

Environment and Protected Areas

END OF BOX

Waste Mgmt. Spc Ist

Scientific 2

Job Focus
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Vacant

WCE / WW5B / CEWM

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Director, CEWM

Senior Manager (Zone 2)

2024-01-31

None - description of responsibilities were revised for clarity and currency in alignment with similar Sci3 positions and in relation to the application of scientific and technical expertise to policy analysis.

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This intermediate science position contributes technical assessments/analyses to inform Alberta's circular economy and recycling policies and ensure that they are founded by environmental and socio-economic evidence. In the role, the policy specialist applies and integrates scientific information and knowledge on several different subject areas - waste management systems, recycling processes (chemical and

mechanical), petrochemical development, environmental sciences, amongst others - with policy considerations in analysis, assessment, evaluation and options development in respect of policy issues, options and proposals for circular economy outcomes.

Functions and responsibilities include:

- apply and integrate knowledge of chemistry and/or engineering, energy systems, waste and recycling management and circular economy, and other relevant technical knowledge, to advance provincial interests, programs and policies.
- conduct analysis and provide advice and recommendations for legislative, regulatory and other policy changes related to the circular economy and related matters.
- work with stakeholders (internal and external to the Government of Alberta) to lead, manage, advise, draft and implement current policies and proposed changes to advance the circular economy
- provide advice, analysis and briefings in respect of federal policies, federal/provincial relations and with other provinces and territories, as requested/required.

This position may also be called on to provide specialist support to the department and other Government of Alberta departments and agencies, as required in fulfillment of the Government of Alberta's business plan and strategic priorities.

Responsibilities

1. Provide leadership and direction on circular economy initiatives and measures.

Activities include but not limited to:

- Lead and champion understanding of circular economy expansion opportunities, recycling measures and waste management issues, and relationships between existing strategies and policies.
- Oversee and coordinate integration of management strategies, policies, and programs for effective and sustainable approaches.
- Identify opportunities for action to enhance economic growth and environmental protection

2. Policy and Issues Research. Provide information, analysis and advice to inform the circular economy policies and controls that support government and department goals.

Activities include but not limited to:

- Provide advice and ensure awareness of issues, trends and approaches that impact the strategic agenda for a circular economy.
- Identify and generate information to address uncertainties and data gaps.
- Synthesize, compile, review and summarize research and relevant technical data and information (including jurisdictional scans, emerging trends, new technology) related to the establishment of legislation, regulations, codes of practice, guidelines, and other instruments.
- Carry out analysis and research in relation to a policy issue or change, including legal, financial and socio-economic implications and implications to direct and indirect stakeholders.
- Lead and support resolving issues, critically analyze and respond to issues from stakeholders, media, government agencies and delegated organizations, and/or other parties, which can include circular economy, recycling, waste management amongst other issues.
- Maintain current awareness of academic literature and research related to waste management, circular economy, recycling and related resources. Maintain a network and professional connections.

3. Policy Development. Develop recommendations and options for alternative actions in addressing policy gaps and issues.

Activities include but not limited to:

- Provide analysis and assessment and ensure policy options and approaches are grounded in and supported by sound evidence, scientific principles, and credible models and data, and align with Alberta's strategic interests, objectives and outcomes. Evaluate the scientific, environmental and socio-economic basis (amongst others, as relevant) and impacts of various options.
- Collaborate in multi-disciplinary teams (internal and/or external to the Government of Alberta) which can include applicants, consultants, government agencies and the public to identify, analyze

and assess the implications of policy changes, to resolve issues, to develop guidance and procedures, to build regulatory support, or other purposes.

- Provide evidence based analysis, evaluation, advice and recommendations. Prepare clear, reliable written input/advice, options, recommendations and reports relating to the development of provincial circular economy, waste and recycling policies.
- Consult and collaborate with policy, planning and operations staff to integrate and align policy design decisions with operational practices and procedures.
- Conduct project management to execute policy work with various stakeholders in the establishment and refinement of policy options and recommendations.
- Review and provide input to federal and national policies and programs providing government of Alberta perspectives and influence.
- Review, analyze and advise on bylaws, operational guidance and education support in relation to regulatory guidance for circular economy, recycling and waste management initiatives.

4. Policy Evaluation. Develop and maintain oversight on the continuous improvement and support ongoing effectiveness and efficiency of waste management systems.

Activities include but not limited to:

- With understanding of relative jurisdiction between federal, provincial and local authorities, identify gaps and opportunities for policy performance and enhancement (including reducing red tape).
- Support development and reporting of performance metrics, environmental and economic indicators, monitoring systems to advise on ongoing effectiveness of policy implementation.
- Assess trends (magnitude, direction) for metrics and performance. Identify emerging risks and notable trends. Provide analysis of issues and concerns raised by stakeholders, testing to ensure it is based in evidence, scientific principles.

5. Support policy capacity, enhance education and support alignment within broader environmental and socio-economic strategies.

- Provide scientific and technical expertise in circular economy opportunities in representing the Branch, Division and/or Department in committees and/or work teams for management plans, national and provincial action plans or similar strategies.
- Support with public relations, communications, stakeholder relations and related activities to support Alberta's leadership in execution of policy changes. Prepare key messages for executive, communications and other staff.
- Develop and maintain relationships with partners and stakeholders to maximize expertise, leverage and leverage capacity to support circular economy policy.
- Participate in legal proceedings and in hearings with regulatory bodies to contribute technical and policy expertise if required.
- Respond to news reports, release of major projects, issues and concerns.
- Ensure the accuracy of information provided publicly - in presentation, speaking engagements, or written products and correspondence.
- Represent the department on various committees, teams and groups, as requested, which may have interactions with diverse stakeholders, to share information and advance department interests.
- Support and assist in cross-cutting initiatives when the circular economy and waste minimization are considerations, such as environmental emergencies, major projects and similar initiatives.

6. Lead and support other policy and program research, development and implementation to support branch, division, department and government priorities as required.

- Support and lead other initiatives as needed to deliver on Government of Alberta priorities.

Problem Solving

Typical problems solved:

Analyze issues and concerns brought to the Minister and department and integrating science, evidence, information about jurisdictional authority, and other dimensions to proposed advice, recommendations and solutions to resolving issues or realizing opportunities.
Evaluate and provide recommendations on policy design and implementation within evidence based

principles.

Integrate and balance social values and technical principles.

Consider the implications of policy choices on local, provincial and federal jurisdiction and on stakeholders.

Types of guidance available for problem solving:

- Environmental Protection and Enhancement Act, and related regulations.
- Water Act and related regulations.
- Municipal Government Act, and related regulations.
- Alberta Recycling Management Authority bylaws, Oversight Agreement and MOU
- Beverage Container Management Board bylaws and Oversight MOU/agreement(s)

Direct or indirect impacts of decisions:

Direct and indirect impact of decisions made by this role, include impact to:

- regulatory decisions (applications of policies by department and external administrators)
- policy development, including legislative and regulatory amendments, within and outside of the branch
- agency governance
- Government of Alberta ministries (e.g., municipal affairs, emergency management, health, energy, petrochemical, economic development)
- stakeholders (e.g., industry, municipalities, partners, environmental groups, Indigenous communities)

Key Relationships

Major stakeholders and purpose of interactions:

- Other government ministries, partners and delegated organizations (Alberta Recycling Management Authority, Beverage Container Management Board) for policy development and implementation, engagement, performance measurement and program design.
- Plastics, energy and waste management related associations - info/advise on new and proposed changes to policy and regulatory tools; situational awareness of industry developments.
- Producers of packaging and plastics for effective materials recycling.
- Producers of hazardous and special products for effective management.
- Producers and those involved in the collections, processing and transport of recycling and extended producer responsibility systems.
- Federal government on regulations and national initiatives.
- Local authorities, Indigenous communities, non-governmental organizations regarding info/advice on new and proposed changes to policy and regulatory tools and situational awareness of emerging developments.

Required Education, Experience and Technical Competencies

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

If other, specify:

Specialization in chemistry, biochemistry, chemical engineering and/or environmental science.

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

- Theory and practices of environmental protection/management for economic development, waste management and diversion.
- Knowledge on the means of implementation of market-based tools, environmental legislation and regulations, policies and programs to meet the objectives for waste minimization and circular economy development, and familiarity with varying roles/responsibilities between federal, provincial and local jurisdictions.
- Knowledge of circular economy industry, along with awareness of common technologies and processes used in recycling and waste management, such as chemical recycling, waste-to-energy, etc.
- Knowledge and experience in qualitative and quantitative methodologies for research, project management to design, organize, support and evaluate projects and studies, and integration of scientific and technical data from a range of sources, including cost-benefit analysis and risk assessment/management.
- Strong oral and written communications to lead projects teams, build rapport with stakeholders, and share information in a clear, purposeful and effective manner.

Behavioral Competencies

Competency	Level					Level Definition	Examples of how this level best represents the job
	A	B	C	D	E		
Agility	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p>Identifies and manages required change and the associated risks:</p> <ul style="list-style-type: none"> Identifies alternative approaches and supports others to do the same Proactively explains impact of changes Anticipates and mitigates emotions of others Anticipates obstacles and stays focused on goals Makes decisions and takes action in uncertain situations and creates a backup plan 	This position involves work scope and projects with levels of uncertainty and competing interests between stakeholder groups. Initiatives are often subject to changing priorities, timelines and resource availability.
Systems Thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<p>Integrates broader context into planning:</p> <ul style="list-style-type: none"> Plans for how current situation is affected by broader trends Integrates issues, political environment and risks when considering possible actions Supports organization vision and goals through strategy Addresses behaviours that challenge progress 	The complexity of this job is high; the incumbent must have an awareness of the complexity of the circular economy, recycling and waste management systems and able to apply that and utilize that knowledge to achieve departmental goals and outcomes.
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"> Engages perspective to seek root causes Finds ways to improve complex systems Employs resources from other areas to solve problems Engages others and encourages debate and idea generation to solve problems while addressing risks 	This program area is tasked with developing policy for complex issues. Solutions require expertise from within and outside of the department. In many cases the policy issue may not be well defined or easily isolated from other issues.
Develop Networks	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p>Leverages relationships to build input and perspective:</p> <ul style="list-style-type: none"> Looks broadly to engage stakeholders 	Work scope ranges from regional to province-wide, and could also require information from national and international

