

# **Environmental Scientist**

## **Service-wide**

### **Qualifications Assessment**

The California civil service selection system is merit-based and eligibility for appointment is established through a formal examination process. The Environmental Scientist classification examination consists of a Qualifications Assessment used to evaluate your education, training and experience.

This Qualifications Assessment is a scored component accounting for 100% of your rating in this examination. It is important to complete the questionnaire carefully and accurately. Your responses are subject to verification before appointment to a position.

---

**Section 1: Tasks**

**Instructions:**

Using the rating scale(s) provided below, you will rate your experience performing specific job-related tasks.

Respond to each of the following statements by indicating how the statement applies to you. You are required to respond to every statement by marking one option from the scale(s) provided.

In responding to each statement, you may refer to your FORMAL EDUCATION, FORMAL TRAINING COURSES, and/or WORK EXPERIENCE whether paid or volunteer.

ITEM #	<p><b><u>Knowledge related to performing this task:</u></b></p> <p><b>Extensive Knowledge</b> I possess an expert knowledge level to the extent that I could effectively perform this task in the most difficult and complex situations; and I could instruct others on specific aspects of this task.</p> <p><b>Substantial Knowledge</b> I possess an advanced knowledge level to the extent that I could effectively perform this task under the majority of circumstances or situations encountered.</p> <p><b>Moderate Knowledge</b> I possess a sufficient knowledge level that would allow me to perform this task successfully in routine situations.</p> <p><b>Minimal Knowledge</b> I have some knowledge of how to perform this task, but may require additional instruction to apply my knowledge effectively.</p> <p><b>No Knowledge</b> I have no knowledge of how to perform this task or what it may entail.</p>	KNOWLEDGE
<b>Research and Data</b>		
1	Conducting scientific studies to research questions and test hypotheses regarding public health, natural resources, or the environment.	
2	Preparing and reviewing environmental documents to ensure compliance with State and federal environmental laws and regulations.	
3	Collecting data through use of environmental sampling techniques, equipment, and study protocols.	

ITEM #	<p><b><u>Knowledge related to performing this task:</u></b></p> <p><b>Extensive Knowledge</b> I possess an expert knowledge level to the extent that I could effectively perform this task in the most difficult and complex situations; and I could instruct others on specific aspects of this task.</p> <p><b>Substantial Knowledge</b> I possess an advanced knowledge level to the extent that I could effectively perform this task under the majority of circumstances or situations encountered.</p> <p><b>Moderate Knowledge</b> I possess a sufficient knowledge level that would allow me to perform this task successfully in routine situations.</p> <p><b>Minimal Knowledge</b> I have some knowledge of how to perform this task, but may require additional instruction to apply my knowledge effectively.</p> <p><b>No Knowledge</b> I have no knowledge of how to perform this task or what it may entail.</p>	KNOWLEDGE
4	Conducting literature and/or archival research (e.g., internet, library) to retrieve and compile information and data pertinent to environmental studies.	
5	Collecting environmental samples and data for the purpose of regulatory compliance and enforcement.	
6	Summarizing data and information obtained from various sources (e.g., research studies, databases, investigations, environmental sampling) into reports to ensure accurate and clear documentation of results.	
7	Conducting inspections, investigations or interviews to ensure compliance with statewide laws and regulations.	
<b>Analysis and Decision Making</b>		
8	Making recommendations regarding environmental issues based upon best available scientific findings.	
9	Analyzing scientific data and technical reports using scientifically-acceptable methods to prepare summaries and other documentation for research purposes.	
10	Analyzing and making recommendations regarding the effectiveness and/or efficiency of programs and/or procedures.	

	<b>Written Communication</b>	
11	Reviewing and editing written documents (e.g., technical reports, project recommendations, restoration plans, program guidelines) to ensure proper content, consistency, completeness, and accuracy.	
12	Preparing and writing documents (e.g., scientific and technical reports, regulatory permits, program guidelines, policies, draft regulations) pertaining to environmental or public health issues.	
13	Writing documents (e.g., correspondence, letters, memos) to communicate scientific and technical information to a non-technical audience.	
	<b>Oral Communication</b>	
14	Delivering oral presentations to inform interested parties regarding environmental or public health issues.	
15	Collaborating verbally with others engaged in public health or environmental analysis, management, planning, regulation, investigation, or research.	
	<b>Program and Policy Development</b>	
16	Preparing work plans including the development of goals, timelines, objectives, tasks, and identifying resources needed to complete the project.	
17	Providing technical expertise in the areas of environmental science or public health to assist in the development and analysis of programs and projects.	

**Section 2: KSAs**

**Instructions:**

Using the rating scale(s) provided below, you will rate your experience in accordance to specific job-related knowledge and abilities.

Respond to each of the following statements by indicating how the statement applies to you. You are required to respond to every statement by marking one option from the scale(s) provided.

In responding to each statement, you may refer to your FORMAL EDUCATION, FORMAL TRAINING COURSES, and/or WORK EXPERIENCE whether paid or volunteer.

ITEM #	<p><b><u>How much education, training, and/or experience do you possess in the following areas?</u></b></p> <p><b>Extensive Education, Training, and/or Experience</b> I have extensive education, training, and/or experience using and/or applying this knowledge or ability. I could effectively apply this knowledge or ability to the most difficult and complex situations, and I could instruct others on the specific aspects of this knowledge or ability.</p> <p><b>Substantial Education, Training, and/or Experience</b> I have substantial education, training, and/or experience using and/or applying this knowledge or ability. I could effectively apply this knowledge or ability to many circumstances or situations.</p> <p><b>Moderate Education, Training, and/or Experience</b> I have moderate education, training, and/or experience using and/or applying this knowledge or ability.</p> <p><b>Minimal Education, Training, and/or Experience</b> I have limited education, training, and/or experience using and/or applying this knowledge or ability.</p> <p><b>No Education, Training, and/or Experience</b> I have no education, training, and/or experience relevant to this knowledge or ability.</p>	EXPERIENCE
	<b>Research and Data</b>	
18	Knowledge of ecological processes and principles.	
19	Knowledge of the effects and interactions of contaminants and toxic substances on human health, natural resources, or the environment.	

20	Knowledge of quality assurance and/or quality control procedures for scientific projects.	
21	Knowledge of land use principles and practices with reference to their general effect on human health, natural resources, or the environment.	
22	Knowledge of data collection techniques to ensure the accurate collection of data for research and monitoring activities.	
23	Knowledge of basic scientific research principles and methods.	
24	Knowledge of the principles of biology, chemistry, and physics pertaining to environmental science or environmental health.	
25	Knowledge of the biological, physical, and chemical parameters of water (e.g., electroconductivity, microbial organisms, pH, dissolved oxygen, temperature) to evaluate standards designed to protect the environment and human health.	
26	Ability to collect environmental samples by following data collection procedures and protocols.	
27	Ability to design and conduct scientific studies and research for environmental or public health analyses.	
28	Ability to analyze and interpret scientific data to extract or identify key issues and draw conclusions.	
	<b>Analytical Skills</b>	
29	Ability to identify and reconcile discrepancies in data and information pertaining to program/project activities.	
30	Ability to review and interpret scientific, environmental, or public health reports to make recommendations based upon documented data and information.	
	<b>Mathematical Skills</b>	
31	Knowledge of the basic principles of statistical analysis, methods, and techniques to interpret and understand research and environmental documents.	
32	Ability to perform basic statistical analyses (e.g., mean, frequencies) to determine central tendencies among sample populations.	

<b>33</b>	Ability to interpret quantitative or statistical data in order to extract key information and make valid inferences.	
<b>Oral Communication and Interpersonal Skills</b>		
<b>34</b>	Ability to negotiate a solution to issues involving different opinions and viewpoints.	
<b>35</b>	Ability to develop and present oral presentations to audiences with varying levels of understanding.	
<b>Computer Skills</b>		
<b>36</b>	Ability to use word processing software to prepare reports, memos, correspondence, and other job-related documents and materials.	
<b>37</b>	Ability to use the internet to conduct on-line research and obtain information.	
<b>38</b>	Ability to use spreadsheet software to create, compile, compute, organize, and present data and statistics for use in reports and other tracking activities.	
<b>39</b>	Ability to use electronic mail software to communicate with diverse audiences on matters related to various project and program issues.	