

EXCLUDED POSITION DESCRIPTION

Ministry of Transportation

Position Title:	Senior Manager, Avalanche, and Weather Programs	Position Number:	51587
Department:	Highways	Location:	Victoria
Branch:	Construction and Maintenance (C&M)	Management Role:	Business
Supervisor's Title:	Director, Construction and Maintenance	Position Number:	00051574
Supervisor's Mgmt Role:	Management – Strategic Leadership	Phone Number:	

PURPOSE OF POSITION:

As the provincial expert, the *Senior Manager, Avalanche and Weather Programs* is accountable for leading and managing the long and short-term strategic planning, management, implementation and operation of all provincial Snow and Avalanche Programs, the Electronic Weather and Road Sensing Network, and related computer systems and networks. The Snow and Avalanche Programs include significant public safety initiatives for 1200+ kilometres of highway directly exposed to avalanche hazards within 60+ designated avalanche hazard areas. The program mandate is to ensure safety to all highway users and to minimize avalanche related road closures. The position sets the parameters for, and ensures effective communication with various Ministry, Road and Bridge Contractor, provincial, national and international agencies and media regarding avalanche hazard levels exposed to highway users. The Electronic Weather and Road Sensing Network is a real-time electronic system of over 170 mountain top, roadside and seasonal strength loss weather stations. The position directly or functionally manages 35 staff across the province (14 in HQ's and 21 in 7 provincial district locations).

PRIMARY ACCOUNTABILITIES:

1. Plans, directs, manages, and implements the province-wide snow avalanche hazard protection and forecasting program and develops long and short-term strategies, policies, standards and techniques related to the application and safety of avalanche, weather and road sensing programs.
2. Oversees, organizes, and directs the development of the provincial weather and avalanche computer systems and networks for the real-time exchange of information, and the production and dissemination of weather, road condition and avalanche forecast information associated with ongoing significant weather related storm events.
3. Plans, directs, manages, and controls the development and delivery of the provincial Seasonal Strength Loss Program which ensures minimal degradation of highway infrastructure and safe passage of commercial and industrial traffic on provincial highways.
4. Directs, investigates, develops and implements electronic, wireless and mobile technology related to avalanche control devices, systems, communications and networks to ensure accurate and reliable weather and avalanche information is made available for provincial operations.
5. Develops, or oversees the establishment of avalanche policies, standards and practices including Avalanche Safety Measures for Highways Protocols, Ministry and Maintenance Contractor training requirements, Search and Rescue Plans, safe and effective use of explosives and remote avalanche control devices, working alone and in isolation check-in procedures, explosive spill plans, non-highway avalanche incident response protocols, and establishes qualifications for various HQ and district positions within the provincial program.
6. Directs the design and construction of avalanche and weather defense structures for provincial highways and participates in the review of the Ministry approval process to minimize hazards to land use applications (i.e. housing subdivisions, mining and forestry land use) by coordinating the identification of areas unsafe for development and/or determining development restrictions.
7. Oversees geoscientific research into best practices research and ensures that performance measures are included in all avalanche and weather programs, including the dissemination and exchange of information, precision forecasting, and three-dimensional time-based models related to meteorology, climatology, glaciology and global warming.
8. Collaborates with, and provides expert guidance to headquarters and regional executives, management, staff and contractors to ensure the safety of staff and the public on all highways impacted by avalanche and weather hazards.

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9. Provides information for media organizations (e.g., Local and National media and documentary productions such as Outdoor Learning Channel – Raging Planet Series) to promote public safety, awareness and education.
10. Ensures all financial, personnel, and contracted resources within the assigned programs are managed effectively, efficiently and economically in accordance with ministry and government priorities, policies and practices.
11. Manages the recruitment, selection, retention, recognition, appraisal (EPDPs), discipline, training, development and motivation of assigned staff.
12. Establishes and maintains ongoing contact and communication with Ministry officials, provincial and federal safety agencies (i.e. Work Safe BC, Transport Canada, RCMP, PEP, Coroners Service, etc) national avalanche agencies (Canadian Avalanche Association and Centre), international avalanche agencies to ensure the MoT Avalanche and Weather Program is compliant with, or leading the standards of care required to operate the safest and most effective avalanche and weather program possible.

FINANCIAL RESPONSIBILITIES:

- Manages an annual headquarters section budget of >\$1.0 million.
- Manages the development and management of the provincial avalanche budget of >\$3.0 million annually, including service level agreements with contractors.
- Oversees and recommends capital purchases and improvement funding requests.
- Manages RFP processes, including tendering, selection of qualified bidders and successful awarding of contract.

PREPARED BY:

NAME:	TITLE:	DATE:
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EXCLUDED MANAGER AUTHORIZATION:

I confirm that:

1. The information in this position description reflects the actual work performed as of Nov 1, 2008.
2. A copy has been provided to the incumbent(s), if there is one.

Signature

NAME:	TITLE:	DATE:
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MANAGEMENT LEADERSHIP ROLE ASSIGNMENT JUSTIFICATION

(to be completed by Excluded Supervising Manager)

PRIMARY LEADERSHIP ROLE:**Strategic:**

To determine the long-term strategic direction and define the outcomes for a business AND manage several managers who themselves are accountable to lead others to deliver a component of the business.

Business:

To determine the goals and objectives of an operation or project(s) to achieve defined business outcomes AND direct an operation, or provide authoritative advice, to achieve the strategic outcomes of the business.

Applied:

To manage the delivery of products and/or services AND manage and coordinate assigned work or projects.

LEADERSHIP ROLE JUSTIFICATION (provide rationale as to why the position meets the criteria outlined above):

This position has a strong business leadership role and works with considerable independence and is accountable for directing a province-wide operation and the achievement of strategic business outcomes. The position also manages and provides expert or authoritative advice to the Ministry's executive and senior managers regarding the goals and objectives of the provincial avalanche and electronic road sensing programs. The work of this position is carried out through a large number of subordinate and technically supervised staff across the province (i.e., 14 subordinate direct reporting staff and 21 regional staff with functional reporting relationship). The position's reporting relationship has changed since its last review and now reports to the Director, Construction and Maintenance.

ROLE ASSIGNMENT RECOMMENDATION (to be completed by Human Resources):

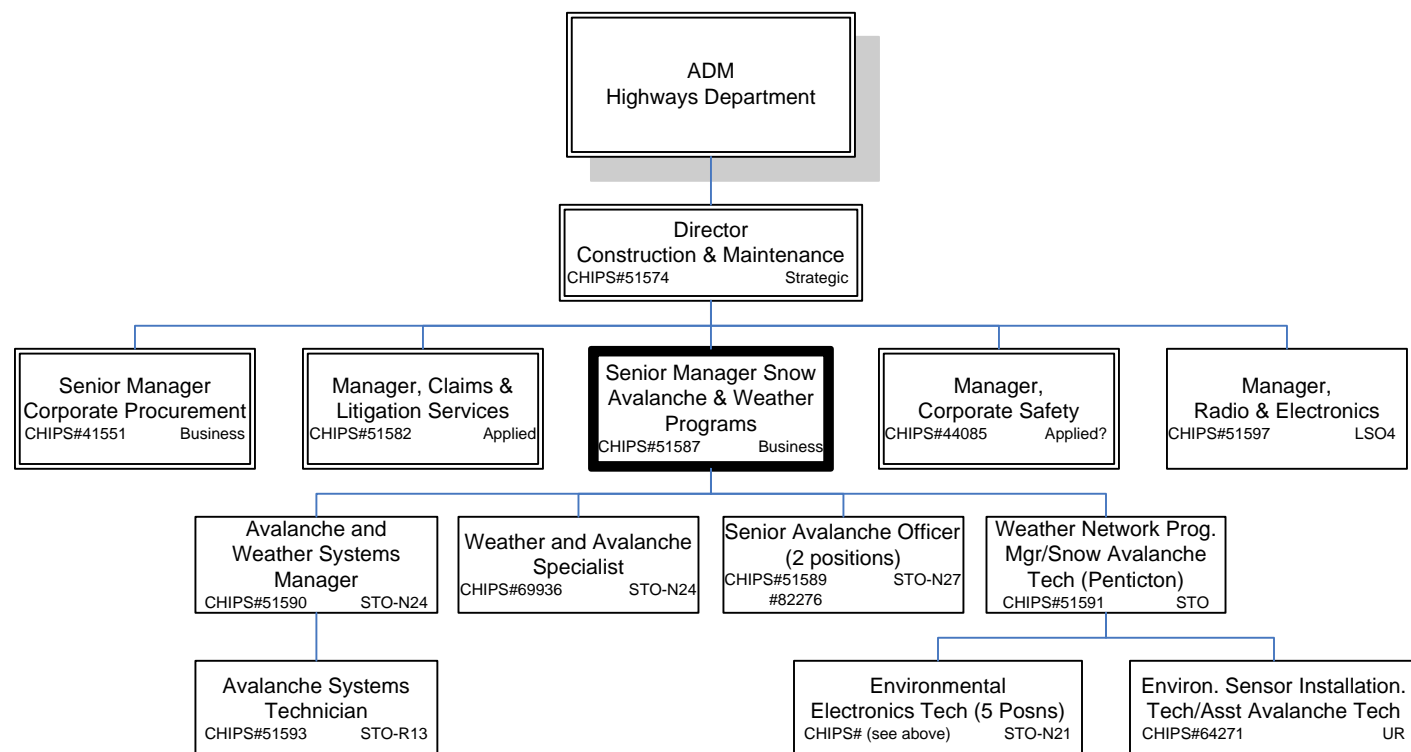
<input type="checkbox"/> Strategic	<input checked="" type="checkbox"/> Business	<input type="checkbox"/> Applied	SIGNATURE:
NAME:	TITLE:	DATE:	

COMMENTS:

This is an existing management position. A new reporting relationship has been approved by the DM and is now fully accountable for the provincial Snow Avalanche and Weather programs. The safety of users of the provincial highways program is paramount in the effective and efficient delivery of these programs.

ROLE ASSIGNMENT APPROVAL (to be completed by ExComm):

<input type="checkbox"/> Strategic	<input checked="" type="checkbox"/> Business	<input type="checkbox"/> Applied	SIGNATURE:
NAME:	TITLE:	DATE:	

ORGANIZATION CHART

STAFFING CRITERIA**Education and Certifications:**

- A Bachelor's Degree in Physical Geography, Meteorology, or similar field; *OR* an Undergraduate or Master's Degree in Business or Public Administration plus training in snow, avalanche or weather programs, and related traffic and avalanche information systems; or other acceptable post secondary degree, diploma or certificate plus considerable practical experience in the field of snow, avalanche and weather systems forecasting and systems and program management.
- Registration with the Canadian Avalanche Association (CAA) and CAA Level II certification
- Valid class 5 driver's license

Experience:

- Experience in program planning, leadership and direction, including developing and managing program budgets
- Experience as an avalanche technician or an in a comparable role dealing with on-site snow, avalanche and extreme weather conditions; conducting avalanche hazard evaluations; conducting or overseeing search and rescue initiatives; and using or directing the use of explosives in avalanche conditions
- Experience providing direction and supervision to a team of professional, technical and administrative staff
- Experience responding to emergency situations and accidents, directing investigations, and assessing and evaluating the efficiency of emergency response programs
- Experience dealing with senior government representatives, politicians, community leaders, the media, and the general public particularly with regard to snow, avalanche and weather issues
- Experience negotiating and managing contracts

Knowledge of:

- program, policy and operational standards development processes
- strategic, operational and budgetary planning processes program performance planning and evaluation; work process review techniques; and change management methods and processes
- contract negotiation techniques; and fee for service, and goods and services contract development and administration policies and procedures, and requirements
- principles and practices of project design, planning, management, tracking and reporting
- Information management tools, techniques, processes and methodologies
- principles and methods associated with the analysis and synthesis of stability, snow-pack and wind factors, including current activity and tests, depth, structure, temperature, penetration, past avalanche activity, air temperature, precipitation and intensity, surface condition, solar radiation, terrain analysis, mass, velocity, and a variety of threshold effects under various constraints
- provincial, national and international trends and techniques in avalanche and weather forecasting and control
- various provincial and federal regulations including Transportation of Dangerous Goods Act, Federal and Provincial explosives and blasting regulations, WCB regulations and guidelines, Workplace Hazard Information Management Systems (WHMIS)

Skills and Abilities:*Ability to:*

- define, develop and employ program or operational performance measurements to achieve objectives and results; and the ability to develop creative and innovative solutions to improve operational effectiveness
- work effectively with a variety of ministry and government managers, professional and technical staff, and a wide variety of external stakeholders
- identify and analyze complex and politically sensitive issues -- particularly those associated with avalanche and weather program management -- and develop options, alternatives and viable solutions
- lead or participate in complex contract negotiations and influence outcomes
- supervise, coach and motivate staff; develop performance standards measures and evaluate performance
- define and manage the work of contractors and consultants, including the verification of work output, completion of contract deliverables, determining work priorities and resolving escalated problems

Skills:

- Superior written, oral and interpersonal communications skills including the capability to speak, on behalf of the Ministry, in public forums, with senior government officials and the media
- Seasoned project management skills and the ability to provide direction and leadership to project teams
- Highly effective written communications skills required for the preparation of technical documentation, as well as a variety of communications materials such as briefings, project reports, project plans, negotiation documentation, contract deliverables, etc.

- A highly motivated self-starter with the ability to influence change and lead continuous improvement; and to work effectively under pressure in emergency and physically demanding situations.

COMPETENCY MODEL:**Critical Behavioral Competencies**

(maximum 6 to 10 including the 3 core Public Service competencies - fewer are better)

Job Related Competencies

- **Strategic Orientation** - The ability to link long-range visions and concepts to daily work, ranging from a simple understanding to a sophisticated awareness of the impact of the world at large on strategies and on choices.
 - Considers both short and long-term consequences of situations, problems, decisions and actions.
 - Adapts long term strategies and approaches to new situations
 - Able to set priorities independently and can rely on own judgement.
 - Able to understand details while staying focussed on the broader picture.
- **Business Acumen** – thinks and plans in future-oriented terms:
 - Develops plans and business approaches that take into account longer-term activities, issues, problems or opportunities.
 - Develops and establishes broad scale, longer-term objectives, goals, or projects (e.g., affecting contract negotiations)
- **Problem Solving/Judgement** – is the ability to analyze problems systematically, organize information, identify key factors, identify underlying causes, and generate solutions.
 - breaks down and analyzes situations
 - recognizes causes of events, or multiple consequences and undertakes activities accordingly
 - applies knowledge and judgement to analyze issues and resolve problems
- **Leadership** - Implies a desire to lead others, including diverse teams. Leadership is generally, but not always, demonstrated from a position of formal authority. The “team” here should be understood broadly as any group with which the person interacts regularly.
- **Planning, organizing and coordinating** - Develops and implements plans for complex projects including contract negotiations:
 - Develops specific contract, administrative systems and information tools, methods, practices, processes and procedures and provides contingencies.
 - Establishes measures to assess progress against the plan.
 - Adjusts the plan appropriately and takes initiative to follow through rather than wait for problems to arise.
 - Recognizes problems, takes corrective/preventive action and keeps people informed of plans, progress, and decisions.
- **Partners with Stakeholders** – works cooperatively with all stakeholders to meet mutual goals; and acts as a trusted advisor.
 - Is optimistic about the relationship and its targeted objectives and accomplishments
 - Considers and discusses changes or issues which may affect the stakeholders
 - Able to work with a long-term perspective, effecting trade-offs or compromises for the sake of the partnership

PSA competencies applicable to all Public Service positions:

- **Results Orientation** - is a concern for surpassing a standard of excellence. The standard may be one's own past performance; an objective measure; challenging goals that one has set; or improving what has already been done.
- **Service Orientation** - implies a desire to identify and serve customers/clients, who may include the public, colleagues, partners, co-workers, peers, branches, ministries/agencies and other government organizations. It means focusing one's efforts on discovering and meeting the needs of the customer/client.
- **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.
 - Develops and manages credible and trusting relationships with colleagues and clients.
 - Operates as a credible advisor to ministry executive, directors and staff
 - Works collaboratively as part of a team.
 - Able to confront disagreement and conflict, and seek options to resolve them in a professional manner.
 - Focuses on serving the needs and interests of clients.

PROVISOS:

Please indicate if any of the following Provisos are applicable to this job/role by marking whether they are Required, May be required, or are Preferred. If any are missing, please add them in the space provided.

Req'd	May be Req'd	Prefer	Provisos (check all that apply)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ability to ascend or descend structures
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ability to climb up and down steep slopes and between structures
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ability to distinguish between shades of color
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Call-out: <input type="checkbox"/> Frequent <input type="checkbox"/> Occasional <input type="checkbox"/> Seasonal
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Driving: <input checked="" type="checkbox"/> Frequent <input type="checkbox"/> Regular <input type="checkbox"/> Occasional
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Eligibility for registration with appropriate licensing body (i.e. APEGBC, ASTT(BC), etc)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Eligibility for registration with appropriate professional association (i.e. Canadian Avalanche Association, etc)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Emergency response
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Excluded from Union membership
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hazardous working conditions/locations: <input type="checkbox"/> Frequent <input type="checkbox"/> Occasional
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maintain National Safety Certification for the Ministry vehicle
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mechanical aptitude
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mentally alert
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Moving heavy objects up to _____ pounds
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Position is 'mobile'
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Position specific course certification in _____ required within 6 months
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Public speaking
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shift-work
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stand-by
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Travel: <input checked="" type="checkbox"/> Frequent <input type="checkbox"/> Occasional <input checked="" type="checkbox"/> Overnight <input type="checkbox"/> Extended <input type="checkbox"/> Short Notice
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Typing _____ WPM
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Use of power tools or equipment: <input type="checkbox"/> Frequent <input type="checkbox"/> Occasional
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Willingness to work outside of normal business hours
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Work in an office environment
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Work in confined structures
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Work outside during periods of inclement weather and/or on rough terrain
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other:
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