

**MOJAVE WATER AGENCY**  
**Job Description**

**Job Title:** Senior Data Analyst  
**FLSA:** Exempt  
**Range:** 45  
**Prepared By:** Gallagher – Formerly Koff & Associates  
**Prepared Date:** June 2022  
**Revised:** April 2024

**SUMMARY**

Under direction, performs the more complex and professional data analysis projects and tasks for the Agency, including data system administration, disaster and system recovery, and department wide research and analytical activities including the creation of scientific, cartographic and graphic products; manages and analyzes complex systems related to the creation, operation, and archival of relational and spatial database systems; assists and provides oversight with the preparation of and analyzes data for a variety of research programs, water resource studies and special projects to support Agency plans and operations including the creation and presentation of visual representations of data and analyses; provides professional direction and training to subordinate staff members in the assigned department; and performs other related duties as assigned.

**SUPERVISION RECEIVED AND EXERCISED**

Receives direction from assigned supervisory/management personnel or Department Head. Exercises no direct supervision over staff. Exercises technical and functional direction over and provides training to lower-level staff as directed.

**CLASS CHARACTERISTICS**

This is the advanced journey-level classification in the Data Analyst series. Incumbents at this level perform the most complex and difficult data analyses that have Agency-wide impact. Positions at this level work independently and exercise judgment and initiative, receiving only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. Incumbents may provide functional and technical direction to staff as a regular part of their work routine and are required to be fully trained in all procedures related to the assigned functional area.

This class is distinguished from the assigned supervisor/management personnel or Department Head, in that the latter classifications are responsible for the full management and supervisory authority in planning, organizing, and directing the full scope of data analysis within their departments.

**EXAMPLES OF TYPICAL JOB FUNCTIONS** *(Illustrative Only)*

*Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations where appropriate so that qualified employees can perform the typical functions of the job. The following statements are intended to describe the general nature and level of work being performed by an individual assigned to this job.*

- Provides technical and functional direction to assigned staff; reviews quality of work; trains employees in work methods and processes.
- Plans, schedules, prioritizes, and assigns work in consultation with the assigned supervisor/manager or Department Head.
- Works directly with the assigned supervisory/management personnel or the Department Head in determining long-term departmental priorities and direction relevant to the department's data needs.
- Creates, updates and maintains series of annual hydrograph maps; extracts, organizes, and reviews water level and water quality data from the Agency's database.
- Creates scientific knowledge and analytical products utilized by staff to answer scientific hypotheses, resource management, and/or basin management questions.
- Performs remote sensing analyses either visually or electronically aided to estimate water use by minimal producers.
- In conjunction with other staff, analyzes and calculates "verifies" water production using quantifiable data.
- Participates in writing the Watermaster's Annual Report to the Court including errata from prior year annual report amended post submission to the Court.
- Communicates and/or meets with producers on transfer activities; updates records in databases and GIS, generates transfer reports; maintains digital document archive.
- Assists with oversight and administration of the spatial data library and well construction data files as directed.
- Coordinates the design and maintenance of the Agency's QA/QC (quality assurance/quality control program), dealing with data preparation, handling, review, error correction, data cleansing and approval prior to entry into the Agency's databases (relational and spatial).
- Develops complex GIS and relational database applications in an integrated environment.
- Performs or provides oversight for data exploration and analytics including the application of principles of statistical methods, pattern identification, trending/regression analysis, and various computational methods.
- Designs and generates knowledge and cartographic products and performs related spatial analyses in direct support of Agency mandated reports, studies, and responses to information requests.
- Assists Engineering, Operations and Finance Departments with the coordination of the State Water Project deliverables and maintaining customer request records.
- Provides assistance to develop in-house training programs for software applications used by Agency staff.
- Assists in the development and management of Agency departmental websites.
- Coordinates with Agency staff on water resource data entry, and data transfer issues
- Provides support to Agency staff for improved database usability; maintains and updates database and system document libraries.
- Works with other government entities to collect, log, and disseminate water resource related data.
- Responds to regulatory, public, and water purveyor inquiries regarding water resource data related issues as directed.
- Assists with compiling, summarizing, and updating regularly published Agency publications and reports.

- May represent the Agency at meetings with the general public and other water agencies; participates on a variety of committees, task forces, and professional group meetings.
- Provides complex professional assistance to the Agency Hydrogeologist's and/or the Watermaster Services Manager or Department Head.
- Attends meetings, conferences, workshops, and training sessions, and reviews publications to remain current on principles, practices, and new developments in the field of water resource data management.
- Ensures compliance with applicable federal, state, and local laws, ordinances, and regulations and Agency rules and policies.
- Performs other duties as assigned.

### **QUALIFICATIONS**

*To perform this job successfully, an individual must be able to perform each typical duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the typical functions.*

#### **Knowledge of:**

- Principles of providing technical and functional direction and training.
- Principles and practices of leadership, public administration, policy and organizational development.
- Spatial and relational database structures and systems.
- Cartographic principles and methods.
- Map reading, survey and geo-referencing techniques; well construction and design.
- Methods of data exploration and analytics including the application of principles of statistical methods, pattern identification, trending/regression analysis, and various computational methods.
- Techniques for storage and access of data in structured or unstructured databases.
- Project management principles and concepts.
- General principles and practices of water resources management and reporting.
- Software utilized for reports and presentation purposes.
- Effective and engaging public speaking skills.
- Various equipment including, but not limited to, maximum/minimum thermometers, precipitation gauges, pressure transducers, evaporation measuring pan, hygrothermograph, global positioning system unit, and digital camera.
- Applicable federal, state, and local laws and Agency resolutions, policies, and procedures relevant to assigned area of responsibility.
- Principles and practices of research, data collection, and report preparation.
- Record-keeping principles and procedures.
- Agency and mandated safety rules, regulations, and protocols.
- Techniques for effectively representing the Agency in contacts with governmental agencies, community groups and various business, professional, educational, regulatory and legislative organizations.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and Agency staff.

- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

**Ability to:**

- Plan, organize, and coordinate the work of lower level professional and technical staff.
- Effectively provide staff leadership and technical and functional work direction
- Conceptualize, design, construct, operate, and distribute for practical use, by a wide spectrum of operators, spatial and relational databases typically used in the management of water resources.
- Manage competing priorities with strong attention to detail and quality assurance, meet strict time schedules, and work on multiple tasks routinely.
- Research, analyze, and evaluate new service delivery methods, procedures, and techniques.
- Work with mathematical concepts such as probability and statistical inference, and fundamentals of plane and solid geometry and trigonometry.
- Solve practical problems and deal with a variety of concrete variables in standardized situations.
- Actively listen and discern common interests to reach mutually agreeable solutions and outcomes.
- Effectively present information and respond to questions from Agency employees, the general public, other water agencies, the Agency Board of Directors, and regulatory agencies.
- Perform work in accordance with specific safety procedures to minimize potential for injury.
- Interpret, apply, and explain federal, state, and local laws and regulations, policies, procedures, and practices of geology and hydrogeology programs and functions.
- Research, interpret, summarize, and present administrative and programmatic information and data in an effective manner.
- Compose correspondence and concise administrative and management reports independently or from brief instructions.
- Effectively represent the Agency in meetings with other staff, outside agencies, community groups, and the public.
- Create visual representations of data and analyses; develop associated reports, presentation materials and deliver information in a way it can be understood by both technical and non-technical audiences.
- Perform data exploration and develop analytics including the application of principles of statistical methods, pattern identification, trending/regression analysis, and various computational methods.
- Establish and maintain a variety of filing, record-keeping, and tracking systems.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Use tact, initiative, prudence, and independent judgment within general policy and procedural guidelines.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.

- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.

**Education and Experience:**

*Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the minimum required qualifications would be:*

Equivalent to a bachelor's degree from an accredited college or university with major coursework in computer science, engineering, hydrogeology, urban planning, environmental studies, geology, geography, or a related field; and five (5) years of progressively responsible water resources information systems experience.

**Licenses and Certifications:**

- Valid California Class C driver's license and current automobile insurance.

**PHYSICAL DEMANDS**

*The following physical demands described are representative of those that must be met by an employee to successfully perform the typical functions of the job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. This is primarily a sedentary office classification although standing in work areas and walking between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 15 pounds.

**WORK ENVIRONMENT**

*The following work environment characteristics described are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures. Travel outside the local area may be required.