

**STATE OF MONTANA
DEPARTMENT OF ADMINISTRATION
STATE PERSONNEL**

POSITION DESCRIPTION

***** PART I: IDENTIFICATION *****

January, 1998
Jeff Brandt, Bureau Chief
Tony Herbert, Administrator
Lois Menzies, Director

CURRENT CLASSIFICATION: Code: 020125 Title: Information Systems Manager
- Grade 18

AGENCY:

Agency Code: <u>6101</u>	Position No: <u>66413</u>
Department: <u>Administration</u>	Division: <u>Information Services</u>
Bureau: <u>Policy, Dev., & Customer Relations</u>	Section: <u>GIS Services</u>

ADDRESS:

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FUNCTIONAL DESCRIPTION OF THE WORK UNIT:

The Information Services Division (ISD) is responsible for the delivery of information technology (IT) services and the planning, coordination, implementation, operation and control of information resources throughout state government. Information services and resources include data processing, telephone systems, local area data networks, wide area data networks, high speed voice, video and data backbone network infrastructure, interactive video systems, office systems and management of certain state-wide emergency services (9-1-1 and public safety radio). Authority and responsibilities are spelled out per the following:

2-17-501 - 2-17-503, MCAData Processing Authority
2-17-301 - 2-17-305, MCATelecommunications
2-17-306 - 2-17-313, MCAPublic Safety Communications
10-4-101 - 10-4-303, MCAState Emergency Telephone System
20-32-101 - 20-32-104, MCA Montana Educational Telecommunications Network

The Policy, Development, and Customer Relations Bureau (PDR) provides a wide variety of technology development, policy, planning and administrative services for all of state government in conjunction with ISD's statutory authority to develop standards and approve agency acquisitions of information technology equipment and services. In support of this responsibility, PDR provides a similar range of services to the operational bureaus within ISD who are responsible for delivering a wide range of IT services to state agencies through an enterprise fund structure. Responsibilities of PDR include establishing statewide information technology policies, strategic and tactical planning, coordinating statewide information technology services, and contract management services for state agencies in the general areas of telecommunications and computing services, including geographic information systems, 9-1-1 emergency telephone systems and public safety radio.

The GIS Services Section is responsible for planning and coordinating state-wide GIS activities, and provides staffing and research for the Montana Geographic Information Council. The section is a major point of contact with representatives of federal, state and local agencies and private enterprise when issues including data standardization, data collection and prioritization, technological innovation and GIS education and training are debated. In exercising these responsibilities, members of the section are in frequent and continuing contact with federal, within-state and multi-state organizations involved in GIS planning and operation to best and most cost-effectively articulate the state's continuing GIS development. The Section provides project management and GIS analysis/programming services to other state and local agencies when requested and presently manages the Montana Cadastral Mapping Project. It also provides mapping assistance and rural addressing advice to Counties through the State's E-9-1-1 program.

The Section does not perform services or duties that would typically be performed by a licensed land surveyor.

***** PART II: JOB DESCRIPTION *****

1. ASSIGNED DUTIES:

GENERAL

Geographic Information Systems (GIS) are capable of complicated analysis of geographic phenomenon including landownership, transportation, soils, hydrology, topography, etc. The expense involved in the data collection, maintenance of spatial data is a significant cost to all governmental agencies and private enterprise in Montana. In order to make efficient use of this resource, multi-agency partnerships, public/private partnerships and sharing of the information among government agencies at all levels (local, state, federal), as well as private entities is necessary. Due to the broad scope of geographic data and associated applications, a coordinated approach must be devised for the collection and maintenance of spatial data in the state of Montana that will meet the needs of local, state, and federal governments and other interested parties.

This position has broad latitude to perform advanced professional work in planning, developing, negotiating, and administering services for state-wide GIS coordination. The ability to forge and

implement long-term partnerships with high level policy representatives from local, state, federal and private entities is essential to this position. The individual must be able to successfully participate on nationwide and statewide committees and articulate the State's position on a variety of GIS related topics.

Additionally this position will at various times manage specific cooperative GIS projects. For example, at the present time this position has responsibility for the Montana Cadastral Mapping Project. Services provided and managed by the GIS Services Manager for the cadastral project include: leadership; coordination; project management; technical and planning assistance including development and implementation of cadastral data standards; identification and inventory of applicable data; and information sharing relating to cadastral applications for the State of Montana. These duties are typical of project management obligations associated with this position.

SPECIFIC DUTIES

Duties include:

- 35 % A. Facilitate existing GIS coordination activities in the state and promote new public and private/public partnerships;
- * Provide staffing services to the Montana Geographic Information Council in the form of issue development, research, and acting as their primary point of contact for national, state and local GIS organizations;
 - * Promulgation of GIS related policy statements that reflect the Department of Administration and Information Services position as they relate to overall statewide information technology coordination;
 - * Act as a major point of contact with representatives of federal, state and local agencies and private enterprise when issues including data standardization, data collection and prioritization, technological innovation and GIS education and training are debated.
 - * Attend and represent the Montana Department of Administration on GIS related issues at meetings of the Montana Association of Counties (MACO), Montana Local Government GIS Coalition (MLGGC), the Montana Technical Working Group (TWG) and when appropriate, federal meetings of the Federal Geographic Data Commission (FGDC) and the National States Geographic Information Council (NSGIC).
 - * Identify and communicate abstract concepts to users including key relationships between discrete data sets; formulates data integration concepts; analysis of original data quality, modeling limits and accuracies, and limitations to interpretations which can be drawn from data sets.
 - * Research and promote new applications of GIS technology, primarily within, but not confined to non-natural resource orientated State Agencies;
- 35 % B. Provide leadership and coordination in the conceptualization, development and implementation of the statewide cadastral project;

- * Perform advanced planning and project management functions related to the development and implementation of the cadastral data layer.
- * Develop project plans; collect and analyze requirements for the cadastral layer that cross multiple lines of authority (local government, state, federal, private entities).
- * Perform advanced conceptualization and development of GIS and related technology transfer to all clients using cadastral data. Conduct planning activities with state agencies, local governments, federal agencies, and private entities needing cadastral data, and coordinate development with existing GIS systems;
- * Make presentations to private and public groups in an effort to build financial support for the project;
- * Provide coordination and consultation to diverse users and explain GIS cadastral techniques to non-technical people and act as liaison between users of cadastral and other GIS data themes.

10% C. Direct and supervise a professional staff

- * Manage personnel to maximize the recruitment, development and retention of a highly qualified and motivated staff;
- * Hiring, training, evaluation, and discipline of personnel;
- * Establish section goals and objectives to be achieved;

10% D. Provide technical assistance to state and local government agencies on data collection and attributing of roads for E-9-1-1 physical addressing

- * Assist 9-1-1 jurisdictions with their planning, implementation of physical addressing programs including production and dissemination of handbooks and other educational materials;
- * Research, write, and facilitate the adoption of policy statements that lead to standardization of large scale road data and their attributes so data benefits the maximum number of data users;

5% F. Plan, develop, and implement metadata, data sharing and clearing house standards in cooperation with national, State, county, city agencies and private entities. At the present time this involves oversight of an MOU between ISD and the Natural Resource Information System (NRIS).

- * Review quarterly statements from NRIS for correctness and appropriateness. Advise supervisors as to contractors compliance with the language and goals of the MOU;
- * Research long term solutions to data documentation and sharing issues form policy statements based on such research;

5% G. Contributes to the management of the office and ISD.

- * Maintains an organizational structure whose members work well together and with the rest of the division; carries out the functions of the office with a high level of responsiveness to users and a high standard of quality

- and excellence for all services provided.
- * Participates in the development and review of division policies and procedures.
- * Assures that staff responds in a timely manner to all requests for services, consultation, and information with a high level of responsiveness to users and a high standard of quality and excellence for all services provided.

2. WORKING CONDITIONS AND PHYSICAL DEMANDS:

The workload may be such that the employee may be asked to work extra hours. The position involves work in other locations and requires some travel to other parts of the state and nation. Travel may involve overnight stays and weekends.

3. KNOWLEDGE, SKILLS, AND ABILITIES:

A broad base of knowledge, skills, and abilities in the various disciplines of IT, management and government organizational theory are required. The IT disciplines for which the incumbent is responsible include the full scope of the field of geographic information systems. The incumbent must have a combination of excellent managerial, conceptual, technical, and communication skills in order to interact effectively with the full spectrum of contacts he or she works with on a constant, ongoing basis. Conceptual and communication skills are particularly important in order to conceptualize solutions to business needs and communicate the value of a particular technological solution so as to successfully influence the way these technologies are utilized, both now and in the future, to improve the business of government.

The incumbent should possess the following knowledge, skills and abilities:

- * Thorough knowledge of the theories, principles, and practices of administration including the ability to organize and implement a complex program that crosses multiple jurisdictions. Ability to determine goals, resource needs, and to coordinate and integrate the various components of complex system integration.
- * Comprehensive knowledge of information processes and information technologies, including the various hardware platforms, software facilities and consulting services available to provide information technology services to an organization.
- * Ability to apply innovative thinking in conjunction with a technical understanding of emerging technologies to address needs and problems of providing services to State agencies and the citizens they serve.
- * Ability to successfully work with diverse groups of constituencies on confrontational issues. Ability to form a consensus where the group has a wide range of opinions and methodologies which may or may not be appropriate for the project.

- * Ability to establish and maintain effective working relationships with state, local and federal agencies, private enterprise, other political subdivisions, geographic information system users, and the public.
- * Ability to work in a team environment to achieve the project's objectives.
- * Ability to assess and solve complex problems; devise methodologies and solutions; perform analyses; relate relevant information about hardware and software operation, data management and analysis in management applications and interactions; and interpret results. Incumbent must clearly and concisely form and express ideas and concepts, and interpret technical information and findings to varied audiences.
- * Ability to work effectively to meet deadlines, prepare written products on short notice and cope with a stressful work environment that will consist of a diverse constituency.
- * Ability to exercise sound judgment for analyzing, appraising, evaluating, and solving difficult problems.
- * Demonstrated competency to communicate effectively, both orally and in writing, including effective presentations to a variety of audiences.
- * Requires a high degree of analytical ability combined with a thorough knowledge of the field of Geographic Information Systems. The position requires an incumbent skilled in the application of and the management of large procurement projects. This position must have GIS project and database design abilities, operation and management skills, and considerable knowledge of research design, methodologies and techniques.

EDUCATION AND EXPERIENCE:

The above knowledge, skills, and abilities are typically acquired through a bachelors or masters degree and 5 years of progressively responsible project management experience which includes work with GIS software and relational databases. Educational course work and experience should emphasize the following areas: geography, cartography and information systems.

4. **MANAGEMENT AND SUPERVISION OF OTHERS:**

<u>Pos. No.</u>	<u>Class Code</u>	<u>Title</u>	<u>FTE</u>
66414	020123	Information Systems Support Spec.	1.0
	020123	Information Systems Support Spec.	1.0
		GIS Interns	2.0

Total organizationally subordinate FTEs: 4.0

The incumbent directly manages the GIS Services Section. Work assignments are primarily in the area of general directives and setting objectives toward offering the fullest and most professional support to management of the department of Administration, other agencies of state government, federal government agencies, local governments and other jurisdictions who require assistance in evaluating, acquiring, and implementing GIS technologies. The incumbent's recommendations and decisions have a wide ranging, statewide effect from an economic, technological and service perspective.

The incumbent hires, fires, and evaluates the performance of subordinates.

5. SUPERVISION RECEIVED:

Broad priorities are determined through legislative mandate, policy recommendations by governance groups and assignment by senior management and/or the bureau chief.

Work is determined by the incumbent under very general direction from the bureau chief. Many activities are driven by plans and directions negotiated with geographic information system users. No direct technical supervision is received; procedures and methods to accomplish desired goals are determined by the incumbent. Personal judgment, creativity, and initiative are required. Work processes and products are presented by the incumbent to those involved in the process, who review the results for accuracy, timeliness, and feasibility. However, the incumbent is ultimately responsible for the work product.

This position requires the development of a work plan which is reviewed and approved by the bureau chief. Priorities are established in cooperation with the bureau chief. Goals, objectives, and long-range planning for the section are developed in cooperation with the bureau chief.

Assistance is available from superiors, co-workers, and technical staff from this and other agencies, local government and Federal agencies and although this assistance is available the employee is ultimately responsible for making the best professional decision for this area of expertise and area of responsibility.

Work is reviewed by interaction with the bureau chief and through regular performance appraisal.

6. SCOPE & EFFECT:

Specific decisions and commitments are made within the framework of the project's goals, policies, and statutory requirements. Effects, influence, and significance of work are major because the scope is statewide and contacts are made with a wide variety of individuals exercising political and public influence. Consequences of error can result in poor public relations and in a lessening or withdrawal of support for the project. Actions

and decisions that require broad policy decisions or are of a political nature, require the approval of the bureau chief.

The effects of work produced by the incumbent extend to city, county, state, and federal agencies and the public. Decisions based in part on information developed by the incumbent greatly influence future policy, management, and projects within the state.

The incumbent is highly visible in representing the state in matters dealing with the development and implementation of geographic information systems and spatial data collection capabilities which can support citizen's information needs and responsibilities of state government. The incumbent has a lead role in extending the capabilities of the state's geographic information system resources to effectively address local, state federal and private spatial data needs.

Significant technical decisions regarding the state's cadastral mapping program and digital land modernization efforts are made frequently by the incumbent in this position, impacting the quality and availability of landownership data. The decisions made may have significant long-lasting economic and technological impact on the state, local, federal and private systems and budgets. Decisions range in scope from hundreds of thousands to several million dollars.

Commitments are made on behalf of the Executive Branch on geographic information system policy, and on participation in state GIS coordination by other agencies of government and local government agencies. Because of the high reliance placed on the position's recommendations and decisions, and because the significant economic and technical benefits the state will accrue as a result, reasonable care and sound judgment must be exercised by the incumbent.

7. PERSONAL CONTACTS:

Contacts are with:

a. State Management and Staff:

- The bureau chief, weekly, to review general directions; report findings and project progress; propose strategies; present results and recommend action.
- Works with ISD staff and management, on a daily basis, to gather and disseminate information, use resources necessary to identify problem areas and support needs, and to coordinate work with other ISD work units. Works with technical staff (information systems specialists, accountants, purchasing specialists, program managers, legal and administrative staff) to prepare hardware, software and consulting services proposals and bid requests, plan new projects, and resolve contractual problems.

- State agency staff as needed to share information and advise on geographic information system use.
- Works with agency administrators, directors, and deputy directors to identify and develop projects, establish strategic and tactical direction, and to provide technical advice

b. Professional and Governance Organizations:

- Various governance and technical groups, including (MACO), Montana Local Government GIS Coalition (MLGGC), the Montana Technical Working Group (TWG), the Montana GIS Users Group, the Federal Geographic Data Commission (FGDC) and the National States Geographic Information Council (NSGIC).

c. Private Business:

- Works with private industry management, GIS vendor management, consultants and professional management staff on a daily basis to gather and analyze information, provide information, and make arrangements to develop and implement complex, cost-effective ways to develop shared capabilities which can support the continued implementation of GIS of throughout Montana.

d. Non-State Agencies: Works with local governments and federal agencies as requested to identify and gather data, provide technical assistance and develop joint plans for GIS coordination and advancement.

e. Private Partnership Entities. Works with private sector partners, monthly, to exchange data and findings; propose, interpret, and defend proposed plans of action.

f. General Public. The general public, occasionally, to scope issues and hear concerns; explain planned activities and support directions.