



MARIN MUNICIPAL WATER DISTRICT

Aquatic Ecologist

DEFINITION

Under general supervision of the Senior Aquatic Ecologist, assist in the planning, analyzing, evaluating, monitoring, and participates in the District's fishery management and enhancement programs; ensures District's compliance with the State Water Quality Control Board, California Environmental Quality Act (CEQA) and other environmental laws; may assist in directing regular and seasonal assistants; and to do related work as required.

DISTINGUISHING CHARACTERISTICS

This classification performs a wide variety of field and office work in connection with planning, analyzing, implementing, monitoring, and participating in the District's programs designed to preserve and enhance fresh water, marine and anadromous fishes, reptiles, amphibians and invertebrates and other public trust resources of Lagunitas Creek and other watersheds in Marin County and assists in District CEQA compliance activities. Incumbents in this class exercise discretion and independent judgment to carry out these programs.

EXAMPLES OF DUTIES

Typical duties may include but are not limited to the following:

- Assists in the implementation and monitoring of and District's fishery programs;
- conducts aquatic surveys and analyzes species census data to determine population, size and condition;
- assists in selection, collection and analysis of aquatic resource data; identifies and catalogs field specimens; makes microscopic examinations for age readings from fish scales, otoliths and other media; makes stomach analyses; performs laboratory work such as selecting, mounting and impressing fish scales;
- prepares quantitative analyses of field data collected on fishery populations using analytical computer programs such as Microfiche or other estimating tools;
- makes recommendations on the mitigation of fishery and aquatic habitat impacts or enhancement of habitat; assists in the preparation and implementation of habitat development and monitoring plans;
- assists in the collection of lake, river and other waterway measurement data necessary for water quality control and fishery management and enhancement;
- assist in the preparation of preparation and administration of federal and state grant applications relating to the District's fishery program;
- assists in the conducting of applied research studies related to fishery and wildlife programs; gathers, and makes preliminary analyses of biological data relating to life history studies, conservation and enhancement plans for lakes, streams and ecological areas, minimum stream flow releases below dams, and minimum storage pools in reservoirs; reviews scientific literature and makes or assists in making field investigations to obtain data for research studies;

- assists in the preparation of findings and recommendations in technical reports; assist in the preparation and drafting of design specifications and plans for projects related to fishery habitat and enhancement;
- assists in the coordination of and or review of environmental reports including categorical exemptions, initial studies, negative declarations, environmental impact reports, and environmental permit documents;
- assists in the coordination of the District's fishery conservation and habitat enhancement program with federal, state, regional and local agencies dealing with fishery and other environmental concerns;
- may prepare or assist in preparing public relations activities relating to fishing, fishery management, environmental education, and wildlife conservation and enhancement;
- helps conduct or seminars; meets with civic, school, and citizen groups, environmental experts, and others to explain the District's program;
- assist in the preparation of resolutions and legal notices, making sure they are posted, published or filed as required by law; prepares proposals for applications for grant funds, and contracts; may represent District as an expert witness;
- reviews data collected, and develops database for the storage of such data;
- ensures that safe working conditions are maintained.

QUALIFICATIONS FOR EMPLOYMENT

Knowledge of:

- Principles, practices, and methods of fishery and wildlife management principles and methods; classifications, life histories, ecology, habitats, parasites, and diseases of freshwater fish and California wildlife; research methodology; wildlife resource management, including watershed, range, forestry, fishery, wildlife and recreation; techniques and equipment in making biological investigations of fish and wildlife; materials, equipment and techniques used in fishery and wildlife habitat improvement;
- fishery considerations in the design, location and construction of public works projects relating to streams, lakes and ecological areas;
- California Environmental Quality Act (CEQA) and its guidelines;
- state, federal, and local laws, regulations, current programs and court decisions relating to fishery and wildlife, soils and land uses; natural and physical sciences related to fishery and wildlife environment; governmental and private organizations involved in fishery wildlife conservation and enhancement programs;
- civil engineering principles, practices and terminology as relate to design of conservation and enhancement projects;
- word processing and personal computer user applications, particularly related to report writing and species and survey data collection.

Ability to:

- Plan, organize, and implement fishery and wildlife conservation and enhancement programs and projects;
- analyze and evaluate biological data and make recommendations based on findings;
- perform duties with minimal guidance from supervisor, work independently or resolve problems as part of a team to identify, define, and select specific fishery or wildlife projects for study and to formulate, hypothesize, develop and implement a plan of action for such projects;
- maintain accurate records, write clear and effective reports and prepare related statical documents;

- recognize the need for and make adjustments as required to adapt to unforeseen circumstances, applying progressive and sometimes unconventional approaches to resolve problems affecting fishery and wildlife resources;
- establish and maintain effective working relationships with those contacted in the course of work;
- analyze engineered plans, project reports and agreements to determine probable biological effect on fisheries and wildlife; develop ideas and preliminary designs of fishery and wildlife conservation and enhancement projects into technical drawings and written specifications;
- perform mathematical calculations and utilize standard statistical methods for data analysis;
- depending upon job assignment, drive a vehicle;
- travel to alternate work locations and offsite meetings.

Training and Experience: Any combination equivalent to experience and education that could likely provide the required knowledge and abilities would be qualifying. A typical way to obtain the knowledge and abilities would be:

- Completion of a Bachelor's (B.S.) degree, or its equivalent, from an accredited college or university with major course work in fishery biology, wildlife management, zoology or a closely related field; and
- two years of recent and increasingly responsible experience in conducting field studies, data analysis, and preparation of technical reports related to fishery and wildlife preservation programs in the Western United States.
- one year of participation in salmonoid restoration desirable.

OTHER REQUIREMENTS

- Per California Government Code, Title 1, Division 4, Chapter 8, Section 3100 "all public employees are hereby declared to be disaster service workers subject to such disaster service activities as may be assigned to them by their superiors or by law."
- Willingness to wear prescribed uniform; work alternative schedules and overtime as necessitated by changes in operating conditions;
- ability to operate a motorized boat;
- GIS, GPS knowledge and map making skills are desirable.

LICENSES AND/OR CERTIFICATIONS

- Possession of an appropriate California driver's license issued by the State Department of Motor Vehicles and satisfactory driving record;
- First Aid and CPR certificate to be obtained within the first six months of employment.

PHYSICAL DEMANDS AND WORKING CONDITIONS

During the course of performing job duties the employee will need the mobility to work in a standard office setting, operate equipment, which may include office and/or field equipment, or specialized instruments or tools requiring repetitive arm/hand movement and/or the coordinated movement of more than one limb simultaneously; enter and retrieve data from personal computers and terminals via keyboards which is often performed while sitting for extended periods of time. The employee frequently stands, walks, bends at neck and waists, twists at neck and waist, uses simple and power grasping with both hands, uses fine manipulation of both hands and fingers, and may require use of the arms above the shoulder, climb or balance; stoop, kneel or crouch. While working in the field the employee may walk on uneven or un-level ground surfaces such as hills, slopes, ditches or

trenches, on or in tanks, and may work at heights up to ten to twelve feet climbing ladders or stairs. The employee is occasionally required to lift and carry short distances objects such as reams of copier paper, office supplies, files, books, printed materials and other packages or equipment weighing up to 10 to 25 pounds. This position requires that the employee demonstrate adequate hearing and speech to converse in person and over the telephone, and vision to read printed materials and use a computer screen.

The noise level in the work environment is quiet to moderate noise. The employee is exposed to outdoor temperature, humidity, wetness and dust. The position may require the ability to work overtime and weekends as needed.

Employees who drive on District business to carry out job-related duties must possess a California driver's license for the class of vehicle driven and meet automobile insurability requirements of the District including review of a recent DMV history. In order to drive, individuals must be physically capable of operating the vehicles and equipment safely.

ADDITIONAL PHYSICAL DEMANDS

- Wade or swim in stream.
- Ability to swim 200 feet unaided.

To be successful in this job, an individual must be able to satisfactorily perform each of the listed duties. These duties are representative of the knowledge, skill and/or ability required for the position. Reasonable accommodations may be made to enable individuals with disabilities to perform the duties and functions of the position. Requests for reasonable accommodation should be directed to the Human Resources Manager.

Established: July 1999
Revised: October 2008
Approved by: Human Resources Manager