

JOB DESCRIPTION AND POSITION CLASSIFICATION

CLASSIFICATION Engineer, Water Resources (Permanent/Intermittent)		DWR POSITION NUMBER 1380-3137-900	SAP POSITION NUMBER 50040679/50040680	MCR 1
APPOINTEE Vacant		SAP PERSONNEL NO. TBD	DIVISION/SECTION Modeling Support Office/Central Valley Modeling	
COLLECTIVE BARGAINING IDENTIFIER Management Related BU: <input type="checkbox"/> Supervisory Related BU: <input type="checkbox"/> Confidential Related BU: <input checked="" type="checkbox"/> Rank and File BU: R09				
RESPONSIBILITIES EXERCISED <input type="checkbox"/> Supervisory <input type="checkbox"/> Lead Person		IMMEDIATE SUPERVISOR (Print) Raymond Hoang/Richard Chen	SUPERVISOR'S CLASSIFICATION Senior Engineer, Water Resources	
APPROVED BY (Personnel Analyst's Name) Jennifer Greathouse			DATE 4-17-24	
<i>Percent of Time</i>	<i>Activity</i>			
40%	<p>POSITION SUMMARY The Engineer, Water Resources (Permanent-Intermittent), under the direction of a Senior Engineer, Water Resources in the Central Valley Modeling Section, Modeling Support Branch of the Modeling Support Office, is responsible for providing technical support in developing and maintaining water management simulation models used for conducting water resources simulation studies.</p> <p>ESSENTIAL FUNCTIONS This position requires the incumbent to have knowledge of hydrology and numerical analysis, State Water Project (SWP) and Central Valley Project (CVP) system operations, and water resources simulation modeling; knowledge and working experience of programming languages and data analysis/visualization tools and ability to communicate effectively orally and in writing and make presentations. The incumbent is also required to work cooperatively with others; maintain regular, consistent, and predictable attendance; and exercise good judgment. Civil engineering degree preferred with specialization in Water Resources Engineering and computer simulation modeling. The specific essential duties are:</p> <p>Develop and maintain Central Valley water management simulation models, including CalSim and CalLite, used to support decisions for operating, planning, and managing California's SWP and CVP. Apply simulation models for planning studies, regulatory processes and water supply investigations related to the operations of the SWP and CVP. Studies include, but are not limited to, new regulatory actions, additional system storage, and conveyance facilities. Coordinate with other state agencies, federal entities, and other collaborators to update the simulation models and document modeling assumptions.</p>			
SUPERVISOR'S STATEMENT: I HAVE DISCUSSED THE DUTIES OF THE POSITION WITH THE EMPLOYEE.				
SUPERVISOR'S NAME (Print) Raymond Hoang/Richard Chen		SUPERVISOR'S SIGNATURE ➤		DATE
EMPLOYEE'S STATEMENT: I HAVE DISCUSSED WITH MY SUPERVISOR THE DUTIES OF THE POSITION AND HAVE RECEIVED A COPY OF THE DUTY STATEMENT.				
EMPLOYEE'S NAME (Print) Vacant		EMPLOYEE'S SIGNATURE ➤		DATE

JOB DESCRIPTION AND POSITION CLASSIFICATION

CLASSIFICATION Engineer, Water Resources (Permanent/Intermittent)		DWR POSITION NUMBER 1380-3137-900	SAP POSITION NUMBER 50040679/50040680	MCR 1
APPOINTEE Vacant		SAP PERSONNEL NO. TBD	DIVISION/SECTION Modeling Support Office/Central Valley Modeling	
<i>Percent of Time</i>	<i>Activity</i>			
35%	<p>Develop and apply hydrologic models to generate inputs for simulation models, including CalSim and CalLite. Hydrologic inputs can include historical and climate change-adjusted inflows, applied water demands, and other required inputs to the models. Use engineering knowledge in hydrology and hydraulics to support research and development to improve models. Development activities include efforts to improve the estimates of various model parameters. Coordinate with other groups within the Modeling Support Office (MSO) and other collaborators within the CalSim community to refine CalSim simulation processes.</p>			
25%	<p>Develop and enhance existing post-processing tools using Excel and/or scripting (VBA, python, R) to analyze, visualize, and present results to managers and interested parties for decision support. Prepare written technical reports to summarize the development, implementation, and use of computer simulation models for planning studies and regulatory processes. Draft model documentation, technical memoranda, and other correspondence to interested parties in various State, federal and local agencies. Make presentations to managers, and the public on the model development activities and application results. Travel to meetings, conferences, or training may require driving a personal or State vehicle.</p> <p>SPECIAL REQUIREMENTS Must possess a valid California Driver's License to drive a personal or State vehicle.</p> <p>All employees are responsible for contributing to an inclusive, safe, and secure work environment that values diverse cultures, perspectives, and experiences, and is free from discrimination.</p> <p>The Department of Water Resources (DWR) is committed to its mission and employees, and we are grounded in our commitment to public safety. DWR offers a hybrid workplace model that is designed to support a workforce of both office-centered and remote-centered workers. Regular and consistent attendance - whether office-centered or remote-centered - is essential to the successful performance in this position.</p> <p>OTHER RESPONSIBILITIES This position provides necessary support to the Divisions of Flood Management, Safety of Dams, Operations and Maintenance, Engineering, and/or the Public Affairs Office during Governor declared emergencies, flood, dam, SWP, and other incidents and emergencies. Additionally, this position may participate in emergency operations in the capacity of area teams, field inspection, coordination, and assist agencies such as Cal OES and FEMA in disaster work, including performing fieldwork to complete damage survey reports for droughts, flooding, earthquakes, and other emergencies. This position may also serve in one of the sections as established in the Incident Command System to assist the Department in performing its emergency preparedness, response, recovery, and mitigation functions. These functions are established in the California State Emergency Plan and the Department's Administrative Orders.</p>			