

FIELD ACTIVITIES SAFETY PLAN (2026): APPENDICES

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Appendix A: List of Participants and their Emergency Contacts

The table contains 20 rows of redacted data. Each row consists of two columns of information, with the first column being significantly shorter than the second. The redaction is represented by solid black bars of varying lengths.

Appendix B: Safety and Emergency Procedures

At the Scotty Creek Research Station (SCRS), there are clear rules and procedures designed to promote the smooth and safe operation of the research station and to reduce the possibility of accidents. These are explained below.

Working Alone:

Everyone at the SCRS is to follow the rule that no one may work alone. There are no exceptions to this rule. This rule applies both to work in the field and work in the camp. It also relates to travel with the two Laurier-owned trucks (Ford F150, F250) used to support SCRS activities (hereafter “Laurier-SCRS Trucks”). These trucks are regularly used for travel between Yellowknife and Checkpoint or Fort Simpson (See Appendix C1). The Camp Coordinator (CC) is appointed by the SCRS Director (W. Quinton). The CC will make note in the station logbook of anyone who is non-compliant with this rule and will report it to the Director immediately. Those who are non-compliant with this rule will be given a warning. If they persist in breaking this rule, they will be removed from the station at their (or their Supervisor’s) expense.

Application to Operate at the SCRS:

The SCRS operates each year, typically between mid-March and Labour Day. The station may re-open for short periods during the rest of the year. The SCRS is on territory traditionally used by the Łíídlıı Kúé, Sambba K’e and the Tthets’ek’ehdeli (Jean Marie River) first nations. Persons interested to undertake research or other activities at the SCRS must first apply for a research licence by completing and submitting the “Application for a Research Licence” form. Applications are completed on-line at <http://scottycreek.com/> and should be submitted at least eight weeks in advance. Each person planning to operate at the SCRS must complete their own application. No group applications will be approved.

SCRS Registry:

The SCRS will attempt to accommodate all requests as submitted, however because the station has a sleeping accommodation capacity of 12 people, applicants may be asked to modify the timing of their check-in / check-out dates. Please contact the Station Manager (Mason Dominico, mdominico@wlu.ca) to make a reservation so that he can add your request to the SCRS registry.

Risk and Responsibility:

Part 7 of the Application for a Research License form (Acknowledgement of Risk and Responsibility) identifies the specific safety training requirements that must be obtained before an application to conduct field studies at the SCRS is granted. Applicants may be required to provide proof of current certification for 1) Firearms Safety (Canadian Firearms Safety Course or equivalent approved by Station Manager), and 2) Wilderness First Aid or First Aid for Remote Areas. It is the responsibility of each applicant to ensure that they have received the required

safety training and be prepared to provide proof to the LKFN or by anyone in a position of authority at the SCRS (e.g. Land Guardian, Station Manager, CC) that they have received the required safety training. Applicants are also expected to provide their own Personal Protective Equipment (PPE) for their use, as these items are not provided by the SCRS.

Expectations:

Part 8 of the Application for a Research License form (Acknowledgement of Expectations and Training Requirements at the Scotty Creek Research Station) identifies the expectation of each person operating at the station. The SCRS is one of the busiest research stations in the NWT. However, the Station does not have any dedicated staff. Instead, it is run with the help of all station users. There are no exceptions to this expectation, regardless of position (student, professor, etc.). As such, it is expected that all station users build time into their schedule to assist with station maintenance and upkeep. On average, a guest is expected to contribute about 1 day per week to the station. So, for example, if a guest plans for one week of fieldwork at the SCRS, he/she should include in their schedule an extra day for compliance with Part 8 of the Research License application. The Camp Coordinator will provide guests with a wide range of options on how to contribute to station maintenance and upkeep and will help identify specific contributions for each guest. Such contributions are not onerous, overly complex or demanding, but they are always helpful and greatly appreciated by all station users. Station users are encouraged to raise concerns with the CC (e.g. on infrastructure that needs repair, on a process that could be improved/refined).

Camp Coordinator (CC):

The SCRS Director visits the station two or three times per year, usually in March to assist with opening the station, August/September to assist with closing it, and in June to oversee and assist with new and on-going field research projects (note that the Director is also a researcher and supervises students at the SCRS and also has commitments to local community projects and initiatives). Communication between the Station Director and the CC is a vital part of the Safety Plan. When the Station Director is on site, he takes on the role of the CC. When he is not, a CC is assigned. The person assigned to the CC role may change over the course of a field season as the assigned CC is usually an on-site senior graduate student, PDF, technician or community member.

The CC is the person in charge of station operations while the Station Director is not present. The CC is responsible to greet each station guest as they arrive and provide them with 1) an orientation on safety procedures, and 2) safety information including the locations of emergency supplies and equipment.

The CC may call Camp Meetings at any time to discuss any challenges facing the station. All station personnel are expected to participate and to assist the CC when asked to do so. The CC oversees the monitoring the level of supplies at the station (e.g. food, critical fuels, drinking water, water filters), and contacting the Station Manager to arrange for re-supplies when needed. Because the resupply process can be time consuming, it is important that the CC

monitors the level of supplies continuously so that he/she can give the Station Manager adequate notice of the need to resupply. The CC is responsible to report to the Station Manager any damaged or lost station infrastructure. The Station Manager will then arrange for the repair or replacement of such infrastructure, and when necessary, work with the Project Manager (S. Ciucurita) on cost recovery if the damage or loss was due to negligence.

The CC also keeps a daily log of activities at the station, making note of any problems or concerns. The daily log entries will also record the date and time of arrival and departure of each station guest so that the SCRS registry remains up-to-date. Finally, the CC will submit the logbook to his/her replacement, or to the Station Director at the end of the field season. To simplify the process, a common logbook is provided for use by all CCs. It is the responsibility of the Station Manager to replace the logbook when full and to archive full logbooks for future reference.

Sending Daily Safety Messages:

The SCRS has satellite (Starlink) internet. The CC uses this service to maintain daily email contact with four recipients: the Station Director (**William Quinton**: 519-635-0210, wquinton@wlu.ca), the Safety Advisor of Nogha Enterprises (**Angela Duncan**: 780-933-5513, safety@nogha.com), GES Technician (**Branden Walker**: 519-548-889-4863, bwalker@wlu.ca), and the Station Manager/Logistics Co-ordinator (**Mason Dominico**: 705-498-7172, mdominico@wlu.ca). A team of recipients is used to reduce the possibility that incoming messages from the CC are missed or not received in a timely way.

To simplify messaging, a Garmin InReach device is pre-programmed so that the daily message are sent to the same four recipients listed above. Each day the CC will communicate one of three pre-written email messages via InReach:

- 1) **Green Message**. This email message indicates that all is well at Scotty Creek.
- 2) **Amber Message**. This email message indicates that there is a problem at the Station and requests that the Station Director contact the camp immediately.
- 3) **Red Message**. Emergency in Camp. Please arrange for an emergency evacuation.

Note that the colour-coded message system is helpful if voice systems must be used (e.g. satellite radio) due to failure of other systems. In such cases, it is recommended that the caller repeat the appropriate colour three times – e.g. “**Red, Red, Red**”.

The CC (or designate) should also include him/herself as a recipient so that he/she can determine if the messaging system is working properly or not. If it is working properly, he/she should also receive the email message each day.

1st Backup: The InReach is a satellite communicator and GPS navigator that uses 100% global Iridium coverage for 2-way text messaging and tracking. In case of emergency, the interactive SOS allows you to communicate back and forth and receive confirmation that help is on the way. If the satellite service used by Garmin’s InReach device fails, the **First Back-up** is to use the

StarLink Internet service to send the appropriate daily message that would normally have been sent via InReach. The CC must also use this email to report the malfunction of the InReach system.

2nd Backup: Should both the InReach and Starlink systems fail, then the **Second Back-up** is the SCRS's satellite telephone. The CC should ensure that this device is always fully charged and that spare, fully-charged batteries are available at all times. Finally, as a last resort, camp members can walk to the nearest highway along the "Goose Lake Trail" which runs from Goose Lake northward along a straight trajectory to Highway 7 (this is the snowmobile trail used to access the station during winter). This trail is a straight-line 14.5 km section of a 1969 seismic line connecting Goose Lake to Highway 7 and has marked signage every kilometre to monitor travel progress. The walkers must bring with them safety and survival gear, must stay together and not deviate from the trail so that they can be found if assistance arrives unexpectedly. Under good conditions, this walk takes between 6 and 8 hours (depending on the fitness level of the walkers), and as such, attempting to walk from the camp is an absolute last resort. Once the highway is reached, the walkers will turn right and walk ~2 km to the junction of Highways 1 and 7, where they will reach Checkpoint, a facility owned and operated by the Jean-Marie First Nation.

Receiving Daily Safety Messages:

The Chain of Responsible Leadership receive a safety message from the Station CC each day. It is not necessary that they respond to a **Green** message, but an **Amber** or **Red** message must be acknowledged as soon as it is received using "Reply All". The acknowledgement by "Reply All" is important because it 1) informs the CC knows that his/her message was received, and 2) brings the situation to the attention of the others on the **Chain of Responsible Leadership** in case any of them missed the initial **Amber** or **Red** message from the CC.

If a daily safety message is not received from the CC, the recipient(s) who did not receive the message must attempt to contact the CC by email (recommended that other guests at the station are copied) and let him/her know that the daily message was not received and to confirm that there is not a problem at the station. The daily message is usually sent from the SCRS as a first order of business each morning (*e.g.* before or during breakfast).

If two consecutive daily messages are missed by all recipients outside of the camp, camp members cannot be reached by email, and a telephone call via satellite phone has not been received, then this situation is interpreted as a **Red Message**. As such, the Station Director will 1) contact Simpson Air (867-695-2505) or Goose Flying Service (867-695-1644) to arrange an immediate flight to the camp with instructions to be prepared to provide an emergency evacuation. If a fixed-wing aircraft cannot be deployed on short notice, the Station Director will contact Great Slave Helicopters (867-695-2326) to arrange deployment of a helicopter directly to the station with the same instructions. Note that pilots might not be familiar with the location of the Scotty Creek Research Station, so it is best to refer to "Goose Lake" (Latitude 61.297°; Longitude -121.297) rather than "Scotty Creek". The Station Director will contact the Royal Canadian Mounted Police (RCMP) detachment in Fort Simpson (867-695-1111) to advise

them of a possible emergency situation. If there is reason to suspect a medical emergency, the Station Director should request that a medical professional accompany the flight to the Station.

As a general rule, the cost of chartering an aircraft **must not be** taken into consideration when faced with an emergency, potential emergency or other safety concern. Responding to the safety concern at hand **must always takes precedence** over consideration of the associated cost.

APPENDIX C: POTENTIAL RISKS

In any remote setting, there are specific risks associated with performing field activities. Guests are reminded that because the station is remote, it takes significantly longer to receive assistance from medical professionals and so care must always be taken to strictly follow safety procedures and precautions. The following identifies and discusses specific safety risks.

Appendix C1: Motorised Vehicles

Anyone operating a motorised vehicle must be licensed for that mode of transportation and review the Vehicle and Driver Insurance information provided by their employer. Only people whose names are included on the list of eligible drivers are permitted to operate a Laurier-owned truck. To become an eligible driver, please contact M. Dominico (Fleet Custodian) or W. Quinton (Fleet Manager).

For any long-distance travel (e.g. travelling between communities) with a Laurier-owned truck, an appropriate Journey Management plan (communication, rest, etc.) must first be developed and provided to the supervisor of the driver(s) and passenger(s).

The two Laurier-owned trucks used to support SCRS activities (Ford F150, F250) are both equipped with First Aid supplies. When the trucks are used during winter, passengers must bring cold weather survival gear (e.g. parka, cold weather boots, matches, candles) in case of vehicle malfunction/breakdown. Long drives between communities are never attempted by a single person. For these situations, the no-working-alone rule applied to field work also applies to the vehicles (i.e. no driving alone). For these drives between communities, a satellite phone must also be included in the survival gear. A First Aid kit and a fire extinguisher are provided in each truck. Snowmobiles do not contain a First Aid kit, but the operator, or in the case of a group, one of the operators must carry a First Aid kit and a satellite phone. For longer snowmobile journeys (e.g. between the camp and the highway, a distance of 14.5 km), snowmobilers must not journey alone. The CC will be advised of all snowmobile use. Any mechanical problems with any motorised vehicle must be reported to the CC forthwith.

Appendix C2: Float Plane or Helicopter Accident

Helicopters or float planes are used to enter and exit the station when snowmobiles cannot be used because they are not available or because conditions are not safe or appropriate for their use. The station uses Great Slave Helicopters, Simpson Air and Goose Flying Service because of

the extensive safety training that these companies provide to their pilots and crew. The pilots that we work with are highly experienced and adapted to northern/remote flying conditions. Prior to each flight, helicopter pilots provide a safety briefing for all passengers. The locations of all emergency equipment (e.g. First Aid supplies, firearm and other survival gear, emergency transponder) are indicated, and emergency procedures are explained to all passengers by the pilots. Before departure, passengers are expected to ask for clarification if they are unclear on any aspect of the safety briefing or if they would like more safety information. Other procedures (e.g. how to exit, enter a helicopter while hovering) are also explained in detail by the pilot. Full shut-down of the helicopter (rather than a hover-exit) is preferred and followed wherever possible. For float planes, a floating dock on Goose Lake was constructed for safe and efficient loading and off-loading of aircraft. As with the helicopters, the float plane pilots provide a safety briefing for all passengers prior to each flight. The locations of all emergency equipment (e.g. First Aid supplies, firearm and other survival gear, emergency transponder) are indicated, and emergency procedures are explained to all passengers. During winter, passengers of both rotary and fixed-wing (i.e. ski-plane) flights must bring with them key items for winter survival (e.g. Parka, matches, candles) as the charter companies do not provide these key items. In case of an accident requiring rescue, where the pilot is unable to assist with the rescue due to injury or death, the passenger(s) must deploy the emergency locator beacon as soon as they are able to, and then immediately call (with satellite telephone) the RCMP detachment in Fort Simpson: **867-695-1111**. Once the beacon is turned on, do not attempt to save power by turning it off. If it is turned off it will stop transmitting the emergency signal, and that will postpone your rescue.

Appendix C3: Injury during daily routines related to field work, canoeing, camping, hiking.

Injuries such as cuts, burns, electric shock, falling from towers or tripods, falling into cold water, insect bite/sting, splinters, sprains/fractures etc., may result during daily routines involving camping, hiking, canoeing, and other field work activities. First Aid kits at the station are kept in the Kitchen Tent and are fully supplied. Other safety supplies that relate to these possible injuries include fire extinguishers and carbon monoxide sensors (in each of the common-area tents), life jackets, safety glasses, climbing harnesses. Note that only people who have taken the safety course on tower climbing are permitted to climb any towers. All injuries, regardless of their severity, are reported at once to the CC, and documented in the station logbook. The CC in consultation with the injured person and others involved in the incident, will assess the seriousness of the situation and take appropriate action. If the CC is unsure of appropriate action, then she/he will contact the Station Director for advice. If the Station Director cannot be reached, the CC will attempt to reach one of the four recipients of the daily safety messages. If no one can be reached, or if the CC or the injured person is not satisfied or comfortable with the advice, then the CC will initiate an evacuation of the injured person so that he/she can receive medical attention by health professionals in Fort Simpson. If the safety and/or well-being of the injured person is of concern, the cost of evacuation should **not** be considered prohibitive. The Base Manager at Great Slave Helicopters (867-695-2326) can deploy a helicopter; and Garry Murtzell of Simpson Air (867-695-2505 / 867-447-1809) and Sergei Mjatelski of Goose Flying Service (867-695-1644) can deploy a float plane on short notice. If none of the above can be reached, contact the Fort Simpson detachment of the RCMP: **867-695-1111**.

NOTE: The communication plan described above may be time consuming if people cannot be reached. This may compromise the condition of the injured person. As such, it is not necessary to go through all the steps before deciding on an evacuation. The cost of an evacuation should **NOT** be a factor when deciding on a possible evacuation of an injured person.

In the event of an accident, the CC will complete a post-activities incident report as a detailed entry into the station logbook. If the incident is of a critical nature (e.g. immediate medical attention required) the CC will inform the Safety, Health, Environment and Risk Management (SHERM) office at WLU immediately. If the SHERM office is closed, the WLU Special Constables should be contacted instead. Any incidents should be reported on the Post-Activities Incident Report Form.

Appendix C4: Encounter with Wildlife

Black bears inhabit the study area. Since field studies began at Scotty Creek in 1999, sightings have been rare, but there have been years when the local bear population is higher and encounters occurred more frequently. The bears at Scotty Creek are not habituated to humans and usually flee when they encounter humans. The Scotty Creek camp takes the approach that *“a fed bear is a dead bear”*, and as such every effort must be taken to keep the station as clean as possible, and free of any bear attractants. Bears are deterred from entering the station by an electrified fence that encircles the station perimeter. Garbage is stored near the dock (outside of the perimeter) in two steel, bear-proof storage containers, similar to those used in provincial/territorial parks at roadside pullouts.

NOTE: The CC makes sure that aircraft never leave the camp empty or just partly filled. Exiting flights should be used to transport garbage bags. Refillable containers (e.g. propane bottles, jerry cans) should also be transported for collection in Fort Simpson by station personnel at a later date.

Bear deterrents include pepper spray canisters, and two 12-gauge, pump action shot guns. The firearms may only be used by those who are certified to use a firearm and have received firearms safety training (see *“Risk and Responsibility”* section above). Under no circumstances may anyone else use or handle a firearm at the Scotty Creek Research Station. At least one of the shot guns must remain at the station at all times. With permission of the CC, the other may be taken on the trail if need be. The shot guns can discharge both paint markers (non-lethal) and lethal shells. The former inflicts a painful shot onto the bear, leaving a paint mark so that the bear can be identified if it returns. Paint shots are intended for the bear’s back-side. Avoid striking the bear with a non-lethal round in then face or other parts that could cause injury. Use of lethal force is a last resort. Although wildlife awareness manuals often state that it is the responsibility of the shooter to kill the bear wounded by their gunshot, the station members are instructed not to pursue a wounded bear (*i.e.* a bear that was shot but not killed). If a bear is shot with a lethal round but not killed, a **Red Message** must immediately be sent to all four recipients listed under the heading *“Sending Daily Safety Messages”*, even if the daily safety message has already been sent for that day. The CC must then contact Doug Villeneuve, the Wildlife Duty Officer in Fort Simpson office of the NWT Department of Environment and

Climate Change: 867-695-7433 (doug_villeneuve@gov.nt.ca). Doug Villeneuve will advise on next steps. If the Duty Officer cannot be reached, and a decision has been made to evacuate, the CC should contact the Base Manager at Great Slave Helicopters (867-695-2326) if a helicopter preferred. Alternatively, evacuation via floatplane can be arranged with Garry Murtsell of Simpson Air (867-695-2505 / 867-447-1809) or Sergei Mjatelski of Goose Flying Service (867-695-1644). If needed, an alternate emergency contact is Angela Duncan (Safety Advisor/Nogha Enterprises): 780-933-5513 (safety@nogha.com). If none of the above can be reached, contact the Fort Simpson detachment of the RCMP: **867-695-1111**.

Maintenance of a clean camp with a minimum of bear attractors is critical to preventing bear encounters at the SCRS. Grey water is disposed of through the kitchen sink that drains through a buried drainage pipe and empties into a pit dug into the sandy substrate outside the perimeter of the electrified fence. After the grey water has infiltrated the ground, any solids must be removed from the pit and disposed of into one of the two secure garbage containers outside the station perimeter, so as not to attract wildlife to the pit. Kitchen garbage is stored temporarily within the electric fence compound in contractor garbage bags. The garbage bags are then removed from the station at every opportunity using each out-going vehicle (helicopter, fixed-wing aircraft, snow-mobile). Non-kitchen garbage is temporarily stored outside of the compound by the dock and is removed from the camp intermittently as described above. Garbage is removed and transported to the Fort Simpson garbage dump approximately every 2 to 3 weeks.

Appendix C5: Disoriented or Lost

All station users must use the established (Georunner) trails and never work alone. A colour coded trail map is available on the SCRS webpage. A copy of the map can be downloaded from the SCRS website so that guests have the option to print the map so they can take it with them on the trail. A limited number of printed maps are available from the CC. The map is also posted on large signs along the trails including at the trail head near the gate on the west side of the Station. Colour-coded “street signs” are located at all trail intersections guiding people to their intended destinations. Venturing away from the trails is discouraged, but if it is necessary, the CC must be provided with detailed information including the destination and duration of the off-trail excursion. Each pair/group taking part in such an excursion must take with them a GPS, compass, a two-way radio and spare AA batteries for both the GPS and the radio. In the event that the pair/group do not return to the station at the time arranged with the CC, and cannot be reached by radio, the CC (or delegate) and at least one other person will endeavour to locate them. If the search is unsuccessful and there is reason to believe that there is a problem or a danger, the CC will contact the Station Director. If the Station Director cannot be reached, then the CC will attempt contact with others listed in the Chain of Responsible Leadership. In the unlikely event that no members of the Chain of Responsible Leadership can be reached, the CC must contact the Fort Simpson detachment of the RCMP (**867-695-1111**) to advise them of the situation and develop a rescue plan. Such a plan will require deployment of aircraft and direct communication with dispatchers and pilots to establish last known location of lost personnel, their travel plans and other details. The Base Manager at Great Slave Helicopters (867-695-2326) can deploy a helicopter; and Garry Murtsell of Simpson Air (867-695-2505 / 867-447-

1809) and Sergei Mjatelski of Goose Flying Service (867-695-1644) can deploy a float plane on short notice. The cost of an evacuation should **NOT** be a factor when deciding on the rescue of lost personnel.

Appendix C6: Wildfire

At the SCRS, the following steps must be taken to manage the risks of wildfire.

1. Monitoring and Reporting

- Monitor the Daily Fire Danger by checking the daily fire danger rating for the Dehcho region via the NWT Wildfire Update. Remain mindful of the "30/30/30 rule" as a wildfire safety guideline indicating extreme fire behavior when the air temperature exceeds 30°C, wind speed exceeds 30 km/h, and the relative humidity drops below 30%.
- Report smoke plumes to the Duty Officer (867-695-1588) immediately and request advise on response. If unable to reach the Duty Officer, report the sighting immediately to the NWT Wildfire Hotline: 1-877-NWT-FIRE (1-877-698-3473).
- See other wildfire emergency contacts highlighted in yellow in Appendix D. The cells in Appendix D pertaining to fire are given a yellow background for ease of locating. Monitor key public websites pertaining to wildfires in the Dehcho region, including:

Wildfire Preparedness and Monitoring:

<https://www.gov.nt.ca/en/public-safety/wildfire-preparedness-and-monitoring>

NWT Live Wildfire Map:

<https://www.gov.nt.ca/ecc/services/wildfire-update/en/firedata>

NWT Alert Page:

<https://nwtalert.ca/#/>

2. Prevention and Maintenance

- Fuel Management (FireSmart): Maintain a 15-metre perimeter around the camp clear of all combustible materials (dry brush, woodpiles, tall grass). Ensure a 1.5-metre non-combustible zone (dirt, rock, or gravel) immediately surrounding all structures.
- No open fires are permitted at the SCRS unless it is part of an ceremony or activity led by Indigenous community members in which case the established fire pit (at the Scotty Creek Arbour) may be used. The fire must never be left unattended, and after it has been used it must be extinguished completely using the "Soak, Stir, Soak Again" method until it is cool to the touch.
- Do not perform "Hot Work" (e.g. chipping, chain saw work) without a designated Fire Watcher present during and for 30 minutes after the task.

3. Emergency Response and Evacuation

- Maintain “Grab-and-Go” kits. Every camp user must remain prepared to evacuate on short notice by maintaining a Grab-and-Go kit. This is a day pack sized supply of essentials that can be taken in the event of an evacuation.
- The 12-foot aluminium boat and two canoes are kept at the station’s Goose Lake dock so that station users can egress to the lake if no overland egress routes are safe to use.
- Remain in communication with emergency services and the satellite phones and hand-held radios are fully always charged and functional. Always carry spare batteries for these devices.

4. Assembly Point:

- The Goose Lake dock will be the safe assembly point if the camp must be abandoned. All camp users must closely follow the instructions of the CC.

5. Smoke and Health:

- Smoke inhalation can be harmful. The station maintains an emergency supply of N95 masks for use when sheltering in place. Monitor air quality using the Government of NWT Air Quality service: <https://www.gov.nt.ca/ecc/en/services/air-quality>.
- Most weather apps on your cell phone provide air quality data

Appendix C7: Extreme Heat

The Government of the Northwest Territories defines “extreme heat” as two or more consecutive days with daytime highs of 29° C or warmer and nighttime lows of 14 degrees or warmer:

<https://www.hss.gov.nt.ca/sites/hss/files/resources/heat-warning-aug2018.pdf>

At the SCRS, the following steps must be taken to manage the risks of extreme heat.

1. Prevention and Preparation

- Acclimatise to extreme heat by gradually increasing outdoor exposure over several days to allow the body to adapt.
- Drink at least 250 ml of water every 20 minutes (up to 1.5L per hour), even if not thirsty. Use electrolyte solutions for heavy exertion.
- Wear loose-fitting, light-coloured, breathable clothing (e.g., cotton). Use a wide-brimmed hat; if hard hats are required, attach a neck shade.
- Perform the most strenuous physical tasks during cooler parts of the day, typically before 11:00 AM or after 4:00 PM.
- The CC will identify a "cool room" or shaded area for mandatory rest breaks.
- Close tent flaps or curtains during the day to block direct sun.

2. Monitoring & Buddy System

- Use the “Buddy System” to monitor peers for early signs of heat stress, as alertness often decreases with heat: <https://nrbhss.ca/en/nrbhss/public-health/environmental-health/extreme-heat>
- The CC and any on-site supervisors should check in with all personnel at least twice daily during a heat wave.
- Use the WeatherCAN app or Environment Canada to monitor local NWT heat warnings.

3. Emergency Response for Heat Illness

- Use the table below to determine emergency response for heat illness.

| CONDITION | Primary Symptoms | Immediate Action |
|-----------------|--|---|
| Heat Exhaustion | Heavy sweating, headache, nausea, dizziness, dark urine | Move to shade/cool area. Remove excess clothing. Sip cool water/sports drinks. Apply cool, wet cloths. |
| Heat Stroke | Medical Emergency: High body temperature (>40 deg. C), confusion, loss of consciousness, hot/dry skin | Call Emergency Services immediately (See Appendix 10) and prepare for an evacuation. The CC will issue a Red Message immediately (see Appendix B “Sending Daily Safety Messages”). Move to shade. Drench skin/clothing with water. Apply ice to neck, armpits, and groin. |

4. Food and Medications

- Keep temperature-sensitive medications in a cool storage area (typically below 26 deg.).
- Discard food that may have spoiled in high heat.
- prepare high-water-content meals (fruits/vegetables).

5. Use Public Resources

- How to protect yourself from the health effects of extreme heat: <https://www.canada.ca/en/health-canada/services/climate-change-health/extreme-heat/how-protect-yourself.html>
- NWT Alert Page: <https://nwtalert.ca/#/>. It is recommended that station users sign-up to receive alerts on their mobile devices.

Appendix C8: Working with Chemical Reagents

Laboratory work is not a major focus of the SCRS, however, from time to time, field crews have a need for preliminary processing of water samples, which may involve chemical reagents. A comprehensive safety plan for chemical reagents in field camps must prioritize risk assessment, secure storage, proper handling, and stringent waste management to prevent environmental damage and human exposure. Because the SCRS has limited laboratory infrastructure and supplies, planning must emphasise portability, spill containment, and emergency preparedness. At the SCRS, the following steps must be taken to manage the risks of working with chemical reagents. The responsibility for carrying out these steps lies primarily with the individuals who

brought the chemical reagents to the station and those working with them. The CC must remain informed of progress on each step and of any concerns arising.

1. Risk Assessment and Pre-planning

- Inventory Control: Maintain an up-to-date, categorized inventory of all chemicals, including Safety Data Sheets (SDS) in both digital and print formats.
- Reduce Hazards: Purchase only the minimum amount required. Opt for less hazardous alternatives where possible.
- Identify Hazards: Identify the properties of reagents (flammable, corrosive, oxidant, toxicity) before arrival, especially if planning to bring them into remote environments.
- Training: Ensure all personnel have received training on the specific hazards of the chemicals being used and are proficient in emergency response procedures.

2. Transport and Storage in the Field

- Secondary Containment: Transport all liquids in durable, secondary containment vessels (e.g., plastic totes, coolers) to prevent spills during transport and storage.
- Segregation: Store chemicals based on compatibility, not alphabetically. Keep acids away from bases, and oxidizers away from flammables.
- Secure Storage: Store chemicals in a cool, dry area away from direct sunlight and heat sources, ensuring they are protected from environmental elements. Avoid storing chemicals directly on the ground; utilize shelves or crates that are secured.
- Labeling: Ensure all containers, including, secondary containers and working solutions, are clearly labeled with contents and hazard warnings.
- Venting: Do not store hazardous chemicals in food storage areas or under sinks.

3. Handling and Usage

- Personal Protective Equipment (PPE): Use appropriate PPE (safety glasses/goggles, chemical-resistant gloves, lab coats or protective clothing).
- Ventilation: All work with volatile, toxic, or odorous chemicals should be done in open air or well-ventilated areas, not inside tents or unventilated trailers.
- No Working Alone: Never work alone with hazardous chemicals.
- Hygiene: Wash hands frequently and immediately after handling chemicals, particularly before eating or smoking.

4. Spill and Emergency Response

- Spill Kits: Have a stocked spill response kit available near the working area.
- Small Spills: Neutralize acids (e.g., soda ash) or bases (e.g., citric acid) if safe to do so, then use absorbent pads or kitty litter.
- Large Spills: Evacuate the area, secure it with caution tape, and contact supervisors or environmental health authorities.
- Emergency Equipment: Ensure access to a portable eyewash station, fire extinguisher, and fresh water for rinsing in case of skin contact.
- Reporting: All spills and near-misses must be reported to the supervisor(s) of the person(s) involved, and recorded by the CC.

5. Waste Management

- Waste Segregation: Separate hazardous waste from regular trash and keep liquids and solids separate.
- Waste Accumulation: Keep waste containers closed at all times, except when adding waste.
- Disposal: Never dispose of chemicals by pouring them onto the ground, into water sources, or down sinks. Store waste for transport back to a properly managed facility.

6. Site Security

- Secure Location: Lock up hazardous chemicals when not in use to prevent unauthorized access, particularly if the field camp is near public areas.
- Container Integrity: Regularly inspect containers for damage, leaks, or signs of deterioration.

Appendix C9: Spill prevention and emergency spill response plan

The SCRS uses a combination of wood stoves and diesel fuel for heating, propane and solar panels for power generation, gasoline for snowmobiles. All other devices including outboard boat motors, chainsaws, all power tools operate on batteries. The gasoline and diesel fuels are transported to the station by snowmobile in winter in 20 L containers (“jerry cans”). If a resupply is needed later in the field season, the jerry cans are transported by float plane.

The full jerry cans are stored in 250 L leak-proof fuel container. A maximum of 5 jerry cans is stored in each container to ensure the container capacity is not exceeded in the unlikely event that all 5 jerry cans leak their fuel. The containers are stored at a distance of >100 m from water, with gasoline and diesel stored separately. Refuelling snowmobiles is conducted at the gasoline storage site and directly from jerry cans to restrict the location where gasoline is exposed and poured to where it is stored. A funnel is used during the refueling process to minimise the possibility of fuel spillage while refueling. Each skidoo is equipped with an absorbent rag in case of drips or other spills, this is also where the jerry can containing the fuel, or oil container, is placed between refuelling. A document is kept at the station where any spills are to be recorded in detail. Spare gasoline jerry cans are kept in the even of a leak into the storage container so that the leaked fuel can be returned to a jerry can (labelled “old fuel”) and returned to Fort Simpson for disposal. Hydrocarbon rags used to wipe off fuel/oil containers are stored in a marked container where they are then removed from the station and disposed of at an approved location.

Four tents at the station use diesel fuel for heating. On the exterior of each tent is a 170 L (45 gal.) drum resting on a 250 L spill container as shown in Figure 1. The diesel fuel drum is never filled past $\frac{3}{4}$ capacity (~130 L) The jerry cans are used to re-fill the diesel drum. A diesel funnel is used to minimise spillage during the re-fill procedure. A fuel line runs directly from the drum, under the tent wall, to the diesel heater inside of the tent. The heater is situated on a steel spill tray. There is a fuel shut-off at the heater and at the drum. The fuel line is arranged so that it has a low-point in the spill container before exiting the fuel container at a higher position. This way, if there is a leak on the exterior of the fuel line, it will pool in the fuel container rather than

on the ground. Spare diesel jerry cans are kept in the event that fuel spills into the container so that the spilled diesel fuel can be returned to a jerry can and transported back to Fort Simpson for disposal.

The station contains six emergency spill kits, one at each of the diesel-heated tents, and one each at the diesel and gasoline storage containers. Each kit is contained in a separate 170 L drum. Each kit contains spill pads and absorbents, and the spill kit drums themselves provide secondary containment.

The fuel lines of all systems are frequently inspected to ensure safe operating conditions free from leaks. Any deficiencies found during these inspections are documented and addressed immediately. If the leak cannot be repaired, the leaking part will be replaced with spare parts kept at the Station for this purpose.

Appendix C10: Working in or Near Water Bodies

Scotty Creek researchers and students periodically conduct field research in proximity to the nearby community of Samba K'e, NWT. While conducting their research there, they will stay at the lodging provided by the Samba K'e First Nation (SKFN). All aspects of the present safety plan also applies to Scotty Creek researchers and students operating near Samba K'e, with the following exceptions. In addition, researchers and students based in the Samba K'e community while conducting research in the Community Emergency Plan for the Samba K'e First Nation. An electronic copy of the Community Emergency Plan is available upon request to Michael McPhee, Lands Coordinator, Samba K'e First Nation (lands@sambaakefn.com). Printed copies are available at the Samba K'e First Nation Office, Samba K'e Health Centre, Public Works Department, Samba K'e Development Corporation, Charles Tetcho School, and the Samba K'e Airport.

1) Daily Safety Messages: research personnel operating at or near Samba K'e will check-in at the Samba K'e First Nation band office in person prior to going into the field for the day. At the check-in, the research personnel will advise the SKFN Band Manager (Ruby Jumbo) or her designate of their plans for the day including where they are going and when they intend to return. After they have returned from the field at the end of the day, the research personnel will check-in again at the band office to report their return. If they do not return before the Band office closes at 4:30 PM, they will attempt to notify the office of their late return before the office closes. If they are unable to reach the Band Office before it closes, they must contact Ruby Jumbo (867-206-2800) or Michael McPhee (289-981-2656) as soon as they return to the community at the end of the day.

2) Students and researchers must be accompanied by SKFN Land Guardians while conducting their research activities. This applies both to boat travel on the lake and waterways, and to work on the land. The Land Guardians carry with them First Aid supplies, a satellite telephone, and other critical safety gear. The satellite telephone is available to contact the SKFN Band Office if necessary.

3) A life jacket must be worn at all times when 1) travelling by boat, and 2) wading into stream channels to measure stream velocity. During stream wading, the person entering the stream must be tethered to a secure object (e.g. large tree, boulder etc.).

Appendix D: Comprehensive list of Emergency Contacts

| ORGANIZATION | TITLE or Name | CONTACT INFORMATION |
|---|--|--|
| Scotty Creek Emergency Contacts | | |
| Wilfrid Laurier | Bill Quinton, Station Director | wquinton@wlu.ca , 519-635-0210 |
| Liidlii Kue First Nation | Whitney Tsetso, Monitoring Coordinator | monitoring@liidliikue.com , 867-688-0295 |
| Wilfrid Laurier | Mason Dominico, Station Manager | mdominico@wlu.ca , 705-498-7172 |
| Nogha Enterprises | Angela Duncan, Health & Safety | safety@nogha.com , 780-933-5513 |
| Wilfrid Laurier | Branden Walker, GES Technician | Bwalker@wlu.ca , 548-889-4863 |
| Wilfrid Laurier | Maude Auclair, Assistant Station Manager | mauclair@wlu.ca , 905-399-2445 |
| Sambaa K'e First Nation (SKFN) Emergency Contacts | | |
| Sambaa K'e First Nation | Ruby Jumbo – SAO / Executive Director | Work: (867) 206-2800 ext. 1001 Cell: (867) 446-9785 Email: manager@sambaakefn.com |
| Sambaa K'e First Nation | Ruby Jumbo SAO/ Executive Director | Work: (867) 206-2800 EXT 1001 Cell: (867) 446-9785 Email: manger@sambaakefn.com |
| Sambaa K'e First Nation | Michael McPhee Lands Coordinator | Work: (867) 206-2800 Cell: (289) 981-2656 Email: lands@sambaakefn.com |
| Government of the NWT | Tanya Jeanbo Health Centre Community Health representative | Work: (867) 206-2146 Emergency: (867) - 695 - 3232 Cell: (867) 875 - 8637 Email: tanya_jeanbo@gov.nt.ca |
| Liidlii Kue First Nation (LKFN) Emergency Contacts | | |
| Liidlii Kue First Nation | Liza McPherson, Executive Director | 867-695-3131 Ext. 1004 exdir@liidliikue.com |
| Liidlii Kue First Nation | Whitney Tsetso, Monitoring Coordinator | 867-695-3131 Ext. 1002 monitoring@liidliikue.com |
| Liidlii Kue First Nation | Dieter Cazon, Lands Coordinator | 867-695-3131 Ext. 1007 resources@liidliikue.com |
| Nogha Enterprises | Angela Duncan, Safety & Health | 780-933-5513, safety@nogha.com |
| Liidlii Kue First Nation | Amy Fraser, Regional Victim Services Coordinator | 867-695-3136 vicservices@liidliikue.com |
| Municipal And Community Affairs (MACA) | | |
| Municipal and Community Affairs | Regional Emergency Management Coordinator Marti Lys | (867) 695-7725 Cell Phone: 867-695-6767 |

| | | |
|---|---|---|
| Municipal and Community Affairs | Regional Superintendent Melinda Lenior | (867) 695-7220 Cell Phone: (867) 695-1528 |
| Municipal and Community Affairs | Regional Assistant Fire Marshal Shane Seaman | (867) (695)-7230 Cell Phone: (867) - 695 -1826 Email: Shane.Seaman@gov.nt.ca |
| Municipal and Community Affairs | 24/7 Emergency Management Organization and Office of the Fire Marshall Emergency Line | (867) 920-2303 Fire Marshal (867)767-9161 ext. 21030 |
| Environment and Climate Change (ECC) | | |
| Environment and Climate Change | Regional Superintendent Dehcho Region Laurie Nadia | (867) 695-1500 |
| Environment and Climate Change (Formerly ENR) | Regional Office Manager of Forestry Operations: Kole Comin | Land and Water: 867-695-2626 Wildlife and Forestry: 867-695-7450 Manager of Forestry Operations: 867-695-6587 Duty Officer: 867-695-1588 |
| Environment and Climate Change | Dehcho Wildlife Emergencies | 1-867-695-7433 |
| Environment and Climate Change | Wildfire Public Information | Call: 1-867-445-5484 nwtfire_info@gov.nt.ca |
| Environment and Climate Change | Forest Fire Emergency Line Forest Fire reporting line | 877-698-3473 877-NWT-FIRE |
| Emergency Services | | |
| RCMP | Fort Simpson Detachment Sgt. Adam Robar Department Commander | (867) 695-1111 Email: janathan.cormier@rcmp-grc.ca.ca 9-1-1 Cell: 902-439-6583 |
| Dehcho Health and Social Services Authorities | Main Switchboard Dehcho Region | Fort Simpson Phone: 867-695-3815 Fax: 867-695-2920 |
| Fort Simpson Nurse on Call | 24/7 line | 867-695-3232 |