



## **SENIOR SCIENTIST**

**DEFINITION:** Scientist specializing in vegetation, hydrology or soils.

**ESSENTIAL JOB DUTIES:** Direct research and monitoring activities related to scientific specialty; develop and lead interdisciplinary research projects to improve monitoring and management of projects to protect or enhance the environment; coordinate with senior scientific and management staff to determine and implement Owens Valley management goals and strategies; collect and analyze field and laboratory data; prepare written and oral technical reports; supervise and train department field staff; prepare staffing and budgets for activities and studies related to scientific specialty; participate in department program development; obtain funding for projects; manage grants and contracts related to monitoring and research; assist in preparation and management of departmental budgets; and represent the department before the Board of Supervisors, the Water Commission, the Standing Committee, the Technical Group, other governmental governing bodies and organizations, private organizations and the public.

In addition to the duties above, the Senior Scientist assumes greater responsibility for supervision of staff and development and management of departmental budgets, work plans, and grants. The additional duties include assisting the Water Director: 1) identify and define the scientific priorities of the department consistent with the department's mission; 2) coordinate work of technical staff and consultants to ensure that the department's priorities are achieved; 3) evaluate need for scientific consultants and oversees management, or manages, work performed by such consultants or contractors; and 4) prepare of departmental budget related to scientific and monitoring activities and 5) prepare evaluations of scientific and technical staff as assigned by the Water Director.

### **EMPLOYMENT STANDARDS:**

**Water Department Scientists may specialize in plant or wildlife ecology, hydrology, soil science, or related environmental fields.**

### **Education/Employment:**

**Senior Scientist** – A Ph.D. degree in plant or wildlife ecology, environmental restoration, hydrology, water resources, soil science or related environmental or earth science field or a Master's degree with three years' experience in specialty field or equivalent post-graduate study beyond Master's level knowledge of water issues and

related environmental issues in Inyo County is desirable. A professional registration as a hydrogeologist or geologist recognized by the California Board of Professional Engineers, Land Surveyors and Geologists is required for Sr. Scientists in that discipline and can substitute for a Master's degree.

**Knowledge of:**

***Ecology*** - Scientific research principles, methods, and procedures; concepts of botany, plant or wildlife ecology, environmental restoration or revegetation and related aspects of soils science and hydrology; multivariate statistics; vegetation mapping and sampling techniques; state and federal protocols relating to rare and endangered plants and wetlands; management of invasive species; Owens Valley flora, vegetation, geography, ecology and water issues; current vegetation, ecology and related literature; computer literacy; geographic information systems; principles and practices of supervision and project management.

***Hydrology*** - Scientific research principles, methods and procedures; analytical and numerical methods for evaluating hydrologic flows; geochemical processes and water quality standards; principles of ecohydrology and vegetation-groundwater interaction; local geology, hydrogeology and hydrology; California water laws and regulations and relevant ordinances and agreements; computer literacy; geographic information systems, groundwater modeling programs, data base software, computer programming languages, statistical analysis and graphical presentation of data; principles and practices of supervision and project management.

***Soil Science*** - Scientific research principles, methods and procedures; principles of soil physics and chemistry; methods of soil water measurement; and soil taxonomy; soil/groundwater/vegetation water relations; computer literacy; geographic information systems, data base software; principles and practices of supervision and project management.

**Ability to:** Develop, administer, and lead research projects and/or monitoring programs with other Department staff; prepare research reports and proposals; communicate effectively both orally and in writing; statistically analyze data; use field and laboratory equipment; operate computer equipment and software for data management and word processing; coordinate activities with other department staff; work independently as well as with other people; work outdoors in extreme weather conditions; obtain and administer grants; develop and manage budgets, consultant contracts, and grant contracts. Work outdoors, often in extremely adverse conditions; stand, walk, kneel, crouch, stoop, squat, twist, climb, and lift up to 50 pounds; walk up to five miles per day in the course of work; work cooperatively with and supervise other people; travel throughout Inyo County and possibly outside Inyo County in performance of duties.

**Special Requirements:** Must successfully complete a pre-employment background investigation and physical examination. Must possess or obtain by appointment date a valid California vehicle operator's license.