounds and work outdoors in all weather conditions; perform very physical and strenuous work under hazardous working conditions, significant traffic risk and potential exposure to unknown chemicals.

**Training and Experience:**

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from college with a degree in environmental science, chemistry, biology, geology, forestry, hydrology or a related field; and four to six years of progressively responsible environmental or natural resource monitoring and sampling experience; or an equivalent combination of training and experience. A master's degree in a pertinent science may serve in lieu of one to two years' experience.

**Licenses; Certificates; Special Requirements:**

A valid state driver's license may be required for certain assignments. Successful completion of 40-Hour Hazardous Waste Operations and Emergency Response, Confined Space Entry, Boat Safety, and Traffic Control and Flagging training and certification required.

**PHYSICAL AND MENTAL DEMANDS**

Incumbents are required to routinely enter confined spaces including manholes and sewers; work in rough, steep and uneven terrain; lift and carry up to 70 pounds and work outdoors in all weather conditions; perform very physical and strenuous work under hazardous working conditions, work in and around traffic and work site equipment or machinery, and potential exposure to unknown chemicals.

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depends, in part, on the specific requirements for the job, the limitations related to disability and the ability of the hiring bureau to accommodate the limitation.

---

**Class History:**

Adopted: 07-01-13 Created from the COPPEA Classification of Environmental Specialist  
July 2017 – Updated union name from COPPEA to PTE