

POSITION DUTY STATEMENT

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Research Data Analyst II	OFFICE/BRANCH/SECTION ODST / Geoinformatics & Enterprise GIS Services	
WORKING TITLE Enterprise GIS Analyst	POSITION NUMBER 913-155-5731-913	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:

Performing a wide variety of geographic information systems (GIS) work under the general supervision of the Geoinformatics & Enterprise GIS Services Branch Chief, a Research Data Supervisor II, the incumbent will work in a journey-level role in support of the Branch's primary function as a Caltrans Enterprise GIS service center. In a largely independent role the incumbent will perform routine to moderately complex work, studying, analyzing and developing conclusions that are based on the spatial analysis of various applied transportation GIS business needs as well as providing established GIS best practices assistance to less experienced team-members or other Caltrans users, that may include transportation maintenance and traffic operations, transportation planning, equity, and safety. Researching and performing journey-level analysis based on geographic information systems (GIS) techniques and methodologies for transportation and applying results through publishing or updating of geospatial data and information products on Caltrans enterprise GIS platforms are among the primary duties to be fulfilled by the incumbent.

CORE COMPETENCIES:

As a Research Data Analyst 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. (Strengthen Stewardship and Drive Efficiency - Integrity)
- **Initiative:** Ability to identify what needs to be done and doing it before being asked or required by the situation. Seeks out others involved in a situation to learn their perspectives. (Cultivate Excellence - Pride)
- **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. (Strengthen Stewardship and Drive Efficiency - Engagement)
- **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 - Engagement)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Strengthen Stewardship and Drive Efficiency - Engagement)
- **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 - Engagement)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Strengthen Stewardship and Drive Efficiency - Integrity)
- **Technical Expertise:** Depth of knowledge and skill in a technical area. (Strengthen Stewardship and Drive Efficiency - Engagement)

TYPICAL DUTIES:

Percentage	Job Description
Essential (E)/Marginal (M) ¹	

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35%	E	Incumbent performs journeyman level geographic information systems (GIS) research and analysis in support of Enterprise GIS within Caltrans. This research and analysis is complex in nature, using best practice GIS methods and techniques including python scripting, java scripting, development of geospatial data, imagery, applications, tools and 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.
20%	E	Incumbent designs, develops, configures and maintains geospatial products and services using complex GIS methods and techniques for Enterprise GIS sites pages, datasets, 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.
20%	E	Incumbent designs, develops and maintains GIS services and products utilizing the Departments Enterprise GIS system. The incumbent will use journeyman knowledge of Caltrans' Enterprise GIS systems, geospatial data and technology standards to publish and configure Internet based GIS web maps and applications.
15%	E	Incumbent performs research and statistical studies to determine the need for data collection applications. Utilizing existing GIS data collection applications the incumbent designs, develops, configures and maintains Enterprise GIS applications.
5%	M	Incumbent provides ArcGIS Web Map and Application training specific to Caltrans data and participates in outreach to identify user needs. The incumbent engages in partnership activities within Caltrans, local government agencies and other partners related to the development of geospatial data and products.
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 and Office through both oral 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;

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

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For alternate format information, contact the Forms Management Unit at (279) 234-2284, TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

POSITION DUTY STATEMENT

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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 telework, recognizing that in-person attendance may be required 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.

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 Analyst I	OFFICE/BRANCH/SECTION ODST / Geoinformatics & Enterprise GIS Services	
WORKING TITLE Enterprise GIS Analyst I	POSITION NUMBER 913-155-5729-913	REVISION DATE 09/18/2023

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:

Performing a wide variety of geographic information systems (GIS) work under the direct supervision of the Geoinformatics & Enterprise GIS Branch Chief, a Research Data Supervisor II, the incumbent will work in an assisting role in support of the Branch's primary function as a Caltrans Enterprise GIS service center. In a learning capacity with the help of experienced coworkers the incumbent will also study, analyze and develop conclusions that are based on the spatial analysis of various applied GIS business needs, that may include transportation maintenance and traffic operations, transportation planning, equity, and safety. Researching and performing entry-level to routine complexity analysis based on geographic information systems (GIS) techniques and methodologies for transportation as well as publishing and updating of geospatial data and information products on Caltrans enterprise GIS platforms are among the primary duties to be fulfilled by the incumbent.

CORE COMPETENCIES:

As a Research Data Analyst 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.

- **Flexibility and Managing Uncertainty** : Adjusts thinking and behavior in order to adapt to changes in the job and work environment. (Strengthen Stewardship and Drive Efficiency - Engagement)
- **Decision Making**: Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Cultivate Excellence - 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. (Strengthen Stewardship and Drive Efficiency - Pride)
- **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. (Strengthen Stewardship and Drive Efficiency - Integrity)
- **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 - Engagement)
- **Customer Focus**: Considers, prioritizes, and takes action on the needs of both internal and external customers. (Cultivate Excellence - Engagement)
- **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. (Strengthen Stewardship and Drive Efficiency - Engagement)
- **Planning and Results Oriented**: Organizes and executes work to meet organizational goals and objectives while meeting quality standards, following organizational processes, and demonstrating continuous commitment. (Cultivate Excellence - Integrity)
- **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. (Strengthen Stewardship and Drive Efficiency - Integrity)

TYPICAL DUTIES:

Percentage	Job Description
Essential (E)/Marginal (M) ¹	

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POSITION DUTY STATEMENT

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40%	E	With the help of experienced coworkers the incumbent performs entry level geographic information systems (GIS) research and analysis in support of Enterprise GIS within Caltrans. This research and analysis is basic in nature, learning best practice GIS methods and techniques including python scripting, java scripting, development of geospatial data, imagery, applications, tools and models. The incumbent will learn to use this research and analysis to identify spatial data and application needs.
35%	E	Incumbent assists experienced coworkers in the design, development, and maintenance of geospatial products and services using GIS methods and techniques for Enterprise GIS sites pages, datasets, and applications. The incumbent will learn Caltrans publishing workflow data quality best practices - including where to gather information to populate the products and services from Department geospatial, project management, and asset management databases as well as other authoritative sources.
15%	E	Incumbent assists experienced coworkers in the design, development, configuration, and maintenance of existing GIS WebGIS products and services utilizing the Departments Enterprise GIS system. Working in conjunction with experienced coworkers the incumbent will learn about Enterprise GIS and best practices to publish, configure, and create Internet based GIS web maps and applications.
5%	M	Utilizing existing GIS data collection applications the incumbent will learn to design, develop, configure, and maintain Enterprise GIS maps and applications.
5%	M	Incumbent will prepare reports and correspondence based on conclusions of the research and analysis performed using spatial analysis derived from GIS methods and techniques. Incumbent will present findings at meetings in the Branch and Office through both oral 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 learn best practices for performing research and analysis involving various types of spatial data, techniques, and methodologies.

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

Knowledge of basic research and general understanding of statistical methods.

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

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

Knowledge of basic 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;

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

The RDA I is responsible for assisting coworkers and their supervisor and taking on basic learning and skill-building projects under direct supervision. As an entry level learning position the errors in judgment or decisions should be caught before they cause adverse effects. Inaccurate or incomplete work may result in rework and the production of unnecessary products and services.

PUBLIC AND INTERNAL CONTACTS

Incumbent will have contact with Programs, Divisions, and Districts within the department.

POSITION DUTY STATEMENT

PM-0924 (REV 01/2022)

The incumbent will provide responsive high quality courteous service to State employees and coworkers, representatives of outside agencies, consultants and contractors, and members of the public as directed by their supervisor. Providing accurate and complete up to date information and products, in a timely manner. The incumbent 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

Regular work hours (shift) will be determined and will occur 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 telework, recognizing that in-person attendance may be required 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.

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