POSITION DESCRIPTION

1. Position Number DN00800

2. Explanation (show any positions replaced)
New standard PD (SPD)

3. Reason for Submission
☐ New ☐ Redescription ☐ Reestablishment ☒ Standardized PD ☐ Other

4. Service
☐ HQ ☐ Field

5. Subject to Identical Addition (IA) Action
☐ Yes (multiple use) ☐ No (single incumbent)

6. Position Specifications
Subject to Random Drug Testing ☐ Yes ☐ No
--
Subject to Medical Standards/Surveillance ☐ Yes ☐ No
Telework Suitable ☐ Yes ☐ No
Fire Position ☐ Yes ☐ No
Law Enforcement Position ☐ Yes ☐ No

7. Financial Statement Required
☐ Executive Personnel-OGE-278
☐ Employment and Financial Interest-OGE-450
☐ None required

8. Miscellaneous
Functional Code: --
BUS: --

9. Full Performance Level
Pay Plan: --
Grade: --

10. Position Sensitivity and Risk Designation
Non-Sensitive
☐ Non-Sensitive: Low-Risk
Public Trust
☐ Non-Sensitive: Moderate-Risk
☐ Non-Sensitive: High-Risk
National Security
☐ Noncritical-Sensitive: Moderate-Risk
☐ Noncritical-Sensitive: High-Risk
☐ Critical-Sensitive: High-Risk
☐ Special Sensitive: High-Risk

11. Position is
☐ 2-Supervisory
☐ 4-Supervisor (CSRA)
☐ 5-Management Official
☐ 6-Leader: Type I
☐ 7-Leader: Type II
☒ 8-Non-Supervisory

12. Position Status
☐ Competitive ☐ SES
☐ Excepted (specify in remarks) ☐ SL/ST

13. Duty Station

14. Employing Office Location

15. Fair Labor Standards Act
☐ Exempt ☐ Nonexempt

16. Cybersecurity Code
#1: -- #2: -- #3: --

17. Competitive Area Code:
Competitive Level Code:

18. Classified/Graded by	Official Title of Position	Pay Plan	Occupational Code	Grade	Initial	Date
a. Department, Bureau, or Office	Hydrologist	GS	1315	11	tlc	12/17/20
b. Second Level Review		--		--		

19. Organizational Title of Position *(if different from, or in addition to, official title)*

20. Name of Employee *(if vacant, specify)*

21. Department, Agency, or Establishment
U.S. Department of the Interior

a. Bureau/First Subdivision
U.S. Geological Survey

b. Second Subdivision

c. Third Subdivision

d. Fourth Subdivision

e. Fifth Subdivision

22. 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, but not limited to: FLSA determinations; position sensitivity and requirements; and appointment/payment of public funds. False or misleading statements may constitute violations of such statutes or their implementing regulations.*

a. Typed Name and Title of Immediate Supervisor

Signature **Date**

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

Signature **Date**

23. 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
Theresa Cruz, Classification Specialist

Signature THERESA CRUZ Digitally signed by THERESA CRUZ Date: 2021.02.02 17:38:09 -06'00' **Date** 12/17/20

24. Position Classification Standards Used in Classifying/Grading Position
Professional Work in the Physical Science Group, GS-1300 HRCD-4 December 1997; Introduction to the Position Classification Standards (Primary Standard)TS-134 July 1995, TS-107 August 1991 Revised: August 2009

25. Position Review	Initials	Date	Initials	Date
a. Supervisor				
b. Classifier				

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.

26. Remarks

DOI Standard PD
PD# DN00800

Classification: Hydrologist, GS-1315-11

INTRODUCTION

This position is located in an operating office (Office) within a bureau or bureau equivalent office (Bureau) within the Department of the Interior (Department). This position is responsible for participating on hydrologic studies of considerable scope and complexity or serving as a member of an interdisciplinary team performing complex work with wide latitude for the exercise of professional judgment. Performs and/or coordinates comprehensive hydrologic studies or significant components of extensive studies, that describe and interpret hydrologic conditions in order to define, analyze, forecast, or describe both natural and human-induced hydrologic changes in the area.

MAJOR DUTIES (80-100%)

Serves as a project member for complete hydrologic investigations by planning, conducting, and reporting on interpretive on limited independent studies or contributing to large, expansive studies. Modifies established hydrologic techniques or procedures. Collects, interprets, analyzes and evaluates hydrologic data. Assignments involve planning, executing, and reporting on hydrologic studies that require adapted approaches to meet problems. The complexity of assignments may require extensive modification and adaptation of standard procedures, methods, and techniques, or development of totally new methods and techniques to address problems for which guidelines or precedents are not substantially applicable. Modifies approaches and standard methods to meet conditions of the study. Plans, performs, coordinates and directs comprehensive hydrologic studies of hydrologic systems in accordance with and applicable authorizations, policy, and regulatory requirements. Uses comprehensive process or computer models to conduct and simulate hydrologic analysis and inform operations. Develops, modifies, and utilizes relational databases and related applications to maintain hydrologic data for conducting operational support and planning analyses.

Works on complex water issues whose solutions require a proven understanding of hydrology and one or more related disciplines such as hydraulics, geology, geochemistry, and the complexities of ground or surface water flow. Conducts planning, review, and evaluation of multi-basin, multi-aquifer investigations which includes predictive water quantity and quality numerical modeling and adherence to all management-based water resource policies. Results of some studies contribute to environmental analysis and disclosure of the proposed impacts as required by the US Environmental Protection Agency or other regulatory bodies. The scientist carries out a broad range of monitoring/mitigation measures to ensure that impacts are minimized.

Provides current information on resource management and technical requirements. May be called on to provide technical data and professional advice. Works with State, local and/or tribal land managers to ensure water resources management practices are consistent with Clean Water Act, Safe Drinking Water Act, Federal Land Management Policy Act, and the National Environmental Policy Act, state laws, and various regional, State, Federal, and local policies and procedural guidance and with Interior Board of Land Appeal decisions. Works with a team or independently to implement landscape-level projects to restore watersheds, improve water quality, protect federal water rights, and protect Wild & Scenic Rivers. When Federal water rights are threatened, the scientist assists in filing protests or taking other administrative or legal actions to protect the rights. May assist the office of the Solicitor or other officials with questions regarding compliance and/or water rights issues.

Contributes to investigative project proposals and develops work plans and protocols which include consideration of previous experimental and theoretical analyses, evaluation of all available data from various sources, and the development and adaptation of procedures and methods of investigation. Independently conducts interpretive studies or contributes to large scale hydrologic projects. Performs analyses and

evaluations and formulates scientific findings. Discusses agreements, study methods, approach, techniques, and desired results with management and representatives of cooperative agencies to implement hydrologic studies. Reconciles differences in approach or scope of study objectives in order to develop a comprehensive and scientifically sound report that can be used for water resource management or water rights decision-making. Provides technical advice and information on water resource problems of mutual concern.

Plans and performs a wide range of data collection assignments. Conduct of these investigations requires application of experienced professional judgment as well as advanced analytical methods. Results of such investigations serve as references for water managers and often are the basis for water-resources decisions having significant impact on life, property, regional economics, and the environment.

OTHER DUTIES (non-grade controlling, non-series controlling)

Analyzes, prepares, develops and publishes river volume and flood forecasts for river basins under a variety of hydrologic conditions.

Disseminates river volume and/or flood forecasts to Federal, state, or municipal water resource or emergency management organizations, hydropower and agricultural industries, and the general public.

Writes and publishes reports of findings as internal or external reports, recommendations to resource managers, or scientific journal publications.

Participates in meetings, cooperates with other bureau and Department offices, colleges, universities, industrial organizations, other Federal and State agencies, private consultants, and professional societies to obtain and exchange information. Participates in scientific and professional meetings and prepares replies to a variety of requests for information.

Serves as a point of contact with cooperating agencies in the identification, design, planning, and conduct of water-resources investigations. Participates in periodic meetings with cooperating officials to discuss program potential, development, progress, and technical accomplishments.

Performs complex tests to determine the chemical and/or biological components of water samples from a broad range of sources. Modifies methods to improve detection of contaminants. Trains other scientists in new methods and procedures.

Assists in training personnel in areas of expertise including techniques of data collection and analysis.

Performs other similar duties as assigned.

FACTOR STATEMENTS

FACTOR 1 - KNOWLEDGE REQUIRED BY THE POSITION Level 1-7, 1250 points

Knowledge of hydrologic sciences, methods and techniques and water management practices and procedures as well as broad and varied hydrologic study techniques sufficient to analyze and interpret hydrologic data and information, to analyze the existence and feasibility of water resource management alternatives, and to prepare data and interpretive findings in support of study conclusions for publication of resource management and/or scientific reports.

Knowledge of applicable Federal statues, State, local and municipal laws, when applicable, agency and bureau regulations, policies, and procedures, governing individual programs related to ground and surface water, water quality, and water availability. Ability to resolve complex problems involving multi-use resource management and apply regulatory requirement to resource management reviews and/or cooperator agreements.

Knowledge of and skill in using equipment and technology to conduct hydrologic studies and gather data. Skill in analyzing data, calibrating models, and identifying and accounting for anomalies in the gathered data.

Familiarity with related fields such as hydraulics, engineering, geology, geochemistry, biology, and soil sciences sufficient to incorporate considerations from these disciplines in the review and study of water management problems, plans, and activities.

Ability to serve on or lead technical teams and coordinate and collaborate with other scientists to accomplish study objectives

Knowledge of publication requirements and fundamental science practices applied to preparation of reports which clearly present scientific findings, interpretations, conclusions, and recommendations.

Skill in communicating scientific data orally and in writing to both technical and non-technical personnel.

FACTOR 2 – SUPERVISORY CONTROLS **Level 2-4, 450 points**

The supervisor sets the overall objectives and program emphasis and works with the employee to develop project priorities. The scientist is responsible for independently planning work, coordinating this work with other scientists, engineers, or resource specialists, resolving technical problems, deciding on the necessity for and kind of technical compromise required by resource constraints, and finalizing all assignments.

The scientist keeps the supervisor informed of possible adverse reactions, publicity, or cooperator interest that might arise from study findings or conclusions. Analysis, recommendations, and conclusions are accepted as being technically correct.

Completed work is reviewed for adherence to overall program policies and attainment of study objectives and deadlines, and for feasibility of overall recommendations.

FACTOR 3 - GUIDELINES **Level 3-3, 275 points**

Guidelines include policy, procedural, and technical manuals and handbooks, standard professional practices, published research results and related scientific reports, annual work plans, and oral instructions from the supervisor or senior scientist. Guidelines may have gaps in specificity that require interpretation and/or adaptation for application to issues and problems.

The scientist uses resourcefulness and experienced judgment in devising new study techniques, developing methods, or adapting guidelines to meet study conditions.

FACTOR 4 - COMPLEXITY **Level 4-3, 150 points**

Assignments involve the application of complex existing processes and procedures for the study of local or regional hydrologic conditions. Work involves analysis of problems and conditions unique to the assignment(s), selecting appropriate course of actions based on a number of possible approaches and conducting analysis to achieve results.

The work requires the scientist to isolate specific variables to be considered in the study in order to describe conditions impinging on the storage, movement, and use of ground- and/or surface water within varied surficial and subsurface geologic environments, to evaluate natural and man-induced water quality conditions in hydrologic systems; and to draw scientifically correct conclusions from the evaluation of collected data.

The scientist must be able to adapt or extend well-established techniques or methods to overcome existing study problems.

FACTOR 5 - SCOPE AND EFFECT **Level 5-3, 150 points**

The scope of the scientist's work involves a broad range of complex, conventional problems. The work requires a thorough professional knowledge of hydrologic processes and the effects of natural or human-induced stresses on the environment.

Reports summarizing results of investigations into water resource problems affect the operation and adequacy of investigations, the research conclusions, and the value of investigative activities to the immediate organization and/or its cooperating agencies.

FACTOR 6 - PERSONAL CONTACTS **Level 6-3, 60 points**

Establishes and maintains contact with a technical staff of cooperators; scientists and community planners in other Federal, state, or local agencies; as well as scientists and support personnel in the immediate organization. Contacts are also made with consultant hydrologists and engineers as well as landowners, the general public, universities, industry, and contract personnel.

FACTOR 7 - PURPOSE OF CONTACTS **Level 7-2, 50 points**

Contacts are for the purpose coordinating work efforts with co-workers, resolving operating problems, and advising on work efforts.

FACTOR 8 – PHYSICAL DEMANDS **Level 8-1 5 pts or Level 8-2 20 pts**

(Level 8-1) The work is typically performed in an office setting with no special physical demands. However, work may also be performed in the field which involves periods of walking, bending, climbing, or driving motor vehicles to worksites. The work may also involve some overnight travel for training, meetings, and site visits.

(Level 8-2) The work regularly combines both office and field assignments. Field work requires physical exertion, such as long periods of standing, or recurring and considerable walking, stooping, bending, crouching, crawling, and climbing such as in regular and periodic construction activities and field inspections. Work may also include frequent lifting of moderately heavy items weighing less than 50 pounds. Field assignments may also involve operating small watercraft, driving motor vehicles to work sites, some of which may be remote, and include overnight stays in remote locations.

FACTOR 9 – WORK ENVIRONMENT **Level 9-1 5 pts or Level 9-2 20 pts**

(Level 9-1) The work is usually performed in an office setting. However, work time may also be spent periodically visiting field sites. Field site visits are typically performed in either an outdoor setting subject to weather changes, diverse terrain, and safety hazards associated with working around complex features and/or construction, or an industrial setting subject to noise, fumes, and moving machinery. Both settings may require the use of personal protective equipment. Safety precautions and protocols are observed at all times and the scientist complies with safety instructions and regulations and ensures individual and others' safety by promptly reporting unsafe acts, unsafe conditions, and accidents to the supervisor.

(Level 9-2) The work involves regular and recurring exposure to moderate risks, discomforts, and unpleasantness such as: high noise levels, infectious materials, or toxic or irritating chemicals; travel in safety approved small aircraft and water craft; high winds and low or high temperatures; infestation of dangerous reptiles or poisonous plants, snakes, or insects; adverse weather conditions; noxious fumes; flammable liquids; or radiation. The work involves performing tasks in close proximity to rotating heavy mechanical and electrical machinery and may involve working within confined spaces for extensive periods of time. Special safety precautions such as protective clothing and gear are necessary. Safety precautions and protocols are

observed at all times and the scientist complies with safety instructions and regulations and ensures individual and others' safety by promptly reporting unsafe acts, unsafe conditions, and accidents to the supervisor.

OTHER SIGNIFICANT FACTS

Position may be required to operate a motor vehicle as an incidental driver. Employees who operate a motor vehicle on public roadways require a valid drivers' license.

Position may be required to operate or be a passenger in small watercraft. Employees who operate a small watercraft are required to possess safety certification or pass an appropriate safety training course commensurate with watercraft used in the performance of duties.

Positions involving arduous field work may require a pre-employment medical examination.

TOTAL POINTS – 2395-2425

GRADE CONVERSION - 2355-2750 = GS-11

EVALUATION STATEMENT

STANDARD APPLIED

Job Family Standard (JFS) for Professional Work in the Physical Science Group, GS-1300 December 1997; Introduction to the Position Classification Standards/Primary Standard, revised 8/09

SERIES AND TITLE DETERMINATION

The JFS defines the 1315 series as positions that involve professional work in hydrology, the science concerned with the study of water in the hydrologic cycle. The work includes basic and applied research on water and water resources; the collection, measurement, analysis, and interpretation of information on water resources; the forecast of water supply and water flows; and the development of new, improved or more economical methods, techniques, and instruments.

The basic title for this occupation is Hydrologist.

GRADE LEVEL DETERMINATION

The 1300 JFS is a narrative standard. When applying narrative standards each position is placed at the grade with the descriptive material that best represents the overall work of the position. The standard describes the GS-09 as performing work assignments with independent responsibility for applying established technology in routine ways to well-defined, moderate sized projects, but GS-9s might also work in support of larger projects using less established technology. GS-9 scientists are responsible for organizing the work, following prescribed methods and guidelines, and recognizing conditions and results that may affect the findings.

The standard describes work at the GS-11 performing with wide latitude for the exercise of independent judgment performing responsible work of considerable difficulty requiring somewhat extended professional, scientific, or technical training and experience which has demonstrated important attainments and marked capacity for independent work. Assignments generally do not involve radical departures from past practices or require the development of new, novel or innovative approaches, methods or techniques. By comparison, GS-9 scientists perform assignments that have fewer variables and produce relatively obvious results and conclusions. Like work described in the standard at the 11 level, this position performs complex studies that require application of standard methods, but often go beyond precedents and require adaptation of techniques and processes to achieve desired results. Recommendations and conclusions are expected to be logical and the product of a trained scientist.

The position exercises significant professional judgment to determine what needs to be done and the phases involved in each assignment. Recommendations and conclusions are typically reviewed for adequacy for conclusions and their applicability to the work of the organization, but not for methods applied.

The work of the does not reach the GS-12 level, where wide latitude for the exercise of independent judgment requires the scientist to make significant modifications to existing processes and practices. GS-12 work involves complex or controversial water issues whose solutions require a proven understanding of hydrology and one or more related disciplines. Assignments typically include considerable breadth and intensity. Hydrologists at the GS-12 make significant technical and scientific recommendations and decisions. At the GS-12, scientists develop procedures that did not previously exist to meet specific problems and perform scientific and technical evaluation, correlation, synthesis, and presentation of important data in a complex field of science. Work of the GS-11 position, by contrast, involves application of complex but conventional methods and practices.

As the work fully meets, but does not exceed, descriptions at the GS-11 level in the JFS, the position is properly classified as Hydrologist, GS-11.