

POSITION DESCRIPTION (Please Read Instructions on the back)

1. Agency Position No
S0223

2. Reason for Submission NEW	3. Service	4. Employing Office Location	5. Duty Station	6. OPM Certification No
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Explanation	7. Fair Labor Standards Act Exempt		8. Financial Statements Required			9. Subject to IA Action Yes	
	10. Position Status	11. Position is NON-SUPERVISORY	12. Sensitivity	13. Competitive Level Code		14. Agency Use	
	15. Drug Test Required NO					16. ADP Status	

17. 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	Hydrologist	GS	1315	12	L . P	01/01/2002
d. First Level Review						
e. Recommended by Supervisor or Initiating Office						

18. Organizational Title of Position (if different from official title)	19. Name of Employee (if vacant, specify)
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20. Department, Agency or Establishment Department of the Interior	c. Third Subdivision
a. First Subdivision U.S. Geological Survey	d. Fourth Subdivision
b. Second Subdivision	e. Fifth Subdivision
21. Employee Review- This is an accurate description of the major duties and responsibilities of my position.	Signature of Employee (optional)

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. Name and Title of -Supervisor Mark Sogge, Acting Deputy Director, USGS	b. Typed Name and Title of Higher-Level Supervisor or Manager (optional)
Signature /s/ Mark Sogge	Signature
Date 07/30/2015	Date

23. Classification/Job Grading Certification <i>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.</i>	24. Position Classification Standards Used in Classifying/Grading Position GS-1300P, JFS for Prof Phy Sci Work
Typed Name and Title of Official Taking Action Lorilee Penn Human Resources Specialist	Information for Employees <i>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.</i>
Signature Lorilee Penn /s/	
Date 01/01/2002	

25. Position Review	Initials	Date								
a. Employee (Optional)										
b. Supervisor										
c. Classifier										

26. Remarks

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

PD Tracking Number 0000012

The incumbent is a senior staff member within a field office of the Water Resources Division (WRD) of the U.S. Geological Survey. The goals of the office are to produce accurate, timely and useful data and authoritative technical reports that improve the understanding and management of water resources in the geographic area.

Major Duties

Serves as project leader or member of an interdisciplinary team. Plans, directs, and/or carries out complex scientific studies or significant components of very large 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. Investigative subjects include the hydrology of ground-water and surface-water systems and the water quality of those systems, the nature of surface-water/ground-water interconnections, testing of aquifer hydraulic properties, mapping of geologic formations, and surface geophysical techniques. Conduct of these investigations requires application of a high degree of mature professional judgment as well as advanced analytical methods. Results of such investigations serve as authoritative references for water managers and often are the basis for water-resources decisions having significant impact on life, property, regional economics, and the environment,

Identifies, clarifies, defines, and expresses otherwise diffuse and obscure hydrologic problems and needs using the insight gained from extensive knowledge and experience.

Prepares 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.

Determines the overall nature, scope, and approach for water-resources investigations that will most effectively address identified hydrologic problems and needs. This includes evaluation and determination of alternative approaches, data-collection methods, and analytical procedures to assure that project objectives will be met and that results will be valid and reliable.

Serves as consultant and advisor to supervisors and other scientists of the office on matters pertaining to specialized knowledge, and assists in training inexperienced personnel in areas of expertise including techniques of data collection and analysis. Participates in meetings, and cooperates with other members of WRD, colleges, universities, industrial organizations, other Federal and State agencies, private consultants, and professional societies to obtain and exchange information. Represents the Office Chief at meetings and prepares replies to a variety of requests for information.

Serves as principal contact with cooperating agencies in the identification, design, planning, and conduct of water-resources investigations. Conducts or participates in periodic meetings with cooperating officials to discuss program potential, development,

progress, and technical accomplishments. This includes reconciling differences of opinion by persuasion or modification of project objectives, scope, approach, results, and conclusions of water-resource investigations or selected elements of such investigations.

Writes clear, timely, and authoritative interpretive technical articles and reports that document the objectives, scope, approach, results, and conclusions of water-resource investigations or selected elements of such investigations.

Critically reviews interpretive reports written by colleagues within and outside the Water Resources Division to help assure publication of high quality, technically sound reports.

Maintains an awareness of new concepts, approaches, and methodologies relevant to hydrology and modifies and applies new developments, as appropriate, to achieve project goals.

Directs-the work of lower-grade professionals and technical support personnel engaged in the establishment of data-collection networks, data-collection activities, interpretation of hydrologic and geologic data, and geophysical techniques.

Undertakes other related tasks including special hydrologic data collection, processing, and interpretative activities as assigned. Operates a government vehicle as an incidental driver.

Factor Statements

FACTOR 1 - KNOWLEDGE REQUIRED BY THE POSITION

- A thorough professional knowledge of water-resource, hydrologic, and geologic theories, principles, and practices to analyze the existence and feasibility of natural resource management alternatives, and to prepare data and interpretive findings in support of study conclusions for publication.
- Familiarity with related fields such as water chemistry, geophysics, meteorology, and computer science to effectively incorporate elements from these disciplines into the planning and conduct of water-resources investigations.
- A broad knowledge and understanding of the hydrology of the area in order to effectively translate perceived hydrologic problems into technically sound investigations.
- A knowledge of modern English usage for technical writing and the ability to use this knowledge to express complex concepts.
- Knowledge of the objectives, policies, and philosophies of the Water Resources Division.
- Knowledge of specialized equipment used in water-resources studies to obtain specific types of hydrologic data, and the interpretation of those data.

FACTOR 2 - SUPERVISORY CONTROLS

The supervisor sets the overall objectives and program emphases, and works with the employee in developing project priorities. The hydrologist is responsible for independently planning own work, coordinating this work with other hydrologists or resource specialists, resolving technical problems, deciding on necessity for and kind of technical compromise required by particular financial, human-resource, or instrumentation constraints, and finalizing all assignments. The hydrologist keeps the supervisor informed of possible adverse reactions, publicity, or cooperator interest that might arise from study findings or conclusions. The hydrologist's analyses, recommendations, and conclusions are relied upon as technically correct.

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

FACTOR 3 - GUIDELINES

The guidelines are primarily Water Resources Division policies, operating program guidelines, and scientific reference literature. Precedent studies often provide procedural guides or methodology, but studies typically require that a "tailor made" approach be developed, due to differences in study objectives, this hydrology of a given study area, depth of investigation, or techniques available for data collection or analysis. The hydrologist must use resourcefulness and experienced judgment in devising new study techniques, developing methods, or significantly departing from established study practices, as required by unique local hydrologic conditions as well as the broad range of water-use practices, and water-quality issues. This responsibility requires substantial deviation and departure from precedent study techniques that result in more effective methods. Such methods may be used as prototypes, for application by other scientists and water managers in the area and elsewhere.

FACTOR 4 - COMPLEXITY

Work assignments cover a diverse range of hydrologic, geologic, water-quality, and water-resource procedures and methodologies, each having its own set of complicating factors which must be considered simultaneously, such as: 1) multidisciplinary aspects of the study; 2) the varied nature of surface-water velocities, ground-water direction, storage capacity, flow boundaries, recharge characteristics, and water chemistry; 3) varied surface and subsurface geology; 4) varied land use conditions such as spatial and temporal variation in urbanization and non-uniform water supply development practices; 5) the inherent deficiencies associated with indirect methods; and 6) surface-water flow conditions. The work requires the hydrologist 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 surface water within varied surficial and subsurface geologic environments, to evaluate natural and human-induced water-quality conditions in hydrologic systems; and to draw scientifically correct conclusions from the evaluation of collected data. The hydrologist must be versatile and innovative in-approach and be able to adapt or extend established techniques or methods to overcome existing study problems.

FACTOR 5 - SCOPE AND EFFECT

The scope of the incumbent's work includes planning, executing, and reporting on original studies and investigations or ongoing studies that require a fresh approach to resolve extremely complex or novel problems pertaining to the field of ground- and surface-water hydrology and water quality and its application in a geographic area. The work requires a thorough 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 often serve as definitive documents on the subject, and decisions based on these reports can affect life, property, regional economics, and the environment.

FACTOR 6 - PERSONAL CONTACTS

Personal contacts are with cooperating agency officials and professional and research personnel in the U.S. Geological Survey and other governmental agencies and universities. On occasion, the incumbent is called on to provide expert testimony in administrative hearings or court actions.

FACTOR 7 - PURPOSE OF CONTACTS

The purpose of the personal contacts is primarily to exchange scientific information with other project chiefs in incumbent's field, to provide data and results of completed and ongoing studies, and to develop programs with local cooperators.

FACTOR 8 - PHYSICAL DEMANDS

Work assignments normally involve 90 percent office and 10 percent field effort. Office assignments are generally sedentary. Occasional physical activities required in field assignments, include walking, bending, stooping, and carrying stream gaging and chemical and biological sampling equipment. Field work may occasionally require lifting fairly heavy objects and wading in streams in all types of weather.

FACTOR 9 - WORK ENVIRONMENT

Office assignments normally involve everyday risk or discomforts that are typical of office meeting and training rooms, libraries, and residences or commercial vehicles. Work area is adequately lighted, heated, and ventilated. Field work may expose hydrologist to potentially dangerous situations and exposure to moderate discomfort from such extremes as heat, cold, and inclement weather, particularly on flood trips during severe storms.

GS-1300, JFS for Professional Physical Science Work, 10/97
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