Southern Cross University

Fieldwork Risk Assessment Guidelines

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V1	Amanda Beasley	First draft	7/06/2023
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V3	Amanda Beasley	Remove the need for a volunteer registration form and edited the volunteer section. Included reference to the SCU Boating Procedures and Boating Safety Officer email address.	10/11/2023
V4	Amanda Beasley	Changed wording throughout so information relates to University wide use (i.e. not FSE only) and reflects new WHS systems relating to critical risks, high risk procedures and supporting documents/systems. Document now authorised by SCU WHS. Sections rearranged to improve flow.	24/01/2025

Contents

1. Introduction

The purpose of these guidelines is to ensure that fieldwork activities are properly planned to protect the health and safety of staff, students, volunteers and the wider community. Fieldwork planning includes a safety risk assessment where hazards are identified and appropriate risk reduction procedures are considered and implemented. An approved Fieldwork Risk Assessment (FWRA) is required before any fieldwork takes place within Australia or overseas. The FWRA provides a record of important contact information you may need if an incident occurs. A copy of this form must be taken into the field with you and a copy should also be given to the designated contact person/s (digital copies are acceptable).

2. Privacy Notice

Southern Cross University (SCU) is requesting information, including relevant personal and health details, for the purpose of conducting fieldwork safety risk assessments, and in case of accident/misadventure/emergency. The information will not be used for any other purpose. You are not required to provide this information by law; however, you will not be able to participate in fieldwork if you do not provide it. We will treat your information confidentially and will not disclose it to third parties (other than for the purposes mentioned above) without your consent, unless required to do so by law. You can request access to, or update, or removal of, your personal information at any time. For information on how the University collects, stores, uses and discloses personal information see SCU's Privacy Management Plan or contact the Privacy Officer at privacy@scu.edu.au.

3. Relevant Legislation, SCU Policies and Supporting Procedures

These include, but are not limited to:

- Work Health and Safety Act 2011 (NSW)
- Work Health and Safety Act 2011 (QLD)
- Work Health and Safety Regulation 2017 (NSW)
- Work Health and Safety Regulation 2011 (QLD)
- SCU Work Health and Safety Policy
- SCU WHS Management System
- SCU Critical Risks
- SCU Driving Safety Policy
- SCU Motor Vehicle Policy
- SCU Remotely Piloted Aircraft (Drone) Policy
- SCU Drug and Alcohol Policy
- SCU Travel Policy

4. Roles and Responsibilities

4.1. Fieldwork Leader

Person directly in charge of the fieldwork. To assist Fieldwork Leaders, the 'Fieldwork Leader Checklist' located at the end of the fieldwork risk assessment should be used to ensure that relevant procedures are completed.

The Fieldwork Leader has a responsibility to:

- Prepare the Fieldwork Risk Assessment and associated documents;
- Ensure that research/collecting permits and certifications are in place and available onsite;
- Ensure that fieldworkers and participants are aware of, and comply with, the safety risks and risk reduction procedures relating to the fieldwork;
- Ensure any amendments are communicated with all fieldwork personnel;
- Ensure that fieldworkers and participants have received all necessary training;
- Ensure safety equipment (e.g. PPE) is available and operational;
- Adhere to the communication strategy in place;
- Implement all conditions (e.g. permits, policies, procedures, regulations) relating to the fieldwork;
- Conduct daily briefings on safety and compliance matters;
- Address safety issues that arise;
- Manage field emergencies; and
- Report any incidents, near-misses or additional hazards via RiskWare.

4.2. Research Leader

Usually the Chief Investigator, or equivalent, on a funding agreement. Can also act as the Fieldwork Leader. If not attending, they must ensure that a suitably qualified Fieldwork Leader is engaged.

The Research Leader has a responsibility to:

- Plan and direct research activities;
- Identify biosecurity hazards and implement appropriate measures;
- Obtain and ensure compliance with all necessary permits;
- Ensure compliance with all research agreements;
- Determine, approve and ensure applicability (training and experience) of all fieldwork team members;
- If not the Fieldwork Leader, where available, stay in regular contact with the field team, to respond to issues and/or emergency situations; and
- Ensure any incidents, near-misses or additional hazards have been reported via RiskWare.

4.3. Supervisor

Supervisor of staff or principal supervisor of an SCU student (e.g. Honours, PhD, Masters) acting as the Fieldwork Leader. Is also often the Research Leader.

The Supervisor has a responsibility to:

- Ensure the details in the Fieldwork Risk Assessment are accurate;

- Ensure that the safety risks and risk reduction procedures relating to the fieldwork are adequate;
- Ensure all necessary permits, procedures, documents and approvals are in place and adhered to;
- Ensure that the Fieldwork Leader has the necessary skills, training and experience to be in charge of the fieldwork;
- Where available, stay in regular contact with the field team, to respond to issues and/or emergency situations; and
- Ensure any incidents, near-misses or additional hazards have been reported via RiskWare.

4.4. Unit Assessor

Main academic in charge of an undergraduate or postgraduate unit. Can also act as the Fieldwork Leader. If not attending, they must ensure that a suitably qualified Fieldwork Leader is engaged.

The Unit Assessor has a responsibility to:

- Ensure the details in the Fieldwork Risk Assessment are accurate;
- Ensure that the safety risks and risk reduction procedures relating to the fieldwork are adequate;
- Ensure all necessary permits, procedures, documents and approvals are in place and adhered to; and
- Ensure that the Fieldwork Leader has the necessary skills, training and experience to be in charge of the fieldwork.

4.5. Fieldworkers

Any person assisting with the fieldwork (e.g. staff member, postgraduate or undergraduate student, contractor, collaborator or volunteer).

Fieldworkers have a responsibility to:

- Take all reasonably practicable steps to protect the health and safety of themselves and others;
- Comply with the risk reduction procedures relating to the fieldwork;
- Comply with any relevant SCU policies and procedures relating to the fieldwork;
- Comply with and accept all directions from the Fieldwork Leader; and
- Report any incidents, near-misses or additional hazards to the Fieldwork Leader and via RiskWare.

4.6. Designated Contact Person

Person designated to be available and maintain contact with the fieldwork party. Not part of the fieldwork party.

The designated contact person has a responsibility to:

- Be available and maintain communications with the Fieldwork Leader; and

- Agrees to take appropriate action if the Fieldwork Leader fails to report in at the designated time.

4.7. Technical Services Representative (or delegate)

Technical Services Representatives (or delegate) of the Faculty of Science and Engineering, based at Lismore or the National Marine Science Centre.

The Technical Services Representative (or delegate) has a responsibility to:

- Provide advice and guidance on the Fieldwork Risk Assessment ;
- Advise if relevant additional documents and approvals are required; and
- Assist in developing and implementing procedures for fieldwork activities.

4.8. Head of Work Unit (or delegate)

Head of Work Unit (e.g. Faculty Dean) or acting delegate.

The Head of Work Unit has a responsibility to:

- Approve fieldwork before it commences;
- Ensure that employees involved in fieldwork are suitably qualified, have current certification and specialist training is made available where applicable; and
- Develop and implement procedures for fieldwork activities.

5. Using Volunteers for Fieldwork

Volunteers can be engaged for fieldwork purposes and may be a member of the public, external to SCU or an undergraduate student. Staff and research postgraduate students are not considered as volunteers. The volunteer's supervisor (typically the Fieldwork Leader) is responsible for ensuring that all documents, approvals and training have been completed.

Before attending fieldwork, volunteers must:

- Read through the 'SCU Volunteer Policy';
- Complete the online introductory WHS training through Property Services;
- Be provided with a copy of the University's Code of Conduct; and
- Complete any necessary workplace specific WHS training.

On each volunteering occasion, volunteers are required to complete a record of attendance.

6. FSE Fieldwork and Travel Outlook Calendar

The 'Fieldwork and Travel' outlook calendar applies only to the Faculty of Science and Engineering and is used to assist the Faculty in monitoring fieldwork activities and approved travel being undertaken within the Faculty. Each time you go into the field, you are obliged to enter the fieldwork details (e.g. fieldwork title, location, names and contact number of attendees) into the 'FSE Fieldwork and Travel' shared Outlook Calendar and notify your designated contact person/s of your exact

itinerary before commencing fieldwork. The Fieldwork Leader is responsible for ensuring that the details have been entered and they are kept up to date.

See the 'FSE Fieldwork and Travel Outlook Calendar User Guide' for details.

7. Completing the Fieldwork Risk Assessment

Section 1 – Fieldwork Leader

The Fieldwork Leader is the person who will be onsite and in charge of the fieldwork activities. For an undergraduate or postgraduate unit, the Fieldwork Leader should be the Unit Assessor or Academic in charge of the class. There may be more than one Fieldwork Leader (e.g. if the attendees often change). The Fieldwork Leader/s must provide their name, a contact phone number and an email address.

Section 2 – Fieldwork Description

Provide a unique title for your fieldwork (e.g. blue carbon monitoring). The fieldwork title will be used when referring to the approved form. You must tick the appropriate boxes if the fieldwork involves working alone, SCUBA diving, snorkelling, boating, off-road/4WD, access to private land or drone research. You must also indicate if the fieldwork requires ethics approval (human or animal), has a biosecurity risk, or if children are involved. Depending on the activity, additional forms, approvals or considerations may be required (see Table 1).

You must tick which box is appropriate to the fieldwork you are conducting; undergraduate or postgraduate unit, postgraduate or honours research, staff research or other.

Table 1. Fieldwork activities and details of additional forms, approvals or considerations required.

Fieldwork activity	**Additional forms, approvals or considerations required**
Working alone	• Working alone must be covered in the risk assessment section.
SCUBA diving	• All SCUBA divers must be registered as an SCU diver. • A 'Dive Proposal' must be completed and approved by the SCU Diving Officer. • For information and access to 'SCU Diving Operations Manual', email diving.officer@scu.edu.au.
Snorkelling	• Snorkelling experience must be detailed for each fieldworker. • Inexperienced snorkellers must undertake a snorkel diving familiarisation course with the Diving Officer or delegate. • For more information, email diving.officer@scu.edu.au.
Boating	• If using SCU vessels, a 'Boating Safety Plan' must be approved before each trip. • If using a hire or other commercial vessel, then a third-party vessel use form will need to be completed. • Please refer to the 'SCU Boating Procedures' and email boating.officer@scu.edu.au for more information.

Off-road/4WD	• Off-road/4WD driving experience must be detailed for relevant fieldworkers. • Additional training may be required before the 4WD vehicle is used.
Access to private land	• Landowner permission must be granted before accessing private land. • Evidence of the landowner permission must be available if requested.
Drone research	• All drone pilots and drones must be registered with SCU. • If drones are ≤2 kg and operated under standard conditions, their use must be covered in the risk assessment. • If drones are >2 kg or operated under non-standard conditions an 'SCU Flight Authority' must be completed and approved by the Chief Remote Controller. • For information and access to 'SCU Drone Guidelines', email RPAS@scu.edu.au.
Ethics	• If research involves humans, vertebrates or cephalopods, the relevant ethics approval must be in place before the fieldwork commences. • For information, please see SCU Research Ethics.
Biosecurity	• Biosecurity risks must be considered when planning fieldwork. • Personnel must comply with relevant biosecurity practices. • If there is a biosecurity risk identified, the required risks and controls must be included in the risk assessment. • Refer to the 'Biosecurity Fact Sheet' for guidelines.
Working with children	• Personnel attending fieldwork that involves children may require a Working with Children Clearance (WWCC). • For information, please see SCU Child Safe Environment Procedures. • The WWCC number/s must be provided prior to commencing fieldwork.

Section 3 – Fieldwork Details

Please describe the purpose of the work, work being undertaken and role of participants. Provide sufficient detail so that those assessing the form have a clear understanding of what you intend to do. You should also provide the unit number if the fieldwork relates to an undergraduate or postgraduate unit.

Section 4 – Site Information

Provide sufficient details of the fieldwork location/s. Consider how you would describe the site if trying to direct Emergency Services to your location. Map references (e.g. GPS co-ordinates) are

preferred as they provide the most accurate information. A street number and name can also be used if available.

If relevant, provide the contact details of the owner or manager of the field site. If your fieldwork requires permits, list any permit numbers you have.

Provide the date or dates of your fieldwork. If exact dates for the fieldwork are not known, you must specify a date range for which this form will be valid. Note that this form is only valid for 12 months or until approvals, certificates, licences or permits expire, whichever is sooner. If the fieldwork description changes, a new revised form must be completed.

You are obliged to notify your designated contact person/s of your exact itinerary before commencing fieldwork. If you are visiting multiple field sites you may need to consider including a timeline for when you are likely to be at each site.

Section 5 – Fieldwork Personnel Details

All fieldworkers assisting with the fieldwork should be listed, including their position (e.g. staff, postgraduate or honours student, contractor, collaborator, volunteer), contact number, emergency contact (name and number) and any relevant medical conditions or medications. Undergraduate or postgraduate students attending a unit fieldtrip do not need to be listed in this section.

The fieldwork party should contain at least two people. Some fieldwork may be conducted safely working alone; however, the risk must be assessed before approval; more frequent communications with your designated contact person should be implemented to ensure your safety. Unit assessors for undergraduate or postgraduate units must ensure there is sufficient staff for the number of students attending (staff to student ratio) for the given activity.

For each fieldworker, you should provide details of specific licences, training or competencies relevant to the proposed fieldwork. This may include driver's licence, boat licence, remote pilot licence, snorkelling experience, towing skill, off-road driving, First Aid, CPR or O_2. Licence or certificate numbers and expiry dates should be listed where relevant.

The fieldwork party must include at least one person with current First Aid and CPR certificates. Additional persons may be required depending on the nature of the fieldwork or composition of the fieldwork party (e.g. large fieldwork teams, if splitting into separate teams).

Section 6 – Communication Devices

The fieldwork party must always be contactable. You must consider how you will contact someone in the event of an incident (e.g. accident, emergency, breakdown, equipment failure) and how will we contact you if necessary.

If a mobile has been listed in Section 4, it should be carried during the field trip. If you are travelling to an area that has limited mobile reception, an alternative communication device must be available and listed. This may include a satellite phone, Personal Locator Beacon or Garmin inReach. All fieldworkers should be familiar with the location and operation of communication devices. The numbers provided will be used by your designated contact person if you fail to return at the nominated time, or if we need to contact you regarding an emergency situation.

Section 7 – Emergency Preparedness Plan and Communication Strategy

Emergency preparedness plan

Outline the set of actions and procedures to prepare for and respond to an emergency. Your plans will help fieldworkers and other participants in the event of an emergency.

Communication strategy and actions by the designated contact person

The communication strategy must detail how you will maintain contact with the designated contact person to ensure the fieldwork party is safe. As a minimum, you must advise of your departure and return from fieldwork and provide an estimated return time.

If the designated contact person does not hear from you by the nominated time, you must detail the appropriate actions to be taken. For example, the contact person may attempt to contact you or the fieldworkers listed. If they fail to contact you, list the appropriate person/s to notify. This may include SCU Security, your emergency contact or Emergency Services etc.

Designated contact person/s

You must nominate a contact person that you will advise of your departure and return from fieldwork activities and obtain their agreement to act in this role. The designated contact person must be available for the duration of the field trip so they can escalate matters if they fail to hear from you. A back-up or additional person should be listed. An external (i.e. non-SCU) person may also be used.

It is essential that the designated contact person knows where you are and who is in the fieldwork team. It is the Fieldwork Leaders' responsibility to ensure the nominated person has all the necessary information.

Section 8 – Transportation Details and Journey Management

You must give details of the transport to be used to conduct your fieldwork. Depending on the transport required, additional forms and approvals may be required (see Table 2). If driving over 4 h you must detail your journey management plan to address fatigue.

Table 2. Transport and details of additional forms, approvals or considerations required.

Transport	Additional forms, approvals or considerations required
SCU vehicle	• If you are using a University vehicle, each driver must complete the 'Driver Safety Training' module (staff only) or form (students only). For the Faculty of Science and Engineering vehicles: • Complete a vehicle induction (includes sighting of your driver's licence). • Complete the 'Conditions of Use' form. • See FSE Vehicle & Vessel Use for details.
Private vehicle	• Private vehicles must be roadworthy and have valid compulsory third party insurance.

	• The University will not provide insurance cover for personal vehicle use. • Refer to the Travel Policy for more information.
Trailer	• Only approved persons may use SCU trailers. For the Faculty of Science and Engineering trailers: • Complete a trailer induction. • See FSE Vehicle & Vessel Use for details.
Self-drive bus	• If operating a fatigue-regulated heavy vehicle, the appropriate licence must be sighted. • A National Driver Work Diary must be carried at all times and completed if driving more than 100 km from the home base. • A fatigue-regulated vehicle is a "bus of more than 4.5 tonnes, fitted to carry more than 12 adults including the driver".
Vessels (powered or human-powered)	• Recreational vessels cannot be used for University business-related purposes unless they are exempt. • If intending to use an SCU vessel, the Skipper, Master and crew must be inducted. • If using a hire or other commercial vessel, then a third-party vessel use form will need to be completed. • Refer to the 'SCU Boating Procedures' and email boating.officer@scu.edu.au for more information.

Section 9 – Food Safety and Hygiene

The plans regarding the support systems for food safety and hygiene must be described. Your plans should be based on the number of people attending, trip duration, available facilities, purchase options, transportation used and storage. Any special dietary requirements for fieldworkers should be addressed.

Section 10 – Critical Risks

If your fieldwork involves any of the eighteen WHS Critical Risks (i.e. fatality risks) they must be identified and controls listed in the risk assessment to achieve an acceptable level of risk. Each critical risk on the form links to the supporting information page to guide fieldwork teams in managing the risks. All fieldworkers must be familiar with the associated High Risk Procedures.

Section 11 – Risk Assessment

One of the most important parts of the fieldwork planning involves conducting a risk assessment on the fieldwork activities. The Fieldwork Leader is required to ensure all fieldwork participants are aware of the information that is contained in the risk assessment section. All fieldworkers must agree to comply with all risk reduction procedures.

In this section, you must, so far as is reasonably practicable:

1. Identify hazards;
2. Assess risks;
3. Control risks; and
4. Review control measures.

Identify hazards

Identify any foreseeable hazard that has the potential to cause harm, particularly to people. If relevant, biosecurity risks should also be detailed. A list of hazards and considerations are provided in Appendix 1 as a useful guide in completing the risk assessment table. If critical risks are identified they must be included in this section. However, there are likely to be additional hazards depending on the nature of your fieldwork.

Assess risks

Once the hazards are identified, the level of risk for each hazard, before controls are put in place, needs to be assessed. Decide how likely it is that someone could be harmed and how serious it could be. Use the risk matrix to assess the consequence and likelihood and establish an 'initial risk rating' for each hazard (see Appendix 2).

Control risks

For each risk, decide on the risk reduction procedures (i.e. control measures) that already exist and what you can put in place to ideally eliminate the hazard altogether. If elimination is not possible, then determine how the risk can be minimised so that harm is unlikely. The hierarchy of control measures should be followed, which are ranked from the highest level of protection and reliability to the lowest (Appendix 2, Fig. 1). If critical risks are identified, the mandatory controls described on the relevant critical risk page must be implemented. There may be other controls to consider depending on the specifics of your work. Also refer to the High Risk Procedures and supporting information pages where relevant.

Eliminating the hazard and risk is the highest level of control (i.e. remove it), followed by reducing the risk through substitution (i.e. replace with something safer), isolation (i.e. limit access, such as barriers, equipment guards), engineering controls (i.e. physical methods, such as trolleys for heavy items), administrative controls (i.e. work methods or procedures, such as signage, safe work procedures, training) and finally via personal protective equipment (PPE; e.g. safety glasses, footwear, gloves). PPE should be a last option as the hazard does not change. The effectiveness also relies on the use, maintenance and proper fit of the PPE. For each potential hazard there may be numerous options for risk reduction, so you should consider more than just one solution.

Once control measures are put in place, the consequence and likelihood of each hazard needs to be reassessed to establish the 'residual risk rating' (see Appendix 2). The goal is to improve the initial risk rating.

Review control measures

Following the fieldwork event, control measures should be reviewed to ensure that they worked as planned. Before commencing further fieldwork, a review should be done to consider if the control measures are still effective or if there have been changes in the workplace that could alter the risks. If changes are needed, they can be documented via the Amendment Register (see Section 14 below).

Section 12 – Declarations and Signatures

Before signing, the document must be sent to your Supervisor/Research Leader/Unit Assessor (or delegate; whichever is most appropriate) for initial review. If applicable, a Technical Services Representative (or delegate) can provide advice and guidance on the form and advise if additional approvals and documents are required. Once reviewed and finalised, the document will be converted to a pdf ready for signing.

All personnel involved in the fieldwork activities must sign the form. The Fieldwork Leader signs and then obtains signatures from all fieldworkers, the designated contact person/s and a Technical Services Representative.

Section 13 – Approval

Once all signatures in Section 12 are in place, the Supervisor/Research Leader/Unit Assessor (or delegate; whichever is most appropriate) must sign before final approval by the Head of Work Unit (or delegate). All approvals must be in place before fieldwork commences. You should allow at least 7 days for processing drafts and final approval.

Section 14 – Amendment Register

Once a Fieldwork Risk Assessment (FWRA) has been signed and approved, the document is locked and edits cannot be made. However, amendments to an existing approved FWRA are possible by completing this editable section. Amendments may include changes/additions to fieldwork personnel, site information, communication strategy, transport arrangements or PPE used.

The amendment is valid for the same duration as the original FWRA. Any amendment must be communicated to all fieldwork personnel. Any updates to this section must be provided to the relevant person/s in your Work Unit for filing.

Appendix 1: Fieldwork Hazard Identification Guide

Fieldwork Activities	
Abseiling	Geological sampling
Boating	Height work
Bushwalking	Night work
SCUBA diving/snorkelling	Remote underwater vehicle
Drone work (remote piloting)	Rock/tree climbing
Forestry logging activities	Sample collection
Traverse on foot	Urban survey
Underground work/caving	International fieldwork
Fieldwork Party	
Fitness	Student/staff ratio
Allergies/medical conditions	Experience required
Size and composition	Training/certifications required
Licences/Training	
Driver licence	Drone licence
Additional driver training (e.g. 4WD)	First Aid, CPR certificate
Boat licence (compliant with State regulations)	O_2 certification (e.g. SCUBA diving, snorkelling)
Bus licence; National Driver Work Diary	Hazardous goods/dangerous goods training
Dive medical (SCUBA diving)	Radioactive substance users licence
Permits/Authorities	
Access to private property	Poisons permits
Flora/fauna collecting	Quarantine/Biosecurity importation permits
Indigenous area access permits	SCU ethics approval (human, animal)
Mine access permits	Site specific inductions
National Parks/State Forest permits	Working with Children Check
Local authorities: regulations, approvals etc.	Vaccinations
Communication	
Between participants	Designated contact person
Emergency Services	Emergency planning
Local contact	Reception availability
University contacts	Communication devices
Transport	
Getting to/from the site	Vehicles (e.g. Hire car, private, fleet, buses)
Road/traffic conditions (Live Traffic, My Road etc.)	Aircraft
Transport suitability and availability	Vessels (e.g. human powered or powered)
Trailers and towing	Rest breaks, refuelling
Navigation	
Navigation aids (e.g. GPS)	Paper maps (if no mobile reception)
Electronic navigation apps	Route selection
Location/direction determination	Travel itinerary (e.g. estimated departure and arrival time)
First Aid	
First aid kit availability (e.g. in transport, on site)	Allergies, medical conditions
First aid kit contents (e.g. snake bandage, tourniquet)	Emergency plan
First aider in the group	
People	
Alcohol and/or drugs	Emotional/mental stress
Allergies	Ill health; epidemic; pandemic
Bullying/harassment	Personal safety, security, theft/damage
Hostile persons	Accommodation arrangements

Weather/Environmental Conditions	
Forecasts, radio broadcasts, weather warnings	Wind strength
Apps (e.g. BOM, Weatherzone, Tides Near Me, Fires Near Me)	Hypothermia/frostbite
Extreme weather event (e.g. flood, bushfire, storm)	Heatstroke/dehydration/hyperthermia
Tides, waves (e.g. timing, height)	Sunburn/windburn
Currents, rips	
Flora/Fauna	
Dangerous marine animals (e.g. sharks, crocodiles, stingers)	Marine stings/bites (e.g. jellyfish, Irukandji, blue ring octopus, cone snail)
Insect stings/bites (e.g. spiders, ticks, leeches, ants)	Snakes
Domestic animals/stock (e.g. horses, cattle, dogs, pigs)	Handling and avoidance techniques
Harmful plants (e.g. sap, stinging hairs)	Additional first aid equipment
Plant/Equipment	
Entanglement	Manual handling, lifting, digging
Crushing/striking/trapping/shearing/cutting	Testing and tagging
Shock	Machinery/moving equipment
Fire	Electrical or high-voltage equipment
Dust/noise	Pressure equipment
Vibration	Tools and small equipment
Sharps	
Chemical/Hazardous Substances	
Carcinogens, genotoxins (mutagens, teratogens)	Irritants
Corrosives/acids	Fumes
Toxic	Dust
Flammables, explosives	Pathogens (e.g. bacteria, fungi, viruses, parasites)
Radioactive	Biological materials (e.g. blood, tissue)
Cryogenic fluids	SDS availability
Sensitising	Waste disposal
Radiation (ionising, laser, sealed/unsealed sources)	Storage containers
Solvents	Transport requirements
Work Environment	
Slips, trips and falls	Evacuation plan, alternative exit strategy
Terrain, uneven ground	Lighting/power requirements
Falling tree branches	Potable water, food supplies
Overhead power lines	Facilities available (e.g. toilets, cooking)
Noise	Prolonged seating or standing
Unstable river banks	Privacy and public access
Working in/near water	Urban environments
Working near roads (e.g. signs, traffic cones)	Political climate
Remote location (delayed emergency response, supplies)	
Personal Protective Equipment (PPE)	
Ear plugs, muffs, ear protection	
Face masks, respirators	Harness
Face shields, safety glasses/goggles	Life jackets, flotation devices
Gloves; heat protective gloves	Trousers/overalls
Lab coat/gown	Wet suit, rash shirt, stinger suit
Fully-enclosed footwear, non-slip footwear, dive booties	Sun protection (e.g. hat, long sleeved cotton shirt, long pants, sunscreen)
Waders, gumboots	Warm clothing
High-visibility clothing	Wet weather gear
Hard hat	Fire extinguisher/blanket

Appendix 2: Risk Assessment Procedure

1. Identify the hazards that may be encountered during your fieldwork.
2. For each hazard, use the descriptors in the risk matrix below to estimate the Consequence and Likelihood numerical value (i.e. 1–5). Use these numbers to then determine the 'Initial Risk Rating' (i.e. Low, Medium, High or Extreme).
3. Record the risk reduction control measures that are (or will be) in place to eliminate or minimise the risks (see Fig. 1, Hierarchy of Controls).
4. Re-assess the Consequence and Likelihood with the control measures in place to determine the 'Residual Risk Rating'. Any residual risk rating **above MEDIUM** must be approved by the Faculty Dean before the task can take place.

   For example: Traffic accident

   a. **Initial risk rating:** Consequence = 5 – Catastrophic (fatality/permanent disability)
   Likelihood = 4 – Likely (strong possibility the event will occur)
   Risk Rating = intersection between Consequence 5 & Likelihood 4 = EXTREME

   b. **Control measures:** Drivers Licence, observe road rules, adequate rest breaks.

   c. **Residual risk rating:** Consequence = 5 – Catastrophic (fatality/permanent disability)
   Likelihood = 2 – Unlikely (not expected but slight possibility)
   Risk Rating = intersection between Consequence 5 & Likelihood 2 = MEDIUM

Consequence descriptors *What are the potential consequences of an incident occurring during the specified task?*			**Likelihood descriptors** *What is the likelihood of the consequence identified happening?*		
1	Insignificant	No or only minor personal injury; first aid needed but no days lost.	**1**	Rare	Highly unlikely, but it may occur in exceptional circumstances. It could happen, but probably never will.
2	Minor	Minor injury; medical treatment & some days lost.	**2**	Unlikely	Not expected, but there's a slight possibility it may occur at some time.
3	Moderate	Injury; possible hospitalisation & numerous days lost.	**3**	Possible	The event might occur at some time.
4	Major	Long-term illness/disability or multiple serious injuries.	**4**	Likely	There is a strong possibility the event will occur.
5	Catastrophic	Fatality(ies) or permanent disability or ill-health.	**5**	Almost certain	Very likely. The event is expected to occur in most circumstances.

Risk rating

LIKELIHOOD						
	5	**MEDIUM**	**MEDIUM**	**HIGH**	**EXTREME**	**EXTREME**
	4	**LOW**	**MEDIUM**	**HIGH**	**HIGH**	**EXTREME**
	3	**LOW**	**MEDIUM**	**MEDIUM**	**HIGH**	**HIGH**
	2	**LOW**	**LOW**	**MEDIUM**	**MEDIUM**	**MEDIUM**
	1	**LOW**	**LOW**	**LOW**	**LOW**	**MEDIUM**
		1	**2**	**3**	**4**	**5**
		CONSEQUENCE				

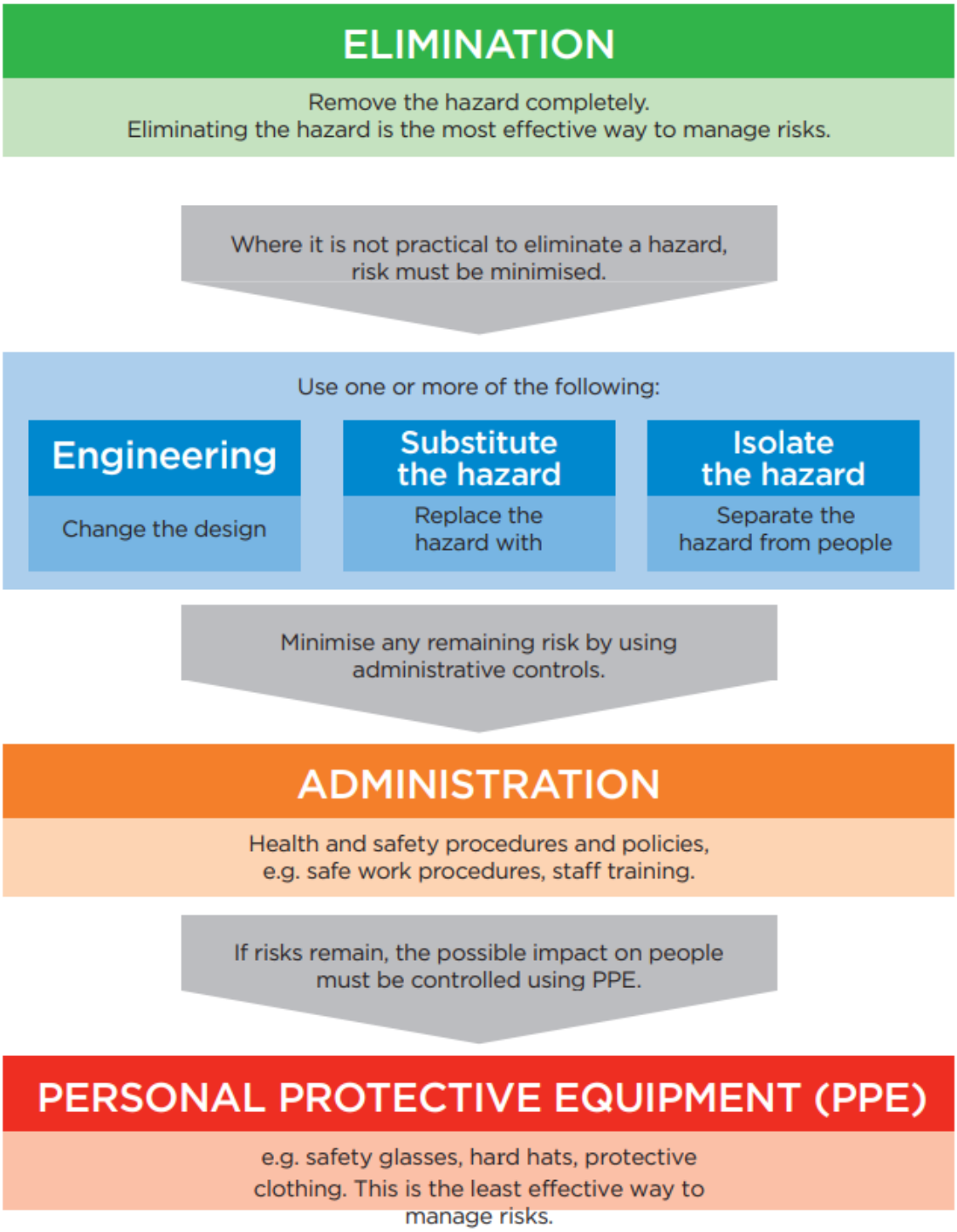

Figure 1. The hierarchy of controls outlines the methods used to minimize hazards. They are arranged from the most to least effective, and should be followed in that order. Image: SafeWork NSW.