UBC Forestry Safety Plan Template and Guide

forestry
university of british columbia

The purpose of this guide is to provide a basic template for individual field safety plans. Individual safety plans are currently required at the departmental level within the Faculty of Forestry, however establishing a standardized faculty wide template with designated minimum required information serves to improve field safety broadly.

The field safety planning process consists of multiple steps, culminating in the creation of this plan, which can then be submitted for approval, filed, and implemented. Prior to completing this template, we suggest going through the Forestry Field Risk Questionnaire and associated resources in the Forestry Field Procedures and Safety Manual. The topics covered in these documents will assist in assessing the risk of your planned field activities, as well as mitigating those risks.

While this template contains fields for the minimum required information for a field safety plan, further additions or detail are always welcome. While some projects may find this minimum level sufficient, others may wish to explore further safe work protocols for specific tasks, advanced emergency evacuation plans, or specifics related to field schools and large group trips.

Information for this guide has been sourced from and based upon similar documents, including the Department of Forest and Conservation Sciences Individual Safety Plan, and the Department of Earth, Oceans and Atmospheric Sciences Fieldwork Risk Assessment.

Individual Safety Plan – Template

Project or Trip Name: INVESTING THROUGH VARIABILITY AND CHANGE GROWTH REPRODUCTIVE TRADE-OFFS IN MOUNT RAINIER'S FORESTS

Project Lead Contact Details

First Name: Elizabeth

Last Name: Wolkovich

Email: e.wolkovich@ubc.ca

Date Plan Submitted: April 29, 2024

Dates of Fieldwork (planned)

Start Date: August 5, 2024

End Date: August 30, 2024

Fieldwork Location (general location – specifics provided below):

Mount Rainier, Ashford, WA 98304

Contact Details When in Field:

Phone: 6723386020

Radio:

InReach Address:

Brief Fieldwork Activities Description:

During this fieldwork, we plan to take tree cores and install dendrometers in 10 stands with long-term seed trap data at Mount Rainier.

Personnel Information:

Project Lead:

Name	Phone	Email	Relevant Safety Training
Elizabeth Wolkovich	6036675099	e.wolkovich@ubc.ca	

Field Team Leader(s): *Add rows as needed*

Name	Phone	Email	Relevant Safety Training
Xiaomao Wang	6723386020	wangxm29@mail.ubc.ca	Wilderness First Aid

Field Team Members: *Add rows as needed*

Name	Phone	Email	Relevant Safety Training
Christophe Rouleau-Desrochers	5144314835	christophe.rouleaudesrochers@ubc.ca	Wilderness First Aid
Yi-Hsuan Wu	7783222816	britany1902@gmail.com	

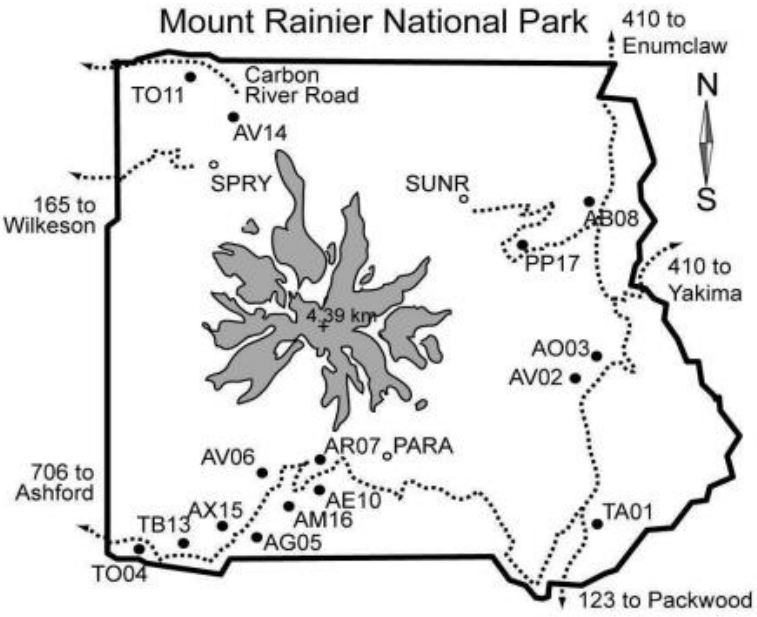
Field Site Description:

General area description:	Sampling will be conducted at 10 long-term plots located in Mount Rainier
Nearest Town:	The nearest town is Ashford
Access to nearest town:	Access to Ashford is via WA-706/Paradise Rd, followed by Paradise Rd for 3.5 miles, then by Westside Rd for 6 miles. Estimated travel time from the field site is 30 minutes.
Nearest hospital (include nearest medical clinics or other care if hospital >60mins drive):	The nearest hospital from south side sites is Morton General Hospital in Packwood, which is a hospital open 24/7. The next nearest hospital from east side sites is St. Elizabeth Hospital in Enumclaw, which also opens 24/7.
Access to nearest hospital:	Access to Morton General Hospital is via WA-706, followed by WA-7 S. Estimated travel time from the south side field sites is 55 minutes. Access to St. Elizabeth Hospital is via WA-410 W. Estimated travel time from the east side field sites is 1 hour.

Field Site Map:

General area map:

Detailed site map (if applicable):



Hazard Assessment (see *Hazard and Risk Assessment* below for instructions)

Hazard	Source	Initial Risk Level *High, Med, Low, N/A*	Risk Mitigation Measure **Must** be completed if any risk	Final Risk Level
Stress	□ Heat □ Cold √ Strenuous work □ Repetitive Motions □ Noise	Med	Make sure every team members will be able to take a break as needed and rotate the tasks	Low
Wildlife	√ Encounters □ Handling □ Disease	High	Bring bear spray and make noise while we are working	Low
Insects	√ Bites/Stings □ Disease □ Allergies	Med	Bring bug spray and bug net	Low
Vehicles	√ Driving (on-road) □ Driving (FSR) □ Driving (off-road) □ ATV's □ Snowmobiles □ Bicycles □ Aircraft	Med	Everyone in this field crow can drive, so we will make sure split the driving hours and will avoid fatigue driving	Low
Climate	√ Sun □ Rain □ Snow □ Wind	Med	Wear sun screen and bring enough water to keep hydrated	Low
Equipment	□ Bladed Tools □ Chainsaw □ Brushing Tools □ Heavy Machinery √ Sampling Equipment	Med	We will use drill for sampling, before we go the the field, everyone will get trained on how to use it. We will also wear protections	Low
Water	□ Sampling in water □ Swift Water □ Boat use □ Off-shore marine travel			
Winter	□ Avalanches □ Tree Wells □ Fall Through Ice			
Hygiene	□ Food Prep √ Food Storage □ Personal	Low	We will pack camp food and will also have a car fridge to store food	Low
Harassment or Violence	□ Public □ Within team			
Remoteness	√ Distance to medical care □ Getting lost √ Vehicle breakdown	Med	Everyone will have numbers of nearest hospital. We will make sure the vehicle we drive is in good conditions before I leave	Low
Other	□ *Specify*			

Add additional rows or pages as needed. These are common hazards, but will not encompass all hazards you may face.

Daily Schedule

Provide a rough outline of the field activities, including approximate times. This should be updated prior to each trip (if multiple within a season), and left with the designated contact person.

Time	Activity	Location
07:00	Wake up, pack equipment, team tailgate safety meeting	Field Camp
08:00	Hike to field sites	Trails
09:00	Tree core sampling	Field sites
12:00	Lunch, and then install dendrometer	Field sites
16:00	Return to camp	Field Camp

Daily Check-In Protocol

Method of Contact: Phone

Frequency of Check-In: Twice a week (finish sampling at one stand)

Check-in Person

Name: **Elizabeth Wolkovich**

Phone: **6036675099**

Email: **e.wolkovich@ubc.ca**

If check-in is missed, what should the check-in person do?

Try contacting cell-phones of all team members, contact accommodation provider, contact field collaborators or land managers. If not successful in establishing contact, call 911 to activate Search and Rescue response. Provide all of the above details as requested by dispatchers or emergency responders.

Do you have a grace period before activating this protocol?

24 hours.

Who should the check-in person notify at UBC Administration if this protocol is activated

Elizabeth Wolkovich

Emergency Response Protocol

1. Get out of the field, while administering first aid to the injured person

2. If research takes us into the backcountry and there is an emergency, we will use our InReach device

3. If it is during business hours and we will pass a nearby visitor center or entrance gateway, we will stop by and explain the situation to park personnel.

4. If we are not close to a ranger station or it is after hours, we will directly proceed to the nearest hospital.

Emergency Contacts (General)

Emergency	911
Nearest Hospital	360-496-5112 or 360-802-8800
Forest Fire	800-562-6010
Nearest Search and Rescue Group	360-569-2211
Report a Spill	800-258-5990

Emergency Information Form – Please complete for each team member

NOTE: The following information is treated as confidential and is only for use in case of emergency.

Full name: Xiaomao Wang	
Date of Birth (DD/MM/YYYY): 09/Feb/1996	
Street Address: 2838 Oliver Crescent	
City, Prov., Postal Code: Vancouver, BC, V6L 0B5	
Phone (home/work/cell): 6723386020	
Email address: wangxm29@mail.ubc.ca	Care Card Number: 9650084471

EMERGENCY CONTACT

Full name of contact: Yajuan Li
Relationship: Mother
Street Address:8-3-302 Taihecheng Shuian Community
City, Prov., Postal Code: Shangzhi, Heilongjiang Province, China 150601
Phone (home/work/cell):+86 13104631870
Email address:

MEDICAL (optional)

Do you have any medical conditions that could affect your safety in the field?
Yes [ ] No [√] If yes, please describe:

Do you carry any medications for emergency use?
Yes [ ] No [√] If yes, please describe:

Do you carry an epinephrine pen? **Yes [ ] No [√]**
Do you have any known allergies? **Yes [ ] No [√]** If yes, please describe:

Emergency Information Form – Please complete for each team member

NOTE: The following information is treated as confidential and is only for use in case of emergency.

Full name: Christophe Rouleau-Desrochers	
Date of Birth (DD/MM/YYYY): 22/01/1998	
Street Address: 30 rue Leclerc,	
City, Prov., Postal Code: Victoriaville, Quebec, G6P0E4	
Phone (home/work/cell): 514-431-4835	
Email address: christophe.rouleaudesrochers@ubc.ca	Care Card Number: NA

EMERGENCY CONTACT

Full name of contact: Charlotte Capistran
Relationship: Partner
Street Address: 4557 rue Boyer
City, Prov., Postal Code: Montreal, Quebec, H2J3E5
Phone (home/work/cell): 514-435-2427
Email address: charlotte.capistran.champoux@outlook.com

MEDICAL (optional)

Do you have any medical conditions that could affect your safety in the field?
Yes [ ] No [X] If yes, please describe:

Do you carry any medications for emergency use?
Yes [ ] No [X] If yes, please describe:

Do you carry an epinephrine pen? **Yes [ ] No [X]**
Do you have any known allergies? **Yes [ ] No [X]** If yes, please describe:

Emergency Information Form – Please complete for each team member

NOTE: The following information is treated as confidential and is only for use in case of emergency.

Full name: Yi-Hsuan Wu	
Date of Birth (DD/MM/YYYY): 16/08/2000	
Street Address: Unit 46, 2660 Wesbrook Mall	
City, Prov., Postal Code: Vancouver, BC, V6T0A5	
Phone (home/work/cell): 7783222816	
Email address: britany1902@gmail.com	Care Card Number: 9704533907

EMERGENCY CONTACT

Full name of contact: Yuan-Ling Sun
Relationship: Mother
Street Address: No. 358, 2nd Section, Gao-tie S Rd.
City, Prov., Postal Code: Taoyuan City, Taiwan, 320
Phone (home/work/cell): +886926626921
Email address: yuanling324@hotmail.com

MEDICAL (optional)

Do you have any medical conditions that could affect your safety in the field?
Yes [] No [x] If yes, please describe:

Do you carry any medications for emergency use?
Yes [] No [x] If yes, please describe:

Do you carry an epinephrine pen? **Yes [] No [x]**
Do you have any known allergies? **Yes [] No [x]** If yes, please describe:

Hazard identification and risk assessment

Excerpted from the UBC Earth, Ocean and Atmospheric Sciences Fieldwork Risk Assessment

To achieve a comprehensive appraisal of hazards during fieldwork it is advisable to incorporate the ideas of all participants and where appropriatestakeholders. A hazard considered as trivial to one participant may be considered significant to another. This diversity in hazard identification may result from variation in, personal experience, individual capabilities orbias associated with personal attitudes to health and safety.

Hazards may be site or task specific, they may be insidious or apparent and they have the capacity to affect individuals differently. The accepted method of 'Risk Assessment' is to score a hazard on the basis of 'Consequence' and 'Likelihood' (table 1). These individual scores are then used with the 'Risk Matrix' (figure 1) to determine the level of risk; giving a score of high, medium or low.

Where the risk associated with a task/hazard is determined to be high or medium the task should not be undertaken unless the hazard can be reduced. In this circumstance a systematic approach known as the 'Hierarchy of Control' needs to be applied to the control of a hazard (table 2). The hierarchy is subdivided into 5 levels of control; the first level of control being 'Elimination'. Elimination aims to remove a hazard or hazardous work practice from a worksite. An example may be to remove a tripping hazard. However, it is not always practicable or possible to eliminate ahazard and therefore the next control, 'Substitution' can be applied. An example of substitution may be changing from using a toxic chemical to a non-toxic alternative.

Skipping forward to the final level of control; Personal Protective Equipment (PPE) is considered the lowest, least effective, control because it assumes that the employee involve in a task will be exposed to some level of risk. Where long term exposure is likely PPE may not be sufficient in mitigating risks to employees.

To complete the Hazard Assessment Table in your safety plan, evaluate the initial risk using the consequence and likelihood matrix below (table 1, figure 1). Where assessed risk is medium or high, evaluate hazard mitigation methods you may be able to apply, following the hierarchy of control (table 2) to reduce risk. To evaluate your final risk for each hazard, reassess using the consequence and likelihood matrix, incorporating the decreased level of consequence or likelihood from your chosen mitigation. If the final risk remains high following mitigation, think carefully about whether this activity is truly essential to your work, or contact the Safety Committee for further guidance.

Table 1. Defining categories of Consequence and Likelihood

Consequence	Description
Major	Death or extensive Injury
Moderate	Medical treatment
Minor	First aid treatment
Insignificant	No treatment

Likelihood	Description
A	Is expected to occur
B	Could probably occur
C	Could occur but only rarely
D	May occur but probably never will

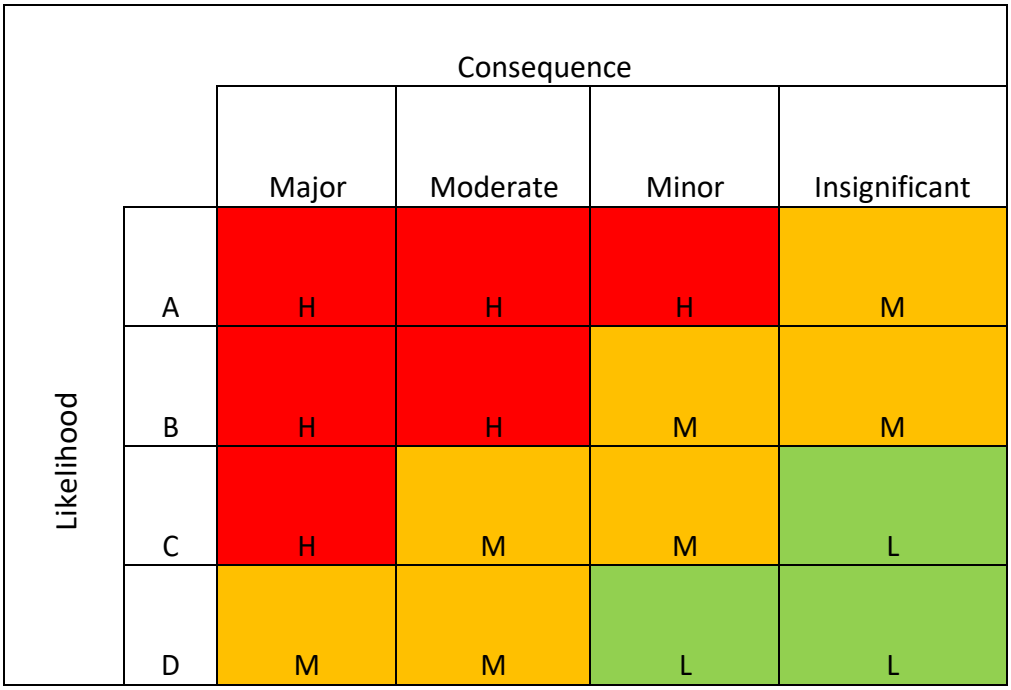


Figure 1. Risk Matrix combining elements of Consequence and Likelihood

Table 2. Hierarchy of control measures

	Example
1. Elimination	Remove the hazard • Asbestos: remove it from the building
2. Substitution	Use an alternative • use scaffolding rather that ladders • quieter machinery for noisy models
3. Engineering Controls	Separation of hazard • place a physical barrier around the hazard to exclude access • separate vehicle and foot traffic in warehouses
4. Administrative Controls	Change the work practice • require employees involved in hazard processes to have certain rest periods, e.g. truck drivers
5. Personal Protective Equipment	Provide protective clothing and or equipment.