

POSITION DUTY STATEMENT

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Research Data Specialist II	OFFICE/BRANCH/SECTION ODST / Geoinformatics & Enterprise GIS Services	
WORKING TITLE Senior Enterprise GIS Specialist	POSITION NUMBER 913-155-5758-XXX	REVISION DATE 10/23/2024

As a valued member of the Caltrans leadership team, you make it possible for the Department to provide a safe and reliable transportation network that serves all people and respects the environment.

GENERAL STATEMENT:

Working in a more advanced senior capacity under the Geoinformatics & Enterprise GIS Services Branch Chief, a Research Data Supervisor II, the incumbent will conduct complex to highly complex GIS work with minimal supervision. Routinely studying, analyzing and developing conclusions based on spatial analysis for various transportation GIS business needs as well as promoting established GIS best practices and assistance to less experienced team-members or other Caltrans users are expected of the incumbent. Functioning as a GIS center of excellence, the Branch provides these services to Caltrans Districts, and business areas including the Divisions of Maintenance, and Traffic Operations, Construction, Transportation Planning, and as well as programs for transportation equity, and safety.

Performing work on more advanced senior-level assigned tasks and projects that involve researching and innovating through the use of geospatial analysis methodologies for transportation GIS using desktop, web GIS tools, creation of low/no-code web GIS Apps, dashboards, and mobile GIS technologies, as well as publishing or updating results into authoritative geospatial data and information products or Apps on Caltrans enterprise GIS platforms are the primary duties to be fulfilled by the incumbent.

CORE COMPETENCIES:

As a Research Data Specialist II, the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- **Creativity and Innovation:** Thinks beyond the confines of traditional models to recognize opportunities, seek creative solutions and take intelligent risks. (Cultivate Excellence - Innovation)
- **Decision Making:** Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Cultivate Excellence - Innovation)
- **Reliability:** Ability to demonstrate dependability in meeting commitments, and providing a consistent work product. Takes responsibility for individual actions in order to meet deadline demands. (Cultivate Excellence - Innovation, Integrity)
- **Problem-solving and Decision-making :** Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Cultivate Excellence - Innovation)
- **Teamwork and Collaboration:** Sets team structure. Organizes, leads, and facilitates team activities. Promotes team cooperation and encourages participation. Capable of cross functionality and working well with others on a team to achieve personal goals, team goals, and organizational goals. Takes responsibility for individual actions in order to achieve consistent results. (Cultivate Excellence - Innovation)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Cultivate Excellence - Innovation)
- **Communication:** Expresses oneself clearly in all forms of communication. Gives feedback and is receptive to feedback received. Knows that listening is essential. Keeps others in the Division and other functional units informed as appropriate. (Cultivate Excellence - Innovation)
- **Conceptual Thinking:** Ability to find effective solutions to issues by taking the appropriate perspective (i.e., holistic, abstract, or theoretical). (Cultivate Excellence - Innovation)
- **Technical Expertise:** Depth of knowledge and skill in a technical area. (Cultivate Excellence - Innovation)

POSITION DUTY STATEMENT

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TYPICAL DUTIES:

Percentage		Job Description
Essential (E)/Marginal (M) ¹		
35%	E	Incumbent performs senior-level geographic information systems (GIS) research and analysis in support of Enterprise GIS within Caltrans. This research and analysis is moderately complex to complex in nature, using best practice GIS methods and techniques including scripting languages such as python, java script and ArcGIS Experience Builder in the development of geospatial data, imagery, applications, tools and data models. Incumbent uses this research and analysis to identify and assess spatial data and application needs. Using sound conclusions the Incumbent develops and configures applications, data management plans, and innovative technology based solutions to meet these needs.
25%	E	Incumbent designs, develops, configures and maintains geospatial products and services using complex GIS methods and techniques for Enterprise GIS sites pages, dashboards, datasets, cartographic products, and applications. The incumbent will gather information to populate these products and services from Department geospatial, project management, and asset management databases as well as other authoritative sources while conforming to Caltrans publishing workflow and data quality management best practices. These data sources can consist of both modern and legacy types.
15%	E	Incumbent assists other users in the design, development and maintenance of GIS map services and products utilizing the Departments Enterprise GIS system. The incumbent will use senior-level knowledge of Caltrans' Enterprise GIS systems as well as geospatial data and technology standards to assist others in the publishing and configuring of GIS web maps and applications.
15%	E	Incumbent performs research and statistical studies, often on cross-functional teams, to determine the needs and technical or functional requirements for data collection or publishing workflows, as well as data analysis, quality control applications. Utilizing approved GIS technology standards and practices, the incumbent designs, develops, configures and maintains a variety of GIS web Apps.
5%	M	Incumbent provides the more complex ArcGIS Web Map and Application training and presentations specific to Caltrans' geospatial data and GIS products and participates in outreach efforts to better identify user needs. The incumbent engages in partnership activities within Caltrans, as well as other state, Federal and local government agencies and other partners related to the development of geospatial data and GIS
5%	M	Incumbent will prepare reports and correspondence based on conclusions of the research and analysis performed using spatial analysis from GIS. Incumbent will present findings at meetings in the Branch, the Office, and to project teams through both oral, visual, and written methods.

¹ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.

MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS

This position does not supervise other employees.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge and ability to use best practices for performing research and analysis involving various types of spatial data, techniques, and methodologies.

Knowledge and ability to create and perform data quality checks based on business rules.

Knowledge and ability to implement innovative ideas, good organization, teamwork and problem solving skills.

Knowledge of research and general understanding of statistical methods.

Knowledge of GIS techniques and methodologies to develop data, tools, and models.

Knowledge of cartographic principles, and spatial analysis as applied to GIS products.

Knowledge of data literacy and the ability to comprehend and interpret data.

Knowledge of Caltrans' enterprise data governance program (CTDATA) and its policies, guidance, and processes.

Ability to work cooperatively and effectively with others.

Ability to use the Esri suite of GIS desktop and web-based applications.

Ability to interact in a professional manner with all levels of department staff

Ability to compile, create or revise geospatial services, products, maps, and applications

Ability to conduct research into GIS issues and products as required;

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Ability to effectively integrate innovative new technology and procedures into branch activities.
Ability to learn and utilize new and various software applications for managing resources and projects.
Ability to effectively communicate (oral and written) with management, technical, and non-technical staff.
Ability to work with data managed in different data formats as well as in databases and as discrete datasets.
Analyze situations accurately and take effective action

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Transportation decisions are dependent on reliable information. Lack of appropriate skills, knowledge, understanding, good judgment, accurate data and adequate analyses could result in misleading or inaccurate information for decision-makers in the Department and other public agencies. Misleading or inaccurate information could result in the Department making ineffective and costly decisions, erosion of confidence in the Department's ability to carry out its mission, especially by the Administration and Legislature, and a subsequent reduction in federal funding.

PUBLIC AND INTERNAL CONTACTS

Incumbents will have contact with all Programs, Divisions, and Districts within the Department. Also, may deal with city, county, state, and federal officials as well as non-governmental organizations or the public. Provides responsive high-quality courteous service to State employees and coworkers, representatives of outside agencies, consultants and contractors, and members of the public. Providing accurate and complete up-to-date information and products, promptly. Incumbents must demonstrate effective written and oral communication with internal and external customers.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Must be able to interact and work cooperatively and respectfully with many people. Creates a work environment that encourages creative thinking and innovation. Ability to deal effectively with pressure, maintain focus, and intensity yet remain optimistic and persistent, even under adversity. Open to change and new information, adapting behavior and work methods in response to new information, changing conditions, or unexpected obstacles. Behave fairly and ethically toward others and demonstrate a sense of responsibility and commitment to public service and be willing to take intelligent risks. Must value equity and diversity in the workforce.

WORK ENVIRONMENT

Work hours will be set between 7:00 AM and 6:00 PM. While at their base of operation, Incumbents will work in a climate-controlled office under artificial light. Incumbents may be required to travel in state, and infrequent travel out of state. This position may be eligible for telework. The amount of telework is at the discretion of the Department and is based on Caltrans's evolving telework policy. Caltrans supports hybrid in-office telework, recognizing that weekly in-person attendance is required as well as additional in-person attendance based on operational needs. Employees are expected to be able to report to their worksites with minimum notification if an urgent need arises. The selected candidate will be required to commute to the headquartered location as needed to meet operational needs. Business travel may be required, and reimbursement considers an employee's designated headquartered location, or primary residence, and may be subject to CalHR regulations or applicable bargaining unit contract provisions. All commute expenses to the headquartered location will be the responsibility of the selected candidate.

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I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

EMPLOYEE (Print)

EMPLOYEE (Signature)

DATE

I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)

SUPERVISOR (Signature)

DATE

POSITION DUTY STATEMENT

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Research Data Specialist I	OFFICE/BRANCH/SECTION ODST / Geoinformatics & Enterprise GIS Services	
WORKING TITLE Enterprise GIS Specialist I	POSITION NUMBER 913-155-5742-XXX	REVISION DATE 12/22/2023

As a valued member of the Caltrans leadership team, you make it possible for the Department to provide a safe and reliable transportation network that serves all people and respects the environment.

GENERAL STATEMENT:

Working in a senior capacity under the Geoinformatics & Enterprise GIS Services Branch Chief, a Research Data Supervisor II, the incumbent will conduct complex GIS work with minimal supervision. Routinely studying, analyzing and developing conclusions based on spatial analysis for various transportation GIS business needs as well as promoting established GIS best practices and assistance to less experienced team-members or other Caltrans users are expected of the incumbent. Functioning as a GIS center of excellence, the Branch provides these services to Caltrans Districts, and business areas including the Divisions of Maintenance, and Traffic Operations, Construction, Transportation Planning, and as well as programs for transportation equity, and safety.

Performing work on senior-level assigned tasks and projects that involve researching and innovating through the use of geospatial analysis methodologies for transportation GIS using desktop, web GIS tools, creation of low/no-code web GIS Apps, dashboards, and mobile GIS technologies, as well as publishing or updating results into authoritative geospatial data and information products or Apps on Caltrans enterprise GIS platforms are the primary duties to be fulfilled by the incumbent.

CORE COMPETENCIES:

As a Research Data Specialist I, the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- **Change Leadership:** Develops new and innovative approaches needed to improve effectiveness and efficiency of work products. Encourages others to value change. Considers impact and recommends changes. (Cultivate Excellence - Innovation)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Innovation, Integrity)
- **Reliability:** Ability to demonstrate dependability in meeting commitments, and providing a consistent work product. Takes responsibility for individual actions in order to meet deadline demands. (Cultivate Excellence - Integrity)
- **Problem-solving and Decision-making :** Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Cultivate Excellence - Innovation)
- **Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Cultivate Excellence - Innovation, Integrity)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Enhance and Connect the Multimodal Transportation Network - Integrity)
- **Interpersonal Effectiveness :** Effectively and appropriately interacts and communicates with others to build positive, constructive, professional relationships. Tailors communication style based on the audience. Provides and is receptive to feedback. (Cultivate Excellence - Integrity)
- **Forward Thinking:** Anticipates the implications and consequences of situations and takes appropriate actions to be prepared for possible contingencies. Anticipates and prepares for future developments. (Cultivate Excellence - Innovation)
- **Thoroughness:** Ensures that work and information is complete and accurate. Ensures that assignment goals, objectives, and completion dates are met. Documents and reports on work progress. (Cultivate Excellence - Innovation, Integrity)

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EMPLOYEE (Print)

EMPLOYEE (Signature)

DATE

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SUPERVISOR (Print)

SUPERVISOR (Signature)

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