

Public (when completed)

Common Government

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Update

Ministry

Describe: Basic Job Details

Position

Position ID

Position Name (200 character maximum)

Current Class

Job Focus

[?](#)

Supervisory Level

Agency (ministry) code

[?](#)

Cost Centre

[?](#)

Program Code: (enter if required)

[?](#)

Employee

Employee Name (or Vacant)

Organizational Structure

Division, Branch/Unit

Current organizational chart attached?

Supervisor's Position ID

Supervisor's Position Name (30 characters)

Supervisor's Current Class

Design: Identify Job Duties and Value

Changes Since Last Reviewed [?](#)

Date yyyy-mm-dd

Responsibilities Added:

Responsibilities Removed:

Job Purpose and Organizational Context

Why the job exists:

The Senior GIS Analyst plays a critical role in supporting strategy, land use decisions, and regulatory approvals under the Public Lands Act and related legislation by driving insights and answers out of diverse spatial and non-spatial information. Working within the Regulatory Excellence, this position is responsible for the administration and management of data, applications, and reporting environments that support stewardship of over 60% of Alberta's land mass.

This role blends data analysis, business analysis, systems analysis, web/application development, data integration, and reporting. The Senior GIS Analyst designs and maintains end-to-end data environments from ingestion of legacy and modern source systems, through ETL pipelines and centralized databases, to reporting dashboards consumed by program staff, decision makers, and external stakeholders. The position also configures and manages cloud-hosted environments (e.g., AWS S3 or equivalent), domain setups, SharePoint-based intranet and workflow solutions, and Microsoft Power Platform applications.

The Senior GIS Analyst identifies and implements opportunities for AI-enabled solutions to support intelligent automation, data processing, and enhanced decision making. The position operates with a high degree of independence in a low-support technical environment, prioritizing and delivering multiple concurrent initiatives that align with branch, division, and ministry business priorities.

Responsibilities

Job outcomes (4-6 core results), and for each outcome, 4-6 corresponding activities:

1. Data Integration and Pipeline Development

Designs, builds, and maintains integrated data environments that consolidate spatial and non-spatial data from legacy and modern source systems into centralized databases and internal BI platforms.

- Design, build, and maintain ETL pipelines for ingestion, transformation, and loading of data from legacy and modern systems into centralized databases.
- Design, maintain, and optimize digital and spatial databases aligned with operational and legislative needs to support land disposition tracking and compliance.
- Coordinate, maintain, and manage data migration activities, including license management of applications and related data integration.
- Leverage modern data platforms (e.g., Microsoft Fabric, data lakes) to enable scalable data integration and enterprise reporting.
- Establish and document data standards, lineage, and quality assurance practices to ensure accuracy, completeness, and integrity of data assets.
- Evaluate and recommend tools and technologies that improve the reliability, scalability, and efficiency of data integration processes.

2. Application Development, Domain and Environment Setup

Develops and maintains custom applications, configures cloud and hosted environments, and sets up domains to support program operations and digital service delivery.

- Develop and maintain custom applications and tools using technologies such as Python, Angular, and Java, supporting full lifecycle delivery from architecture to deployment and sustainment.
- Configure and manage cloud and hosted environments (e.g., AWS S3 or equivalent), including domain setup, secure data storage, and application hosting.
- Configure and manage SharePoint-based intranet and web solutions, including development of internal sites, forms, and workflow-driven platforms.
- Leverage Microsoft PowerApps and Power Automate to develop custom applications and automate workflows that improve operational efficiency and governance.

3. Reporting, Analytics and Business Intelligence

Designs and delivers reporting and analytics products that translate complex spatial and non-spatial data into actionable insights for program staff and decision makers.

- Design and deploy reporting solutions and dashboards within internal BI environments, ensuring integration across multiple data sources.
- Conduct spatial and non-spatial data analysis to support land use decisions, regulatory approvals, revenue tracking,

and operational reporting.

- Develop and automate recurring reports to improve timeliness, consistency, and scalability of analytical outputs.
- Apply best practices in data visualization to communicate patterns, results, and key messages clearly to technical and non-technical audiences.
- Package and deliver cogent and timely spatial and non-spatial data analyses to management, including options, recommendations, and supporting evidence.
- Translate complex spatial data and analytical findings into information that can be understood by peers, clients, and senior decision makers.

4. AI Implementation and Intelligent Automation

Identifies, evaluates, and implements AI-enabled solutions to support intelligent automation, data processing, and enhanced decision making.

- Identify program processes and data flows where AI and machine learning can deliver measurable improvements in efficiency, accuracy, or insight.
- Evaluate and recommend AI tools, services, and approaches that align with Government of Alberta standards on data security, privacy, and responsible AI use.
- Stay current with emerging AI trends and contribute to building data and AI literacy within the team and program.

5. Independent Delivery and Stakeholder Engagement

Operates independently to prioritize, design, and deliver end-to-end technical solutions while supporting multiple concurrent initiatives and a diverse stakeholder community.

- Plan, prioritize, and deliver multiple concurrent initiatives in a low-support environment, ensuring alignment with business priorities, timelines, and stakeholder expectations.
- Build and maintain effective working relationships with program staff, IT partners, vendors, and cross-ministry colleagues.
- Participate in agile and project-based delivery activities, including planning sessions, working groups, and post-implementation reviews.
- Contribute to continuous improvement of branch tools, processes, and standards.

Problem Solving

Typical problems solved:

The Senior GIS Analyst works within a complex regulatory and operational environment shaped by the Public Lands Act, Public Lands Administration Regulation, FOIP, and related legislation, policies, and program directives. Typical problems include translating ambiguous or evolving program requirements into reliable technical solutions; integrating data from legacy systems with limited documentation alongside modern platforms; designing reporting solutions that reconcile inconsistent or incomplete source data; and identifying where AI and automation can be safely and responsibly applied to improve operations.

The position must balance competing priorities across multiple concurrent initiatives, manage technical risks in a low-support environment, and make pragmatic trade-offs between speed, scalability, security, and cost. Solutions must be defensible to technical peers, understandable to program staff, and acceptable to senior decision makers.

Types of guidance available for problem solving:

The Senior GIS Analyst is expected to operate with a high degree of independence and to apply sound technical and analytical judgment. The Manager - Systems & Technology is available for general direction, escalation, and decisions on scope, priorities, and risk. The position can also draw on peers in IT, data, and program areas, established Government of Alberta IMT standards, vendor documentation, and industry best practices. Where problems are novel or high-impact, the incumbent is expected to research options, develop recommendations, and bring forward a preferred path with supporting analysis.

Direct or indirect impacts of decisions:

Key Relationships ?

Major stakeholders and purpose of interactions:

- Manager- Systems & Technology and Director Regulatory Excellence receive direction, escalate risks and issues, provide options analyses and recommendations, report on status of initiatives.
- Program staff and business leads within Public Lands Disposition Management elicit requirements, validate solutions, deliver reporting and analytics, support day-to-day operations.

Required Education, Experience and Technical Competencies ?

Education Level	Focus/Major	2nd Major/Minor if applicable	Designation
Bachelor's Degree (4 year)	Engineering	Business	

If other, specify:

Equivalencies will be considered.

Job-specific experience, technical competencies, certification and/or training:

- Minimum 4 years of progressively responsible directly related experience.
- Experience with geoprocessing and process automation using Python (including ArcPy), ArcTools, and relational database management systems.
- Experience designing and managing end-to-end data environments ingestion, transformation, storage, and
- Experience configuring and managing cloud and hosted environments (e.g., AWS S3 or equivalent), including domain setup and secure data storage.
- Experience with Microsoft Power Platform (PowerApps, Power Automate) for application development and workflow automation.
- Experience configuring SharePoint-based intranet and workflow-driven solutions.
- Experience designing and deploying reporting solutions and dashboards using BI tools (e.g., Power BI, Microsoft Fabric, Cognos, or similar).
- Experience handling user account administration and content management on ArcGIS Portal, ArcGIS Online, and ArcGIS Enterprise.
- Experience with spatial data querying and cartographic techniques.
- Experience packaging and delivering spatial and non-spatial data analyses to management, including options and recommendations.
- Strong interpersonal, oral, and written communication skills, with the ability to translate complex technical content for non-technical audiences.

Assets:

- Related certification or accreditation (e.g., Esri, Microsoft, AWS, or equivalent).
- Working knowledge of SAS, R, and SQL, and experience working with relational databases and query authoring.
- Knowledge of property assessment and taxation, particularly designated industrial properties, and related legislation.
- Project management or business analysis training or certification.

Behavioral Competencies ?

Pick 4-5 representative behavioral competencies and their level.

Competency	Level					Level Definition	Examples of how this level best represents the job
	A	B	C	D	E		

Systems Thinking	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<p>Considers inter-relationships and emerging trends to attain goals:</p> <ul style="list-style-type: none"> • Seeks insight on implications of different options • Analyzes long-term outcomes, focus on goals and values • Identifies unintended consequences 	<p>Designs data, application, and reporting solutions that consider upstream sources, downstream consumers, and legislative context.</p> <ul style="list-style-type: none"> • Anticipates impacts of changes across legacy and modern systems and engages stakeholders early.
Creative Problem Solving	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<p>Focuses on continuous improvement and increasing breadth of insight:</p> <ul style="list-style-type: none"> • Asks questions to understand a problem • Looks for new ways to improve results and activities • Explores different work methods and what made projects successful; shares learning • Collects breadth of data and perspectives to make choices 	<ul style="list-style-type: none"> • Identifies pragmatic, sustainable solutions to integration, data quality, and reporting challenges. • Evaluates and applies AI and automation where they deliver measurable program value.
Drive for Results	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<p>Works to exceed goals and partner with others to achieve objectives:</p> <ul style="list-style-type: none"> • Plans based on past experience • Holds self and others responsible for results • Partners with groups to achieve outcomes • Aims to exceed expectations 	<ul style="list-style-type: none"> • Delivers multiple concurrent initiatives end-to-end in a low-support environment. • Holds self accountable for technical quality, reliability, and timeliness of outputs.
Agility	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<p>Works in a changing environment and takes initiative to change:</p> <ul style="list-style-type: none"> • Takes opportunities to improve work processes • Anticipates and adjusts behaviour to change • Remains optimistic, calm and composed in stressful situations • Seeks advice and support to change appropriately • Works creatively within guidelines 	<ul style="list-style-type: none"> • Adapts approach as priorities, data, and tools shift across concurrent initiatives. • Adopts new technologies including AI and integrates them into existing workflows.

Benchmarks 

List 1-2 potential comparable Government of Alberta: [Benchmark](#)

Assign

The signatures below indicate that all parties have read and agree that the job description accurately reflects the work assigned and required in the organization.