

## New

Ministry

Forestry and Parks

### Describe: Basic Job Details

#### Position

Position ID

Position Name (200 character maximum)

Senior GIS Analyst

Requested Class

Job Focus

Operations/Program

Supervisory Level

00 - No Supervision

Agency (ministry) code

Cost Centre

Program Code: (enter if required)

#### Employee

Employee Name (or Vacant)

#### Organizational Structure

Division, Branch/Unit

Lands Division, Lands Delivery & Coordination North

☐ Current organizational chart attached?

Supervisor's Position ID

Supervisor's Position Name (30 characters)

Senior Manager, Disposition Se

Supervisor's Current Class

### Design: Identify Job Duties and Value

#### Job Purpose and Organizational Context

Why the job exists:

The Senior GIS Analyst plays a critical role in supporting the Public Lands Disposition Management program within Forestry and Parks by providing expert geospatial and data analysis in support of regulatory approvals under the Public Lands Act and related legislation. This position ensures spatial and non-spatial data are transformed into high-quality operational intelligence that enables evidence-based decision-making for Crown land use and management. The role involves designing and maintaining spatial databases, performing complex data extract-transform-load (ETL) operations, producing regulatory dashboards and reports, and rapidly analyzing data to respond to urgent and often high-stakes inquiries. The position demands strong analytical thinking, accuracy under pressure, and the ability to synthesize large, complex datasets into actionable insights. It requires frequent coordination with internal and cross-ministry partners to align geospatial information and data products with evolving legislative, operational, and policy needs. By delivering data-driven solutions to guide regulatory decisions and improve program performance, the Senior GIS Analyst directly contributes to Government's economic, environmental and public service mandate for the department's Crown lands management and regulatory delivery.

## Responsibilities

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

### 1. Support Regulatory Approvals through Data-Driven Insights

Provide advanced geospatial and analytical support for regulatory approvals under the Public Lands Act, Environmental Protection and Enhancement Act, and Water Act. Interpret spatial and non-spatial datasets to assess land use impacts, inform decision-making, and ensure consistency in Crown land disposition processes across the province.

Create high-quality, timely spatial and analytical products to support regulatory approvals, policy development, and program monitoring under the Public Lands Act, Provincial Parks Act, and Environmental Protection and Enhancement Act.

### 2. Design and Manage Spatial Data Systems

Develop, maintain, and optimize spatial databases and data models that support operational and strategic needs. Ensure data quality, integrity, and alignment with regulatory frameworks. Administer geospatial systems and services used to track, analyze, and report on land use, disposition status, and compliance activities.

### 3. ETL, Reporting, and Dashboard Development

Lead the design and execution of extract-transform-load (ETL) workflows to prepare data for analysis and reporting. Develop automated dashboards and visualization tools to monitor program performance, flag operational risks, and support internal reporting and executive decision-making.

Create efficient ETL pipelines, dashboards, and reporting tools that provide accurate, real-time insights to enable data-driven decisions and transparent program performance tracking.

### 4. Respond to High-Priority and Time-Sensitive Requests

Analyze large, complex datasets to respond to urgent requests from executives, auditors, or partner ministries. Provide accurate, timely, and defensible spatial and analytical outputs that may influence high-profile decisions or public-facing outcomes.

### 5. Cross-Ministry and Stakeholder Coordination

Collaborate with policy specialists, approvals managers, technology teams, and staff across ministries to develop common data standards and ensure geospatial information supports evolving legislation, system development, and public land management priorities.

### 6. Operational Policy and Business Improvement Support

Contribute technical expertise to operational policy development and business improvement initiatives, including backlog reduction, process reengineering, and regulatory modernization. Provide data and spatial analysis to evaluate the impacts of proposed changes and support evidence-based recommendations.

Enhance efficiency, consistency, and defensibility of Crown land regulatory processes through well-integrated geospatial analysis.

### 7. Capacity Building and Mentorship

Mentor and advise front-line staff and technical teams on geospatial best practices, data interpretation, and tool use. Develop internal training materials and guidance documents to support knowledge transfer and improve geospatial literacy within the program.

## Problem Solving

Typical problems solved:

Rapid response to urgent executive or auditor requests requiring analysis and synthesis of large, complex spatial datasets.

Resolving inconsistencies between spatial and tabular data that affect the integrity of disposition

approvals or mapping accuracy.

Designing ETL workflows to process data from multiple legacy systems or inconsistent sources into unified, usable datasets.

Identifying and correcting data gaps or misalignments that affect reporting, forecasting, or program KPIs.

Supporting operational policy development with scenario-based geospatial and statistical analysis of regulatory impacts.

Types of guidance available for problem solving:

Legislative frameworks including the Public Lands Act, Provincial Parks Act, and Environmental Protection and Enhancement Act.

Technical documentation for business systems, GIS software (e.g., ArcGIS, FME), and internal data standards.

Advice from senior program specialists, approvals managers, legal and policy staff, and subject matter experts across ministries and the Alberta Energy Regulator.

Direct engagement with external clients, industry associations and regulated community.

Provincial guidance documents, operational policy manuals, and spatial data standards.

Informal collaboration with internal GIS staff, system administrators, and external agencies or vendors.

Direct or indirect impacts of decisions:

Direct: Spatial errors or delays in analysis can affect regulatory decisions, leading to operational risks, legal exposure, or delays in approvals and land access.

Indirect: Poor data quality or analysis may impact executive decision-making, reduce public or industry trust in regulatory transparency, or result in misinformed policy.

ETL, reporting, or dashboard errors can lead to misleading conclusions or missed compliance issues, especially in high-profile cases or audits.

## Key Relationships

Major stakeholders and purpose of interactions:

Internal program staff: Provide GIS tools, training, and data products to support day-to-day regulatory approvals.

Approvals managers and statutory decision-makers: Deliver analysis and visuals that inform complex disposition or amendment decisions.

Executive leadership: Produce rapid-response dashboards, analysis, and maps to support decision-making and issue management.

Cross-ministry partners (e.g., Environment and Protected Areas, Technology and Innovation): Coordinate data integration, system compatibility, and policy alignment.

External stakeholders (e.g., industry, consultants, Indigenous communities): Collaborate on spatial data standards, improve data submissions, and support transparency in land use processes.

## Required Education, Experience and Technical Competencies

Education Level

Master's Degree

Focus/Major

Other

2nd Major/Minor if applicable

Designation

If other, specify:

## Disciplines providing relevant experience in spatial and non-spatial data analysis

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

Geographic Information Systems (GIS), Computer Applications, Computer Science, Management Information Systems, Information Technology, Mathematics, Engineering, Forestry, geospatial or similar;. or an equivalent combination of education, and experience augmented by ESRI software certification. Equivalencies will be considered. Experience with representing data usefully to different audiences. Experience with industry such as oil, gas, forestry, electric power system/generation, telecommunication and/or designated industrial property fields such as machinery and equipment, railway, farm land, building, land etc. as well as courses and certifications related to Safe Software FME, ESRI ArcGIS, R, relevant programming (e.g., Python 3), use of machine learning in classification, use of AI to enhance coding productivity, and project management is an asset

## 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 type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p>Takes a long-term view towards organization's objectives and how to achieve them:</p> <ul style="list-style-type: none"> <li>• Takes holistic long-term view of challenges and opportunities</li> <li>• Anticipates outcomes and potential impacts, seeks stakeholder perspectives</li> <li>• Works towards actions and plans aligned with APS values</li> <li>• Works with others to identify areas for collaboration</li> </ul>	
Creative Problem Solving	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p>Engages the community and resources at hand to address issues:</p> <ul style="list-style-type: none"> <li>• Engages perspective to seek root causes</li> <li>• Finds ways to improve complex systems</li> <li>• Employs resources from other areas to solve problems</li> <li>• Engages others and encourages debate and idea generation to solve problems while addressing risks</li> </ul>	
Drive for Results	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p>Takes and delegates responsibility for outcomes:</p> <ul style="list-style-type: none"> <li>• Uses variety of resources to monitor own performance standards</li> </ul>	

		<ul style="list-style-type: none"> <li>• Acknowledges even indirect responsibility</li> <li>• Commits to what is good for Albertans even if not immediately accepted</li> <li>• Reaches goals consistent with APS direction</li> </ul>	
Agility	○ ○ ● ○ ○	<p>Identifies and manages required change and the associated risks:</p> <ul style="list-style-type: none"> <li>• Identifies alternative approaches and supports others to do the same</li> <li>• Proactively explains impact of changes</li> <li>• Anticipates and mitigates emotions of others</li> <li>• Anticipates obstacles and stays focused on goals</li> <li>• Makes decisions and takes action in uncertain situations and creates a backup plan</li> </ul>	
Build Collaborative Environments	○ ○ ● ○ ○	<p>Collaborates across functional areas and proactively addresses conflict:</p> <ul style="list-style-type: none"> <li>• Encourages broad thinking on projects, and works to eliminate barriers to progress</li> <li>• Facilitates communication and collaboration</li> <li>• Anticipates and reduces conflict at the outset</li> <li>• Credits others and gets talent recognized</li> <li>• Promotes collaboration and commitment</li> </ul>	

## 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.

_____ Employee Name	_____ Date yyyy-mm-dd	_____ Employee Signature
_____ Supervisor / Manager Name	_____ Date yyyy-mm-dd	_____ Supervisor / Manager Signature
_____ Director / Executive Director Name	_____ Date yyyy-mm-dd	_____ Director / Executive Director Signature