

## New

Ministry

Forestry and Parks

### Describe: Basic Job Details

#### Position

Position ID

Position Name (30 characters)

Fire Weather Meteorologist

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

Forestry Division/Wildfire Mgmt Branch

Current organizational chart attached?

Supervisor's Position ID

Supervisor's Position Name (30 characters)

Fire Weather Program Lead

Supervisor's Current Class

### Design: Identify Job Duties and Value

#### Job Purpose and Organizational Context

Why the job exists:

The Fire Weather Meteorologist acquires, analyses, diagnoses and prognoses meteorological data in support of provincial wildfire management. Position produces professional work of fire weather forecasts, spot forecasts, fire weather advisories/warnings for wildfires and prescribed burn operations at provincial and national levels in a timely manner. Provision of fire weather briefings to fire management and internal/external personnel and generation of fire weather parameters for fire suppression and pre-suppression are responsibilities of this position. Position conducts fire weather research and assists with the remote weather station network and lightning detection system. Participates in provincial and national fire weather educational training at provincial, national and university levels through preparation and delivery of courses.

#### Responsibilities

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

- I. Participate in a fire weather analysis and forecasting program to provide quantitative and qualitative guidance to fire control personnel at provincial and national levels.
  - Diagnosis and prognosis of complex atmospheric conditions by analyzing 4 dimensional meteorological data under operational time constraints.
  - Interpret and evaluate atmospheric computer models, and remote sensing equipment (radar, satellite imagery and lightning detection data).

- Produce daily fire weather forecasts on a fire control zone basis including preparation and delivery of site specific weather forecasts and fire weather advisories/warnings under operational time constraints.
  - Interpret and brief fire weather forecasts for wildfire management and incident management personnel at provincial levels.
  - Input present and forecast weather parameters for fire weather indices calculations and fire behaviour specialists.
  - Diagnose and provide prognosis of atmospheric conditions by analyzing surface and upper air charts.
  - Provide aviation forecasts for aircraft operations when required.
2. Assist the Fire Weather Network team with the maintenance, operation and quality control of fire weather observations and remote automatic weather station networks when required.
- Ensure quality of meteorological data.
3. Other related responsibilities.
- Supervise permanent and seasonal technical staff and contract meteorologists on an operational basis.
  - Participate in provincial, national and university fire weather training through preparation and delivery of courses using latest meteorological forecasting science.
  - Conduct fire weather research and studies.
  - Attend and participate in national and international symposia dealing with weather effects on fire behaviour.
  - Develop and deploy computer systems to integrate new streams of meteorological data for forecasting and briefing utilization.

### Problem Solving

Typical problems solved:

Problems typically revolve around access to the data and issues with the forecasts. Typical data issues can be as a result of connection issues with remote automatic weather stations or data availability from open source providers such as Environment and Climate Change Canada. Typical issues with the forecast is generally the actual weather values didn't match what the forecast predicted.

Types of guidance available for problem solving:

Generally for a fire weather meteorologist there are procedural documents within the Fire Weather Unit to follow and other supports available such as the Fire Weather Program Lead and Fire Weather Support Lead to aid in troubleshooting.

Direct or indirect impacts of decisions:

Fire weather forecasts that are generated influence planning and tactical decisions of provincial and fire management personnel for protection of life, communities, watersheds and soils, natural resources and infrastructure. Position applies knowledge of complex atmospheric and physical science processes for the acquisition, analysis, diagnosis and prognosis of meteorological data to meet provincial fire management requirements. Production of provincial fire weather forecasts, spot forecasts and fire weather advisories/warnings for wildfire and prescribed burn operations are responsibilities of the fire weather meteorologist.

### Key Relationships

Major stakeholders and purpose of interactions:

Fire weather meteorologist positions also present lectures at provincial, national, and university institutions. Positions maintain contact with experts on atmospheric issues within the province, nationally and internationally to exchange information. Positions provide scientific advice and specialized information as a department representative to industry and the public by making presentations, serving on working groups, attending international symposiums and responding to questions from the public, industry and other governments.

### Required Education, Experience and Technical Competencies

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

If other, specify:

Degree in Meteorology or Math/Physics Degree with a Meteorology Diploma

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

Requires extensive knowledge of complex atmospheric and physical science processes to effectively

provide diagnosis and prognosticate of complex meteorological data under operational time constraints. Requires a degree related to meteorology, experience in operational forecasting and experience in weathers effects on fire behaviour.

### 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		
Agility	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Works in a changing environment and takes initiative to change: <ul style="list-style-type: none"> <li>• Takes opportunities to improve work processes</li> <li>• Anticipates and adjusts behaviour to change</li> <li>• Remains optimistic, calm and composed in stressful situations</li> <li>• Seeks advice and support to change appropriately</li> <li>• Works creatively within guidelines</li> </ul>	The fire weather environment is constantly changing and is very stressful to forecast for. A Fire Weather Meteorologist works as a part of a team for guidance and support.
Creative Problem Solving	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Focuses on continuous improvement and increasing breadth of insight: <ul style="list-style-type: none"> <li>• Asks questions to understand a problem</li> <li>• Looks for new ways to improve results and activities</li> <li>• Explores different work methods and what made projects successful; shares learning</li> <li>• Collects breadth of data and perspectives to make choices</li> </ul>	Weather is constantly changing and there is continuous improvement required to ensure quality forecasts. Understanding unique conditions and seeking out new methodologies is critical to constantly improving forecasts.
Drive for Results	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Works to exceed goals and partner with others to achieve objectives: <ul style="list-style-type: none"> <li>• Plans based on past experience</li> <li>• Holds self and others responsible for results</li> <li>• Partners with groups to achieve outcomes</li> <li>• Aims to exceed expectations</li> </ul>	Fire weather forecasts are critical for life and safety of operational resources. Meeting timelines and delivering quality products are essential for Fire Weather Meteorologists.
Build Collaborative Environments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Collaborates across functional areas and proactively addresses conflict: <ul style="list-style-type: none"> <li>• Encourages broad</li> </ul>	Fire Weather Meteorologists collaborate with internal stakeholders and many external stakeholders for

