

**TITLE: GIS ANALYST**

**CLASSIFICATION: STO 21**

**JOB OVERVIEW**

*The GIS Analyst conducts advanced spatial data analysis in support of program and management decision making on resource planning, land management and other program issues.*

**ACCOUNTABILITIES**

- Manages technical projects (GIS or spatial), including planning, testing, implementation and follow up. Prepares detailed project plans including setting terms of reference, time and cost estimates, project methodology, specifying deliverables and participating in strategic and operational planning.
- Reviews progress of projects for consistency with project management plans, compliance with Ministry policy and standards, and prepares reports for clients.
- Designs and generates reports from ministry databases to meet business needs of area staff, specialist and management team.
- Provides expert advice to clients, business area staff, contractors and business area specialists in the initiation, design, and specifications of projects, types of source data required and available, data base structure, limitations and related specialized applications.
- Defines technical requirements, evaluates resource data, develops databases and technical strategies, and provides detailed summaries, statistics, and spatial presentations to clients; ensures the provision of technical products that meet the needs of clients and users.
- Data Management – develops, maintains, and manages data and metadata; acts as a data resource manager, steward, or point of contact. Contributes to the development and implementation of data management plans and data standards for local, corporate, or other business area data. Ensures integrity of data is maintained and protected.
- Develops spatial analysis procedures and techniques for customized applications, queries and models.
- Performs integrated/advanced spatial and statistical analysis from multiple combinations of spatial and attribute data from a diverse range of sources that provide decision support for program, management, strategic or legislative decision makers.
- Designs, develops, and implements programming languages or other GIS tools to create custom program code, databases, customized geospatial tools, or applications that are used by government and/or public clients and stakeholders. Custom applications/tools may also facilitate collection, management, analysis and reporting of spatial and attribute data.
- Develops or contributes to the development and implementation of quality assurance processes, consistent with provincial standards for the business area, including identifying inefficiencies and problems associated with provincial standards, procedures and policies; makes recommendations for improvements to corporate data integrity working groups.
- Researches and applies subject matter knowledge of scientific/technical area in the design of specific GIS/spatial analysis applications.
- Manages or supports contract development, establishes standards and specifications and adapts contract language as required; interacts with contractors to resolve problems, provide technical guidance, monitor progress, conduct quality assurance checks and ensure contract deliverables meet specifications.

### **Optional:**

- Maintains awareness of and/or researches emerging issues, technologies and approaches related to spatial data and analysis methodologies, applications and GIS software. Maintains technical skills and knowledge of corporate data systems.
- Identifies training needs, develops training material, and/or provides training and support to business area staff, clients, contractors, or external users on the use of a variety of custom or out of the box data applications, tools, or GIS technology/software.
- Participates in the investigation, selection, testing, evaluation and implementation of spatial analysis platforms, platform components and applications.
- Provides expert advice and guidance on multi-stakeholder, intra-ministry committees and working groups and participates or presents in conferences and workshops.
- Mentors staff or officially supervises staff.

### **JOB REQUIREMENTS**

- Diploma or degree in geographic information systems, or in relate field, such as natural resources or geography and three year (gained within the last five years) of related experience.
- Or
- Equivalent combination of training and five years (gained within the last seven) years related experience.
  - Experience designing and developing customized spatial tools.
  - Experience delivering complex spatial analysis projects in support of client's business needs.
  - Successful completion of security screening requirements of the BC Public Service, which may include a criminal records check, and/or Criminal Records Review Act (CRRA) check, and/or enhanced security screening checks as required by the ministry (**Note: It is important that you read the job posting carefully to understand the specific security screening requirements pertaining to the position**).

### **PREFERENCE STATEMENTS**

- Knowledge of provincial government natural resource sector procedures and standards relevant to data, mapping and design.
- Project management and administration experience including overseeing contracts.
- Experience in ESRI (ArcGIS) software.
- GIS experience supporting operational forestry.

### **KNOWLEDGE, SKILLS AND ABILITIES**

- Basic knowledge of the structures and mandates of the Ministry of Forests, Lands and Natural Resource Operations and BC Timber Sales.
- Knowledge of general theories, principles and standards of cartography.
- Ability to support operational forestry through technology and equipment (GPS, mobile device, etc.).
- Ability to produce quality analytical products while maintaining quality assurance using ESRI (ArcGIS).
- Ability to incorporate multiple software programs such as spatial, remote sensing, databases, reporting tools, spreadsheets, etc.

- Ability to use a broad variety of mapping and design hardware, software and other equipment to create themes, colour thematic maps, terrain models and develop reports.
- Ability to integrate data/information from a variety of sources to produce maps and other graphic materials.
- Ability to identify information/issues, analyze, and develop options, solutions or recommendations.
- Ability to communicate clearly and effectively both verbally and in writing.
- Ability to organize multiple and concurrent projects and manage a diverse and variable workload.

#### **BEHAVIOURAL COMPETENCIES:**

- Business Acumen is the ability to understand the business implications of decisions and the ability to strive to improve organizational performance. It requires an awareness of business issues, processes and outcomes as they impact the client's and the organization's business needs. (L2)
- Improving Operations is the ability and motivation to apply one's knowledge and past experience for improving upon current modes of operation within the Ministry. This behaviour ranges from adapting widely used approaches to developing entirely new value-added solutions. (L3)
- Information Seeking is driven by a desire to know more about things, people or issues. It implies going beyond the questions that are routine or required in the job. It may include "digging" or pressing for exact information; resolution of discrepancies by asking a series of questions; or less-focused environmental "scanning" for potential opportunities or miscellaneous information that may be of future use. (L3)
- Problem Solving/Judgment is the ability to analyze problems systematically, organize information, identify key factors, identify underlying causes and generate solutions. (L3)
- Results Orientation is a concern for surpassing a standard of excellence. The standard may be one's own past performance (striving for improvement); an objective measure (achievement orientation); challenging goals that one has set; or even improving or surpassing what has already been done (continuous improvement). Thus, a unique accomplishment also indicates a Results Orientation. (L3)
- Service Orientation implies a desire to identify and serve customers/clients, who may include the public, co-workers, other branches/divisions, other ministries/agencies, other government organizations, and non-government organizations. It means focusing one's efforts on discovering and meeting the needs of the customer/client. (L4)
- Teamwork and Cooperation is the ability to work co-operatively within diverse teams, work groups and across the organization to achieve group and organizational goals. It includes the desire and ability to understand and respond effectively to other people from diverse backgrounds with diverse views. (L3)