



PACIFIC STATES MARINE FISHERIES COMMISSION POSITION DESCRIPTION

Title: Fishery Biologist/Analyst 2 (17-902)

Location: Portland, Oregon (97232)

Position Type: Full Year (12 months or more), Salary/ Exempt

Benefits Eligible: Yes | www.psmfc.org/benefits

Salary Target: \$2,658.96+/semi-month, DOE [\$63,815+ annually]

Job Number: 17-902

How to Apply: Online at www.psmfc.org/careers

Closing Date: July 31, 2017 at 9pm PT

Project and Position Specifics:

The Fish Passage Center (FPC) is hiring a Fishery Biologist/Analyst 2 to join the FPC Team in Portland, Oregon. The FPC provides technical services to the state, tribal and federal fish agencies regarding the impacts to salmon populations by the operation of the Columbia River hydrosystem. The FPC conducts analyses used by the state, tribal and federal fish agencies for application to both in-season salmonid hydrosystem passage management and for the development of long-term strategies for improving salmonid survival. The FPC also responds to requests for data and analyses from the fishery management agencies and the public at-large.

The FPC plans and implements the annual Smolt Monitoring Program (SMP) and the Gas Bubble Trauma study (GBT), which provide daily information for in-season management decisions. The FPC also coordinates the implementation of the joint agencies and tribes Comparative Survival Study (CSS), a study designed to assess the survival probability from the juvenile to adult life stage under varying environmental and hydrosystem operational conditions. The Fishery Biologist/Analyst 2 is expected to become part of a team of quantitative biologists that comprise the analytical staff of the FPC.

The Fishery Biologist/Analyst 2 will use professional knowledge and competence in the science of fishery biology, statistics, and mathematics to perform or collaborate on the following work:

- (a) Compile and analyze data, in particular juvenile migration and adult return data generated through the Comparative Survival Study (CSS) and the Smolt Monitoring Program (SMP)
- (b) Conduct analyses of juvenile and adult fish passage through the Federal Columbia River Power System, utilizing various mathematical techniques, assuring that the data utilized can support those structures and that modelling approaches reflect underlying biological and ecological processes. Partner with FPC analytical staff, including the staff Biometrician to inform or address more advanced mathematical, statistical and modelling approaches, concerns or inquiries.
- (c) Calculate estimates of various parameters (e.g., survival, travel time, passage distribution, smolt-to-adult return by route of passage, etc.);
- (d) Present these analyses to other scientific and management professionals;



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- (e) Participate with other Fish Passage Center (FPC) staff in conducting analysis of hydrosystem operations relative to how they will impact fish passage characteristics such as juvenile and adult survival;
- (f) Review and provide technical comment on research proposals and research reports for soundness of designs;
- (g) Present information and analyses at meetings and participate in writing contract reports and peer-reviewed journal articles.
- (h) Respond to requests for data summaries and data analyses relative to juvenile and adult salmon and steelhead passage through the Federal Columbia River Power System.

The successful candidate will display the flexibility and initiative to apply, adapt and acquire knowledge and skills to conduct in-depth research, analyses and development of various written data and statistical summaries and reports, memos, opinion papers, etc. The individual will present strong collaboration and teamwork skills, adaptability and diplomacy in order for the successful interaction with various individuals and entities with potentially competing interests and opinions. PSMFC and FPC seek an individual that can effectively interact and cultivate positive, professional working relationships with individuals and groups having diverse backgrounds (biologists, engineers, statisticians, economists, fiscal specialists, computer specialists, etc.).

This position while biological in focus is analytical, research (i.e., data, literature and study design review, etc.), and quantitative intensive with the majority of work conducted in an office setting at a computer workstation or in attendance at meetings and conferences. Individuals seeking positions focused in more traditional fisheries field, marine or hatchery biological sciences will be dissatisfied with the lack of exposure to natural settings, and on-site fisheries work (e.g., hatchery, field, stream and/or boat).

The Fish Passage Center (FPC) is part of the Pacific States Marine Fisheries Commission (PSMFC), which offers competitive compensation and a [generous benefits package](#). The FPC office is located in the Lloyd District of Portland, Oregon, and is easily accessible by public and active transit. We offer a casual and collegial workplace.

Essential Functions:

Included in this band are professional positions that perform recurring assignments ranging from moderately difficult where conventional or straightforward biological concerns are encountered, to complex assignments where specialized knowledge and demonstrated competence in advanced techniques are required. ***An understanding of the potential impact of environmental parameters on salmonid survival is preferred.***

The functions listed below are characteristic of the type and level of work associated with this group and pay band. They are not all-inclusive. Individual positions may perform some or all, as well as other similar work.



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At the lower end of the range, the Fishery Biologist/Analyst 2 has a solid working knowledge of established scientific methods and techniques to perform recurring analyses of moderate difficulty. The Fishery Biologist/Analyst 2 will often collaborate with FPC analytical staff, including the staff Biometrician to inform or address more advanced mathematical, statistical and modelling approaches, concerns, or inquiries. Lower range work examples include:

- Collects, analyzes, and tabulates fisheries statistical information for inclusion in reports and summaries.
- Conducts searches for statistical information and data; collects (includes uploading data from large files), consolidates, formats, and cross-tabulates information from numerous data sets.
- Provides explanations and descriptions of numerical and statistical relationships.
- Processes information by using statistical and database software packages to produce routine as well as ad hoc reports.
- Utilizes databases and information sources to meet internal/external statistical needs.
- Locates sources of data and metadata to determine its value, reliability and integrity.
- Acquires, processes, and maintains various data sets such as adult return data, smolt survival data, etc.
- Updates, extracts, manipulates and analyzes data using various computer software packages.
- Creates, maintains and updates databases, analyses and reports.
- Verifies data to ensure it is stored in accordance with procedures.
- Presents data in the form of statistical summaries and narrative explanations and interpretations for data requests and reports.
- Supports executive information needs by producing reports, summaries, and briefing notes.
- Responds to all constituents groups and maintains positive relationships.
- Identifies and defines data needs for requests and assesses time needed to produce reports, data requests, and their contained analyses.
- Communicates verbally and in writing how data were assembled and analyses were performed.
- Writes/contributes to papers and reports for publication, and compiles reports on results of data collection and analysis. Prepares and delivers formal and informal presentations at seminars, meetings, etc.
- Plans, designs, schedules, and conducts data analyses on salmonids. Utilizes existing PIT tag data and determines derived data, meta-data and analyses from raw data. Works with state, tribal, federal and regional fishery management constituents to provide data on fisheries as requested.

At the upper end of the range, the Fishery Biologist/Analyst 2 has specialized knowledge and demonstrated competence in advanced techniques of a complex area of fish biology sufficient to serve as a troubleshooter or specialist. The employee is competent to modify or adapt standard techniques, processes, and procedures, and to assess, select, apply precedents, and devise strategies and plans to overcome significant problems related to study design, analyses or program management and study implementation. At this level the Fishery Biologist/Analyst 2 may act as editor of reports in addition to authorship of specific sections of reports.

At the upper level of the range, the Fishery Biologist/Analyst 2 has extensive experience in fish passage analyses and is recognized as a regional expert by state, federal, and tribal fishery management agencies. The employee acts as technical advisor to the regional fishery management agencies and



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tribes. In addition, the employee presents and defends methodologies and analyses and responds to review comments by independent scientific review groups. Collaboration with FPC analytical staff, including the staff Biometrician to inform or address more advanced mathematical, statistical and modelling approaches, concerns, or inquiries is still required at this level.

- Conducts quality assurance, constantly monitoring and reporting project progress to all stakeholders. Presents reports defining project progress, problems and solutions, and implements and manages project changes and interventions to achieve project outputs.
- Participates in discussions of future designs of the projects to meet long-term objectives of the state, federal, and tribal fishery management agencies. Develops knowledge and understanding of the state, federal, and tribal fishery management agencies' future objectives and management issues. Develops monitoring scenarios that address the analytical tasks needed to address those objectives and management issues.
- Participates in meetings with the state, federal, and tribal fishery managers as assigned by the FPC manager. Participates as requested in technical analysis and/or produces analytical products as requested by the state, federal, and tribal fishery managers to support their deliberations and implementation of their fishery management mandates and activities as they relate to fish passage and hydro system operations.
- Reviews and analyzes a wide variety of highly technical fish passage research proposals, study designs, and research results to ensure that (1) research objectives are consistent with management priorities, (2) study designs are adequate to achieve the desired objectives, and (3) and implementation of the latest research results in fish passage management are promoted throughout the Columbia Basin.
- Provides technical guidance to fishery management agencies and tribes for effective fish passage operations.
- Maintains knowledge and understanding of the policies, programs, goals and objectives of regional fishery management agencies and of the particular roles, responsibilities, programs and special interests of regional, federal, state and tribal fishery managers.

Knowledge Required by the Position:

- Knowledge of fishery biology, specifically salmon and steelhead (including knowledge of particular species of fish).
- Knowledge of data utilization from SQL platforms and R Statistical programming.
- Knowledge of study design and statistical methods for application to the evaluation of research studies.
- Knowledge of characteristics, impacts, and mitigation of juvenile and adult fish passage through hydroelectric projects.
- Knowledge of mark recapture statistical analysis and study design.
- Knowledge of Windows-based computer applications such as word processing, spreadsheets, e-mail, publishing software, presentation software, database software, topographic software, bibliographic software, and statistical analysis packages.
- Knowledge of technical writing protocols.
- Knowledge and understanding of the potential impact of environmental parameters on salmonid survival is preferred.



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Additional Mandatory Skills:

- Basic knowledge of fishery issues that pertain to the Columbia River.
- Oral and written communication skills.
- Familiarity with statistical analyses methodologies; mark recapture estimation, understanding of information theoretic methods, multiple regression analyses, simulation modeling, bootstrapping and resampling methodologies, and experimental study design.

Supervisory Controls:

The FPC Manager and staff supervisor establish overall goals and resources available. The employee and the supervisor confer on the development of general objectives, projects, work to be done, and deadlines. The employee is responsible for planning and executing assignments, selecting appropriate techniques and methodology, and determining the approach to be taken. The employee is expected to resolve most problems that arise and coordinate the work with others, as necessary. The FPC Manager and staff supervisor is kept informed of progress, concerns, issues or other matters having far-reaching implications. Completed work is reviewed by supervisors and other FPC analytical staff for adequacy in meeting program or project objectives and expected results. At the upper range of the position, the employee is responsible for working largely independently with only general guidance from the project leader.

Physical Demands:

Demands are typically sedentary, although there may be some nominal walking or standing for short periods of time, or carrying of light loads of papers, books, reports, etc., that require only moderate physical ability and physical stress. Sitting for long periods of time.

Work Environment:

Most work is performed in an office setting with adequate lighting, heating and ventilation. The work involves the common risks or discomforts typical of office, meeting rooms, libraries, and the like.

Minimum Qualification Requirements:

A range of education and experience may be presented. At the lower end of the range, candidates must present successful completion of a full 4-year course of study in an accredited college or university leading to a bachelor's or higher degree that included a major in biological science with at least 6 semester hours in aquatic subjects and at least 12 semester hours in the animal sciences. In addition to the undergraduate degree requirement, candidates for positions at the lower end of the range must also present 1 year of Specialized Experience** OR 2 years of progressively higher graduate education leading to a master's degree in fields directly related to the position being filled. An equivalent combination of experience and education is also qualifying.



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At the upper end of the range, in addition to the undergraduate course of study described above, candidates must also must present one year of Specialized Experience** OR 3 years of progressively higher level graduate education leading to a Ph. D. degree or equivalent doctoral degree in fields directly related to the position being filled. An equivalent combination of experience and education is also qualifying.

**Specialized Experience is experience that equips the applicant with the knowledge, skills, and abilities to perform successfully the duties of the position and is typically in or related to the work of the position being filled. To be creditable, specialized experience must have been equivalent to at least the next lower level in the normal line of progression for the position being filled.

Pacific States Marine Fisheries Commission is an Affirmative Action (AA) and Equal Employment Opportunity (EEO) employer and welcomes all qualified applicants. Applicants will receive fair and impartial consideration without regard to race, sex, color, religion, national origin, gender identity, age, mental or physical disability, sexual orientation, veteran status, genetic data, or other legally protected status.

If you have a disability and need assistance completing the application form, you may call the PSMFC human resources office at (503) 595-3100 between the hours of 8 a.m. and 5 p.m. PST, Monday-Friday. Reasonable accommodations for interviews will be provided upon request to individuals with disabilities.

We maintain a drug-free workplace.