



Classification: Research Scientist IV (Chemical Sciences)
 Position Number: 880-402-5608-002

DUTY STATEMENT

CURRENT PROPOSED

RPA Number: 24-402-019	Classification Title: Research Scientist IV (Chemical Sciences)	Position Number: 880-402-5608-002
Incumbent Name: Vacant	Working Title: Senior Drinking Water Research Scientist	Effective Date: October 2024
Tenure: Permanent	Time Base: Full Time	CBID: R10
Division/Office: Division of Drinking Water/Program Management Branch		Section/Unit: Technical Operations Section/Regulatory Development Unit
Supervisor's Name: Melissa Hall		Supervisor's Classification: Senior Water Resource Control Engineer (Supervisory)

Human Resources Use Only:	
HR Analyst Approval: Alexandra Ruiloba-Olah	Date: October 25, 2024

General Statement
Under the administrative direction of a Senior Water Resource Control Engineer (Supervisory) and consistent with good customer service practices and the goals of the State and Regional Board's Strategic Plan, the incumbent is expected to be courteous and provide timely responses to internal/external customers, follow through on commitments, and to solicit and consider internal/external customer input when completing work assignments.
Position Description



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This Research Scientist IV position holds primary responsibility for pharmacology, toxicology, and drug, bio-, and immuno- chemistry aspects of drinking water regulation development; applies expert scientific knowledge to conduct highly specialized public health research of statewide sensitivity and policy impact relating to drinking water contaminants and provision of safe drinking water; is a public health subject-matter expert on contaminants/practices w/ potential for adverse public health impact; makes original, independent decisions on complex drinking water scientific problems; provides scientific and technical advice and consultation regarding exposure and public health risks and benefits for drinking water standard development; provides drinking water quality adverse health effect risk communication advice to executive and field management, and; provides interpretations of health research findings for consumers, public water systems, regulators, and policy makers.

Essential Functions (Including percentage of time):

20%	<p>Under the administrative direction of the Senior Water Resource Control Engineer (Supervisory), consistent with Health and Safety Code section 116350, and in coordination with professional staff from other State, local, or federal agencies, apply expert scientific knowledge to plan, organize, direct, and execute major professional public health, scientific, and chemistry research studies, including management of contract(s) for the same, that are of a complex nature and have statewide sensitivity and policy impact and relating to contaminants in drinking water and the provision of a safe supply of drinking water, including the following: improved methods to identify and measure the existence of contaminants in drinking water; improved methods to identify, measure, and assess the potential adverse health effects of contaminants, including chemical exposure, in drinking water; methods to evaluate efficiency of water treatment to remove or reduce contaminants, and; improved methods of assessing health-related hazards associated with drinking water chemistry. Conceive, plan, and conduct scientific research on a statewide or national basis that has extreme difficulty and complexity in unexplored areas of public health. Act as a subject-matter expert in conducting research studies of chemistry as related to research on contaminants or practices that have the potential for adverse public health impact. These studies serve as the scientific support of legal, legislative and regulatory actions undertaken by public health policy makers.</p>
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20%	Using broad knowledge of chemistry, assist the Drinking Water Program in evaluating the public health impacts from emerging and/or unregulated contaminants (including microplastics, agricultural chemicals, pharmaceuticals, and personal care products). Make original, independent decisions on complex scientific problems related to drinking water, including using scientific theories and principles on association and risk to assess exposure pathways and body burdens of chemical pollutants in humans and biological receptors; assess relationships between body burdens and resultant health effects; evaluate human exposures, effects, or risks; develop and test hypotheses on causes; and investigate methods and technologies that have the potential to prevent adverse public health effects of chemical exposures. Provide public health evaluations and scientific recommendations as a scientific and chemistry expert; seek and analyze all relevant, available, scientific, technical, medical, and other information from sources within and outside the Drinking Water Program and integrate this information into the decision-making process. Identify relevant information shortfalls to management and develop proposed studies necessary to generate needed information.
15%	Conduct and review risk assessments, evaluate feasibility of chemical removal, conduct analyses of health benefits, coordinate with internal workgroups on policy and regulation development, and obtain stakeholder input.
10%	Develop, and assess compliance with, written policies, regulations, and guidance for drinking water contaminants (e.g., microplastics), including monitoring and reporting requirements. Using broad knowledge of chemistry, develop written responses to comments and recommendations submitted on proposed policies and regulations, review and comment on legislation and regulation proposals. Prepare and orally present technically complex information regarding proposed regulations for public comment and State Water Board consideration.
10%	Coordinate with and support Environmental Laboratory Accreditation Program (ELAP) staff in developing expertise in evaluating and accrediting laboratories for new or revised drinking water contaminant analytical methodologies. Coordinate and communicate with Environmental Laboratory Technical Advisory Committee (ELTAC) subcommittees and laboratories regarding laboratory capacities, capabilities, and costs associated with approved drinking water analytical methods.
10%	Provide scientific and technical advice and consultation regarding exposure, public health risks, and public health benefits for the development of drinking water standards pursuant to Health and Safety Code sections 116270 and 116365. Provide risk communication advice to the Deputy Director, Office of Public Affairs, Regional and District Engineers, and other managers related to the various aspects and nuances of drinking water standards, including public health goals, maximum contaminant levels, and potential adverse health effects. Provide interpretations of scientific research findings for use by consumers, public water systems, regulators, and policy makers.



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10%	Prepare and present to Drinking Water Program staff, public health experts, State Water Board members, and the general public reports documenting research findings on issues related to risk assessment of contaminants in drinking water. Publish research in scientific journals.
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Marginal Functions (Including percentage of time):

5%	Perform other duties as assigned or required within the scope of knowledge and abilities of a Research Scientist IV (Chemical Sciences).
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Typical Physical Conditions/Demands:

The job requires extensive use of a personal computer and the ability to sit/stand at desk, utilize a phone, and type on a keyboard for extended periods of time. Ability to lift 15 pounds, bend and reach above shoulders to retrieve files and/or documents. Navigate uneven, rugged terrain for extended periods of time, in extreme temperatures throughout the workday. Ability to stand/sit for long periods of time.

Typical Working Conditions:

The incumbent works a hybrid schedule, and, when not teleworking, the incumbent will work on the 17th floor of a high-rise office building in downtown Sacramento, in an enclosed, non-windowed office cubicle in a smoke-free environment. The typical work schedule is Monday through Friday. Travel may be required locally and within the state, including overnight travel.

Supervisor Statement

I certify this duty statement represents an accurate description of the essential functions of this position. I have discussed the duties of this position with the employee and provided the employee a copy of this duty statement.

Supervisor Name	Supervisor Signature	Date

Employee Name	Employee Signature	Date