

New

Ministry

Environment and Protected Areas

Describe: Basic Job Details

Position

Position ID

Position Name

Provincial Water Boundary Specialist

Requested Class

Program Services 5

Job Focus

Operations/Program

Supervisory Level

01 - Yes Supervisory

Agency (ministry) code

Cost Centre

Program Code: (enter if required)

Employee

Employee Name (or Vacant)

Organizational Structure

Division, Branch/Unit

Water & Circ Econ, Water Avail & Part, Wetlands

Supervisor's Position ID

Supervisor's Position Name

Director, Wetlands

Supervisor's Current Class

Senior Manager (Zone 2)

Design: Identify Job Duties and Value

Job Purpose and Organizational Context

Why the job exists:

In Alberta, the Crown owns most of the beds and shores of all naturally occurring bodies of water including lakes, ponds and those located within permanent and naturally occurring wetlands, as well as rivers, creeks and streams and other naturally occurring watercourses. There are legislative and common law criteria that must be met prior to asserting ownership to a water body. The Water Boundaries Unit serves this function and asserts ownership to and protects the Crown's interest in the bed and shore of permanent and naturally occurring bodies of water under Section 3 of the Public Lands Act.

The natural boundaries of bodies of water are also ambulatory and can move over time due to erosion, changes in flow, flooding and climatic changes (e.g., long-term drought). Changes in these boundaries can affect the location of upland property boundaries and land area, and can have implications in boundary disputes or when land is sold or subdivided. The ambulatory nature of these boundaries, the multiple variations in the terms and wording of land grants and land titles, as well as the implications of current and historical legislation (provincial/federal) and related common law principles derived from court decisions, create a complex and highly variable land ownership pattern that frequently requires resolution in order to maintain the certainty of Alberta's land ownership. Landowners may apply to amend land title descriptions to reflect changes in the natural boundary of a water body through specified legislative triggers under Section 89 of the Land Titles Act. There is a legal requirement for the Minister charged with the administration of the bed and shore to provide their consent for the change in boundary. The

Provincial Boundary Specialist has been delegated to provide this consent prior to a proposed survey plan being registered at the Land Titles Office.

The Provincial Water Boundary Specialist through multi-disciplinary research and detailed analysis on behalf of the department is responsible to assess, determine and assert the ownership of the bed and shore of bodies of water, or approve changes to natural ownership boundaries to protect the Crown's interest in land and water body resources. Through comprehensive review of historical documentation (e.g., land grants, land titles, legislation and treaties), engineering and scientific reports, survey plans, etc., this position establishes and verifies the Crown's legal interest in land or water bodies and the extent of that ownership to prevent the loss of public lands, avoid Crown or private landowner encroachment from occurring, and prevent the potential for litigation. The position provides expert advice on technical and historical matters, statutory provisions and court decisions involving the Crown's ownership of the bed and shore as part of the decision-making processes. The Provincial Water Boundary Specialist is the department's lead, develops internal and external relationships and is recognized as the authoritative expert in providing decisions, opinions and information to the Ministry, provincial and federal agencies, legal counsel, engineers, land surveyors, planners, land developers, ecologists, agrologists, interested parties and Albertans.

Responsibilities

1. The Provincial Water Boundary Specialist is responsible for establishing and verifying the Crown's legal interest in land or the bed and shore of bodies of water and the extent of the ownership. This supports integrated resource management.

This involves:

- i) Researching and analyzing historical, legal, scientific and technical documents (such as land titles, land grants, aerial photographs, survey plans, legislation, etc.) from a variety of sources (Provincial Archives, biophysical and engineering reports, federal government records, Municipal Archives, etc.) to establish the evidence necessary to construct the historical sequence of land and water body ownership to inform decision making.
- ii) Documenting the evidence of defensible ownership and boundary decisions. Creating and maintaining records (historical and current) on land ownership including decisions regarding the Crown's claim to the bed and shore of bodies of water.
- iii) Methodically and systematically documenting changes to natural boundaries and ownership.
- iv) Analyzing and interpreting historical agreements such as Orders in Council (e.g., Rupert's Land and the North-western Territory regarding Hudson's Bay Company lands), treaties, Indigenous rights and traditional use of land and water bodies, federal government agreements (national parks, military reserves) and other unique ownership situations (court defined rights and grants/land titles specifying ownership of the beds and shores, etc.).
- v) Conducting field inspections with Government of Alberta staff, consultants, landowners, municipal planners and others to assess and verify the location of bodies of water and their probable boundaries or directing them to document the location of bodies of water.
- vi) Documenting provincial government workflow processes and administrative procedures, developing policy and technical guidance, and initiating and participating in knowledge transfer and sharing of technical guidance to other analysts, ministry and stakeholders.

2. The position represents the Crown and has decision-making authority to determine bed and shore ownership or changes to the ownership boundaries to protect the land and water body resources held in trust for Albertans. This is accomplished by:

- Ensuring legislation, regulations, common law principles and natural boundary policies and practices are consistently applied across the province in the review and assessment of bed and shore ownership and natural boundaries.
- Determining bed and shore ownership and assessing boundary changes within approval time-lines (e.g., Municipal Government Act) and Ministry guidelines, with supporting materials.
- Rendering and communicating decisions to affected parties through written decisions or verbal discussions, including meeting with landowners and their agents to explain and defend the decisions made.
- Representing the Crown in examining, rejecting or approving surveyors' plans and submissions prior to

land titles registration to show location of or changes to water body boundaries that are shared with other owners.

- Examining subdivision plans and investigating accretion claims in order to identify Crown-owned beds and shores and either approving or rejecting the title amendments to ensure Crown lands are protected (e.g., not encroached upon) or to ensure the Crown does not encroach upon land owned by others.

-Resolving and/or mediating disputes resulting from decisions made between the Crown and agencies and stakeholders.

3. The Provincial Water Boundary Specialist provides expert advice on technical factors, historical matters, legislative and regulatory interpretation, application of court decisions involving the Crown's ownership of beds and shores and boundary changes to support the effective management of Alberta's resources. This involves:

i) Interpreting land titles, land grants, treaties, Surrendered Indian Reserves documents regarding ownership of beds and shores and boundary determination.

ii) Providing expert advice, information, evidence and background material to provincial legal counsel in actions representing the Crown.

iii) Providing technical and expert advice regarding bed and shore ownership and interpretation of technical, legal and historical documents legislation and regulations to external legal counsel.

iv) Preparing aerial photo overlays, sketches, charts, graphics, statistical information and historical ownership and natural evolution of water features for internal and external stakeholders.

v) Addressing and defending issues of Crown ownership across a variety of stakeholders (e.g., federal, provincial jurisdictions, private land owners, surveyors, land developers, planners, etc.) and developing and drafting responses for ministerial and executive review (e.g., action requests, public enquiries).

v(a) Providing decisions involving the Crown's ownership of the bed and shore to planners, land developers, engineers regarding project development and municipal land use and sub-divisional planning or infrastructure construction.

v(b) Working with the federal government (Parks Canada, Crown-Indigenous Relations and Northern Affairs Canada) in resolving issues dealing with the establishment, verification or mapping of federal water boundaries in relationship to provincially owned beds and shores. This requires the understanding, interpretation and application of treaties, land claims and traditional uses of natural resources, surrendered Indian Reserves, etc.

-Providing recommendations for the retention of water bodies and their beds and shores in Treaty Land Entitlement processes.

v(c) Verifying ownership of provincial waterbodies and their bed and shore to support non-government conservation groups with the mandate to manage conservation lands (e.g., Alberta Conservation Association, Ducks Unlimited Canada, with respect to species covered under federal Species at Risk Act, Migratory Birds Convention Act).

vi) Providing recommendations regarding provincial policy, legislation and regulation changes, and identifying the impact of federal, provincial, municipal policy changes or court decisions.

4. The position is responsible for developing and maintaining productive and professional relationships with internal and external stakeholders to maintain credibility, trust, understanding of the principles of land ownership and boundaries. This involves:

i) Ongoing contact with stakeholders to develop a shared understanding of processes, issues, and the Crown's position/interests.

ii) Managing multiple concurrent proponent files by utilizing organizational skills, project and conflict management skills.

iii) Developing, organizing and prioritizing workloads to ensure compliance related files are dealt with effectively.

iv) Pro-actively capitalizing on opportunities to engage stakeholders to develop understanding of natural boundaries and drafting material geared to different levels of understanding for internal and external presentations (e.g., social media, information bulletins, and Ministry website).

v) Representing the interests of the ministry and Crown on cross-ministry and community presentations/ panels, meetings, committee work.

vi) Dealing effectively with clients to ensure a common understanding and mitigating potential for

litigation.

5. This position supervises and provides leadership to other Water Boundary Unit staff. This includes direct supervision of work performed by other Water Boundary Analysts to ensure technical reviews and survey analysis are completed using a process that achieves a high level of consistency and accuracy.

i) assigning tasks and managing work flow through strong planning and monitoring of competing and evolving priorities and timelines.

ii) Providing guidance and mentorship to staff to ensure alignment with related legislation, policies and strategies.

iii) Reviewing and providing feedback on analysis, documentation and communication.

iv) Fiscal accountability in managing staff time and resources

v) Managing performance and development of staff.

vi) Support other initiatives and priorities of the section, branch, division, department and Government of Alberta, as needed.

- Apply policy and analytical skills to other projects and assignments, as needed.

Problem Solving

Typical problems solved:

- The Provincial Water Boundary Specialist as a provincial expert officially clarifies whether the bed and shore of a body of water or any land adjacent to or within the bed and shore is owned by the Crown in right of Alberta or not.

- The Provincial Water Boundary Specialist also verifies the changes to the natural boundaries as shown on proposed plans whether they are consistent with the common law principles, legislation, regulations and policies or not. If no inconsistency is found, a consent letter will be issued to register the plan. Otherwise, the discrepancies will be brought to the attention of the surveyor for further actions.

Types of guidance available for problem solving:

Decisions made at the Water Boundaries Unit are based on principles and evidence. All available supporting evidence is examined and recorded for future reference, and the results of the investigations are communicated to the proponents by the analyst.

The typical supporting documentations are as follows:

- Original grants and historical agreements

- Historical and current titles

- Registered and official plans

- Field notes of the original surveys

- Historical aerial photos

- Reports of the assessed bodies of water if available

- Historical climate records and reports

Direct or indirect impacts of decisions:

Decisions made by the Provincial Water Boundary Specialist is expected to have the following effects:

- Protects the Crown's interest in the bed and shore of bodies of water while respecting the rights of the adjoining riparian landowners.

- Assist the stakeholders and the government agencies to take appropriate steps regarding the proposed activities within bodies of water.

- Provide assurance for the accuracy of the position of natural ownership boundaries as shown on registered plans.

- Resolve disputes over water body ownership and their boundaries, and to avoid litigations against the Crown.

1. The position influences and directly impacts the land use planning, actions and decisions of a wide range of external clients through the analysis, verification and decisions made regarding bed and shore ownership and natural boundaries.

2. The position is involved in politically sensitive and potentially volatile situations regarding the use, access to and development of resources adjacent to Crown owned water bodies (agricultural, industrial, residential and recreational).

3. Decisions made affect landowners right of ownership, mutual ownership boundaries, ability for timely subdivision of land and private land sales, ability to amend their private land titles and the issuance/ cancellations of approvals to use adjoining Crown-owned lands.

4. Impacts the surveying community by ensuring accurate land or natural boundaries are depicted on plans and by approving or rejecting plans for land titles registration. Plans which show a change in natural boundaries cannot be registered at Land Titles Office without this consent.

Key Relationships

Major stakeholders and purpose of interactions:

- Alberta Land Surveyors who prepare a plan which shows a change in a natural boundary. Under Section 89 of the Land Titles Act, a consent from the Crown as the owner of the beds and shores is required before such a plan can be registered at the Land Titles Office.
- Landowners or their agents who would like to amend the legal description of a land title to include accreted former bed and shore areas to the adjoining upland.
- Consulting companies and land developers, oil and gas/utility companies, municipalities or landowners in assessments of wetlands and bodies of water within areas to be affected by a proposed activity. They need a confirmation from the Crown about the ownership of any existing bed and shore within the proposed activity area.
- EPA Environmental Protection Officers, Public Lands Enforcement Officers, Water Act Approvals staff and Public Land Approvals staff most often request assessments of the Crown ownership of the bed and shore of concerned bodies of water.
- Land Titles Office and Director of Surveys Office usually send land surveyors' plans which ambiguously show a current or historical position of a natural boundary for clarifications or an opinion.
- Government Legal Counsel regarding court cases involving natural boundaries often seeks the opinion of the Provincial Water Boundary Specialist in form of an affidavit as supporting evidence for the case.
- Federal agencies enquire about the provincial Crown ownership of the bed and shore adjacent to or within areas administered by the Crown in right of Canada.
- Provincial and Territorial enquiries about provincial Crown ownership of bed and shore and applicable processes involved.

Required Education, Experience and Technical Competencies

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

If other, specify:

A university degree in related fields of Science as stated below.

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

The Provincial Water Boundary Specialist work is not undertaken elsewhere.

This position requires a university graduation in a related field and a minimum of six years of progressively responsible related experience (e.g., Physical Geography, Earth Sciences, Geomatics, Land Surveying, GIS, Remote Sensing and aerial photo interpretation, Environmental Science/Engineering, Botany, Land Conveyance/Planning/Management).

This position requires a strong understanding and knowledge in the following areas:

- Alberta Land Survey system including cadastral and parcel mapping
- Land surveying practices including field procedures and survey calculations
- Theory and principles of physical geography and hydrography
- Cartography and mapping projection systems
- Riparian ownership and water boundary principles established by legislation and related court rulings
- Land conveyance practices and documentation
- Ministry policies, programs and business plan including administrative policies, procedures and regulations
- Public Lands Act and regulations, Surveys Act, Land Surveyor's Act (including Alberta Land Surveyors Association Manual of Standard Practice), Land Titles Act and Procedures Manual, Municipal Government Act, Environmental Protection and Enhancement Act, Water Act, Mines and Minerals Act, Transportation and Utilities Act, Irrigation Act, Heritage Resources Act, Government Organization Act, Transfer of Natural

Resources Act, Tax Recovery Act, historical related legislation such as Northwest Irrigation Act, Alberta Wetland Policy and land use planning/management.

- Legislation in other jurisdictions (federal Fisheries Act, etc.)
- Treaties, land claims, and traditional uses of natural resources

This position requires the following skills and abilities:

- Strong computer skills and knowledge of some essential software such as all Microsoft applications, AutoCAD and GIS applications
- Strong research skills and techniques
- Strong writing skills to effectively communicate complex and technical information to various audiences
- Strong project management skills to handle multiple priorities
- Strong mediation and issue resolution skills in politically sensitive situations
- Strong and effective communication, diplomacy, conflict resolution and facilitation skills
- Advanced problem solving, analytical and organizational skills in working with multiple stakeholders and in preparing and presenting supporting material for decisions made
- Ability to develop strong interpersonal relationships at all levels with internal and external stakeholders
- Ability to assess complex situations in developing decisions and providing advice to Ministry staff, external stakeholders and legal counsel

Behavioral Competencies

Competency	Level					Level Definition	Examples of how this level best represents the job
	A	B	C	D	E		
Creative Problem Solving	☐	☐	☐	☒	☐	Works in open teams to share ideas and process issues: • Uses wide range of techniques to break down problems • Allows others to think creatively and voice ideas • Brings the right people together to solve issues • Identifies new solutions for the organization	Creative problem solving facilitates and expedites the assessments at the Water Boundaries Unit.
Systems Thinking	☐	☐	☒	☐	☐	Takes a long-term view towards organization's objectives and how to achieve them: • Takes holistic long-term view of challenges and opportunities • Anticipates outcomes and potential impacts, seeks stakeholder perspectives • Works towards actions and plans aligned with APS values • Works with others to identify areas for collaboration	System thinking enables the analyst to be aware of the outcome of the decisions made internally and externally.
Drive for Results	☐	☐	☒	☐	☐	Takes and delegates responsibility for outcomes:	Drive for results makes the analyst to be focused on the job and not being

		• Uses variety of resources to monitor own performance standards • Acknowledges even indirect responsibility • Commits to what is good for Albertans even if not immediately accepted • Reaches goals consistent with APS direction	distracted.
Agility	☐ ☐ ☐ ☒ ☐	Proactively incorporates change into processes: • Creates opportunities for improvement • Is aware of and adapts to changing priorities • Remains objective under pressure and supports others to manage their emotions • Proactively explains impact of change on roles, and integrates change in existing work • Readily adapts plans and practices	Agility helps the analyst to use all the available means to solve a problem and to achieve the best outcome as quick as possible.