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**NATIONAL PARK SERVICE
BENCHMARK POSITION DESCRIPTION**

**Fishery Biologist
GS-482-12**

Introduction

The incumbent serves as a senior principal advisor in fishery biology for one or more parks. The fishery biologist is responsible for program development and implementation dealing with the management and protection of aquatic and fishery resources and their habitat requirements.

Major Duties (80-100%)

Directs an intricate program of fishery biology and other natural resource activities that involve sensitive and complex issues that may impact a wide variety of park issues.

Represents the superintendent when working with others on fishery matters. Develops and maintains liaisons and effective working relations with related groups and individuals, agencies, and the public in order to encourage and facilitate cooperative regional management strategies. Attends management and professional conferences and other events for the purpose of exchanging information, presenting technical and policy information, and advancing advocacy for park stewardship.

Develops and prepares major sections of the resources management plan dealing with aquatic and fishery resources. Prepares specific resources action plans, project statements, and fishery management plans needed to successfully manage and protect fish and other aquatic species.

Represents park on NPS regional task groups or similar organizations. Makes presentations in the parks, in public gatherings, and at professional meetings. Initiates and maintains working relationships with the professional and scientific communities within and outside the Service; with other federal, state, and/or tribal fishery management organizations. Attends and participates in meetings and conferences, and presents technical and policy information to represent and support park fishery management decisions and positions.

Assists natural resources management staff in parks, centers, and support offices by providing direct professional and programmatic advice and support.

Carries out program management duties by developing work plans and schedules, scopes of work, cost estimates, and proposals and/or grants to justify funding

requests and accomplish goals. May administer and track project funds and prepare accomplishment reports, as needed. Maintains awareness of applicable funding sources within NPS and outside.

Develops and implements long range plans for the inventory, evaluation, documentation, preservation, research, and interpretation of fishery biology and other natural resources within the appropriate mission, objectives, and resources contexts.

Develops guidelines to deal with the more complex or unusual problems, or with novel, undeveloped or controversial aspects of fishery biology and other natural resources and their management.

Coordinates park natural resources strategies and programs with those on adjacent lands for the purposes of achieving broad ecosystem protection strategies and preventing human impacts.

Negotiates cooperative and interagency agreements and other cooperative instruments needed to effectively carry out resources stewardship goals.

Identifies research needs, prepares requests for research proposals or statements of work, and provides oversight for research projects. Serves as a Contracting Officer's Technical Representative for fishery projects conducted through contracts, interagency agreements, and cooperative agreements.

In cooperation with appropriate staff, researchers, and partners, the incumbent designs, develops, tests, and implements scientific monitoring protocols to identify, evaluate, and do long-term monitoring of fish populations and fisheries. This includes conducting inventories to determine species distributions, composition, and relative abundances; age-and-growth characteristics; catch and harvest in recreational, commercial, and/or subsistence fisheries; and overall patterns of angler use and distribution. Writes monitoring documents that define techniques and develops methods for assessment and refinements of protocols.

Based on results of inventories, in-depth studies, and monitoring, the incumbent develops and conducts scientifically credible protection, mitigation, and restoration projects needed to prevent resource damage, to restore and/or maintain critical habitats for aquatic and fishery communities, and to minimize human impacts.

Develops and carries out statistically valid data collection protocols for the monitoring of fish and aquatic species and populations and the results of protection, mitigation, and reintroduction programs. Performs data collection using professionally accepted techniques. Insures data entry and carries out quality control checks on work performed by others. Analyzes complex data and determines and documents the significance of findings.

Prepares scientific reports regarding the results of management, protection,

restoration, inventory, monitoring, and mitigation activities and programs. Summarizes new and conventional information for use by scientists, managers, park staff, cooperators, and partners.

Provides technical review and recommendations regarding proposed development projects and land use plans in and around the park having potential effects on park aquatic and fishery resources.

Incorporates appropriate Geographic Information System (GIS) technology into job to provide comprehensive and scientifically sound answers to inquiries from managers and others. Utilizes automatic methods of data collection, analysis or illustration. Inputs data into digital form and uses computer applications for data analysis, manipulation, and presentation.

Works closely with the park education staff to incorporate new information into park and partner education programs.

Prepares and maintains fishery specimens in the natural history collection. Maintains records on the collection.

Maintains and acquires equipment and supplies necessary for the fishery program.

May supervise seasonal, temporary, permanent, VIP, and other personnel, but less than 25% of the time.

Factor 1. Knowledge Required by the Position Level 1-7; 1250 points

Knowledge of NPS planning and management requirements and guidelines so that plans result in programs that provide adequate long-term protection for resources.

Professional knowledge of fish and aquatic species of the park and adjoining watersheds including an in-depth knowledge of fish taxonomy, life-history biology, and ecological and habitat preferences. This knowledge is necessary in order to be able to interpret the findings from the analysis of long-term data sets and define the significance of changes that are occurring.

Ability to interpret finding from the analysis of long-term datasets and to define the significance of human induced perturbations and natural ecological changes to the management and sustainability of fishery and aquatic resources.

Knowledge of the biological characteristics, conditions, and interrelationships of fishery resources with aquatic and terrestrial ecological systems.

Knowledge of methods for restoring fish species, populations, and habitats and methods for the control of nuisance non-indigenous aquatic organisms and/or other exotic fish and aquatic life.

Knowledge of laws, regulations, and NPS policies and guidelines regarding the management and monitoring of fish populations and fisheries and the ability to utilize this knowledge to assure that program goals, objectives, and management recommendations reflect national priorities and policies.

Skill to plan and carry out complex management and science programs so that the resource stewardship needs of the park are met in a cost effective, efficient, timely, and professional manner.

In-depth knowledge of program management and administration of budget, contracts, and personnel.

Knowledge of principles and techniques associated with measuring aquatic community dynamics and skill in adapting standard techniques, processes, and procedures to devise strategies and to achieve program goals.

Knowledge of principles and techniques for monitoring and managing recreational, commercial, and/or subsistence fisheries including the ability to develop angler use surveys, creel surveys, and surveys to assess the appropriateness of sportfishing or commercial fishing regulations.

Knowledge of and ability to statistically analyze data, interpret results, and prepare management recommendations in a way that is highly credible and meets scientifically acceptable standards.

Knowledge of NPS guidelines, procedures, and techniques required for the preservation, mounting, labeling, storage, and cataloging of fish and other aquatic biological specimens in order to insure that they are adequately preserved and properly accessioned into the park's natural history collection.

Knowledge of computer hardware, software, and application so that information, primarily field data, can be processed, summarized, and reports generated.

Skill in oral and written communication in order to insure that plans are well written and easily understood; scientific reports and journal articles are of high scientific credibility; pertinent information is shared effectively with others; and oral presentations are well designed, informative, and clearly convey the intended message.

Factor 2. Supervisory Controls Level 2-4; 450 points

The supervisor sets the overall goals and resources available. Guidance is provided only to determine priorities, approve work plans, and assist in working through unprecedented situations that have a bearing on the overall program.

The incumbent independently plans, designs, implements, and manages the program with a minimum of direct supervision. Independent judgement is required on a regular basis in developing, testing, and refining procedures and methods, and in the

application of these methods in the field. The incumbent resolves most problems that arise and coordinates the work both within the work unit and with other park divisions. The incumbent keeps the supervisor informed of progress, potentially controversial problems, and concerns, issues or other matters having far-reaching implications.

The supervisor evaluates the work completed based on general adequacy in meeting program or project objectives, expected results, and compatibility with other work. Work produced is considered technically correct and is normally accepted without significant change.

Factor 3. Guidelines Level 3-4; 450 points

Guidelines include laws, regulations, policies, scientific protocols, plans, practices, procedures, and any additional directions given and defined by the supervisor. Policies and precedents are applicable but are stated in general terms; guidelines are scarce or of limited use. Guidelines are often inadequate to deal with the more complex or unusual problems, or with novel, undeveloped, or controversial aspects of fishery biology encountered at the field level. These kinds of situations occur when precedents or guides point toward conflicting decisions; recent court decisions or legislation may appear to require a technical decision at variance with existing guides; or there may be relatively few precedents or guides which are pertinent to specific methods; or proven methods are incomplete. The employee uses initiative and resourcefulness in deviating from traditional methods or researching trends and patterns to develop new methods, criteria or proposed new policies.

Factor 4. Complexity Level 4-5; 325 points

The work includes varied duties requiring many different and unrelated processes and methods that are applied to a broad range of activities or substantial depth of analysis. Decisions regarding what needs to be done include major areas of uncertainty in approach, methodology, or interpretation and evaluation processes that result from such elements as continuing changes in program, technological developments or conflicting requirements. The work requires originating new techniques, establishing criteria or developing new information.

Resources issues are often publicly controversial and require substantial initiative and skill in building consensus and obtaining public and cooperating agency support. In addition, fishery resources are highly regulated and there are often significant socioeconomic factors, competing resource values, and conflicting visitor and public interests and expectations in their management. The incumbent must be able to exercise professional skills in fishery biology research, evaluation, and writing applied to (1) a broad range of fishery biology subjects or (2) substantial depth of analysis.

Assignments involve sensitive and complex issues that require solving problems concerned with novel, undeveloped or controversial aspects. The problems are difficult due to the abstract nature of the concepts, or the existence of serious conflicts among scientific requirements, program direction, and administrative requirements.

These conditions create major areas of uncertainty in the decision-making process. Information collected must be reorganized, interpreted, and presented to reflect supportable hypotheses and themes. The incumbent must be able to examine separate subject areas to draw upon research and sources of several fields of fishery biology.

The incumbent must be especially versatile and innovative in order to recognize new approaches, devise new or improved techniques or strategies for obtaining effective results, or to anticipate future trends and requirements. In addition, the person must be able to (1) exercise good professional judgement in ensuring the appropriate consideration of fishery resources in the overall picture of park operations, development, interpretation, and resources management, (2) identify resources, evaluate their significance, develop management options that take into account all levels and areas of concern, and (3) prepare plans to preserve, conserve, mitigate impacts, and manage the resources.

Factor 5. Scope and Effect Level 5-4; 225 points

The purpose of the work is to develop and carry out programs and strategies to protect fishery and aquatic resources and to resolve problems with solutions that achieve objectives. The successful accomplishment of the duties of this position provides the professional foundation of the program. The work involves establishing criteria, formulating projects, assessing program effectiveness or investigating or analyzing a variety of unusual conditions, problems or questions. The product or service affects a wide range of agency activities, major activities or issues, or the operation of other agencies or entities. Management strategies developed and conducted by the incumbent are essential to maintaining the resources. Information gained through research, inventory, and monitoring provide the professionally credible basis for management decisions, thereby directly affecting the current and future integrity of the resources.

The work influences the effectiveness or acceptability of agency goals and programs by program managers or specialists in outside agencies. Programs carried out by the incumbent directly affect the preservation or enhancement of the park ecosystems and surrounding landscapes.

Factor 6. Personal Contacts Level 6-3; 60 points

Contacts are made with biologists and subject matter experts of other agencies and tribes, park managers, researchers and other members of the scientific community, science and management staff of other parks, conservation organizations, the media, the general public, and other park staff. Contacts typically are not established on a routine basis, and the role and authority are identified and developed during the course of the contact.

Factor 7. Purpose of Contacts Level 7-2; 50 points

The purposes of the contacts are to provide professional advice to managers and other staff; to exchange information; to provide instruction and services; to coordinate and

advise on mutual work efforts and research; to insure compliance with laws and regulations; to train; to procure supplies and materials; and to secure cooperation for park programs from other agencies, individuals or interest groups.

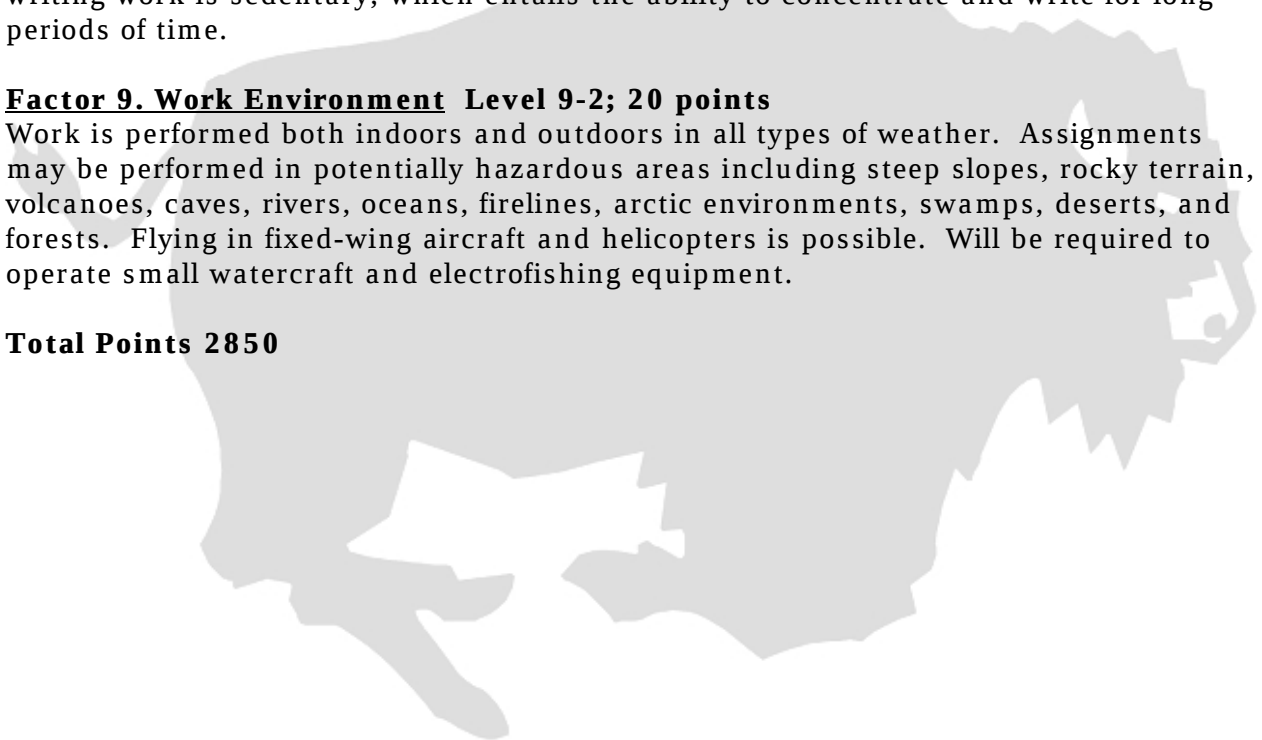
Factor 8. Physical Demands Level 8-2; 20 points

The position may require strenuous physical activity including periods of standing, walking, climbing, and lifting and carrying heavy objects. Some activities will occur in physically dangerous areas or settings. Lifting or carrying equipment, supplies or materials or other weights over 50 pounds is occasionally required. Duties may be performed alone in relatively isolated areas. Documentary research and report writing work is sedentary, which entails the ability to concentrate and write for long periods of time.

Factor 9. Work Environment Level 9-2; 20 points

Work is performed both indoors and outdoors in all types of weather. Assignments may be performed in potentially hazardous areas including steep slopes, rocky terrain, volcanoes, caves, rivers, oceans, firelines, arctic environments, swamps, deserts, and forests. Flying in fixed-wing aircraft and helicopters is possible. Will be required to operate small watercraft and electrofishing equipment.

Total Points 2850



Resources Careers