

Standard Operating Procedure #3:

Safety

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Revision History Log

Date	Previous version	New version	Authors
2014	1.0	2.0	Suzanne Sanders and Jessica Grochowski
Mandatory requirement of first aid training was added, as was a job hazard analysis, and detail on working in various conditions.			
2024	2.0	2.1	Suzanne Sanders and Jessica Kirschbaum
Revised to: • reflect the fact that we will be providing first aid training, in house; • state mandatory standards for motorboat operation; • emphasize the importance of communication during bushwhacking; • acknowledge the limitation of the heat-index chart and note that we will not be following it; • clarify that injury reporting for seasonals will be handled through the university where they work; • remove hypothetical dialogs in the section on radio use; • discuss updates on how we file our trip plans and how we check-in at the end of the day; • discuss procedures for when check-ins fail to arrive; • improve wording and flow of text.			

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3.0 Introduction

Safety of the field crew is the foremost concern during monitoring and travel to and from monitoring sites. The purpose of this SOP is to state the safety policies of the Great Lakes Network as they relate to the forest monitoring protocol.

3.1 First Aid

All members of the field crew must have basic first aid and CPR certification. This will be provided by a GLKN staff member during the initial three-week training period.

3.2 Vehicle Use (Cars/Vans, Motorboats, Canoes)

Operation of National Park Service cars, vans, and trucks is limited to National Park Service employees, partners, and official volunteers only. Further, all members of the field crew must possess a valid driver's license and sign the NPS motor vehicle operation waiver stating that they understand the rules of motor vehicle operation and alcoholic consumption. Vehicle operators are expected to abide by state and local laws; this includes all regulations within the park units. Specifically, seat belts must be worn at all times when the vehicle is being operated. In addition, cell phone operation (calling, talking, texting, or any other use) while driving a government vehicle is strictly prohibited. Finally, employees should inform their supervisor if, at any point, they do not feel safe in the vehicle, either as a passenger or driver.

Motorboat operation will be limited to those employees who have passed the Department of Interior Motorboat Operator Certification Course (MOCC). Depending on needs and opportunity, crew members may be asked to participate in this training. Employees must then also demonstrate familiarity with the park boating procedures and with the area within the park where they will be boating. This is typically accomplished via conversations with GLKN or park staff, both on the water and off. All boat operators and passengers are required to wear a properly-fitting PFD while in a boat, and operators must attach the tether of the kill switch to their PFD. Earmuffs or other ear protection must be made available to everyone in the boat and their use strongly encouraged.

In years when canoeing is part of field sampling, either the Botanist or Ecologist provide an orientation. This is a one-day course where crew members are taught strokes, and practice these both in the front and back positions of the canoe. They also spend time paddling with all other crew members. Communication between individuals is stressed during this training. All employees are required to wear a PFD when in a canoe. A job hazard analysis for canoe use is presented in Appendix A of this SOP.

3.3 Daily Work

Long hours are a fact of field work, and field crew members should be prepared for 10-hour days. It is the responsibility of each crew member to be ready for work each day with his or her own adequate supply of food and water and wearing appropriate footwear, clothing, and raingear for the

terrain and weather. In the event of extreme temperature, dangerous wind, or other hazardous storms, sampling for the day will not be initiated or will be terminated if it has already begun.

The minimum crew size allowed is two people. No individual is allowed to navigate alone, even when on a trail. For travel on a trail, all crew members must be within yelling distance of one another. For travel off trail (e.g., bushwhacking), all crew members must maintain visual contact with one another. It is the responsibility of the person in front to check in with others behind him/her to ensure the pace is acceptable to all; it is the responsibility of those in back to speak up if the pace is too fast. This will limit crew travel time to a speed that is comfortable for everyone. When sampling at the plot, we will be outside a range of visual contact with one another.

All crew members will be equipped with an emergency whistle in case they become separated from other crew members or get lost while at the plot. We will use specific whistle signals to communicate while working. One long whistle blast means you are lost. If you hear one long whistle blast while you are at the plot, respond with one long blast to help the person figure out where to walk. When they give another long blast, respond with a long blast, etc., until they are back in the plot and you can see them. Two short whistle blasts mean you are hurt or there is a problem (e.g., please come towards my whistle). If you are the injured person, keep repeating the two short whistle blasts until a co-worker gets to you to provide assistance. If you are responding to two short whistle blasts, repeat two short whistle blasts as you make your way towards the person who needs help, so they know their call for help was acknowledged.

Crew members should be particularly mindful of high temperatures, particularly when coupled with high humidity. We will refrain from using heat index charts as a measure of apparent heat because we generally lack accurate, real-time, locality-specific temperature and humidity data. Instead, GLKN supervisors will remain cognizant of current on-site conditions and closely monitor both their own physiological state, as well as those of the crew members. Supervisors should be especially cognizant of water consumption by crew members, signs of problems with coordination, any confusion or any other indication of heat exhaustion or heat stroke among the seasonal staff. At the supervisor's discretion, field work may be suspended under hot conditions.

A first aid kit will be supplied to each two-person crew. Permanent staff will go through these with the seasonal staff during the initial three-week training period, to ensure they are familiar with the items available.

In general, follow these guidelines for preventing injury:

- Use sunscreen, hat, and lip balm to prevent sunburn and reduce the potential for skin cancer.
- Wear insect repellent or long sleeves, gloves, gaiters, and a headnet to reduce exposure to mosquitoes (which carry West Nile virus and eastern equine encephalitis) and ticks (which carry Lyme disease and numerous other infectious agents).

- Although they may be small, take care of cuts and scrapes, as they are invitations for infection in an outdoor environment. This is particularly true during multi-day backcountry trips.
- To the extent possible, avoid bee stings, fly bites, and contact with poison ivy.
- Drink plenty of fluids to stay hydrated and prevent heat exhaustion.
- Maintain your energy level and prevent fatigue by bringing enough food to the field site.

A job hazard analysis for working in forested environments is included as Appendix A of this SOP.

3.4 Alcoholic Consumption, Smoking, and Drug Use

Consumption of alcoholic beverages during the workday is strictly forbidden. Use of alcoholic beverages during off time by those 21 years of age or older is permitted. However, consumption occurring on National Park Service property (e.g., park housing, backcountry campsites) must be within compliance of park rules (e.g., no glass containers).

If a field crew member is deemed unfit for work due to excessive alcoholic consumption, he/she may, at the discretion of the Ecologist or Botanist, be given the day off without pay. Further disciplinary action may also be taken.

Smoking is not allowed in or near vehicles, boats, or docks. Smoking is not allowed while sampling in the plot, and if an employee chooses to smoke during a lunch or other break, they must go 100 meters outside the perimeter of the sampling plot, and all cigarette butts must be packed out.

Smoking occurring on National Park Service property (e.g., park housing, backcountry campsites) must be within compliance of park rules. Generally, this means 25–100 feet away.

Use of illegal drugs on National Park Service property at any time, whether work time or off hours, will not be permitted. Violation of this rule will result in disciplinary action and, potentially, loss of employment.

3.5 Pre-Existing Medical Conditions

Crew members with pre-existing medical conditions are encouraged, with discretion, to discuss these with their supervisor or other crew members. Knowing about conditions such as diabetes, allergies, and seizures can affect the actions taken by the crew leaders or crew members in the event of an emergency. For minor medical conditions, crew members should use the medical information form, presented in Appendix B of this SOP. This form should be filled out in private by seasonals during the first week of work and kept in a sealed blue envelope within their clipboards. In the event of a serious emergency, the sealed envelope will be presented to medical providers.

3.6 Injury Reporting

All injuries and illnesses for federal employees must be reported using the national online Safety Management Information System (<https://smis.doi.new>). Once at this site, click on the “Accident Reporting” button. The type of claim filed will depend on the nature of the accident or injury. All crew members will be briefed on the use of this system within the first two days of employment.

For employees working through a Cooperative Agreement, injury reporting will follow the guidelines of the institution where they are employed.

3.7 Radio Use

When working in parks where communication is primarily via radio, seasonal employees will be trained in their use prior to the initiation of sampling. This training will ensure that the employees can navigate between channels (i.e., repeaters) within a park, and between the park frequencies and the weather stations. It will also ensure that seasonals know how to check that they are “hitting” the repeater. Seasonal employees will also be taught proper radio communication etiquette, including how to call another person, how to communicate with dispatch, and what to do when there is no contact. Each seasonal employee will be tested on their ability to use the radios prior to the initiation of plot sampling.

Crew members will be taught to be specific and concise in all radio communications.

3.8 Communications

Park staff must be made aware of fieldwork both planned and conducted in their park. For front-country fieldwork this can be an email to the host park’s primary contact at the beginning of the field season. If they are sent by the Ecologist, the Botanist should be copied on the email, and vice versa. The vegetation crew has a dry erase board that will be visible in their workstation at the park. The board will have fields for date, crew 1, and crew 2. Each morning, the crew will update the date, and the plot number for crew 1 and crew 2. The two crews will also text the plot number to the Ecologist or Botanist in the morning. Prior to the start of sampling, park contacts will be given the UTM coordinates for all the vegetation monitoring sites, and a spreadsheet with the coordinates will be posted near the dry erase board. If any problem arises, or if a crew does not return from field work, the known sampling location and coordinates for the day will be used as a starting point when trying to locate them.

When working in the front country, crews should communicate with either the Botanist or Ecologist (whoever is not in the field for that hitch) to make them aware that they (the seasonal crew) have returned from the field. This will typically be done via text message. Crew members must make sure they receive an acknowledgement back from either the Botanist or Ecologist. If they do not receive this acknowledgement by 7:00 pm, a follow-up text message should be sent and they should monitor for an acknowledgement.

For all backcountry trips, or for fieldwork spread over several days, a more formal trip plan is filed with the park and with the Network office. The Botanist and Ecologist are responsible for ensuring the trip plan meets the host park's need for detail and flow of communication.

All trip plans should consider the following guidelines and standards:

- The Botanist or Ecologist must file a trip plan for each hitch with the host park contact, the GLKN Program Manager, and any other designated individual, such as a law enforcement ranger. These designated individuals will be identified prior to the sampling season.
- A trip leader must be identified when more than one person is involved.
- The park's primary contact will typically be responsible for establishing the park's internal communications, ensuring GLKN trip plans are available to park staff, and if necessary, initiating an emergency response according to park policy. At some parks (e.g., SLBE), it may be more desirable to have the dispatcher or other individual be the day-to-day primary point of contact.
- For backcountry trips, the trip leader will post the trip plan on the Microsoft Teams channel named GLKN Veg Crew Trip Plans. Relevant staff at the park, as well as the 24-hour dispatch service (if applicable), will be added as members of this team prior to the vegetation crew's sampling. An overview map of the park with labeled plots, and a spreadsheet of plot numbers with their UTM coordinates, will also be posted to the Microsoft Teams channel.
- If plans change to such a degree that someone would be unable to easily locate the crew, the trip leader should inform the park as soon as practical.

Every evening while in the backcountry, each crew will turn the Spot X two-way messenger on and send the check-in message. A text message will be sent to the GLKN contact (the Ecologist or the Botanist) that the crew is safe. The GLKN contact person is required to respond to the text message by 9:00 pm, so the crew in the backcountry knows their check-in was successful. Each crew is required to check in via the Spot X two-way messenger every evening while camping in the backcountry, even if two crews are camping together at one campsite.

Every morning while in the backcountry, each crew will turn on the Spot X two-way messenger and send a message with the plot that will be sampled that day. This message will go to the GLKN contact (the Ecologist or the Botanist). The GLKN contact is not expected to respond to the plot plan sent in the morning.

If the crew is in danger or a crew member has been injured, crews will use the Spot X two-way messenger to create a message detailing the issue at hand. These messages will be sent to the Ecologist or Botanist (whoever is not out with the crews), the park law enforcement ranger contact, and/or 24-hour dispatch. If the crew are in circumstances dire enough to send out a help request, they should also be on the park radio requesting help from a ranger or other park staff.

If you have a life-threatening emergency, turn the Spot X two-way messenger on and press the S.O.S. button. This sends out an urgent message to the pre-programmed cell phone number, as well as to emergency responders in the vicinity of your location. Only use this feature in extreme emergencies, as a search and rescue team will be sent out to find you. For backcountry work in areas with poor radio contact (e.g., APIS, ISRO, PIRO, VOYA), it is recommended that the crew carry the Spot Locator during the day in case of emergencies or debilitating injuries.

If the GLKN contact person does not receive a message from the crew on a given evening, they will contact park headquarters first thing in the morning (Table 1). Headquarters may have to transfer them to dispatch or the appropriate person to talk to. Park headquarters will then radio the crew to make sure they are OK. If park headquarters cannot get through to the crew by radio by mid-day, they will initiate a search and rescue. To avoid this, it is very important to use the Spot Locators according to protocol and keep your park radio turned on and with you at all times, or during GLKN vegetation monitoring crew designated radio hours. If park headquarters does successfully reach you, they will inform the GLKN contact person by phone. If you are pulled from the backcountry early, for example, bad weather is coming so the boat operator picks you up a day before the scheduled pick-up in the trip plan, it is imperative that you still check in via the Spot X two-way messenger. Your supervisor in Ashland will not necessarily be informed of the change in the trip plan and will initiate the search and rescue if your check-in message is not received.

Table 1. Contact phone numbers for the network parks.

Park	Headquarters	Emergency numbers
APIS	715-779-3397 x122 (dispatch)	Bayfield Co. Dispatch 715-373-6120
GRPO	218-475-0123	Chief Ranger 218-475-0123
INDU	219-395-1008 (dispatch)	Chief Ranger 219-395-1653
ISRO	906-482-0984	Mott HQ 906-337-4986, Chief Ranger 906-483-7148
MISS	651-290-4160	Dispatch 651-290-3030 x0
PIRO	906-387-2607	Alger Co. Dispatch 906-387-2607, Emergencies 906-387-4444
SACN	715-483-3284	
SLBE	231-326-5134 x700	
VOYA	218-283-6652 (dispatch)	Koochiching Co. Dispatch 218-283-4416

The NPS Ranger Emergency Service number through INDU is 800-727-5847. This is a 24-hour dispatch that serves INDU, as well as APIS during non-business hours. The 24-hour dispatch at Cuyahoga Valley National Park (CUVA), which is used by ISRO and VOYA, can be reached at 440-546-5945.

Appendix 3A. Job Hazard Analysis Forms

Here, we present the job hazard analyses for canoe use and for plot sampling. The job hazard analyses for plot sampling vary by park. As a result, there are six versions used by the vegetation monitoring program. Here we present the most inclusive version. During training, the seasonal employees will be presented with the correct version for the park where they will be working.

JOB HAZARD ANALYSIS (JHA)		Date: July 23, 2012	☐ New JHA ☒ Revised JHA
Park Unit: GRPO, MISS, PIRO, SACN, VOYA	Division: Inventory and Monitoring	Branch: Great Lakes Network	Location:
TASK TITLE: Canoe Transport and Operation		JHA Number: Veg 7	Page <u> 1 </u> of <u> 4 </u>
Job Performed By: GLKN field crew, Botanist, Terrestrial Ecologist	Analysis By: Suzanne Sanders and Ted Gostomski	Supervisor: Bill Route	Approved By: Bill Route
Required Standards and General Notes:			
Required Training:	Canoe transportation training provided by the Botanist and Terrestrial Ecologist or outside contractor		
Required Personal Protective Equipment:	Hiking boots, long pants		
Tools and Equipment:	Cam-lock straps, canoe trailer		
Sequence of Job Steps	Potential Hazards	Safe Action or Procedure	
Canoe transport.	Attaching canoe trailer to vehicle	Attach the trailer to the vehicle using the following steps: 1) Back up the vehicle so that the ball of the trailer hitch is approximately 30 cm from the hitch attachment point of the trailer. 2) Pull the trailer to the hitch and lower it firmly down over top of the ball of the hitch. 3) Fully retract the jack and rotate it 90°, securing it in its trailering (rather than unattached, storage) position. 4) Plug the electrical connection cord into the outlet on the vehicle. 5) Secure the safety chains to the vehicle by running each of them below the hitch and attaching them to the vehicle on the opposite side of their attachment point on the trailer. 6) With one person in the vehicle driver's seat and one behind the trailer, check the brake lights and both turn signals of the trailer to ensure they are in working order.	

JHA - CONTINUATION SHEET		JHA Number: Veg 7	Page <u>2</u> of <u>4</u>
Sequence of Job Steps	Potential Hazards	Safe Action or Procedure	
See page 1.	Attaching canoe to trailer	Attach the canoe to the trailer using cam-lock straps via the following steps: 1) While the canoe rests on a pair of horizontal supports of the canoe rack, lay the first strap over the canoe so that the free (non-buckle) end extends over the top of the canoe and hangs freely over the far side, while the buckle end hangs freely over the near side. The buckle should be approximately six centimeters above the gunwale of the canoe. 2) Feed the free end of the strap underneath the horizontal support of the rack on the far side of the canoe, then back up and over the top, allowing the free end to now hang loose on the near side of the canoe. 3) Feed the free end of the strap underneath the horizontal support on the near side of the canoe, and through the buckle. 4) Tighten the buckle by pulling down on the strap. 5) Repeat this procedure on the second horizontal support. 6) Wrap extra strap around horizontal support bar securely so it will not come loose while the vehicle is underway. NEVER ATTACH A CANOE THAT REQUIRES PULLING UP ON A STRAP. If this occurs, remove the strap and re-secure the canoe correctly.	
	Loading and attaching canoe into and on motorboat	This will vary depending on the motorboat used, whether a canoe rack is present, and on water conditions. If a rack is present, the canoe should be attached in the same manner as it is attached to the trailer. If not, defer to the discretion of the motorboat operator for direction.	
	Logistical challenges of vehicle shuttle	Canoe shuttles should all start and end at official water access areas (put-ins). Secure the motor vehicle by making sure all doors are locked. Prior to beginning canoe trips, ensure that all appropriate parties have all needed keys for the vehicle they will be accessing at their designated takeout.	

JHA - CONTINUATION SHEET		JHA Number: Veg 7	Page <u>3</u> of <u>4</u>
Sequence of Job Steps	Potential Hazards	Safe Action or Procedure	
Canoe operation	Swift current	Crew members should strive to keep the canoe pointed downriver. Recognize the fact that the distance to get from the center of the river to the edge will be greater when the river is faster. Crew members should account for this and allow plenty of time to exit. No crew members should operate a canoe when the park is under a high-water caution advisory.	
	Rapids	Canoeists should scout any major rapids that they hear, and portage around any rapids they are not comfortable paddling.	
	Obstacles in the river	The canoeist in front must alert the person in the rear (who is steering) of any obstacles to be avoided.	
	Fog, lightning, and extreme weather.	Do not canoe during an electrical storm. If a storm begins during the course of canoe use, exit the river immediately and seek the best shelter available in the area. This may include assuming the lightning position within a wooded area. Canoe operation during high winds, fog, and other extreme weather will be left to the discretion of the canoe operators, as the severity of these events vary tremendously, as do the river conditions, and paddler's ability. If both (or all three) canoeists do not agree on a course of action, crew members will make the most cautious choice for the situation (i.e., not getting on the water, or immediately exiting the river).	
	Flipping a canoe	The conditions under which a canoe may flip are highly variable; as such, it is not possible to describe every ideal course of action under every possible scenario. In general, canoeists should undertake the following steps: 1) Ensure that you, personally, are all right, and ascertain the condition of the other canoeist(s). 2) Grab onto the canoe and paddles, so that they are not lost downriver; this will also lessen the likelihood of the canoe slamming into you uncontrollably. 3) Once the first two steps are accomplished, secure the cargo, right the canoe, and pull it to the shore. The order of these last three steps will vary depending on the river conditions, the nature of the flip, and the abilities and conditions of the canoeists.	

JHA - CONTINUATION SHEET	JHA Number: Veg 7	Page <u> 4 </u> of <u> 4 </u>
Text Description of Task When it is Done Safely		
The field crews will canoe to the most practical access point, bushwhack to the plot, sample the plot, return to the canoe, and either to the take-out or the campsite for the evening. The canoe distances may be anywhere from <1 km to over 10 km. All canoe operators will wear appropriately fitting Type III personal flotation devices (PFDs) <u>at all times</u> when the canoe is on the water. PFDs will be provided by the Network.		

Authorized Employee Information			
Employee ID	Last Name	First Name	Qualifications/Remarks

JOB HAZARD ANALYSIS (JHA)		Date: July 23, 2012	☐ New JHA ☒ Revised JHA
Park Unit: APIS, ISRO, VOYA	Division: Inventory and Monitoring	Branch: Great Lakes Network	Location:
TASK TITLE: Plot sampling		JHA Number: Veg 1	Page <u> 1 </u> of <u> 4 </u>
Job Performed By: GLKN field crew, Botanist, Terrestrial Ecologist	Analysis By: Suzanne Sanders, Jessica Kirschbaum, and Ted Gostomski	Supervisor: Bill Route	Approved By: Bill Route
Required Standards and General Notes:			
Required Training:	Standard early season plot sampling training		
Required Personal Protective Equipment:	Hiking boots, long pants		
Tools and Equipment:	Maps, compass, Garmin GPS, Trimble GPS, sonar distance measurers, diameter tapes, meter tapes, quadrat, ruler, calipers.		
Sequence of Job Steps	Potential Hazards	Safe Action or Procedure	
This job involves three tasks: 1) hiking to the plot, 2) establishing the plot, and 3) sampling the plot. Because the potential hazards for all three tasks are the same, we are only listing them once, here.	Deer ticks and wood ticks	Wear long pants and hiking boots at all times. Consider wearing a long-sleeved shirt, gloves, and gaiters. Perform tick checks nightly, being especially diligent about looking for deer ticks. Consider using a repellant containing permethrin.	
	Stinging insects	Be conscientious about bee and wasp hives, especially on the ground. Be aware of your reaction to stings and, if needed carry an EpiPen®. If allergic, make your coworkers aware of your allergies and where you keep your EpiPen®. Benadryl® is available from the first aid kits and can be taken if there is a mild reaction.	
	Poisonous plants	Know the appearance of all poisonous plants including both species of poison ivy, woodland nettle, stinging nettle, and wild parsnip. Be mindful of your personal reaction to these species and the level of contact you may tolerate. Wash with a mild soap and water as soon as possible following exposure. Tecnu® wash is provided and can be used as well.	

JHA - CONTINUATION SHEET		JHA Number: Veg 1	Page <u>2</u> of <u>4</u>
Sequence of Job Steps	Potential Hazards	Safe Action or Procedure	
See page 1.	Uneven ground (often hidden by leaves and twigs)	Be aware of the microtopography beneath the litter layer. If you are prone to ankle sprains, consider moving more slowly through the woods, and maintain awareness about foot placement and weight bearing as you walk.	
	Snags	Be aware that many standing trees are dead and, as such, are not stable. When climbing uphill, check to make sure a tree has leaves before grabbing onto it for support. Similarly, check for leaves before leaning onto any tree at any time. If you lean on a tree and it starts to fall, yell out loudly and immediately to the crew that a tree is falling.	
	Twigs and branches at eye level	Crew members and permanent staff should consider wearing eyewear, either in the form of standard prescription eyeglasses, sunglasses, disposable protective glasses, or customized safety eyeglasses. When bushwhacking, maintain enough distance from the person ahead of you so that the branches pushed aside from their movement will not strike you.	
	Working a great distance from a water source	Crew members should be aware of the distance needed to travel by foot to plots, as well as the weather for the day. Typically, crew members should carry at least three liters of water on days when both the temperature and distance will be great. Crew members should also note the presence/location of natural water bodies in relation to the plot and carry a filter as a precaution against running out of water on especially challenging days.	
	Working in extreme heat (while wearing multiple layers of clothing to protect from the elements)	Supervisors and crew members need to be aware of the absolute and apparent temperature and be cognizant that physical work is being conducted wearing a large amount of clothing. The crew will take regular breaks to rest and re-hydrate. All field workers should monitor one another for early signs of heat exhaustion. These include failure to carry out or comprehend basic tasks as well as speaking in sentences which do not fully make sense. When especially high temperatures and/or humidity create dangerous working conditions, supervisors have the discretion to cancel field work and perform office work inside.	

JHA - CONTINUATION SHEET		JHA Number: Veg 1	Page <u>3</u> of <u>4</u>
Sequence of Job Steps	Potential Hazards	Safe Action or Procedure	
See page 1.	Accessing the shore when the motorboat cannot	Wear water-ready shoes (e.g. Tevas) and roll pants up when accessing shore. Slowly sink into the water from the boat, without the backpack. Have someone on the boat hand your pack to you. Be cognizant of a slick subsurface and the potential for submerged logs and other debris. Make sure feet and ankles are fully dried before putting socks and hiking boots back on to reduce the likelihood of blister formation.	
	Cold weather	All crew members should be aware of the forecasted low temperatures. Hats, gloves/mittens, long underwear, and a coat or heavier-weight jacket are strongly recommended, especially when camping in the backcountry. Wearing multiple layers of clothing is also beneficial as layers can be removed when temperatures rise.	
	Hiking for long periods and/or with heavy backpacks	Crew members should be aware of how to properly load and adjust backpacks. They should also be cognizant of what food and containers they choose to carry when in the backcountry. This is especially true when gear is carried to the campsite via a backpack. Cans and jars should be avoided, while dehydrated food is preferred.	
	Lightning and extreme weather	Where there is cell phone service, all crews should carry cell phones, programmed to receive National Weather Service severe weather alerts. Where there is no cell service, crews should listen to the weather on the hand-held radios. If the situation and time permit, crews should return to vehicles and other shelter in the event of a tornado or severe thunderstorm warning. Otherwise, crews should seek the best shelter possible at the field site. This includes assuming the lightning position, in the event of an electrical storm. All crew members should carry full body raingear with them at all times. This raingear should be waterproof, yet breathable.	

JHA - CONTINUATION SHEET	JHA Number: Veg 1	Page <u> 4 </u> of <u> 4 </u>
Text Description of Task When it is Done Safely		
The field crews will hike to the plot. This will require the use of maps, a compass, and both the Garmin recreational grade GPS and a Trimble mapping grade GPS. Hiking to the plot will likely involve a combination of trail hiking and bushwhacking and may be anywhere between <100 meters to over five miles. Crew members will then establish the plot. This will require the use of meter tapes, diameter tapes, sonar distance measurers, compasses, and GPSs. Once the plot is established, it may be sampled. This requires diameter tapes, 1 m quadrats, rulers, and calipers. Once sampled, the field equipment is collected and put away, and crews will hike back from the plot.		

Authorized Employee Information			
Employee ID	Last Name	First Name	Qualifications/Remarks

Appendix 3B. Medical Information Form

Name

Date of birth

Local mailing address

Local phone number

Cell phone number

Emergency contact
information #1

Relationship:

Emergency contact
information #2

Relationship:

Allergies and medical
issues of concern

Medications currently
being taken

☐ Check here and provide additional information on the back or on attached sheets if there are other issues you feel emergency personnel need to know to properly care for you in an emergency.

☐ By checking this box and signing below, the employee indicates their preference to **not share** personal medical information with the National Park Service, Great Lakes Network Office. The employee understands that his/her refusal may delay or hinder necessary care if he/she has an undisclosed underlying medical condition or drug allergy. The employee is free to change their mind at any time and submit a completed form.

Employee

Completion of this form is voluntary and does not influence any hiring decision or performance evaluation. It is strictly to be used in case of an emergency when the person named above is unable to provide such information to emergency personnel. This form will be kept in a locked file at the Network office and will be destroyed by the employee at the end of their term of employment.