

POSITION DESCRIPTION (Please Read Instructions on the Back)

1. Agency Position No.

2. Reason for Submission

3. Service

4. Employing Office Location

5. Duty Station

6. OPM Certification No.

☐ Redescription
☐ Reestablishment

☐ New
☒ Other

☐ Hdqtrs ☒ Field

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
*R14

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

d. First Level Review

e. Recommended by Supervisor or Initiating Office

GS

11

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

GIS Specialist

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 Interdisciplinary Position: Geographer GS-150; Biologist GS-401; Physical Scientist GS-1301; or Cartographer

GS-1370. (*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**

**GIS Specialist
Interdisciplinary**

Geographer, GS-150-11

Biologist, GS-401-11

Physical Scientist, GS-1301-11

Cartographer, GS-1370-11

Introduction

The incumbent is responsible for the development, management, coordination, and implementation of the Geographic Information System (GIS) for one or more parks. The interdisciplinary nature of this position requires the programmatic integration of the knowledge of biological and physical resources, digital cartography, and geography to the development, analysis, and use of geographic and relational databases that are pertinent to the park resources and themes. GIS is used to document, analyze, and integrate the management of natural and cultural resources in their environmental context or to manage the environment in the context of the resources. A position will be filled from one of the occupational series pertinent to the park resources and themes.

Major Duties (80-100%)

Designs, develops, and manages the GIS database and database management system, including the conversion of thematic source maps from analog to digital form through the use of appropriate hardware and software. This involves augmenting the GIS database by digitizing mapped information, importing existing digital data, and converting data. Ensures that national data standards and park needs are met.

Using integrating computer models and other tools with biological and physical scientific knowledge and resources management practices, conducts analysis of geo-referenced data to determine resources conditions and trends, models expected or predicted results of alternative management actions, and works to resolve management issues.

Manages and integrates a variety of GIS and database management software, and when necessary, modifies or adapts standard software to meet program needs. Implements data documentation procedures and distribution using appropriate technologies, e.g. Internet. Designs and develops global positioning system (GPS) data dictionaries, spatial data inventories, and cross linkages to ensure software and data structure compatibility.

Maintains hardware, peripherals, GPS units, network, and GIS operating systems (typically both UNIX and DOS). Implements a program to ensure the security and currency of GIS hardware and software including system administration and maintenance.

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

Coordinates the acquisition and management of GIS data with other federal, state, and local resources offices and the academic community. Works cooperatively with land-use planners and others in the private sector on issues and GIS applications of mutual concern and application. Coordinates and manages data collection priorities, funding mechanisms, and joint projects.

Prepares GIS plans, data dictionaries, resources management plan project statements related to GIS, project proposals, GIS-related contract and agreement specifications, and written reports.

Ensures that the correct and appropriate application of geographic and cartographic concepts and principles are applied to database construction, analyses, and production of high quality digital and hardcopy GIS products. Adapts standard techniques and modifies methods of graphical presentation of complex park issues, GIS data, and analyses. Creates draft and presentation-quality products.

Plans, executes, and supervises field work in remote environments to generate new or verify ("ground-truth") mapped information, using standard resources field sampling and scientific methods. Coordinates with specialists in other disciplines as needed to do the same for digital themes covering cultural and natural resources, infrastructure, and other disciplines.

Participates in professional meetings, workshops, conferences, and symposia dealing with GIS and related topics. Develops presentations for conferences and writes articles about uses and applications of GIS to park and resources management. Maintains professional relationships with other federal, state, and private agencies and organizations to facilitate data procurement and sharing, and cooperation on a variety of GIS, information management, research, and resources-related projects.

Trains and instructs others in the use of GIS applications and basic GIS, GPS, and related technology.

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

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 the parks and at 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 work applies to programs that provide adequate long-term protection for resources.

Professional knowledge of geography, digital cartography, biology, and physical sciences, as appropriate, in order to successfully integrate and apply the full range of GIS applications to meet

program objectives.

Knowledge of GIS related hardware and basic computer requirements and techniques. Ability to develop, maintain, and operate complex computer systems that include a wide range of peripherals including digitizers, scanners, printers, and associated field tools such as data loggers and GPS units, in order to acquire and use the full range of tools to produce and maintain databases.

Knowledge of computer operating systems (e.g. DOS, UNIX), software application packages for GIS (e.g. ARC Info, GRASS), and database management (e.g. dBase, Access), and the skill to apply these technologies to effectively accomplish the GIS program.

Professional understanding of scientific theory, methods, resources management practices, and park management needs, and the skill to interpret and apply this knowledge to the development of products. This knowledge is important for the process of defining how GIS technology can be applied to meeting resources management objectives.

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

Professional knowledge of the principles and applications of remote sensing technologies including coordinate systems, aerial photography, videography, geo-referencing methods, and satellite image processing in order to define and use the full range of technology in creating databases.

Skill to analyze complex arrays or GIS themes and relational data sets and use modeling technology to create new understandings of resources and geographic relationships (applied research).

Skill to communicate effectively with people having a wide range of understanding of GIS technology and applications in order to develop the GIS program, participate in land use planning and other cooperative efforts, and convey complex concepts to others.

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

The supervisor establishes 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. 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 and technical manuals, 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 complex landscapes containing a diversity of resources, geographic features, and human built environments. GIS, remote sensing, and data management technologies are highly complex and rapidly evolving fields requiring both professional and technical knowledge and skill in a wide range of generally

unrelated fields of study. 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.

Duties 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 data sets. The incumbent must apply strict quality control measures to assure data credibility and storage safety. Meeting program goals involves resolving issues often complicated by conflicting interests and public and political sensitivity.

The assignment requires the program manager to relate new work situations to precedent situations, extend or modify existing techniques, and develop compromises that require substantial effort to overcome resistance to change when it is necessary to modify an accepted method or approach.

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 a park was established. The successful accomplishment of the duties of this position results in strategies and products to protect resources and resolve problems in a way that meets management objectives. 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 affects the quality and effectiveness of resources management and other programs designed to protect park resources and people. Programs carried out by the incumbent directly effect the

preservation or enhancement of the ecological integrity and cultural preservation of the park ecosystems and surrounding landscapes.

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

Contacts are made with GIS experts, resources managers, researchers, land use planners of other agencies and tribes, other park staff, science and management staffs of other parks, conservation and preservation organizations, the media, and the general public. 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 regulations, protocols, and procedures; to train; to procure supplies and materials; and to secure cooperation for park programs from other agencies, individuals or interest groups.

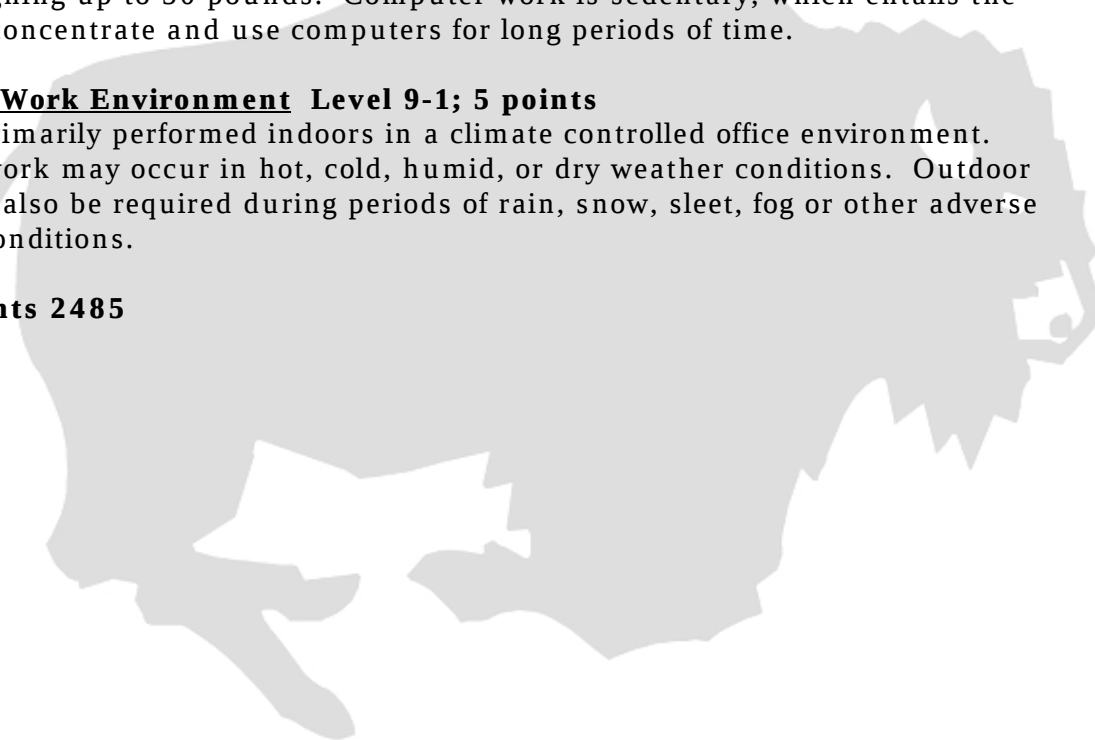
Factor 8. Physical Demands Level 8-2; 20 points

The work is often sedentary but field work occasionally requires some physical exertion such as long periods of standing, walking over rough, muddy, uneven, swampy or mountainous terrain; recurring periods of bending, crouching, stooping, stretching, reaching or similar activities; and recurring lifting of moderately heavy items weighing up to 50 pounds. Computer work is sedentary, which entails the ability to concentrate and use computers for long periods of time.

Factor 9. Work Environment Level 9-1; 5 points

Work is primarily performed indoors in a climate controlled office environment. Outdoor work may occur in hot, cold, humid, or dry weather conditions. Outdoor work may also be required during periods of rain, snow, sleet, fog or other adverse weather conditions.

Total Points 2485



Resources Careers