

Position	Applied Research Water Science Laboratory Manager
Facility	Monterey Bay Aquarium
Location	Monterey, CA
Job Summary	The laboratory manager oversees the operations of the Aquarium's water science laboratory and water testing program. The manager is responsible for the Aquarium's water chemistry and microbiology testing protocols, techniques, and quality controls; laboratory chemical inventory; supplies; laboratory safety; equipment and instrument maintenance; and research and development of analytical techniques and water quality improvements in support of animal health and water quality. This position supervises laboratory staff and trains and mentors staff and volunteers.
Essential Functions	<ul style="list-style-type: none"> □ Oversees and is responsible for development and execution of laboratory and on-site analyses for Aquarium system water, including physical chemistry parameters (such as pH and dissolved oxygen) and nutrients (such as nitrogen and phosphate) o Techniques utilized include spectrophotometry, chromatography, total organic carbon analyses, titrations, flow cytometry, particle analysis, and use of handheld meters □ Responsible for the laboratory facility, chemical storage and safety, supply inventory, staff safety, and operational and testing protocols □ Responsible for determining water testing requirements for new exhibits and/or changing exhibits; liaisons with relevant staff in Husbandry and Facilities to adjust or create testing plans according to facility and animal health needs □ Responsible for managing four direct reports: two Water Quality Specialists, one Microbiology Specialist and one Instrumentation Specialist □ Oversees sample collection and tank-side water quality assessments throughout the main Aquarium, quarantine, and relevant off-site systems □ Determines and manages water sampling and analysis schedules □ Oversees, develops, and is responsible for Quality Control and Quality Assurance protocols for lab testing □ Oversees, develops, and guides relevant applied research in the fields of water chemistry, water science, water quality, and analytical techniques □ Interfaces with other departments, including Facilities and Husbandry Operations, and Applied Research staff to maintain proper water quality parameters in all aquarium systems □ Responsible for routine maintenance and repair/replacement of analytical equipment □ Establishes and manages preventative maintenance and cleaning schedules for laboratory and lab equipment □ Manages service contracts and maintenance visits for lab equipment □ Oversees Applied Research chemical inventory database and Safety Data Sheet files □ Develops lab safety program, performs safety audits, and trains staff in chemical use, chemical storage, waste disposal, and spill response □ Trains new staff, volunteers, and interns on analytical protocols and laboratory safety □ Tracks expenditures and works with the Director of Applied Research to develop laboratory supply budgets □ Maintains knowledge and understanding of current water science techniques, protocols, and regulations □ Supervises, trains, hires, and mentors the Applied Research laboratory staff, volunteers, and interns
Other Duties and Responsibilities	
Knowledge, Skills and Abilities	

Education & Experienced Required

Absolutely Required Skills / Knowledge / Ability / Experience or Education □ Master's degree in chemistry, biology, environmental science, hydrology, engineering, or a related field; or related experience □ Minimum five years of professional experience in an analytical laboratory, at least two years having occurred in an aquarium, zoo, or environmental water quality laboratory □ Minimum three years of experience working as a laboratory coordinator, supervisor, or manager □ Minimum two years of experience directly supervising staff □ Understanding of the chemical and nutrient components and processes of seawater, including pH, alkalinity, gas pressure theory, and the nitrogen cycle □ Working knowledge of current laboratory methods for nutrient analyses in seawater, including UV spectrophotometry □ Understanding of microbiology regulatory requirements and testing techniques for AZA facilities and for coastal waters □ Understanding of instrumentation used in water quality monitoring, including pH, dissolved oxygen, ORP, total gas pressure, temperature, light, and flow □ Experience coaching students, interns, or employees in research methods and project development □ Excellent attention to detail, organization, problem solving abilities, and planning skills □ Excellent communication and interpersonal skills. Ability to work independently and as part of a team □ Ability to work occasional nights or weekends, if required, and to be on call for emergencies □ Must possess a valid California driver's license and maintain clearance in the DMV Pull Program □ Ability to work within, and maintain Monterey Bay Aquarium's Core Values □ Demonstrated commitment to Monterey Bay Aquarium's Leadership Competencies

Desired Skills / Knowledge / Ability / Experience or Education □ Working knowledge of liquid chromatography (HPLC) or other chromatography methods □ Working knowledge of handheld and in-line instrumentation used for water monitoring outside the lab □ Working knowledge of Coulter Counter analyzer and particle counts/sizing □ Experience with and working knowledge of mass spectrometry □ Familiarity with total organic carbon analysis □ Working knowledge of IDEXX Colilert and Enterolert systems □ Working knowledge of qPCR, sequencing, and molecular techniques □ Working knowledge of California central coast water regulations and regulatory bodies □ Experience using TRACKS for record keeping and/or analyses □ Experience working in an aquarium, zoo or similar institution's lab facility □ Practical understanding of aquarium water systems, water quality monitoring requirements in aquariums, and typical aquarium laboratory practices □ Practical research or applied research experience in biology, chemistry, water science, or related field

Ancillary Responsibilities □ Performs routine sample collection and chemical/physical analyses □ Assists with routine calibration, maintenance, and minor repairs of water quality sensors located in aquarium systems □ Assists with Monterey Bay Aquarium's public relations and educational activities, such as providing lab tours and/or information related to water quality and life support systems □ Assists with activities and training at the Animal Research & Care Center (ARCC) □ Assists with the monitoring and maintenance of AR-managed water systems

Licenses and Certifications Required

Physical Requirements

Working Conditions

Salary

Respond To

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