Job Title:	**Senior Database Administrator**
FLSA:	**Exempt**
Range:	**43**
Prepared By:	**Gallagher – Formerly Koff & Associates**
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SUMMARY

Under general direction, performs scientific and administrative analysis of resource issues and administration of department data systems, which include database administration, data warehousing, security, and operations. Responsible for managing and analyzing complex systems and datasheets related to the creation, operation, and archival of the Agency database systems and associated information products. Responsible for managing the technology integration/utilization and data administration issues; and performs related duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from the Information Systems Manager or Department Head. Exercises no direct supervision over staff. Exercises technical and functional direction to lower-level staff as directed.

CLASS CHARACTERISTICS

This is an advanced journey-level classification. Positions at this level perform the full range (routine to complex) of professional Database Administration and Geographic Information Systems (GIS) duties as assigned, working independently and exercising judgment and initiative. Positions at this level receive 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.

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.

➢ Works directly with the Information Systems Manager or Department Head in determining long-term departmental priorities and direction relevant to the department's data needs.
➢ Works with team members and other staff to ensure a customer service-oriented work environment that supports achieving the Agency's mission, strategic plan, objectives, and values.
➢ Directs and performs the development of standard and physical database designs, recommending physical storage parameters, index storage requirements, and performance tuning protocols; supervises the physical designs of database formats for user front-end entry and inquiry.
➢ Manages the administration of the Agency databases, which includes data design, organization, conversion, metadata preparation, and maintenance activities.

➢ Oversees the research, development/test, evaluation, and implementation effort required to support GIS/database/modeling projects, which involves evaluating and identifying existing and experimental hardware, software, specialized equipment, and vendors.

➢ Oversees the design and maintenance of the Agency's resource information quality assurance (QA)/quality control (QC) program, and establishes the procedures and standards associated with data review/approval prior to entry into the Agency's databases (relational and spatial) and exporting data to other governmental agencies.

➢ Performs database management and administration tasks; creates and maintains user accounts, roles, and access privileges; troubleshoots database and data administration problems to identify the source of problems and performs or requests fixes or repairs; provides database infrastructure support in data warehousing and transaction processes; ensures database capacity.

➢ Reviews and designs program applications, tools, and user interfaces for the management of geographic information, data analysis, map production, presentation design, and enhancements to existing applications.

➢ Establishes the overall information architecture and manages the development of project specific GIS and relational database applications in an effective and cohesive integrated environment.

➢ Responsible for the design, development, and administration of standards, protocols, system documentation, and procedure manuals for all Agency data collection, analysis, archival, and release.

➢ Reviews responses prepared by staff to regulatory, public, and water purveyor inquiries regarding Agency data related issues as directed.

➢ Responsible for budget preparation input by obtaining pricing and upgrade information on hardware, software, peripherals, and specialized equipment.

➢ Selects and procures hardware/software and specialized equipment related to the analysis of Agency data.

➢ Assists with compiling, summarizing, and updating regularly published Agency publications and various reports.

➢ Keeps abreast of advances in information system and computing technologies and their capabilities; provides technical information, guidance, and support to all departments as needed.

➢ May act as primary liaison with other entities to collect and disseminate water resources and other Agency related data.

➢ Attends meetings, conferences, workshops, and training sessions; reviews publications and audio-visual materials to become and remain current on principles, practices, and new developments.

➢ Performs related duties and responsibilities, 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 functional direction and training.

➢ Advanced spatial and relational database structures and systems.
➢ Advanced knowledge of technical software such as Microsoft SQL Server, Microsoft SharePoint Server, Microsoft Access, and ESRI Arc GIS.
➢ Database management policies, practices and emerging technologies, hardware, and software architecture and environment.
➢ Principles, techniques, methods, and terminology of geography, cartography, geographic information systems, and cartographic composition.
➢ Principles and techniques in programming, and programming languages used in the databases.
➢ Principles and practices of identifying technology needs and issues; researching and evaluating technology and applications, identifying the most effective course of action, and implementing solutions.
➢ Principles and practices of contracting and budget preparation and administration.
➢ Principles and practices of database code security.
➢ Map reading; survey and geo-referencing techniques; well construction and design.
➢ Applicable federal, state, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
➢ Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.
➢ 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 as well as program, project, and task coordination.
➢ Computers and software programs (e.g., Microsoft software packages) to conduct research, assess information, and/or prepare documentation.

Ability to:

➢ Conceptualize, design, construct, operate, and distribute for practical use, by a wide spectrum of operators, spatial and relational databases typically found in the management of water resources.
➢ Perform modeling, mapping, database maintenance, and other GIS professional-level tasks.
➢ Analyze, design, code, test, and implement GIS/Database and related application software.
➢ Adapt and perform in a dynamic environment with changing priorities.
➢ Manage competing priorities with strong attention to detail and quality assurance, meet strict time schedules, and work on multiple tasks routinely.
➢ Instruct both technical and non-technical user staff in the operation of new or revised GIS applications, system modifications, or database structure, including explaining system concepts to non-technical users.
➢ Understand, interpret, apply, explain, and ensure compliance with federal, state, and local policies, procedures, laws, and regulations; technical written material; and Agency policies and procedures.

- Analyze situations and identify pertinent problems/issues, collect relevant information, evaluate realistic options, and recommend/implement appropriate course of action.
- Assist in the production of standard reports and business correspondence.
- Apply mathematical concepts such as Boolean logic, probability and statistical inference, and fundamentals of plane and solid geometry and trigonometry.
- Solve complex problems and deal with a variety of variables in standardized and non-standardized situations.
- Interpret and apply policies, procedures, laws, codes, and regulations pertaining to geology and hydrogeology programs and functions.
- Actively listen and discern common interests to reach mutually agreeable solutions and outcomes.
- Effectively present information and respond to questions from Agency employees, customers, other water agencies, the general public, Agency Board of Directors, regulatory agencies, and vendors.
- Prepare and present clear and concise correspondence and reports.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish and maintain cooperative working relationships with those contacted in the course of business, including other employees, managers and executives, vendors, consultants, contractors, and the public.
- Effectively use computer systems, applications, and modern business equipment to perform a variety of work tasks.
- Perform work in accordance with specific safety procedures to minimize potential for injury.

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 four-year college or university with major coursework in computer science, engineering, cognitive studies, environmental studies, or a related field; and five (5) years of progressively responsible experience in database administration, analysis, data warehousing, data security and enterprise-wide operations, or structure development and maintenance; and one (1) year of project management experience that oversees/directs the work of lower level staff.

Licenses and Certifications:

- Valid California Class C driver's license and current automobile insurance.
- Microsoft Access Programming with VBA.
- Microsoft SQL Server DBA Certification.

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 in a field setting. When working in an office setting, must possess mobility to use standard office equipment, including a computer; vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups and over the telephone. Occasional standing in 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. While in a standard office setting, this classification will occasionally bend, stoop, kneel, reach, push and pull drawers open and closed to retrieve and file information and occasionally lift and carry reports and records that typically weigh 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/agency policies and procedures. May travel between Agency office locations.