

POSITION DESCRIPTION (Please Read Instructions on the Back)

1. Agency Position No.

2. Reason for Submission

☐ Redescription
☐ Reestablishment☐ New
☒ Other

3. Service

☐ Hdqtrs ☒ Field

4. Employing Office Location

5. Duty Station

6. OPM Certification No.

Explanation (Show any positions replaced)

NPS Standard Position Description
Resources Careers

7. Fair Labor Standards Act

☒ Exempt ☐ Nonexempt

8. Financial Statements Required

☐ Executive Personnel Financial Disclosure ☐ Employment and Financial Interest

9. Subject to IA Action

☒ Yes ☐ No

10. Position Status

☒ Competitive
☐ Excepted (Specify in Remarks)
☐ SES (Gen.) ☐ SES (CR)

11. Position Is

☐ Supervisory
☐ Managerial
☒ Neither

12. Sensitivity

☒ 1-Non-Sensitive ☐ 3-Critical
☐ 2-Noncritical Sensitive ☐ 4-Special Sensitive

13. Competitive Level Code

14. Agency Use

*R29

15. Classified/Graded by

Official Title of Position

Pay Plan

Occupational Code

Grade

Initials

Date

a. Office of Personnel Management

b. Department, Agency or Establishment

c. Second Level Review

Physical Scientist

GS

1301

11

d. First Level Review

e. Recommended by Supervisor or Initiating Office

16. Organizational Title of Position (if different from official title)

Physical Scientist

17. Name of Employee (if vacant, specify)

18. Department, Agency, or Establishment

Department of the Interior

c. Third Subdivision

a. First Subdivision

National Park Service

d. Fourth Subdivision

b. Second Subdivision

e. Fifth Subdivision

Signature of Employee (optional)

19. Employee Review-This is an accurate description of the major duties and responsibilities of my position.

20. **Supervisory Certification.** I certify that this is an accurate statement of the major duties and responsibilities of this position and its organizational relationships, and that the position is necessary to carry out Government functions for which I am responsible. This certification is made with the knowledge that

this information is to be used for statutory purposes relating to appointment and payment of public funds, and that false or misleading statements may constitute violations of such statutes or their implementing regulations.

a. Typed Name and Title of Immediate Supervisor

b. Typed Name and Title of Higher-Level Supervisor or Manager (optional)

Signature

Date

Signature

Date

21. **Classification/Job Grading Certification.** I certify that this position has been classified/graded as required by Title 5, U.S. Code, in conformance with standards published by the U.S. Office of Personnel Management or, if no published standards apply directly, consistently with the most applicable published standards.

Typed Name and Title of Official Taking Action

J. LYNN SMITH
HUMAN RESOURCES PROGRAM MANAGER

Signature

Date

JUN 30 1999

22. Position Classification Standards Used in Classifying/Grading Position

See Classification Evaluation Statement for Standards Used to Grade this Position.

Information for Employees. The standards, and information on their application, are available in the personnel office. The classification of the position may be reviewed and corrected by the agency or the U.S. Office of Personnel Management. Information on classification/job grading appeals, and complaints on exemption from FLSA, is available from the personnel office or the U.S. Office of Personnel Management.

23. Position Review	Initials	Date	Initials	Date	Initials	Date	Initials	Date	Initials	Date
a. Employee (optional)										
b. Supervisor										
c. Classifier										

24. Remarks *Agency Use Code should be entered in FPPS as last three spaces of position allocation number.

25. Description of Major Duties and Responsibilities (See Attached)

**NATIONAL PARK SERVICE
BENCHMARK POSITION DESCRIPTION**

**Physical Scientist
GS-1301-11**

Introduction

The incumbent serves as a technical advisor in the physical sciences for one or more parks. The physical scientist is responsible for program development and implementation related to geology, soils, hydrology, hydrogeology, air quality, acoustics, paleontology, caves and karst formations, and related fields and activities.

Major Duties (80-100%)

Develops and prepares major portions of the resources management plan dealing with the physical sciences. Prepares specific actions plans needed to manage and protect the physical components of natural resources.

Represents the superintendent when working with others on physical science matters. Develops and maintains liaisons and effective working relations with related groups and individuals, agencies, and the public. Attends management and professional conferences and other events for the purpose of exchanging information and advancing advocacy for park stewardship.

Coordinates physical science programs with similar activities on adjacent lands for the purpose of achieving broad ecosystem protection strategies and to prevent human activities that impact resources.

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

Identifies research needs, prepares requests for proposals, and provides oversight for research projects. Serves as a Contracting Officer's Technical Representative for 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 physical and abiotic resources and conditions. This includes conducting inventories to determine statistically valid plot distributions and design. Writes new monitoring documents that define monitoring techniques and develops methods for future 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 and to minimize human impacts.

Develops and carries out statistically valid data collection protocols for the monitoring of physical resources and the results of protection, mitigation, and restoration projects. Performs data collection using the latest automated technology such as field electronic data collectors. Performs data entry and

carries out quality control checks on data entry performed by others. Conducts analysis of complex data. Determines and documents the significance of findings.

Prepares management and scientific reports regarding the results of protection, mitigation, restoration, inventory, monitoring, and research activities. Summarizes new information for use by the scientific community, park staff, cooperators, and partners.

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

Prepares environmental assessments (EAs) for projects in compliance with the National Environmental Policy Act. Evaluates EAs and environmental impact statements prepared by other federal agencies or groups for impacts on resources.

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

Prepares and maintains geologic specimens in park collection, especially for specimens relating to paleontology, cave and karst formations, and geology. Maintains records on the collection.

Acquires and maintains equipment and supplies necessary to conduct field activities.

May carry 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.

May represent park on NPS regional task groups or similar organizations. Makes presentations in parks, public gatherings, and professional meetings.

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 the physical aspects of park ecosystems which include geologic resources, soils, air and water resources, paleontology, hydrology, acoustics, weather, caves and karst formations, and related resources. This knowledge is necessary in order to interpret findings from the analysis of long-term datasets and define the significance of changes that are occurring.

Knowledge of laws and regulations, such as those pertaining to mining, oil and gas development, and site restoration, and NPS regulations, policies, and guidelines regarding the management and

monitoring of natural resources, in order to assure that program goals and objectives to meet legal requirements and reflect national priorities and policies.

Basic knowledge of program management and administration of budgets, contracts, and personnel.

Knowledge of principles and techniques associated with measuring physical resources together with the skill to modify or adapt standard techniques, processes, and procedures and to access, select, and apply precedents and devise strategies to achieve program goals.

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.

Knowledge of scientific data acquisition and analysis standards, methods, and recording techniques so that the incumbent can efficiently manage the collection and summation of data, and accomplish data analysis 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 cataloguing of specimens in order to insure that specimens are adequately preserved and properly accessioned into the park's museum.

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 is expected to plan, design, implement, and manage the program with a minimum of direct supervision. The incumbent resolves most problems that arise and coordinates the work both within the work unit and with other park divisions. 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 is expected to independently design and carry out specific projects and assignments to their completion. 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 completed work based on general adequacy in meeting program or project objectives, expected results, and compatibility with other work.

Factor 3. Guidelines Level 3-3; 275 points

Guidelines include laws, regulations, policies, scientific protocols, plans, procedures, and any additional

directions given and defined by the supervisor. Although available they are not completely

applicable to the work or have gaps in specificity. The employee uses judgement in interpreting and adapting guidelines for specific cases or problems, then analyzes results to recommend changes.

Sound judgement must be exercised in the performance of duties where gaps in specificity or conflicts among guidelines occur. The incumbent uses judgement in determining which appropriate alternatives should be used, and in interpreting and adapting guidelines for application to specific situations or problems. The incumbent is expected to know when work is precedent setting, affects policy, and requires supervisory review, or needs review at a higher level of expertise within the relevant discipline.

Factor 4. Complexity Level 4-4; 225 points

National park units are often complex landscapes containing a diversity of natural communities and cultural resources. The variety of knowledge and ability required to effectively carry out the program is extensive and requires the incumbent to adopt a highly creative approach to program management that utilizes the expertise of a wide range of cooperators. The work includes varied duties that require many different and unrelated process and methods. Decisions regarding what needs to be done include the assessment of unusual circumstances, variations in approach, and incomplete or conflicting data. Many decisions are made concerning such things as interpretation of considerable data, planning the work or refinement of the methods and techniques to use.

Physical resources are often publicly controversial and require substantial initiative and skill in building consensus and obtaining public and cooperating agency support. The design, testing, implementation, and analysis of identification, evaluation, preservation, monitoring, and mitigation programs are very complex and highly scientific endeavors. Duties frequently require the evaluation of alternative methods and competing priorities to determine the best approach to program and project development. Factors and conditions differ according to the tasks and procedures being completed and phase of work being done. In-depth analysis and evaluation of data is required to interpret complex datasets. The incumbent must apply strict quality control measures to assure data credibility among the scientific community. Meeting program goals involves resolving issues often complicated by conflicting interests and public and political sensitivity.

In addition to mastering identification, evaluation, preservation, and related mitigation and monitoring technology, the incumbent is required to performed analysis of information. The incumbent must apply strict quality control measures to assure credibility of findings.

Factor 5. Scope and Effect Level 5-3; 150 points

The core long-term mission of the agency in all NPS units is the preservation and effective management of the natural and cultural resources for which the park was established. The successful accomplishment of the duties of this position affects the quality and effectiveness of resources management programs designed to protect park resources. The work involves treating a variety of conventional problems, questions or situations in conformance with established criteria. The product or service affects the design or operation of programs, and the adequacy of activities such as field projects or research conclusions.

The work is to develop and implement plans and strategies to protect resources and resolve problems with solutions that satisfy management objectives. Management strategies developed and conducted by

the incumbent are essential to maintaining the resources. Information gained through research, inventory, and monitoring provide the scholarly and professionally credible basis for management decisions, thereby directly affecting the current and future integrity of resources.

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

Contacts are made with physical scientists, resources managers, and subject matter experts of other agencies and tribes, researchers and other members of the scientific community, science and management staff of other parks, conservation organizations, the media, the general public and other members of the 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. Documentary research and report writing work is sedentary, 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, firelines, arctic environments, swamps, deserts, and forests. Flying in fixed-wing aircraft and helicopters is possible.

Total Points 2500

Resources Careers