*Persons completing this assessment should refer to the* [*UCD Fieldwork Safety Manual*](https://intranet.ucd.ie/sirc/safetydocumentsandguides/index.html)*,*

*the* [*UCD SBES Safety Statement*](https://intranet.ucd.ie/bioenvsci/safety/)*, and the* [*UCD SBES Lone Working Policy*](https://intranet.ucd.ie/bioenvsci/t4media/Lone%20working%20vs%20out%20of%20hours%20working.pdf)*.*

1. **General Information**

|  |  |
| --- | --- |
| **Name of Person(s) nominated as Fieldwork Leader and/or Lone Worker and their position** |  |
| **Principal Investigator / Supervisor / Head of School or Unit**  ***(Person responsible for ensuring safety)*** |  |
| **Name(s) of other staff members attending and**  **their position** |  |
| **Details of fieldwork participants i.e. undergraduate students; postgraduate researchers; etc.** | postgraduate researchers, technical officers, PI’s |
| **Date of Assessment** | 23/01/2025 |
| **Duration and Frequency of fieldwork**  ***(Please provide date or range of dates of fieldwork)*** | 23/01/2025 - 23/12/2025  Weekly or Fortnightly |
| **Location of fieldwork** | * UCD Campus (Secret Lake, Rosemount) * Salt Marshes at Rogerstown, Dublin; * Freshwater systems within forested regions of Carrigeenduff, Co Wicklow; Dooary * Sites within Dun Laoghaire Rathdown County Council and Co Kildare |

***Please see Appendix 1 for Attendance sheet and Next-of-Kin details required for each participant, including fieldwork leader(s).***

1. **Initial Assessment**

*If the any of the following tasks are involved in the task being carried out, then lone working / out of hours working is* ***prohibited****.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Does the task involve:** | **Select as appropriate** | | |
| **Yes** | **No** | **N/A** |
| **a.** **The use of exposed high energy moving equipment** |  | **X** |  |
| **b. Working at a height** |  | **X** |  |
| **c. High energy sources** |  | **X** |  |
| **d. The use of high energy lasers** |  | **X** |  |
| **e. The use of high risk chemical agents** |  | **X** |  |
| **f. The use of high risk biological agent** |  | **X** |  |
| **g. The use of high risk radioactive substances** |  | **X** |  |
| **h. A significant risk of violence** |  | **X** |  |
| **i. In-water work** | **X** |  |  |

1. **Title and Details of the Proposed Fieldwork -** *Provide details of fieldwork objectives, activities, equipment used, location, transport arrangements, third party requirements, site owner details, if lone working is required and justification for lone working if required etc. Attach additional information, drawings, maps, permits, etc. as required.*

|  |
| --- |
| **Title of Fieldwork:** Collection of data and samples in various environments (freshwater, marine, and terrestrial) for students/researchers/research groups. |
| **Details:**   * This risk assessment covers all fieldwork that I will be a part of as either a lone worker or with one or more students/staff/researchers. * Data and samples will be collected on an ad hoc basis depending on the * requirements of the project. Sampling will often be done on a regular basis, be it weekly/fortnightly/seasonally. * Fieldwork will take place over a variety of terrains across Ireland:   **Fieldwork in freshwater habitats:**   * + Kick and surber sampling for freshwater invertebrates.   + Water and sediment sample collection.   + Physical, chemical, and biological data collection from water bodies using pH, conductivity, salinity, and oxygen meters/probes.   + Surveys looking into invasive species and fish.   + Setting up and maintaining mesocosm systems at the UCD Rosemount facility. * **Fieldwork in marine habitats:**   + Collection of greenhouse gases (GHGs) using perspex chambers and collars in salt marshes.   + Collection of shallow soil cores.   + Physical, chemical, and biological data collection from water bodies using pH, conductivity, salinity, and oxygen meters/probes.   + Shore surveys to collect samples/data. * **Fieldwork in terrestrial habitats:**   + Fallow deer surveys in Phoenix park (weekly/fortnightly).   + Radio tracking of various mammal species.   + Setting up and collecting data from camera traps.   + Recording photosynthesis and soil respiration rates of soils and plant species across UCD campus.   + Pollinator counts and plant surveys.   + Species surveys. * The equipment used for fieldwork will vary depending on the type of sampling being conducted. Equipment will include; kick nets, surber samplers, sample bags/vials/pots/bottles, physical/chemical parameter meters (pH, conductivity, salinity, temperature, oxygen), Li-Cor LI6400 Portable Photosynthesis System, syringes, syringe filters, perspex chambers, ID books and keys, binoculars, scope and tripod, compass, GPS unit, rangefinder, voice recorder, BioTracker receiver and aerial, camera traps. * Transport to and from site will depend on the locality and type of fieldwork taking place. In some instances public transport will be used due to its convenience and the limited amount of equipment needed. Otherwise, a car will be hired from Enterprise within UCD in order to transport all equipment and personnel, as well as to make it to and from the site safely. * Majority of sites will be publicly accessible and therefore prior permission for access will not be required. Private land needing access will be done by asking permission from the landowner prior to conducting any field work. |
| **Justify the need for lone working (if applicable):** Lone working will only take place in certain instances where students/staff/researchers are unable to accompany me along to fieldwork and where sample/data collection is time sensitive. If sample collection is required and is deemed safe enough for lone working then it will take place, otherwise fieldwork will be postponed until a minimum of one other person can join for sample/data collection. |

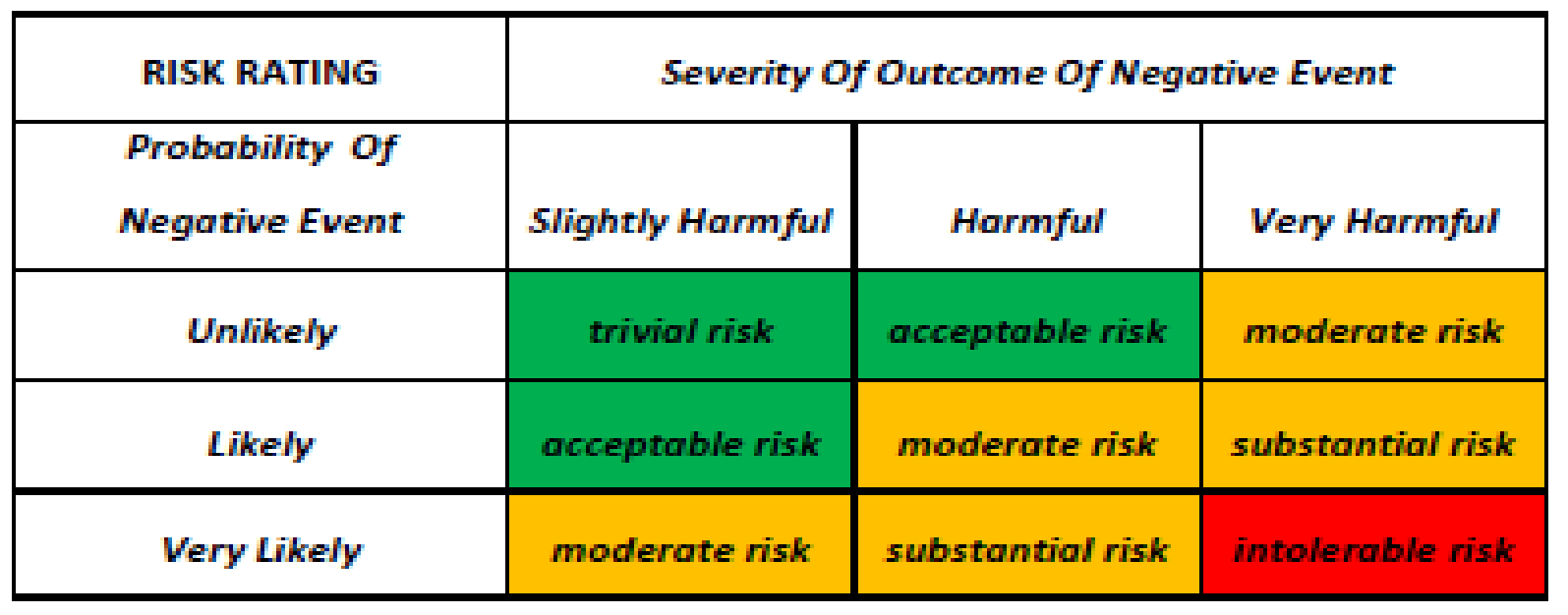
1. **Hazard Identification and Risk Assessment**

*Refer to the* [*UCD Fieldwork Safety Manual*](https://intranet.ucd.ie/sirc/safetydocumentsandguides/index.html) *for further detail*

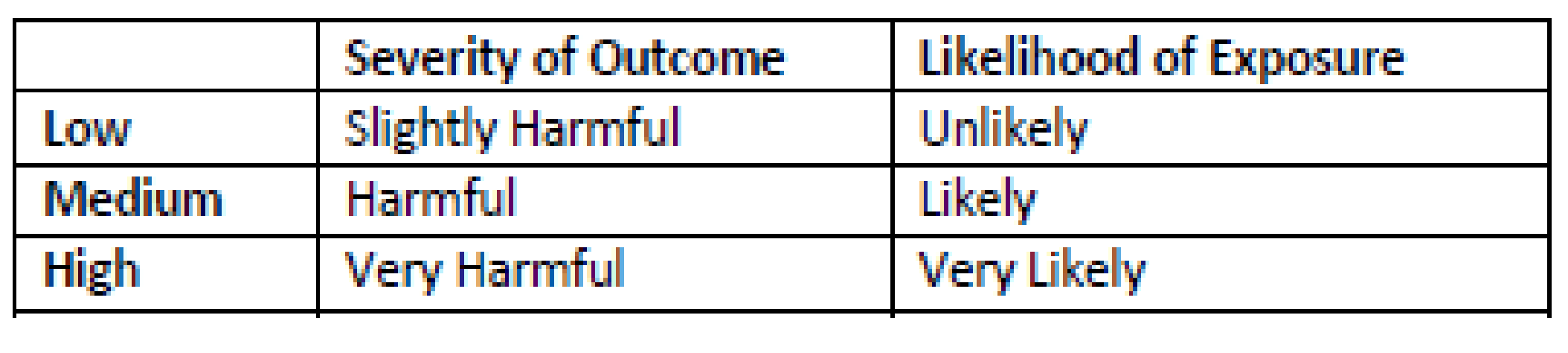
To complete the Risk Assessment Form below:

* Identify the hazards in undertaking this fieldwork including those specific to any lone working activity and attach to this document the associated risk assessment for the work being completed
* Evaluate the associated risks and consider who might be harmed and how, including any persons with health problems or lacking experience who may be at greater risk.
* List control measures to reduce the risk - procedures, equipment, training etc.
* Establish the residual risk rating after the implementation of controls

**Risk Rating = Likelihood of risk occurring x Severity of outcome**

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**Assessment of Likelihood and Severity**

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1. **Trivial Risk:** No further action needed
2. **Acceptable Risk:** No additional risk control measures required
3. **Moderate Risk:** Implement further risk control measures if possible
4. **Substantial Risk:** Further control measures must be implemented. If this is not possible then work must be strictly managed to ensure safety.
5. **Intolerable:** Work must be prohibited until further control measures are implemented.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard** | | | | | **Risk(s)** | | **Control Measure(s)** | |
| 1. **Physical hazards**   (e.g. extreme weather; mountains and cliffs, quarries, marshes; fresh or seawater) | | **1.** Uneven Ground  **2.** Tides  **3.** Mountains/Cliffs  **4.** Working in Freshwater systems  **5.** Extreme weather | | | **1a.** Falling in a pond/saltmarsh/shore.  **1b.** Slipping or tripping.  **2a.** Losing footing and falling into incoming water.  **2b.** Being carried out to sea  **3a.** Falling off edge (driving/walking)  **3b.** Loose substrate near edge of roads  **4a.** Losing footing and falling into river with strong current  **4b.** Being swept downstream  **5a.** Sunburn  **5b.** Heatstroke/dehydration  **5c.** Hypothermia | | **1a.** Take care when walking on uneven ground.  **1b.** Take care when walking over rough ground.  **1c.** Wear appropriate footwear which provides sufficient ankle support.  **2a.** Sampling will take place at low tide (during an outgoing tide) to ensure the site is as safe as possible.  **2b.** Buoyancy aid to be worn at all times.  **2c.** Working in water training to be taken in order to be prepared for any emergencies.  **3a.** Do not drive/walk near the edge of a mountain/cliff.  **3b.** Drive/walk with caution if loose substrate is present and visible.  **4a.** Always have one person on the bank.  **4b.** Buoyancy aid and appropriate waders/wellies should be worn at all times when working in/around water.  **4c.** Working in water training to be taken in order to be prepared for any emergencies.  **5a.** Wear sunscreen (SPF Factor 50+) at all times, wear clothes that cover skin (long sleeves, hat), and avoid sunlight where possible.  **5b**. Avoid the sun as above, drink plenty of water and carry water at all times.  **5c.** Bring warm and waterproof clothing and a change of clothes to get into after fieldwork. | |
| **Residual Risk Rating**: Moderate Risk | | | | | | | | |
| 1. **Biological hazards**   (e.g. poisonous plants; aggressive animals; insects, soil or water microorganisms) | **1.** Insects  **2.** Microorganisms  **3.** Plants  **4.** Aggressive animals | | | | **1a.** Being stung by bees and/or wasps  **1b.** Being bitten by biting midges  **1c.** Allergic reactions  **2a.** Weil's disease  **2b.** Lymes disease  **2c.** Tetanus  **2d.** Hepatitis (A,B,C)  **3a.** Blistering caused by contact with giant hogweed  **3b.** Allergic reactions to plants/hayfever  **3c.** Poisoning from consuming plants/berries  **4a.** Being bitten by aggressive animals in local parks/natural environments | | **1a.** Wear insect repellent.  **1b.** wear long pants and long sleeve shirts to avoid insect stings and bites.  **2a.** Cover cuts/scratches with waterproof plasters.  **2b.** Wear gloves when working in water likely to receive pollutant inputs.  **2c.** Wash and sanitise hands, avoid biting fingernails and putting fingers in mouth while on site.  **2d.** Ensure vaccinations are up-to-date for tetanus and hepatitis.  **2e.** Keep vaccination up-to-date.  **2f.** Check the body for ticks regularly.  **3a.** Do not touch plants that you don’t know the species of.  **3b.** Carry antihistamines and cream as above.  **3c.** Do not consume any wild plants/berries/fruits etc.  **3d.** Carry a first aid kit.  **4a.** Avoid animals and do not touch them. | |
| **Residual Risk Rating**: Acceptable Risk | | | | | | | | |
| 1. **Chemical hazards**   (e.g. pesticides; dusts; contaminated soils; chemicals brought into site) | **1.** Soda Lime and Dry-Rite  **2.** 3.5V and 5V batteries to power instruments  **3.** Ethanol/IMS  **4.** Virkon Aquatic | | | | **1a.** Dust inhalation  **1b.** Eye irritation/damage  **1c.** Skin irritation/damage  **2a.** Electric shock  **2b.** Burn from battery acid (if battery is damaged)  **3a.** Spillage  **3b.** Eye irritant/direct contact with skin  **3c.** Flammable  **4a.** Eye irritant/direct contact with skin  **4b.** Toxic if inhaled/ingested | | **1a.** Avoid contact with skin and eyes.  **1b.** Use gloves when handling.  **1c.** If it gets in your eyes, rinse cautiously with water for several minutes.  **1d.** Wash hands thoroughly.  **1e.** Should not be required to change the chemicals in the field, the field leader will change chemicals in the lab between field days if necessary.  **2a.** Use care when handling batteries.  **2b.** Do not drop or damage the battery to avoid risk of spillage of battery acid.  **2c.** Do not short the battery poles.  **2e.** Battery is already wired to the connector and only needs to be plugged into the instrument.  **2f.** Do not tamper with the battery case or wiring.  **2h.** Do not handle the battery or wiring with wet hands.  **3a.** Ethanol/IMS and samples with ethanol/IMS will be stored in sealed containers and transported in a cooler. The cooler will be placed in the boot/luggage compartment during travel. In the event of a road traffic collision, emergency services will be notified about the ethanol.  **3b.** Safety goggles will be used when handling the ethanol/IMS.  **3c.** Ethanol/IMS will be kept away from open flames.  **4a.** Should be handled and applied with care because it is toxic.  **4b.** Wear gloves and safety goggles when applying, avoid contact with skin and wash off immediately if this occurs. | |
| **Residual Risk Rating**: Acceptable Risk | | | | | | | | |
| 1. **Man-made hazards**   (e.g. electrical equipment; vehicles, insecure buildings; slurry pits; power and pipelines) | **1.** Electrical equipment  **2.** Vehicles | | | | **1a.** Getting a shock from the 3.5V and 5V batteries used to power instrument  **2a.** Vehicle accident | | **1a.** Use care when handling batteries.  **1b.** Do not short the battery poles.  **1c.** Do not tamper with the battery case or wiring.  **1d.** Do not handle the battery or wiring with wet hands.  **2a.** Ensure only people with valid licences and pre approval from UCD drive the vehicle.  **2b.** Be aware of driver fatigue.  **2c.** Take as many stops as necessary to get home safely or do not drive at all.  **2d.** Take public transport where possible and feasible.  **2e.** Wear hi-viz clothing while working near roads.  **2f.** Alternate drivers during long journeys to reduce driver fatigue. | |
| **Residual Risk Rating**: Moderate Risk | | | | | | | | |
| 1. **Personal safety**   (e.g. lone working, violence and aggression) | | | **1.** Violence and aggression  **2.** Lone working | | **1a.** Encounters with violent/aggressive individuals or groups of people  **2a.** Being alone if an emergency happened e.g. medical emergency, attacked by stranger | | **1a.** PI/CTO will be informed of when the fieldworker enters and leaves a site.  **1b.** Be aware of others in the area and avoid situations that may lead to aggressive encounters.  **1c.** Out of hours working (especially in evening/at night) is not allowed at these locations.  **2a.** Avoid lone working where possible.  **2b.** If possible, only work in areas where members of the public are present and in daylight hours.  **2c.** No out of hours work is to be done. | |
| **Residual Risk Rating**: Acceptable Risk | | | | | | | | |
| **Hazard** | | | | | **Risk(s)** | | **Control Measure(s)** | |
| 1. **Environmental impact**   (e.g. rubbish; pollution, extreme heat/ cold) | | | **1.** Exposure to sun  **2.** Cold temperatures  **3.** Pollution | | **1a.** Sunburn  **1b.** Dehydration  **1c.** Heat stroke  **2a.** Hypothermia  **3a.** Infections  **3b.** Falling ill | | **1a.** Use sun protection.  **1b.** Appropriate head wear.  **1c.** Bring a sufficient water supply.  **2a.** Bring rain gear.  **2b.** Bring sufficient warm clothing.  **3a.** Cover cuts/scratches with waterproof plasters.  **3b.** Wear gloves when working in water likely to receive pollutant inputs.  **3c.** Wash and sanitise hands, avoid biting fingernails and putting fingers in mouth while on site. | |
| **Residual Risk Rating**: Acceptable Risk | | | | | | | | |
| 1. **Other hazards**   (e.g. manual handling, fatigue, etc.) | | | **1.** Manual handling  **2.** Difficulty keeping balance  **3.** Fatigue | | **1a.** Muscle strain  **1b.** Tripping and/or slipping  **2a.** Tripping and/or slipping  **3a.** Injury through mishandling of equipment  **3b.** Falling or tripping due to fatigue which may lead to injury | | **1a.** Never carry more than you feel comfortable with.  **1b.** Ensure load spread evenly between individuals in the field where appropriate.  **1c.** Take regular breaks.  **2a.** Take care walking next to channels.  **2b.** Take care when walking over rough ground.  **2c.** Wear footwear which provides sufficient ankle support.  **3a.** Take regular breaks.  **3b.** Eat nutritious meals before fieldwork and ensure sufficient intake of fluids. | |
| **Residual Risk Rating**: Acceptable Risk | | | | | | | | |
| ***Sections below for lone working only*** | | | | | | | | |
| **WORKPLACE:**  Identify any hazard specific to the workplace / environment, which may create particular risks for lone workers | | | |  | | *See Risk Assessment* ***UCDA17*** *on* ***VIOLENCE AND AGGRESSION***  *See TO google drive for relevant RA* | |  |
| **Residual Risk Rating**: Acceptable Risk | | | | | | | | |
| **PROCESS:**  Identify any hazards specific to the work process, which may create particular risks for lone workers | | | |  | | *See Risk Assessment* ***UCDA1*** *on* ***MANUAL HANDLING***  *See TO google drive for relevant RA* | |  |
| **Residual Risk Rating**: Acceptable Risk | | | | | | | | |
| **EQUIPMENT:**  Identify any hazards specific to the work equipment, which may create particular risks for lone workers | | | |  | | *See Risk Assessment* ***UCDA1*** *on* ***MANUAL HANDLING***  *See Risk Assessment* ***UCDC5*** *on* ***USE OF COMPRESSED GAS***  *See TO google drive for relevant RA’s* | |  |
| **Residual Risk Rating**: Acceptable Risk | | | | | | | | |
| **WORK PATTERN:**  Consider how the lone worker's work pattern integrates with those of others workers, in terms of both time and geography | | | |  | | *See Risk Assessment* ***UCDA9*** *on* ***DRIVING/USE OF VEHICLES***  *See TO google drive for relevant RA* | |  |
| **Residual Risk Rating**: Substantial Risk | | | | | | | | |

1. **Additional Risk Control Measures**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Select as appropriate** | | |
| **Yes** | **No** | **N/A** |
| 1. **Has adequate insurance been obtained (Incl. PL, equipment or travel)?** *Provide Details below* | **X** |  |  |
| *Fieldwork leader is insured to drive UCD vehicles. Public liability is covered under UCD Insurance. Note that personal injury is not covered under UCD Insurance* | | | |
| 1. **Have suitable travel arrangements been made (incl. licensed drivers)?** *Provide Details below* | **X** |  |  |
| *Driver holds a full driving license and is insured with Class 2 and has been authorised to drive by the head of school (Prof. MKQ). Travel will vary depending on the type of field work taking place - either public transport or a rental vehicle (UCD/Enterprise) will be acquired for travel.* | | | |
| 1. **Has permission been obtained from landowner to work onsite?** | **X** |  |  |
| 1. **Has adequate documented training and information been given to all participants?** | **X** |  |  |
| 1. **Have next of kin details been obtained for all participants, including fieldwork leader(s)? (See Appendix 1)** | **X** |  |  |
| 1. **Has adequate provision been made for persons with health problems or any special requirements?** *Provide Details below* |  |  | **X** |
| *No health problems or special requirements for persons. If any other persons attend fieldwork and provisions need to be made, RA’s will be adjusted accordingly.* | | | |
| 1. **Have adequate first aid provisions been made?** *Provide Details below* | **X** |  |  |
| *Field team will travel with a first aid box. In case of emergency the Emergency Services will be called.* | | | |
| 1. **Have contact persons been nominated and an agreed schedule of check-ins maintained – please provide details. This is of particular importance for those engaged in lone working of this type off campus.**   Yes, the person responsible for ensuring safety (XXXX) is the contact person. If lone working is to take place, contact will be made with details of when I arrive at site, how long I expect to be and when I am leaving site. | | | |
| 1. **What means of communication is being used by researchers?** *Provide Details below*  * The use of mobile phones will take place for communication between myself/researchers and our point of contact for emergencies. * If lone working is to take place, a lone worker device will be taken with and used as a means of communication (especially in remote areas where signal is often quite poor). * Contact will be made with XXXXX via mobile phone before entering the poor cell signal, ensuring they know the location and estimated time before the field work is done and contact is made once more. | | | |
| 1. **Detail fieldwork emergency response plan, including emergency response contact numbers.**   *(What are the foreseeable emergencies and how will you respond to them? Consider missed transport, lost keys, violence, bad weather, etc. List Emergency contact numbers. )*  ***Transport Emergency:***   1. In the case of lost keys from a rented/personal vehicle, contact will be made with the rental/insurance company to advise on next steps. Contact will also be made with XXXX to update them on the current situation.   ***Weather Emergency:***   1. Prior to conducting any field work, the weather forecast should be monitored to ensure that on the day of field work, it is safe to do so. 2. If the weather happens to take a turn for the worst unexpectedly, the persons conducting field work will suspend the field work and return to the vehicle/seek shelter until the weather subsides or will leave the are and return back to campus and reschedule the field work for when there are better and safer conditions to do so.   ***Medical Emergency:***   1. For minor injuries (e.g. cuts) first aid treatment will be given. 2. In the case of potentially more serious injuries the affected person will be made as comfortable as possible. Always have a person stay with the injured person at all times to monitor their condition. 3. Decide whether the injured person can be moved with assistance to a recovery point 4. Raise the alarm/ Emergency services (**call 01 7167999** (on campus emergency line) or **999** or **112**). Use a communication device to call for help (Mobile phone/lone worker device - full charge). Give details of GPS coordinates if known or approximate location. 5. Notify (person responsible for ensuring safety, XXXX, phone number: xxxxxxxx) | | | |
| 1. **Detail all necessary safety and other equipment that must be carried by the expedition as a whole and by every individual, include clothing requirements**   **Each person must have:**   * Mobile phone (full charge) * Rain gear * Footwear with adequate support * Clothes suitable for conditions * Spare change of clothes (suitable for conditions) * Hat/sun protection * Field sheets/notebook/stationery * Sufficient drinking water supply * Packed lunch/snacks * Portable phone charger (powerbank) * Gear/backpack * Headtorch * Contact numbers for PIs/Line managers/Land owners/Emergency services     **In addition the following equipment will be carried:**   * 1 First aid kit (field leader to carry) * Lone worker device (if lone working or in remote areas) * All equipment relevant to the fieldwork taking place on the day | | | |

1. **Sign off by Fieldwork Leader and Line Manager / Head of School / Principal Investigator**

**Is the risk rating acceptable:**  Yes: ☑ No: ☐

*If any aspect of the work is considered high risk, it is not suitable for lone working.*

*If yes sign and date below and ensure all risk control measures have been implemented.*

*If no identify further control measures and reassess risk. If the risk cannot be reduced to an acceptable level then the process cannot be carried out.*

**Is this work suitable for lone working:** Yes: ☑ No: ☐

**(except where stated above)**

**Signed: Position: Date:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

*Assessor and/or Lone Worker*

**Signed: Position: Date:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

*Academic Supervisor / Manager*

*This document must be signed by the lone worker and/or the assessor and the academic supervisor / manager / head of school (person responsible for ensuring safety).*

*By Signing the lone worker agrees to abide by the control measures outlined*

The assessment should be reviewed at regular intervals to ensure that it remains up to date.

**Appendix 1 – Attendance Sheet of all fieldwork participants**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Contact Details** | **Next-of-Kin Name** | **Next-of-Kin Contact Details** |
|  |  |  |  |
|  |  |  |  |