

# S-100 Training Standard

---

Basic Fire Suppression and Safety

**Property of:**

**British Columbia Wildfire Service (BCWS)**

and the

Government of British Columbia

Effective Date: May 1, 2026

Version: 2026.1

Approved by:

Name: Dave Fleming

Title: Director, Corporate Governance

Organization: BC Wildfire Service

Signature:

Date: April 23, 2026

## Training Standard Revision History

<b>Date of Change</b>	<b>Description of change</b>	<b>Version history</b>
06/2025	Inclusion of S-185 Entrapment Avoidance and S-100A Annual Recurrency requirements in S-100 Training Standard.	2026.1
07/2025	Course objectives, syllabus, content and manual updated.	2026.1

## Abstract

The S-100 Basic Fire Suppression and Safety course is a comprehensive training program (requiring 24 hours of instruction), consisting of classroom instruction (theory) and field training (practical). This course serves as the minimum level of wildfire training required in British Columbia.

The intent of the training standard is to outline foundational knowledge for safe and effective emergency wildfire suppression, combining theoretical learning with hands-on field experience. The following training standard applies to worksites managed by the BC Wildfire Service as well as to industrial operators required under the Wildfire Act and Regulation to take fire prevention measures and respond to wildfires in the vicinity of their operations.

To be endorsed by the BC Wildfire Service to deliver the S-100 training course, Endorsed Instructors and/or Training Providers must adhere to the following standard to ensure safe, effective and quality wildfire training.

## Definitions

Term	Definition
BCWS	British Columbia Wildfire Service
Course	“Course” or “The Course” refers to the S-100 training package required to provide an S-100 certificate of completion or “S-100 ticket”.
Endorsement Application	Documentation that must be submitted by applicant S-100 Instructors to the BCWS for endorsement to deliver the S-100 course.
Endorsed Instructor	An individual who has been formally recognized by the BCWS as meeting the requirements, responsibilities and willingness statements described in this Training Standard. Endorsement confirms the Endorsed Instructor’s capability to teach specific courses in accordance with this Training Standard, including adherence to curriculum guidelines, assessment protocols, and safety requirements.
Evaluation	Course components that require participants to demonstrate skill, knowledge or behaviour.
Field	Refers to outdoor training space.
Participant	Any individual that is a ‘student’ in an S-100 course delivery.
Proven Experience	Experience demonstrated in application which includes: date completed, role filled, number of courses delivered annually as verified by references.
Training Provider	May or may not be the Endorsed Instructor of the training course but is the coordinator or business that offers wildfire-specific training.
S-100A	Annual course required to renew S-100 certification.

**Scope:**

This standard outlines the minimum requirements for any training delivery called or referred to as the **S-100 Basic Fire Suppression and Safety** in British Columbia. The standard includes annual requirements to maintain certification currency.

**Purpose:**

The S-100 course is the only accepted training standard to WorkSafeBC (WorkSafeBC, 2025) and is required for any person working on a wildfire managed by BCWS or by anyone required to provide fire control measures as referenced in Wildfire Act and Regulation (Government of British Columbia, 2025). It is the only accepted training for all industrial operations who are required under the Wildfire Act and Regulation to take fire prevention measures and respond to wildfires in the vicinity of their operations, with specific response expectations (e.g., proximity-based response) established through regulation and policy.

**Target Audience:**

The S-100 course is designed for individuals who are required to be trained in safe wildfire control and firefighting duties.

**Course Prerequisites:**

Participants must have basic physical fitness to complete field portion of course (Appendix A, Field Objectives) and be a minimum of 16 years of age during course delivery (Government of BC, 2023).

**Course Delivery Format:**

- The course duration is 24 hours. Delivery is flexible. Endorsed Instructors may divide the time in a way that best suits their learners, location, and conditions.
- Classroom (12 hours) – To facilitate theoretical training, Endorsed Instructor-led, instruction.

- Field (12 hours) – To learn and apply practical skills, Endorsed Instructor-led, application.
- S-100A – Must be hosted by an Endorsed Instructor. Deliveries can be in-person, online, or a hybrid delivery. S-100A must include the participant assessment provided in course materials (under development, will be required in 2027).

#### **Participant Certification Requirements:**

- To be eligible to take the S-100A, a person must have successfully passed the full S-100 Basic Fire Suppression and Safety (or S-100A course, if applicable) in the previous year.
- The S-100A must be taken annually in consecutive years to maintain certification (no gap in certification).
- If a certification renewal (S-100A) is missed, certification is void and the full S-100 course is required for certification.
- S-100 certification is valid for five (5) years. After five years, the full S-100 course must be completed again, regardless of S-100A history.
- Certification is valid for 12 months from the certificate date of issue.

#### **Endorsed Instructor Qualifications:**

- Endorsed Instructors must be qualified (defined in the Occupational Health and Safety Regulation as "*qualified*" means being knowledgeable of the work, the hazards involved and the means to control the hazards, by reason of education, training, experience or a combination thereof; Worksafe BC, 2022) in the course content area, have proven operational experience in wildland firefighting, and have proven experience in instructional delivery.
- Endorsed Instructors are to use the most current version of the course.
- Endorsed Instructors are to follow the minimum course length and instructional hours. The course requires a minimum of 24 hours of instruction, consisting of 12 hours of classroom learning and 12 hours of field-based training. There is no

minimum course length for the S-100A course provided that all learning objectives are met.

- Endorsed Instructors are required to submit documentation demonstrating operational experience in wildland fire suppression operations and instructional delivery to the BCWS.

**Endorsed Instructor Requirements:**

- Course evaluation methods and elements may not be deleted. Endorsed Instructors must ensure evaluation and assessments are offered in an accessible manner and invigilated by the approved Endorsed Instructor delivering the training.
- Endorsed Instructors will ensure training facilities (indoor and outdoor) and equipment are safe and suitable (participants will be able to demonstrate all core field objectives).
- Instructors will provide or work with course participants to supply necessary course equipment (as outlined in the Endorsed Instructor manual) in good working order for every course delivery.
- Endorsed Instructors will issue successful course participants a certificate of completion (via the administrative partner) of the S-100 Training Course.
- Endorsed Instructors must declare that they have basic physical fitness to administer the field portion of course.
- Endorsed Instructors are required to have an emergency response plan for each course delivery (classroom and field portion). Emergency response plans should include hazard identification and mitigation strategies, first aid response plans, etc.
- Endorsed Instructors are required to have appropriate and applicable insurance to cover all course deliveries (including all course activities) that the Endorsed Instructor is providing.
- The course may be adapted to suit the Endorsed Instructor's delivery style and local conditions. Endorsed Instructors will use the standardized materials as the foundation for instruction to ensure consistency and alignment with the Training

Standard. While personal teaching styles and local context may enhance delivery, all course objectives must be successfully met by participants, and core course content must be delivered.

- Supplied training materials (at a minimum) will include a participant manual, an Endorsed Instructor manual, presentation content, written exam, practical skills evaluation, and certificate template. BCWS will supply Endorsed Instructors with these materials in digital format. The Endorsed Instructor and/or Training Provider is responsible for printing materials to meet the needs of each course.
- Endorsed Instructors will not distribute course content or materials beyond their course deliveries and acknowledge that the course, its content, and material are the property of the Government of British Columbia.
- Instructors will conduct themselves in a professional manner that aligns with the BC Public Service Standards of Conduct (2025), foster a respectful learning environment, and present course content accurately in accordance with approved BCWS training materials.
- Course materials may only be used for approved course delivery and may not be distributed outside of instruction.
- Endorsed Instructors will incorporate Indigenous knowledge and local fire history when relevant to course content, using examples, case studies, or practices that support the learning objectives.
- Endorsed Instructors are responsible for retaining training records for a period of time in accordance with their business/company/organization retention policy.
- Learner support: Endorsed Instructors will foster a safe (physically, emotionally and psychologically), respectful, and equitable learning environment for all participants.
- Instructional adaptability: Endorsed Instructors will be responsive to learner needs and adjust instructional methods when necessary.
- Operational relevance: Endorsed Instructors will ensure training is grounded in practical application and align with wildfire best practices.

- Feedback and continuous improvement: Endorsed Instructors will seek and reflect on feedback to enhance instructional practice and training outcomes.

### **Instructor Endorsement Process**

- BCWS will set the endorsement application process and make it available to anyone interested in applying.
- BCWS may review course delivery, investigate complaints, or conduct audits to ensure adherence to this Training Standard.
- BCWS will oversee Endorsed Instructors and Training Providers. A list will be created, published and reviewed annually to maintain accuracy. Endorsed Instructors and Training Providers can choose to have their contact information published.
- Failure to comply with the requirements of this Training Standard may result in revocation of instructor endorsement.

### **Course Objectives:**

- Core Classroom/Theory Objectives (Appendix A): Endorsed Instructors will refer to the S-100 Instructor Manual to ensure that the most up-to-date core course sections (for classroom) are delivered, and objectives are met by participants.
- Core Field Objectives (Appendix A): Endorsed Instructors will refer to the S-100 course objectives to ensure that the most up-to-date core course sections (for field) and objectives are met by participants. It is the discretion of the Endorsed Instructor to determine participant competence when completing field objectives.
- S-100A Annual Certification Renewal Objectives (Appendix A): Endorsed Instructors will refer to the annual certification renewal course objectives and ensure they are met by participants.

**Course Evaluation Requirements:**

- Course participants will complete a written exam at the end of the classroom portion. The passing grade for the written exam is 70%.
- Participants will complete a Practical Skills Evaluation during the field portion. The field portion is passed by successfully completing all core field skills as identified in Appendix A: Core Field Objectives.
- To successfully complete the course, participants must pass both the written exam and the practical skills evaluation, and actively and safely participate in all course sections.
- S-100A participants will complete a BCWS provided assessment aligned to the learning objectives. The passing grade for the S-100A assessment is 80%.

**Course and Training Standard Feedback:**

- Course Feedback: Course feedback from participants can be collected by the Endorsed Instructor for each course delivery. Course feedback from Endorsed Instructors can be submitted after any or all course deliveries. Course feedback will be reviewed annually by BCWS. Course adjustments will be made as needed. Course feedback will be used as a measure of quality assurance for course delivery.
- Training Standard Feedback: Feedback on this Training Standard can be submitted at any time (to BCWS) and will be reviewed according to the review schedule outlined below.

**Review and Updates:**

- The S-100 Training Standard is to be reviewed annually. The annual review will incorporate feedback from Endorsed Instructors and participants.
- The S-100 Training Standard can be reviewed off-cycle if triggered by any regulatory changes or major incidents.
- Changes to the standard will be documented on the title page document with a version number and documented in the Standard Revision History.

**Course Audit and Quality Control:**

- It will be at the discretion of the BCWS to schedule course audits as time and scheduling permits. Endorsed Instructors will be notified (with reasonable notice) prior to their course delivery if their course delivery is being audited for adherence to the Training Standard.
- It will be at the discretion of the BCWS to ensure that this Training Standard is being adhered to by Endorse Instructors operating in British Columbia.

## References

Government of British Columbia (2023). Hiring young people. Retrieved from,

<https://www2.gov.bc.ca/gov/content/employment-business/employment-standards-advice/employment-standards/hiring/young-people>

Government of British Columbia. (2025, July 17). *Standards of conduct*.

<https://www2.gov.bc.ca/gov/content/careers-myhr/about-the-bc-public-service/ethics-standards-of-conduct/standards-of-conduct>

Government of British Columbia (2025). Wildfire legislation and regulations. Retrieved from,

<https://www2.gov.bc.ca/gov/content/safety/wildfire-status/about-bcws/governance/legislation-regulations>

WorkSafeBC (2022). OHS Regulation Part 1L: Definitions. Retrieved from,

<https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-regulation/part-01-definitions>

WorkSafeBC. (2024). *Occupational Health and Safety Regulation: Part 26 — Forestry Operations*

(Section 26.3.1: Firefighting). Workers' Compensation Board of British Columbia.

<https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-regulation/part-26-forestry-operations>

WorkSafeBC (2025). Forestry operation firefighter certification. Retrieved from,

Government of British Columbia

<https://www.worksafebc.com/en/health-safety/education-training-certification/forestry-operation-firefighter>

## Appendix A

### S-100 Course Learning Objectives Classroom/Theory Learning Objectives

Core Course Sections	Learning Objectives
<b>Intro</b>	Identify basic wildfire knowledge and suppression skills to be able to safely and effectively work on a wildfire.
<b>1. Wildfire Response</b>	<ol style="list-style-type: none"> <li>1. Describe the responsibilities of industry personnel vs general public in wildfire response.</li> <li>2. Describe the advantages of using Incident Command System and one reason it is important to you.</li> </ol>
<b>2. Fire Behaviour</b>	<ol style="list-style-type: none"> <li>1. Explain how changes to each side of the fire triangle influence fire behaviour.</li> <li>2. FUELS - Interpret how variations in fuel moisture, size, spacing, and loading impact fire behaviour.</li> <li>3. WEATHER - Interpret how variations in wind, relative humidity, temperature and precipitation impact fuel moisture and fire behaviour.</li> <li>4. TOPOGRAPHY - Interpret how variations in slope, aspect, terrain, and elevation impact fire behaviour.</li> <li>5. Describe the visual and behavioural indicators of the six fire intensity rankings.</li> </ol>
<b>3. Fire Suppression</b>	<ol style="list-style-type: none"> <li>1. Identify the parts of a fire.</li> <li>2. Explain control lines and fire guards including their purpose and methods of construction.</li> <li>3. Define the three methods of attack: direct attack, parallel attack, and indirect attack.</li> <li>4. Explain the operational significance of the following suppression activities: mop-up, cold trailing, and patrolling.</li> <li>5. Identify the fire intensities where direct attack with ground crews can be accomplished safely and effectively.</li> </ol>
<b>4. Water Delivery</b>	<ol style="list-style-type: none"> <li>1. Describe the characteristics of water that can influence fire suppression effectiveness.</li> <li>2. Summarize pump site selection and pump site maintenance.</li> <li>3. Identify the most used pumps in BCWS along with the necessary components to complete a hose lay.</li> <li>4. Explain the different types of hose lays that can be used for water delivery.</li> <li>5. Explain why maintaining adequate water pressure is critical to effective mop-up and identify the risks or limitations of working with insufficient pressure.</li> </ol>
<b>5. Fireline Equipment</b>	<ol style="list-style-type: none"> <li>1. Identify the safe work distances while using hand tools.</li> <li>2. Describe common hazards and safe work practices associated with working around heavy equipment.</li> <li>3. Identify common heavy equipment used on the fireline.</li> </ol>

	<ol style="list-style-type: none"> <li>4. Describe the uses of aviation resources used on fires.</li> <li>5. Describe common hazards and safe work practices associated with working around aviation.</li> <li>6. Summarize the properties of firefighting foam and retardant and safe work procedures.</li> </ol>
<p><b>6. Communication</b></p>	<ol style="list-style-type: none"> <li>1. Describe basic operation of a two-way handheld radio.</li> <li>2. Explain radio simplex channels vs repeater channels.</li> <li>3. Summarize correct radio use procedures and protocols.</li> <li>4. Specify the procedures for transmitting emergency communications.</li> <li>5. Describe the importance of communicating unsafe or unexpected conditions on the fireline to your supervisor and/or coworkers.</li> <li>6. Describe when a briefing is required and list the key elements it must include.</li> </ol>
<p><b>7. Safety</b></p>	<ol style="list-style-type: none"> <li>1. List your five safety responsibilities.</li> <li>2. Define situational awareness and list 3 ways you will maintain yours on the fireline.</li> <li>3. List the mandatory PPE used on the fireline.</li> <li>4. Describe each component of LACES and explain its role in wildfire safety.</li> <li>5. Define risk and how to mitigate it.</li> <li>6. Create a list of hazards potentially found on fireline and identify a control measure for at least one.</li> <li>7. Identify significant danger tree hazards, when assessment is required, and how to mitigate.</li> <li>8. Describe the hazards of driving to and from a wildfire worksite.</li> </ol>
<p><b>8. Fire Entrapment</b></p>	<ol style="list-style-type: none"> <li>1. Identify the human factors that can contribute to fire entrapment.</li> <li>2. List the hazardous features of fuel, weather, and topography that contribute to fire entrapment.</li> <li>3. Describe the responsibilities of supervisors and individuals in fire entrapment prevention and response.</li> <li>4. Explain tactical withdrawal and the three steps to follow.</li> <li>5. Describe the essential steps to take if trapped by fire.</li> <li>6. Review the Yarnell Hill Fire to identify critical factors and discuss LACES and safe work practices to improve outcomes.</li> </ol>

### Field Portion Learning Objectives

For field objectives, Endorsed Instructor must observe the participants demonstrating the following skills.

Core Field Sections	Complete	Skills	
Safety and Communications		<b>Safety Briefing</b>	Participate in and identify the components of the safety briefing.
		<b>Hazard Assessment</b>	Aware of hazards when assigned a task and follows all safety related expectations.
		<b>LACES</b>	Apply LACES for field site.
		<b>Emergency Response</b>	Identify designated first aid on site and know how to activate emergency response plan for field site.
		<b>Radio</b>	Demonstrate ability to use handheld radio (simplex/repeater, switch banks/channels, scanning, concise professional transmissions).
		<b>Personal Protective Equipment</b>	Demonstrate ability to use required PPE and maintain in good working order.
		<b>Field Portion Communication</b>	Demonstrate effective communication (active listening, raising concerns, asking meaningful questions, note taking) throughout the field portion.
Water Delivery		<b>Pump Site Selection</b>	Use/discuss pump site selection criteria for field site.
		<b>Pump Set Up</b>	Demonstrate proper steps for pump set up.
		<b>Pump Operation</b>	Demonstrate proper start & shut-off procedures.
		<b>Pump Parts</b>	Identify the parts of a Mark III pump and appropriate fuel mix.

		<b>Pump Troubleshooting</b>	Discuss basic pump troubleshooting issues: ignition, air, fuel, suction. * If time permits, participants troubleshoot a common pump problem.
		<b>Basic Hose lay</b>	Demonstrate a standard 1.5" hose lay (laying hose, jewelry, 3-way and strangler on charged line).
		<b>Mop-Up</b>	Demonstrate effective mop-up methods.
		<b>Pressure Awareness</b>	Identify optimal water pressure for wildfire extinguishment and troubleshoot common water pressure issues.
		<b>Demob</b>	Demonstrate pump site demob, all gear retrieved and organized at staging area.
		<b>Hose Rolling</b>	Demonstrate 1.5" hose melon roll & 5/8" hose figure-eight roll.
<b>Equipment &amp; Suppression</b>		<b>Hand Tool Use</b>	Demonstrate how to safely use hand tools (pulaski, McLeod, shovel, etc.) during handguard construction and in mop-up operations. <ul style="list-style-type: none"> <li>- Safe work distances</li> <li>- Appropriate tool for the job</li> </ul>
		<b>Handguard</b>	Demonstrate proper width/depth, good line selection, and rehab protocols.

## S-100A Annual Certification Renewal Objectives

The full S-100 course covers foundational firefighting and fireline safety, while the annual S-100 renewal focuses on reviewing high-risk wildfire competencies.

	<b>Learning Objectives</b>
<b>1. Fire Entrapment</b>	<ol style="list-style-type: none"> <li>1. List the hazardous features of fuel, weather, and topography that contribute to fire entrapment.</li> <li>2. Identify the human factors that can contribute to fire entrapment.</li> <li>3. Describe the responsibilities of supervisors and individuals in fire entrapment prevention and response.</li> <li>4. Explain tactical withdrawal and the three steps to follow.</li> <li>5. Describe the essential steps to take if trapped by fire.</li> </ol>
<b>2. Safety</b>	<ol style="list-style-type: none"> <li>1. List your five safety responsibilities.</li> <li>2. Define situational awareness and list 3 ways you will maintain yours on the fireline.</li> <li>3. List the mandatory PPE used on the fireline.</li> <li>4. Describe each component of LACES and explain its role in wildfire safety.</li> <li>5. Define risk and how to mitigate it.</li> <li>6. Create a list of hazards potentially found on fireline and identify a control measure for at least one.</li> <li>7. Identify significant danger tree hazards, when assessment is required, and how to mitigate.</li> <li>8. Describe the hazards of driving to and from a wildfire worksite.</li> </ol>
<b>3. Fire Behaviour</b>	<ol style="list-style-type: none"> <li>1. Explain how changes to each side of the fire triangle influence fire behaviour.</li> <li>2. Describe the visual and behavioural indicators of the six fire intensity rankings.</li> </ol>
<b>4. Communication</b>	<ol style="list-style-type: none"> <li>1. Describe basic operation of a two-way handheld radio.</li> <li>2. Explain radio simplex channels vs repeater channels.</li> <li>3. Summarize correct radio use procedures and protocols.</li> <li>4. Specify the procedures for transmitting emergency communications.</li> <li>5. Describe the importance of communicating unsafe or unexpected conditions on the fireline to your supervisor and/or coworkers.</li> <li>6. Describe when a briefing is required and list the key elements it must include.</li> </ol>
<b>5. Fireline Equipment</b>	<ol style="list-style-type: none"> <li>1. Identify the safe work distances while using hand tools.</li> <li>2. Describe common hazards and safe work practices associated with working around heavy equipment.</li> <li>3. Describe common hazards and safe work practices associated with working around aviation.</li> </ol>