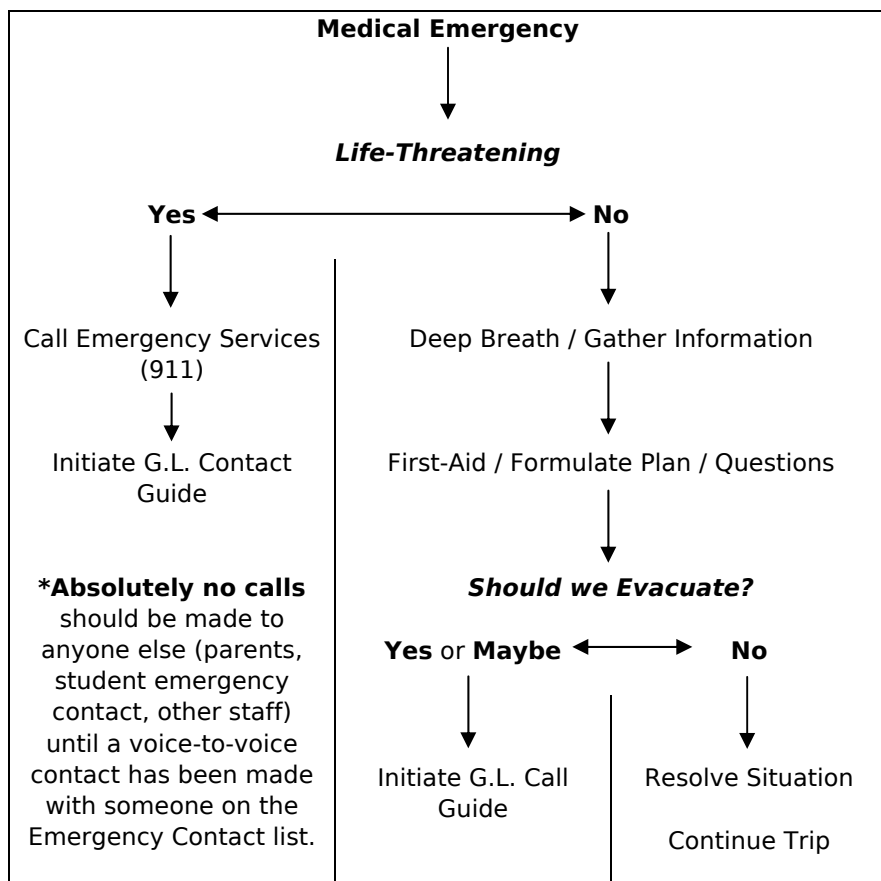


# **EMERGENCY PROTOCOLS**

The primary aim of this information is to reduce the complexity of a critical incident. The goal is not to reduce decision making ability, but rather to increase the capacity to make decisions, while at the same time collecting critical information.



## **Emergency Services**

<b>Ontario</b> General Emergencies 911 OPP 888 310 1122	<b>New York State</b> General Emergencies 518 891 0235 State Police 518 897 2000	<b>Quebec / Anticosti</b> General Emergencies 911
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## **Important Reminders**

- ♦ **\*Absolutely no calls** should be made to anyone else (parents, student emergency contact, other staff) until a voice-to-voice contact has been made with someone from the Emergency Contact list.
- ♦ Ensure you are familiar with the operation of the satellite phone before leaving on trip.
- ♦ **When in doubt, call. At the very least, you'll be contacting someone who can provide additional support in terms on knowledge, judgment and decision making.**

## **Possible Steps in a Medical Emergency**

Note: First staff on scene initially becomes the Primary Rescuer. When the second staff arrives on scene, assume roles appropriate to your level of experience and certification.

1. Check Scene Safety – Is there a threat to either patient or the rescuer?
  - ♦ If YES, deal with threat, possibly initiate G.L. contact guide?
2. a) Primary Rescuer should initiate a Primary Survey (ABCDE)  
b) Secondary Rescuer assemble the group away from the incident and begin assessing next steps
3. a) Life-Threatening Emergency? – Call Emergency Assistance  
b) Non Life-Threatening Emergency? - Begin Secondary Survey – Treat all other injuries - Begin filling out a SOAP Note
4. Gather information for transport, or extended stay
5. Assess and plan for evacuation
6. Initiate G.L. Contact Guide – talk to the emergency contact for input and further direction

## **Injuries that will most likely require an evacuation:**

- ♦ Broken Bones – leg, arm, finger, wrist
- ♦ Sickness that is progressively worsening when it should be getting better
- ♦ Extreme pain and discomfort
- ♦ Burns large enough to get infected (anything larger than your palm), or exceedingly painful
- ♦ Lacerations or open wounds that require stitches or that are infection risks
- ♦ Head injuries, loss of any consciousness, or suspected concussion
- ♦ Life-threatening situations and suspected spinal injuries
- ♦ Injuries on the face (facial lacerations that may need special attention)
- ♦ Dental problems (braces that become broken, wisdom teeth that become infected etc)

# **LIGHTNING PROTOCOL**

## **Lightning Action Protocol**

### **1. Prepare**

If you can hear thunder or see lightning or

If you are setting up camp for the night

### **2. Stop Travel or Activity and Move to Safe Location**

When lightning strikes are 10km away (30 seconds between the lightning and thunder “Flash/Bang”)

### **3. Resume Activity**

When lightning strikes have been 10km away for 30 minutes

## **Details**

### **Prepare**

- ♦ Staff should inform student of lightning protocols and practice a lightning drill in both daylight hours and night time hours.
- ♦ Staff must be aware of approaching storms (Flash/Bang Time – Direction of Travel – Lightning Occurrences)
- ♦ Avoid putting tents up near widow makers (dead trees).
- ♦ Avoid putting tents up near the tallest trees and large root systems.
- ♦ Avoid open points of land where you are exposed to wind and lightning (be selective and find areas with a tree line or choose another site).
- ♦ Ensure tents are properly setup and well secured at initial setup.
- ♦ Get in the habit of having students put their dry PFD's in the tent or vestibule every night.

### **Stop Travel or Activity and Move to Safe Location**

- ♦ Get off the water and out of boats, or off mountain peaks
- ♦ Secure boats so that they do not blow away in the storm.
- ♦ **Avoid** water, metallic objects, high ground, solitary trees, open spaces.
- ♦ **Avoid** close contact with others and the tendency to huddle
  - In daylight hours spread the group into 2 smaller groups with a staff with each group and spread out 15 – 20 ft apart.
  - Resist the temptation to wait out a storm lying in your sleeping bag. Assume the crouch position on dry, insulating material, away from metal tent poles and not touching each other.
- ♦ **Avoid** contact with dissimilar objects (water & land, boat & land, rock & ground, tree & ground)
- ♦ **Seek** clumps of shrubs or trees of uniform height.
- ♦ Assume a crouching position, feet touching each other with no other part of the body touching the ground. If possible crouch on dry insulating material at hand (sleeping pad, PFD). Never lie down, or stand with your feet apart.

# **SEARCH PROTOCOLS**

## **Pre-Search**

1. Check that the person is actually missing.
  - Is it certain that the person is lost?
2. Gather and record information about the person:
  - Interview the other students.
    - What is he/she wearing?
    - Does he/she have a watch?
    - Does he/she have a whistle?
    - Are there any special considerations / concerns (behavior, state of mind, medical conditions)
    - How long has he/she been missing?
    - When was the last time he/she was seen?
    - Where was the last time he/she was seen?
    - Where are the most likely places he/she would be?

## **Search Notes**

- Consider prevailing weather conditions, # of searchers, size of area to be searched, and daylight remaining.
- Make sure the remaining group is supervised, attended to and accounted for.
- Students may be involved in a search. Be sure to assign them appropriate tasks for their abilities. (Ensure they are safe at all times, know where to search, when to return, carry a whistle, and travel in groups of 2 or more).
- Keep a clear record of where each person is searching and establish a plan of what to do if the lost person is found (i.e. Two long whistle blasts).
- One person should remain at the campsite or search base-camp in case the lost person returns.

## **The Search**

1. Search danger zones first: ( eg. waterfront, cliffs)
2. Do a sweep of tents, kybo, any nearby area that they may go for a nap.
3. Reality Check
  - At this point, you need to use your professional judgment taking into consideration where you are, time of day, weather, how long the person has been missing, your particular group and any other factors that may affect your situation to make a decision on how to proceed.

## **Possible Options for 4 (with Examples)**

- **Modified Confinement Search**  
(this is modified due to our limited search resources)  
Staff (and possibly students) run trails/portage, search shorelines, leave notes, blow whistles, call lost person's name
  - Give special consideration to student participation and length of this search before getting additional help.
  - This might be appropriate if a person were lost on a portage, has only been lost a short period of time or there is a short network of trails behind a campsite.
- **Contact the Call Guide**
  - This should be the next step if the student's safety is a heightened concern (pre-existing condition – allergy, asthma...) or the environment is deteriorating and therefore the lost person's safety may be compromised (i.e. it is getting dark, cold, stormy)
- **Contact your Twin Group**
  - This could be a next step if the location of the twin group is known and could be used as additional resources for a confinement search
  - This might be a necessity if the twin group has the sat phone.

## **Theory of a Real Search (Continued from 3 Above)**

4. Define your Confinement Area.  
Draw 2 circles with PLS (Place Last Seen) as the centre. The outside circle's radius is the farthest distance the lost person could have traveled based on the time missing and average speed (1.5 km/h). The inner circle is simply half the radius of the outside circle.
5. Send **Hasty Search** teams to where the circles intersect trails, shorelines, drainages...routes a lost person would possibly follow. Your hasty team should leave notes, markers, or communications at intersecting locations, then either continue to more locations or return to search base-camp.

**(50% percent of all lost people are found within the confines of the small circle, 90% within the large.)**

*At this point, if you have not found the lost person, outside help is required. You must assume that the lost person is injured, unable to respond, or possibly outside of the confinement.*

6. Divide your confinement circles into sections.
7. Use a **Line-Voice Search** to search section by section, working from the closest sections to the farthest sections.
8. Use a **Line-Body Search** to search section by section, working from the closest sections to the farthest sections.

## **Types of Search**

### **Hasty Search**

Searchers use their judgment and knowledge to focus on trails, drainage, water boundaries, and other areas most likely to contain the lost person.

### **Line-Voice Search**

Searchers are spaced more than 15m apart and move parallel in a line where everyone in the search keeps contact with other group members by calling the persons name in order as they walk in a line over the search area. When this type of search is used, it is expected that the subject is responsive.

### **Line-Body Search**

This is the same as Line-Voice search but the search team members are close enough to each other in the line that they can see and feel under every possible place the person may have fallen. This search is only be used as a last resort, or when the subject is considered unresponsive.

# **CANOEING**

Please be sure to consult Gould Lake polices regarding canoeing.

## **Safety equipment**

- ♦ All canoes should contain all items required to be in compliance with Transport Canada's safe boating guidelines.

## **Care of Equipment**

Though relatively durable compared to other designs and models, the canoes in Gould Lake's fleet can be and are damaged every summer, requiring several days of repair work. The following practices should be observed and should be communicated to students in order to minimize the damage incurred by our canoes.

- ♦ Do not bridge canoes. Ensure that canoes are completely in the water (no air spaces under the hull) before loading gear or people. This can be challenging at some launch sites and will require you to get your shoes wet. This is why we bring 'wet shoes'.
- ♦ Do not sit or load gear onto thwarts or yokes.
- ♦ Take extra care not to damage the hull when placing anchor rocks for bear canoes into your boat.
- ♦ Teach and practice proper lifting and lowering of canoes when portaging.

## **Trimming**

This refers to the placement of equipment and paddlers in the canoe. Your trimming practices can be altered to suit conditions.

- ♦ Head winds – heavier gear and paddlers can be put towards the bow in order to prevent the wind from 'grabbing' the bow and swinging it downwind.
- ♦ Tail winds – heavier gear and paddlers can be put towards the stern in order to prevent the wind from 'grabbing' the stern and swinging it downwind.

## **Seating arrangements**

- ♦ Paddlers should never all be on the same side of the canoe.
- ♦ All students on all courses should be encouraged to paddle in all positions in the boat, and on both sides of the canoe.
- ♦ Quest, GAP, PAL, Outreach – Generally three students per boat. Paddlers will sit on the bow seat, stern seat, and on a pack in the sternward middle section of the boat. In high headwinds, the middle paddler could be placed on a pack in the forward middle section of the boat.
- ♦ OS, WIC – Generally two students per boat. These students are generally larger, smaller boats are sometimes used (16' ABS), barrel packs are used preventing sitting on a middle pack, and moving water may be paddled.

## **Safe travel**

### ♦ **Boat spacing**

- All boats in a trip group should always travel close enough together to allow for quick and easy communication between all boats. Weather and water conditions may cause the actual distance to vary.

### ♦ **Route planning**

- When traveling across larger lakes, staff should ensure that the group selects and follows an appropriate route to avoid unnecessary or prolonged exposure. Winds are generally higher in the middle of large lakes and can be avoided by staying close to shore. It is also preferable to be closer to shore in order to allow for a quick escape in the event of weather or other emergencies.
- All staff should at all time be aware of where the group is, where the group should be, where the group is heading, and where the group should be heading.

### ♦ **Weather**

#### • **High winds**

Staff should not allow a group to travel in any winds and/or waves that they judge to be unsafe. A good guideline is to look at the wind and waves and assess how comfortable you would be performing a canoe-over-canoe rescue should one of your canoes dump. If you do not have confidence that you could safely perform the rescue, you should not be on the water.

#### • **Lightning**

See Policy

#### • **Rescues and Emergencies**

All staff should be comfortable and well practiced in the following rescues:

- Canoe-over-canoe rescue
- Submerged over submerged rescue
- Self-rescue



# PORTAGING

Portaging is an element of canoe tripping that all canoe trippers must learn to do safely and efficiently. While there is an inherent and unavoidable risk associated with portaging, the following is intended to assist you in minimizing and managing that risk, as well as to provide several tips that may help make the experience as rewarding and enjoyable as possible for everyone.

## Safety

- ◆ All staff and students should wear appropriate footwear at all time when portaging.
- ◆ Care should be taken when lifting and lowering equipment. Whenever possible, assistance should be sought and offered to prevent one person from having to lift or lower any heavy gear on their own. This protects both the portagers and the equipment.
- ◆ As a means of promoting safe portaging techniques, teamwork, gender equity and providing positive role-models for all students, it is often valuable for male and female instructors to ask for assistance from each other in lifting and lowering canoes. The solo-lift can be convenient at times, but is not a necessary skill for students until they reach the WIC level.
- ◆ Lashing paddles is often done to make carrying a boat more comfortable. By distributing the weight of the canoe across the shoulders rather than just on the back of the neck, many find portaging easier and less painful. Care should be taken to ensure that paddles are not lashed too tightly – if the portager falls while carrying the canoe, you don't want their head and neck to remain wedged between the paddles – they should be loose enough that they fall out easily, freeing the head of the portager.

## Supervision and Containment

- ◆ Staff should always be the first and last group members traveling along a portage trail. By going first, staff can clearly mark any turns that need to be made, and would more likely be the first to come across any hazard (cliffs, slippery sections, river crossings, bears, hermits, etc). A staff member should also be the last member of the group to cross the portage to ensure that no student gets left behind or could be injured without help coming.

- ◆ The separation between the two staff members (one at the front of the group, one at the rear) should never exceed 2000m. This is done to reduce the likelihood of a student requiring assistance having to wait for an extended period of time before a staff member arrives or can be summoned. On portages exceeding 2000m in length, the lead staff member should stop at the halfway point and instruct all students to do the same. Once the trailing staff member arrives at the halfway point and it is certain that the entire group is present and able to continue, the group shall begin the second half of the portage.
- ◆ *Known Medical Conditions* – If a member of the group has a known medical condition with the potential need for immediate care (i.e. anaphylactic allergy, epilepsy, etc.), staff should ensure that they are always positioned to provide the required care within the required timeframe. This may mean keeping the individual in sight at all times while portaging.
- ◆ *First Aid and Emergency Kit Location* – Staff should ensure that they and their students know where the first aid kit is being carried, and by whom, on every portage. Many staff in the past have chosen to keep the FA kit in the day pack of the sweeping staff member.
- ◆ Students should travel in pairs or more. This can ensure that they do not become lost alone, that someone is there to help should they be hurt, assistance is available if equipment needs to be lifted or lowered, and encouragement is at hand to get them through challenging portages.
- ◆ *Getting Lost* – If there are any turns or divergences in the portage trail, students should be clearly briefed prior to beginning and arrows should be drawn on the ground at any junction to indicate the appropriate direction to be taken.
- ◆ *Visibility* – No staff or student should carry a load that prevents the carrier from safely seeing the trail. Loading packs or day packs onto the front of a portager can often block the portager's view of where they are stepping, leading to injuries.

## Canoe Carriers

- ♦ All students can be encouraged to try carrying a canoe. Many canoes are lighter than some of our packs and students often surprise themselves with their success. When successful, students often feel a great sense of pride and accomplishment – facilitating this is very satisfying.
- ♦ The normal practice on almost all Gould Lake trips is to solo portage canoes. Tandem portaging is another option that should be considered by staff. Many students are either too small or intimidated to solo portage a canoe but may be successful at tandem portaging. This success can result in the same sense of pride and accomplishment as solo portaging – when the situation allows, please encourage students to try tandem portaging.
- ♦ *Quest, GAP, PAL, Outreach* – Students should be encouraged but are not required to carry canoes.
- ♦ *OS* - All OS students should be strongly encouraged to carry a canoe. This is a vital skill for any canoe tripper, and is especially necessary to any student planning to go on to the WIC or KIC courses. Even portaging canoes over very short distances can have a significant impact on students' confidence in themselves, and dispel the fears that are sometimes associated with this skill.
- ♦ *WIC* – WIC students are expected to carry canoes

## Group and Gear Management

- ♦ As there are more packs/canoes than there are people on a Killarney or James Bay trip, portages cannot be done in a single trip as they are for *Quest, GAP, PAL, and Outreach*. Staff may determine how they wish to organize the portages on their trip to address this.
- ♦ All staff and students are encouraged to keep all equipment piled neatly to one side of the trail at the beginning and end of every portage to allow space for other groups to load/unload. This is a practice we would like to instill in all of our students at every level.

# **MOVING WATER**

Many aspects of moving water canoeing overlap with the general canoeing section. Please consult that section, as well as Gould Lake policy.

## **Water**

- ♦ River Rating
  - Scale – Please refer to *Swiftwater Classification* in the Reference section of this documents.
  - Only on designated moving water canoe trips (WIC Missinaibi Section, and OS Palmer Rapids Section) will students paddle, swim, or wade in moving water rated Class 2 or higher.

## **Safety Equipment**

In addition to all equipment necessary to comply with Gould Lake Policies and Transport Canada regulations, the following equipment should be used when paddling in moving water:

- ♦ Throwbags – All boats containing at least one staff member should be outfitted with a throwbag. Any staff member instructing a course involving moving water should be trained and well practiced in the use of throwbags.
- ♦ FA Kit – These should be readily accessible in all situations. On trip, kits should be in a location known to all staff and properly secured and waterproofed. When paddling at a base location (such as Palmer Rapids), First Aid kits should not be left in camp, but carried in the canoes, secured and waterproofed.
- ♦ Footwear – All staff and student should wear sturdy, closed-toe shoes at all times when paddling, scouting, wading, swimming, or standing on shore adjacent to moving water.
- ♦ Grab Loops – Staff should ensure that grab loops (the small ring of rope at end of the canoe to which a painter line may be tied) are properly attached to all boats being used for moving water courses. These loops can make rescues easier.

## **Safety Practices**

- ♦ Loose Ropes – There should be no loose ropes or straps attached to PFDs that may become caught on a branch, rock, or other object in the river. If staff choose to wear a rope or strap as a piece of rescue equipment, they should also carry a sharp river knife, properly sheathed in their PFD.
- ♦ River Knives - Staff and students may carry river knives while on moving water courses, provided they are sheathed and secured to PFDs. Junior students (Quest, GAP, PAL, and Outreach) are not permitted to bring knives on trip, however, only senior students (OS and above) participate in moving water so this is not a concern. All students should be instructed on the purpose of river knives (emergency rescues when ropes or straps are making a situation more dangerous) and on their proper care (not for whittling, cutting cheese, or carving initials into Harold's outhouse wall).

## Group Travel

- ♦ Canoes in a trip group should travel close enough together to allow for quick and easy communication between all boats at all times.
- ♦ A system of paddle and/or arm signals should be established before paddling any rapids. This is to allow for quick and easy communication between boats when the sound of the river makes shouting useless.

## Instruction progression

- ♦ Moving water instructors, in compliance with Gould Lake and ORCKA policies, should determine an appropriate progression of skill instruction regarding moving water canoeing. This is done to ensure the safety of all participants, and to allow students to develop their comfort with the river and the water.
- ♦ Skills – All skills in both the OS moving water section and the WIC moving water section should be taught in accordance with ORCKA Moving Water Level 1 standards.

## Scouting

- ♦ **When** – As a general rule, always err on the side of scouting. Rapids can change dramatically from year to year, or even hour to hour, depending on water levels, erosion, and new obstructions such as logs and branches. Even though staff may have paddled a rapid several times, it may be the first time for the students and an explanation of what route to follow is no substitute for seeing it with their own eyes.
- ♦ **How** – Staff should involve students in the process of reading river features and planning an appropriate route to paddle. Some gentler rapids can be scouted from canoes – this is at the moving water instructors' discretion.
- ♦ **Safety** – All staff and students should wear their helmet, PFD, closed-toe shoes, and carry their paddle for balance when scouting. More injuries occur when scouting moving water than paddling (someone said that once...I think...but I don't who...or if it's even true...but it sounds plausible).

## Swimming and Wading

- ♦ Swimming and wading in moving water can be dangerous activities if not done correctly. They are also both vital skills for any moving water paddler and must be learned correctly. Students should be instructed in the following:
- ♦ Practice both defensive and offensive swimming techniques, and knowing when each is appropriate.
- ♦ Always head to the upstream end of your canoe and hang onto your paddle when swimming
- ♦ Never try to stand up when swimming in moving water that is deeper than knee height.
- ♦ Practice solo, tandem, and group wading techniques.

## **MW Kayaking**

- ◆ No student shall paddle moving water in a kayak or closed deck canoe on any Gould Lake course. Our courses are advertised to students and parents as moving water canoeing experiences, under the supervision of canoeing moving water instructors. We do not have parental consent or appropriate qualifications to have students paddle kayaks in moving water.
- ◆ Staff may wish to paddle kayaks at times at Palmer Rapids while instructing OS. Though it may make more sense to paddle a canoe as that is what is being taught to students, this choice is up to the professional judgment of each staff member. Any staff member paddling a kayak still must be able to perform a canoe-over-kayak rescue in the event that a student boat tips.
- ◆ Staff may teach Outreach Year 2, OS, and KIC students kayaking skills on flatwater. These students have signed up for a course that involves some sea kayaking and therefore have the appropriate consent and insurance. Supervised rolling lessons at Palmer Rapids are permitted, provided they do not take place in any Class 2 or higher rapids.

# **KAYAKING**

Kayaks should be outfitted with the following equipment whenever in use on trip

- ◆ Transport Canada kits
- ◆ Paddles
- ◆ Bilge pumps
- ◆ Skirts
- ◆ Hatch covers
- ◆ Grab loops
- ◆ Deck lines

Additionally, staff kayaks (and possibly some student kayaks) should be equipped with the following:

- ◆ Sponsons (if available)
- ◆ Paddle floats
- ◆ Cockpit sling
- ◆ Tow rope

## **Care of Equipment**

Special care must be taken to reduce the damage to our kayaking equipment. Some of the gear is surprising fragile and often very expensive to repair or replace.

- ◆ Rudders
  - Should never make contact with rocks below the water. If paddling through water where this is possible (<2'), rudders should be lifted.
  - If kayaks are rolled onto their side for storage, ensure the weight of the boat is not being supported by the rudder.
  - When not in use, rudders should be secured to the kayak deck using the rudder's bungee loop. The rope that raises and lowers the rudder should also be locked into the stopper.
  - When loading kayaks onto trailers, ensure that rudders are not being crushed or stressed.
- ◆ Sprayskirts
  - Avoid storing skirts in the sun – UV rays can be damaging to the neoprene.
  - Skirts should not be stretched over the cockpit when not in use. When this is done and kayaks are rolled over for storage, the skirt around the combing of the boat can become pinned between the kayak and the rocks. This will wear holes in the skirt.
  - Care should be taken to ensure suspenders are not lost. They can be stored in the pockets of the sprayskirt, or if the student does not wish to use them, they can be collected by staff and returned to the barn when possible.
  - Skirts should always be safely stored when not in use to ensure they do not get blown away or washed out by waves.

♦ Hatch covers

- Neoprene covers

These are not optional, but mandatory equipment. Kayaks that are designed to use a hatch cover, need a hatch cover to keep equipment dry and to prevent the hatch from completely filling with water.

Great care must be taken to avoid losing these. Some may be attached directly to the kayak so they cannot be lost. If not, it is advised that hatch covers always be stored in the hatch when not in use.

- Plastic covers

These should all be attached to the kayaks so they cannot be lost or mixed up with another kayak.

♦ Paddles

We have several different paddles which use different designs and materials. These differences result in different strengths and weaknesses, calling for different treatment. The following general guidelines are intended to inform your decisions on paddle treatment.

- Shafts should not be bent or flexed – they can and do snap.
- Some blades are quite susceptible to breaking – especially the black-shaft, yellow-blade Current Designs paddles. Extra care should be taken with these.
- If using a paddle as a pole for a tarp, ensure the blades and shaft are sturdy and no excessive strain is being placed on the paddle. It is also advisable to place a layer of fabric (such as the tarp bag) between the tarp and the paddle blade, to reduce wear on the tarp.
- When using break-down paddles (those that separate into two halves at the middle), extra care should be taken to avoid damaging/wearing down the attachment mechanism. The blue and white Aquabound paddles seem especially vulnerable at the button hole into which the spring pin from the opposite shaft inserts.

♦ Grab Loops

- These should always be kept in good repair. These are not simply for convenience when carrying kayaks, but are important items when conducting rescues or towing boats.



## **Packing and Gear Placement**

- ◆ Kayaks should be packed in a balanced (front to back, side to side) manner and according to weather conditions (heavier gear in the bow for head wind, in the stern for a tail wind).
- ◆ Other than lap bags, no gear should be stored in the cockpit that could prevent an easy exit from the kayak. Equipment stored beyond the feet in the kayak is acceptable but not preferred.
- ◆ Storage of equipment on the decks of kayaks should be avoided. This can interfere with rescues.
- ◆ Hatch covers

## **Paddling Skills**

All staff shall ensure that their kayak paddling and rescue abilities meet the standards of the ORCKA Flatwater Kayaking certification. This shall include, but is not limited to the following abilities:

- ◆ Consistently performing bow rescues, t-rescues, and pull-up rescues.
- ◆ Comfort steering in a variety of wind and wave conditions with and without a rudder.
- ◆ All students shall demonstrate a wet exit in a controlled setting before being permitted to paddle while wearing a sprayskirt.

## **Safe Travel**

- ◆ Boat Spacing  
A kayak group should generally travel in a pod. This is a diamond-shaped configuration that includes designated lead, sweep, left, and right boats. All other boats should remain contained by these four outer boats. The pod should be tight enough to allow for quick and easy communication between all kayakers.
- ◆ Crossing Open Water  
Crossing lengths should be minimized to avoid exposure to high winds and waves, and to allow for quick retreat to shore in the event of changing weather or other emergencies.
- ◆ Channel Crossing  
When crossing a channel where motorboat traffic is expected, the pod should realign itself. Kayakers should be aligned side by side and close together. This makes the pod smaller, more visible and easier to avoid by boats approaching perpendicularly to the pod's direction of travel.
- ◆ Motorboat Traffic  
Care must always be taken to safeguard the safety of all group members. Follow the rules of the waterways and stay alert.

- ♦ Weather
  - High winds

Staff should not allow a group to travel in any winds and/or waves that they judge to be unsafe. A good guideline is to look at the wind and waves and assess how comfortable you would be performing a T-rescue should one of your kayaks tip. If you do not have confidence that you could safely perform the rescue, you should not be on the water.

If the wind is causing unacceptable separation of the group or hindering communication to a point of concern, you are likely better off on shore.
  - Lightning

See Policy
- ♦ Rudder Safety

All staff shall be aware, and make students aware of the risk for injury resulting from rudders being raised or lowered. Raising or lowering a rudder using the ropes on the deck of the kayak can cause the rudder (a fairly sharp, hard sheet of metal) to move very quickly. Care should always be taken to ensure that there are no people or equipment in the path of the rudder, prior to raising or lowering.

## **Rescues and Emergencies**

- ♦ Staff should be comfortable and well-practiced in the following:
  - T-rescue – Bow rescue
  - Submerged over submerged rescue
  - Pull-up rescue

# **HIKING**

The Adirondacks portion of Outdoor Skills is the only hiking trip offered by the Gould Lake Outdoor Centre, however, the following guidelines can also be applied to day hikes on other trips. Examples might include visiting the fire tower on Big Crow Lake in Algonquin, climbing Silver Peak in Killarney, or walking between George Lake Campground in Killarney and the Chikanishing River on Georgian Bay.

## **Group Spacing and Management**

- ◆ Group members should remain close enough together to allow for quick and easy communication between the leading and trailing members.
- ◆ The entire group should be in sight of each other at any trail junctions to eliminate the possibility of one or more group members getting separated from the rest of the group.
- ◆ In the Adirondacks, and between Killarney and Georgian Bay, it is sometimes necessary to have a group travel along a road. Staff should ensure group safety by keeping the group close together, towards one side of the road, and keeping a keen eye out for any vehicles.

## **Pack Size and Weight Limits**

- ◆ Packs issued to students for hiking trips should be appropriate to their size and gender.
- ◆ As a general guideline, individuals should not regularly, and/or for a prolonged trip, carry a hiking pack exceeding 40% of their body weight.

## **Day Hikes**

- ◆ These are very frequent in the Adirondacks as base camping is a common practice. When determining what equipment must be brought along on a day hike several factors should be considered. These include:
  - Length of route
  - Estimated duration of day trip
  - Distance and time from base camp at various points along the route (i.e. How long would it take to get from a given point along your day hike route, back to your base camp, collect needed equipment, and return to the group?)
  - Weather
  - Exposure of route (i.e. Will you be walking along an exposed ridge of mountain peaks or through a sheltered valley where lean-tos can be found along the trail?)

- ◆ The list of items that may be required for a day hike can become almost as long as the entire equipment list for the group. Some items would rarely be required while others would be considered standard for almost any day hike. Determining which items are required lies with the professional judgment of the staff. These items may include but are not necessarily limited to:
  - First Aid and Emergency Kit
  - Emergency communication device (cell phone, sat phone, PLB)
  - Emergency paperwork, contact #s, critical incident call guide
  - Water treatment equipment
  - Tarp/Fly
  - Stove/Fuel/Pot
  - Emergency food
  - Tent
  - Extra clothes
  - 1 or more sleeping bags
  - 1 or more thermarests/insulate pads

## **Health and safety**

- ◆ **Footwear**  
Staff and students should wear sturdy footwear on any hike. In the Adirondacks, students should be encouraged to wear a sturdy hiking shoe or boot rather than a running shoe. Staff and students with a history of rolled or sprained ankles should wear boots that come above the ankle and bring an ankle brace.
- ◆ **Water**  
All staff and students must have drinking water available during all hikes. In the Adirondacks, where water can sometimes be difficult to find (especially along ridges), staff and students should bring two 1-litre bottles. Staff should also be aware of routes that could have limited water and plan accordingly.
- ◆ **Rest Step**  
This is a technique in which the knee joint is straightened to the point of locking briefly with each step while walking uphill. The idea is that this locking of the joint briefly transfers the weight of the hiker and equipment from the muscles to the bones, thereby giving the muscles a brief rest at the end of each step. While opinions vary as to the effectiveness of this technique, students should be made aware of the rest step and encouraged to experiment with it in order to draw their own conclusions.
- ◆ **Blisters**  
Staff should ensure that students are aware of the potential consequences of developing bad blisters while on trip and create a system to allow any 'hot spots' to be covered immediately. Patience may be required if a group is making frequent stops to apply tape, band aids, moleskin, and/or molefoam, however this is a necessary inconvenience.

# **NAVIGATION**

## **Navigation Practices**

- ♦ All staff should, at all times, be aware of the group's location, destination, heading, and desired heading.
- ♦ Students should be encouraged to navigate the group to its destination. Where judged appropriate by staff, this may include allowing the group to go the wrong direction at times as a learning opportunity.
- ♦ Compasses are rarely required in some tripping locations where landmarks and trails make finding your way easy. Students should still be encouraged to experiment with compasses wherever appropriate to develop these skills.
- ♦ GPS Units: These are becoming more and more common and will someday soon (if not already) be considered a standard piece of navigational/emergency equipment. They are wonderful tools and represent an important part of a complete navigational system. It is however, vital that staff and students be aware that they are but one element of a system, and should not be relied upon too heavily. GPS units can break, lose power, lose their signal, or get lost, and we must be prepared to navigate accurately without them. Students should be encouraged to learn how to use a GPS unit and come to understand many of their valuable features, but they should also realize that a GPS unit in no way replaces a map and a compass, or the need to develop these skills to a high degree of proficiency.

## **Navigation Skills**

- ♦ These skills can be challenging for many staff but they are absolutely vital to any responsible wilderness trip leader. If you have forgotten some of the details (or never fully learned them as a student), please take the time now to revisit them. It's okay if you have forgotten some things or find some of this material confusing. It is NOT okay to take students on trip if your map and compass skills are not up to par...that's what we call negligence. Please consult one of the many resources available at the office or barn, or ask someone for help if you are not confident in your map and compass skills.

## **Navigation Skill Standards for Staff**

- ♦ **Using a Map**
  - Staff should be familiar with the parts of maps and how to use them properly.  
Title, Date, Compass Rose/North Arrow, Legend, Contour Lines, Scale, Grids
  - Staff should be able to quickly and consistently orient a map and navigate without using a compass.

#### ♦ **Grid References**

- Staff should understand the origins and purpose of the military grid reference system.
- Staff should understand why a square grid pattern laid over a map creates some distortion of reality, and how the term 'grid north' describes this situation.
- Staff should be able to quickly and consistently provide the grid reference for any point on a map.
- Staff should be able to quickly and consistently locate any location on a map from a provided grid reference.

#### ♦ **Latitude and Longitude**

- Staff should understand the fundamental concepts of latitude and longitude, how their values are determined, and how they are used in navigation.
- Staff should be comfortable with the numbers in a lat/long value (degrees, minutes of arc, seconds of arc).
- Staff should be able to quickly and consistently provide the latitude and longitude for any point on a map.
- Staff should be able to quickly and consistently locate any location on a map from provided latitude and longitude coordinates.
- Staff should understand the importance of learning both latitude/longitude and grid referencing systems, especially for emergency scenarios.

#### ♦ **Taking and Following a Bearing**

- Staff should understand the concept of magnetic north and how differs from true north and grid north.
- Staff should understand the concept of declination and how it varies across the earth.
- Staff should know the parts of a compass and their functions. Base Plate, Ruler, Housing, Dial, Magnetic Needle, Orienting Arrow, Direction of Travel Arrow, "Read bearing here"
- Staff should be able to take a bearing from their current location to an object seen in the distance. They should then be able to transfer this bearing to their map in order to determine the distant object's location on the map.
- Staff should be able to take a bearing from their current position on their map to a distant object on their map. They should then be able to transfer this bearing from the map to the 'real world' to determine in which direction the distant object lies.

#### ♦ **Triangulation**

- Triangulation is not an often-used skill and as such, can easily be forgotten. It can however be a vital skill in emergencies. All staff should therefore be comfortable with this skill and theory behind it.

# TWIN TRIPPING

Twin tripping refers to the practice of having two or more tripping groups traveling along the same route while remaining autonomous. The groups camp on the same lake each night, and follow the same paddling and portaging routes each day.

## Purpose

- ♦ The reason for twin tripping is to double the resources available to deal with any emergency situation that may arise – four staff rather than two, two WICs rather than one, two first aid kits rather than one. It also allows for the sharing of some expensive equipment such as satellite phones.

## Communication

- ♦ In order for twin tripping to be effective and worthwhile, it is essential that the twinned groups communicate clearly and frequently with each other. If the groups are unaware of each other's location and intentions, they will be unable to procure the other's assistance in the event of an emergency.
- ♦ Groups should make contact via the provided radios every morning before leaving their campsite, and every evening after arriving at the site.
- ♦ It is also advised that groups make arrangements for a midday check-in, either via radio or a visual communication (waving, paddle signal).
- ♦ It is the responsibility of the staff to establish and follow a system for following up in the event that a communication is missed.

## Who goes first?

- ♦ It will be up to the staff to determine which group should go first and which should go second. Considerations in making the decision include:
- ♦ Relative strengths of the 2 groups
  - Experience of the staff
  - First aid training of the staff
  - Trip route and remoteness
  - Shared equipment (such as a satellite phone) should generally travel with the second group. The logic being that the second group will catch up to the first group should they encounter an emergency. If the phone were with the first group and the second group encountered an emergency, it would be necessary for the second group to send a runner ahead to catch up to and bring back the first group.

### **Agreeing on Rules for Students**

- ◆ As it is often unavoidable for the two twinned groups to bump into each other throughout the day, contact and interaction are unavoidable. It can sometimes be difficult for students to understand and accept differences in rules, expectations, and behaviours between the two groups ("How come they got to swim in that creek and you said we couldn't?", or "How come they don't have to wear their wet shoes around the fire and we do?"). Wherever possible, agreeing on these rules ahead of time is advised.

### **Get-Togethers**

- ◆ While interaction between twinned groups is often unavoidable while traveling, as much as possible the groups should remain as two separate entities. This can be a challenging group dynamic to maintain but is a key ingredient to make the trip and the bonding that occur within a group as rewarding as it can be.
- ◆ That being said, twinned groups often enjoy getting together for dinner or a swim, usually on lay-day. There is no problem with this, so long as it is not contrary to park rules to have that many people on a site at one time.



# **TRANSPORTATION**

This section is intended to guide staff and student behaviour and management when traveling in non-Gould Lake vehicles. For standards and practices regarding Gould Lake vehicles, trailers and drivers, please see the appropriate section in this manual.

## **Student Management**

- ♦ Gould Lake staff are responsible for student safety and well-being at all times while participating in Gould Lake courses. This includes times spent traveling to and from Gould Lake and tripping locations, as well as during any rest stops along the way.
- ♦ **Appropriate Behaviours** - Staff and students should always be aware that they are representing themselves, each other, the Gould Lake Outdoor Centre, and the Limestone District School Board, and comport themselves in a manner befitting that responsibility. This should include:
  - Using appropriate language and maintaining a reasonable volume when in vehicles and during rest stops.
  - Respecting the authority and dignity of all bus drivers, Ontario Northland Railroad, and Northern Ranger personnel and follow any rules they rightfully impose (not climbing on seats, no food or drink, keeping windows closed on narrow, tree-lined roads, not exiting buses via emergency doors without consent, storing gear on the bus, etc)
  - Respecting the vehicles on which they are traveling and refraining from any behaviour that may damage or make dirty any vehicle.
- ♦ **Supervision at Rest Stops** – Staff are responsible for supervising and ensuring student safety and well-being during all stops. This does not necessarily require that all students be in sight of a staff member at all times, and certainly doesn't mean we need to walk around Bancroft with all students holding hands. Staff should do the following to ensure student safety during any stops:
  - Set clear boundaries.
  - Provide directions to restaurants or stores that students are likely seeking.
  - Establish a time at which students are expected to return to the bus.
  - Let students know where staff can be found in the event of an emergency. Staff must then ensure this is indeed where they are.
  - Remind students that they are representatives of the Gould Lake Outdoor Centre and the Limestone District School Board and that they should comport themselves in a manner befitting that responsibility.
  - Point out any specific hazards that should be avoided or taken with caution (busy streets, crowded parking lots, etc).

## **Vehicle Specific Considerations**

### **Buses**

- ♦ **Seating** – All staff and students should be prepared to sit two to a seat. When extra seats are available, the traditional hierarchy provides staff with an extra seat, followed by WIC students, and then finally Outreach/Quest/GAP/PAL students.
- ♦ **Gear** – Whenever transporting large packs or paddles inside a bus, they should be tied down to prevent them from becoming projectiles in the event of an accident. When using the carrying compartments below the bus, care should be taken to ensure the doors are properly closed – gear has been lost in the past due to staff failing to close the luggage compartment doors properly.
- ♦ **The Adirondacks** – This OS trip has some special considerations:
  - Our usual carrier (Laidlaw) sub-contracts these runs to another carrier (Delaney) that is insured for cross-border trips.
  - The front 4 (or so) benches on either side of the aisle are removed by Delaney prior to arriving to pick us up. All hiking packs should be stored in the space created by these removed seats and carefully secured using rope. The aisle should remain as wide as normal and free from obstructions.

### **Border Crossings**

- ♦ All students will require the following when crossing the Canada-U.S. border:
  - Parental consent form, signed and dated.
  - Proof of citizenship – Original birth certificate (photocopies are not acceptable) or Passport.
  - Photo ID if 16 years of age or over – Passport, Driver's License, or Photo Health Card.
  - Travel Health Insurance covering the dates the trip group is expected to be away.
- ♦ All staff will require the following when crossing the Canada-U.S. border:
  - Proof of citizenship – Original birth certificate (photocopies are not acceptable) or Passport
  - Photo ID – Passport, Driver's License, or Photo Health Card.
  - Travel Insurance covering the dates the trip group is expected to be away. This will be provided by Gould Lake if needed.
- ♦ Staff will also:
  - Fax a passenger manifest to US customs at the crossing point including names, ages, and citizenship of all individuals traveling, and the expected dates and time of day of the crossings.
  - Carry a letter, signed by the LDSB Outdoor Education Coordinator, indicating that the group is on a sanctioned field trip of the LDSB and has permission to be crossing the border.

## **Vans or Trucks**

- ◆ Staff should ensure that all passengers behave in a manner that does not compromise the driver's ability to concentrate on the road.
- ◆ All music played in vans should be appropriate for students on a LDSB field trip. This should be at the staff's discretion.
- ◆ Volume should be kept at a level comfortable for the driver.

## **Trains** (applies to WIC only)

- ◆ Staff and students take the train from the Mooseonee to Cochrane after completing their Missinaibi and Moose River canoe trip.
- ◆ Staff should ensure that students are made aware of behavioural expectations while traveling by train. This will include ticket collection, appropriate locations on the train for consuming food and beverages, boundaries on the train, public interactions, and safety while on train platforms.

## **Ferries** (applies to KIC only)

- ◆ Staff and students will complete a return trip from Havre St. Pierre to Anticosti Island aboard the ferry. The trip duration is approximately 5 hours each way.
- ◆ Behaviour - Students and staff are expected to behave in a respectful manner that positively represents The Gould Lake Outdoor Centre. There are seats available to students as well as floor space on which they may rest. Students commonly keep their sleeping bags with them and place them on the ferry floor to sleep. This is acceptable provided they are able to contain their belongings and not interfere with others' ability to use the shared spaces available aboard the ferry.
- ◆ Boundaries - Students and staff will respect the boundaries outlined by the ferry crew. There may be an opportunity for students to have a tour of the bridge. This is an interesting and educational opportunity for both staff and students. If the tour does occur, the group will likely be divided into two halves, to avoid overcrowding the bridge.
- ◆ Public interactions - The ferry trip often provides an interesting opportunity for interactions with other members of the public aboard the ferry. Public interactions are encouraged provided they are conducted in a respectful manner, and that students abide by all rules and guidelines outlined by staff.

## **Canoe and Kayak Trailers**

It is ultimately the responsibility of the driver to ensure that all items loaded onto a trailer are properly secured, and that the trailer is properly attached to the truck/van. It is, however, very common for other staff and students to be involved in loading and securing boats and other equipment onto trailers. The following guidelines are intended for any staff loading a trailer or supervising students who are loading a trailer.

### **General Guidelines**

- ◆ Students should not climb on a trailer to any height exceeding their own.
- ◆ If you have any doubt as to how a trailer should be loaded, ask someone who knows.
- ◆ Students need to be closely supervised during trailer loading to ensure the safety of the students, and to ensure that all items are properly loaded.
- ◆ Any damages to a trailer that are noticed should be immediately brought to the attention of the driver and the Outdoor Education Coordinator. If the Outdoor Education Coordinator is unavailable, damages should be reported to the most senior staff member available (Sharry, Shawn etc.).
- ◆ Whenever possible, trailers should be attached to the vehicle prior to loading. If this is not possible, trailers should be loaded on flat, even ground, with all tires blocked, and the trailer jack engaged.

All boats should be secured to the trailer with webbing and cams around them and extra ropes around the entire trailer of boats at the front, back and middle.

### **Attaching Trailers to Trucks/Vans**

- ◆ Check that the trailer hitch and truck/van ball are both the same size.
- ◆ Check that the lighting harness of the trailer and truck/van work.
- ◆ Ensure that the safety chains of the trailer are crossed before attaching to the truck/van.
- ◆ Ensure that the trailer hitch is locked and secured to the truck/van ball with a pin or bolt and nut.
- ◆ Test all lights and if applicable electric brakes on the trailer.
- ◆ Check that you have a spare tire and emergency and repair equipment to deal with a break down.

### **Standard Canoe Trailers (carry 10 canoes) (Orange or Black)**

- ◆ It is generally easiest to load these trailers from top to bottom. After the outer 8 racks have been filled, the two slots in the middle of the trailer can be loaded.
- ◆ Ensure that the yoke of the bottom canoes are not rubbing on the wheel well of the trailer – slide the canoe forward of the wheel well so that the center thwart is over the center of the trailer wheel.

### **Super Trailer (carries 20 canoes) (Brown Dual Axle)**

- ◆ For a full load of canoes the trailer should be loaded bottom to top and the back of the trailer first.
- ◆ The back of the trailer will have canoe bows in tight to the middle.
- ◆ The front of the trailer will be loaded such that canoe sterns will be to the outside of the bows of the canoes in the back of the trailer.
- ◆ For a trailer that is not full do the same as above, but leave the top racks empty.

### **Kayak Trailer (Red Dual Axle)**

- ◆ Tandem kayaks should be loaded in the middle slots of the trailer.
- ◆ Load 2 to 3 kayaks per rack on their sides.
- ◆ Be careful of buckles from straps wearing through the plastic kayaks.
- ◆ Make sure straps are not tied over the top of deck plates or too tightly.
- ◆ Be careful not to crush or otherwise damage rudders or other deck-top features of the kayaks.

## **CAMPSITES**

Groups should camp on established campsites. It is important for staff to follow the permit that they are issued to promote good relations with both park staff and other organizations using the area. It may also be necessary for outside persons to contact a group with vital information, therefore trip leaders should not stray from the float plan they have left with the Gould Lake Outdoor Centre Office.

The Gould Lake Outdoor Centre has always strived to leave places cleaner than we found them. Students should be constantly encouraged to use minimum impact camping practices. This is especially important for trips where designated campsites are not available. Staff should at all times role model and demonstrate exceptional environmental ethics.

The appearance of campsites should be kept organized and tidy.

- ◆ Group equipment should be stored in a safe area such as under canoes to prevent loss, damage and unsightliness
- ◆ Personal items should be placed in appropriate places such as tents, vestibules, clotheslines or canoes to prevent loss, damage and unsightliness.
- ◆ Campsites should not look like yard sales to passers by unless you are in fact having a yard sale, in which case prices should be clearly marked and the barter system should be in effect.
- ◆ Established fire pits, KYBO's, outhouses and tent pads should be used when available.

Campsite selection features to be considered may include:

- ◆ Is there a safe landing/loading area?
- ◆ Is there a safe swimming area if needed?
- ◆ Is there an established kybo?
- ◆ Is there an established fire pit if needed?
- ◆ Is there enough space for safe tent, cooking and washroom use?
- ◆ Are there any obvious hazards to be avoided such as dead trees or branches?
- ◆ Are there any animal signs that could pose a problem (bear scat)
- ◆ Is there any human garbage that could be considered dangerous (broken glass, scattered food)?
- ◆ Will the site provide appropriate shelter for all weather conditions? (thunderstorms, high winds, sun, rain etc.)

## **ENVIRONMENTAL ETHICS**

There is a significant overlap between this section and the “Personal Hygiene” Section. Please consult both in preparing to teach your course.

### **Fires**

- ◆ Wherever possible, fires should be built in designated fire pits.
- ◆ If building your own fire pit, it should be placed on bare rock, sand, or mineral soil.
- ◆ We always attempt to burn our fires completely down to ash. To ensure we don't leave half-charred logs in the fire, students should be advised not to collect/burn any wood larger in diameter than their wrist. This is also a safety consideration as students can easily injure themselves trying to break large sticks down to an appropriate length for burning.
- ◆ Students should not remove any part of a living tree. This includes pieces of birch bark that appear to be hanging off of the tree, and the dead branches that remain on still-living trees.
- ◆ All fires should be completely extinguished before going to bed, or leaving your site (no heat should be felt radiating from fire pit and the extinguished coals can be touched with a bare hand).

### **Dishes**

- ◆ All leftover food should be scraped from dishes prior to washing, and either eaten or placed in a garbage bag.
- ◆ Dishes should be done with a minimum of soap in order to minimize our impact on the environment.
- ◆ All pieces of food should be removed from dishwater and placed in a garbage bag prior to disposal.
- ◆ Dishwater should be disposed of at least 150 feet (50 yards) away from your campsite, and at least 150 feet (50 yards) away from any water source whenever possible.
- ◆ Instructors should use their knowledge and professional judgment to determine the most appropriate method for disposing of dishwater (i.e. scattering vs. pouring into a small hole).

### **Brushing teeth**

- ◆ A minimal amount of toothpaste should be used in order to minimize our impact on the environment.
- ◆ All toothpaste should be disposed of at least 150 feet (50 yards) from your campsite whenever possible.
- ◆ Instructors should use their professional judgment to determine the most appropriate method for disposing of toothpaste after brushing. The ‘elephant spray’ technique is considered to have a lesser impact on the environment, but does create a minty frosting on the leaves in the area, which can attract animals. It is also often not done properly by students. The small hole disposal technique can have a greater environmental impact on the immediate area, but is less likely to attract animals.

## **Urine**

- ◆ All urinating should occur at least 50 feet from any water source or tent site.
- ◆ Compared to feces, the potential environmental damage and risks to human health from urine are minimal.

## **Feces**

- ◆ Whenever possible, defecation should occur in designated outhouses or kybos.
- ◆ If a designated outhouse or kybo is not available, a cathole should be used. Catholes should be located at least 300 feet (~100 yards) from any water sources or tent site, and well off of any clearly used trail when possible. Using the cathole shovel your group will be carrying, dig a hole that is approximate 6 inches x 6 inches x 6 inches (15cm x 15cm x 15cm). This buries the waste enough to limit its odour and remove from sight, but keeps it in the upper, active layer of the soil. It is in this layer that the optimal mixture of warmth, moisture, and bacteria are found that assist in breaking down the fecal matter. After use, catholes should be filled, and then covered with a rock or sticks to deter others from accidentally stepping on the hole.
- ◆ Whenever possible, natural alternatives (leaves, pine cones, moss, smooth rock) to toilet paper should be used. Each group will be provided with a small quantity of toilet paper that should be reserved for times when the needs of comfort and hygiene outweigh the environmental concerns associated with toilet paper use.

## **Feminine Hygiene Products**

- ◆ All feminine hygiene products must be packed out as there is no viable option for disposal on trip. This is because these products do not degrade rapidly. This includes both plastic and paper applicators, wrapping materials, and adhesive backing strips.
- ◆ After use, feminine hygiene products should be wrapped in a small amount of aluminum foil and kept in a small, opaque, resealable plastic bag (Ziploc). This bag should be placed animal proofed similar to other garbage.
- ◆ Scented products should be avoided as these may attract animals.
- ◆ Please see the Gould Lake Standard and Practices document on Personal Hygiene for further information on the keeper.

## **KIC EXCEPTION**

- Due to the fragility of the surrounding terrain and the fact that waste (including all human waste, toothpaste, left over food, and dishwater) will breakdown faster in salt water than in top soil, waste (excluding garbage, toilet paper, and feminine hygiene products) should be disposed of into the ocean.



## **PERSONAL HYGIENE**

There is significant overlap between this section and the “*Environmental Ethics*” section. Please consult both in preparing to teach your course.

### **Washing Hands**

This is necessary for several obvious reasons. Instructors should ensure students understand the necessity of washing hands after urinating or defecating, and before handling or eating food. Students should understand the potential consequences of unhygienic practices and how these effects can be amplified in a trip setting.

Staff are required to ensure that appropriate hand-washing materials are made available to students and that students are following appropriate practices as determined by the professional judgment of instructors.

### **Bathing**

All staff and students should be bathing (swimming) regularly. This needn't necessarily be daily – staff should use their professional judgment to determine when a student may need to be encouraged to bathe.

### **Urinating and Defecating**

See *Environmental Ethics* section.

Students should be made aware of the potential medical consequences of not going to the washroom.

### **Dishwashing**

It is important that dishes are thoroughly rinsed to avoid the ingestion of soap residue, which can lead to an upset stomach and diarrhea.

### **Feminine Hygiene**

The general advice for menstruating women on trip is that you needn't significantly alter the practices and products employed at home. Please see the “*Environmental Ethics*” section for information on appropriate disposal.

### **The Keeper**

This is an alternative to tampons and pads. The Keeper is a soft rubber cup that is worn internally to capture menstrual flow. The chief advantage is that it's reusable. It is imperative that both hands and the Keeper are kept clean, and not every student will be comfortable with this idea.

## **ON TRIP GAMES AND ACTIVITIES**

In camp games and activities are great for bringing a group together and are often a very memorable part of the tripping experience for both staff and students. Although having fun is often the main goal, it is critical that safety remains as the number one priority.

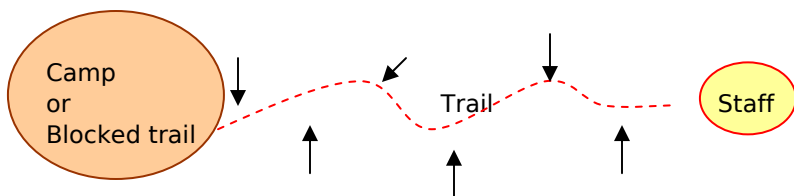
- ♦ Games or activities being facilitated by WICs or students should be approved by a staff.
- ♦ All games and activities should be appropriate for the surrounding area and time of day. (i.e. running and hiding games at night would not be appropriate)
- ♦ Boundaries should be established and all potential hazards should be clearly identified, marked, and if possible, removed.
- ♦ Proper footwear should be worn at all times. This includes in the water if there is potential for cut feet.
- ♦ Staff must ensure that all Gould Lake swimming related policies are followed while playing any water-based game or activity.

## ON-TRIP SOLO EXPERIENCE

A solo experience can be a very valuable growing experience if it is set up properly.

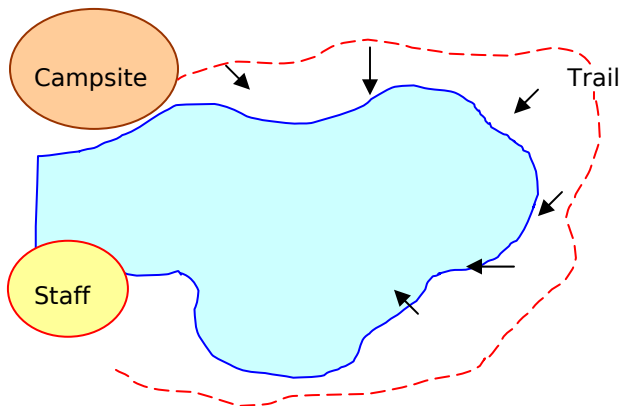
When setting up a solo activity for students some considerations may be:

- ◆ All participants have a whistle and all appropriate gear with them.
- ◆ Participants are placed in a safe location.
- ◆ Students should be given clear instructions not to leave this area without informing the staff directly.
- ◆ Students are made aware that going in the water is strictly prohibited.
- ◆ Students should be made aware of emergency protocols such as, where the staff are, how to get help, how to communicate if needed etc.
- ◆ Students need to know how long the Solo is and how they will know when it's over. (Air horn/staff pick up)
- ◆ If possible it is a good practice to confine the solo area by blocking off trails or putting up flagging tape boundaries.



In an ideal area all of the solo sites would be in view from one central location

- ◆ For example a bay or the edge of a field area



# **ENVIRONMENTAL HAZARDS**

## **Wind**

Staff will be familiar with the Beaufort wind scale. Staff should begin to consider taking their group off the water when wind conditions reach a 3 on the Beaufort scale (12-19km/hr, 7-10 knots). Water based activities should not occur in wind conditions exceeding a rating of 4 on the Beaufort scale (20-29km/hr, 11-15kt). Water based activities will not occur in wind conditions reaching a 5 on the Beaufort scale (30-39km/hr, 16-21kt).

## **Land Safety Considerations**

- Avoid pitching tents near or under trees that could fall due to high wind.
- Tents and tarps should be set up in the direction of the wind to reduce strain on equipment.
- Take extra care when pegging and securing tents and tarps to ensure stability.
- Ensure boats are pulled well onto shore and there is no risk of them blowing away.

## **Lightning**

Staff (and students) should be able to determine how far away a lightning storm is by counting the seconds between a visible flash and the associated thunder "Flash/Bang" (3 seconds = 1 km, 5 seconds = 1 mile)

There is not one correct procedure for a lightning storm as every location and storm is unique. The following is a discussion of practices outlined in the Lightning Protocols.

## **The Crouch Position**

- ◆ This is a squatting position where the feet are touching each other and no other part of the body is touching the ground.
- ◆ This position decreases the likelihood of being struck by keeping low to the ground.
- ◆ By keeping feet together, the chances of a ground surge passing through the core of the body (and flash-frying vital organs) is reduced – instead, the surge is more likely to pass through the feet and back into the ground.
- ◆ If the feet can be pointed down a gentle slope, current will be more likely to pass under or through the feet rather than entering the body.
- ◆ If another body part is touching the ground, the current is more likely to travel through the body between the two points of contact.

### **Insulation from Ground Surges**

- ◆ While a thin layer of foam or air is not going to make a student 100% safe from a lightning strike, these items could be effective at reducing the likelihood of experiencing a ground shock or minimizing the negative impacts of such a shock.
- ◆ These items need to be dry, as water is a good conductor of electricity and a surge could flow around a wet object.

### **Spreading the Group Out**

- ◆ The benefit to spreading a group during a lightning storm is to reduce the likelihood of multiple casualties.
- ◆ One downfall could be the psychological and emotional impact that this can have on students, should they be spread out sufficiently to lose contact with a staff or group member. With planning and proper understanding of the procedure however, staff can reduce the negative impact of this procedure.
- ◆ Another downfall is trying to keep students dry. While it is preferable to be wet than struck by lightning, following steps in the lightning protocol that ensure proper tent setup for a storm situation, students may be safer, dry, in their tent, in a crouch position, off the ground and not touching each other.

### **Lightning Facts from Wikipedia**

- ◆ An average bolt of lightning carries an electric current of 40 kiloamperes (kA) (although some bolts can be up to 120 kA), and transfers a charge of five coulombs and 500 MJ. The voltage depends on the length of the bolt, with the dielectric breakdown of air being three million volts per meter; this works out to approximately one gigavolt (one billion volts) for a 300 m (1000 ft) lightning bolt. With an electric current of 100 kA, this gives a power of 100 terawatts. However, lightning leader development is not a simple matter of dielectric breakdown, and the ambient electric fields required for lightning leader propagation can be a few orders of magnitude less than dielectric breakdown strength. Further, the potential gradient inside a well-developed return-stroke channel is on the order of hundreds of volts per meter or less due to intense channel ionization, resulting in a true power output on the order of megawatts per meter for a vigorous return-stroke current of 100 kA.
- ◆ Lightning heats nearby air to about 10,000 °C (18,000 °F) nearly instantly, which is almost twice the temperature of the Sun's surface. The heating creates a shock wave that is heard as thunder.
- ◆ The return stroke of a lightning bolt follows a charge channel only about a centimeter (0.4-in) wide — no wider than a pencil. Most lightning bolts are about 1.6 kilometers (1 mi) long. The longest recorded length was 190 kilometers (118 mi), sighted near Dallas, Texas.

## **Cold Conditions**

Cold related illness can occur if a person loses more body heat than the body can restore. Body heat is lost to the environment through evaporation, radiation, convection and conduction.

### **Hypothermia**

Hypothermia is a cold related illness that affects the entire body.

Hypothermia is an emergency condition that must be treated immediately to prevent the patient's death. Hypothermia usually occurs after prolonged exposure to chilly environments rather than being the result of extreme cold. A wet day with temperatures around 10 degrees Celsius and a strong breeze are a more typical setting for hypothermia than a minus twenty freezing winter day.

#### **Prevention**

- ◆ Avoid being wet. If you do get wet, get out of the weather and get into dry clothes.
- ◆ Avoid being exposed to the wind; if you cannot do this, get out of the wind as soon as possible.
- ◆ Avoid dehydration. If you become dehydrated, replenish fluids as soon as possible.
- ◆ Ensure you have adequate insulation.

#### **Safety**

- ◆ Staff will be familiar with the first-aid procedures for all cold related conditions.

## **Hot Conditions**

Heat related illness can occur if a person builds up more heat in their body than it can lose. Body heat builds up by extreme exertion and by exposure to a hot environment.

#### **Heat-Related Conditions**

- ◆ Heat Cramps
- ◆ Heat Exhaustion
- ◆ Heat Stroke

#### **Prevention**

- ◆ Wear long, light clothing if possible.
- ◆ Wear a hat and sunglasses.
- ◆ Drink water regularly throughout the day. (your pee should be clear)
- ◆ Make sure the group is taking frequent GORP breaks.
- ◆ Staff should keep a close eye on the well being of their students.

#### **Safety**

- ◆ Staff will be familiar with the first-aid procedures for all heat related conditions.

## **Sunburn**

### General

- ◆ Burn injuries from overexposure to UV radiation are potentially serious but preventable. Certain medications (such as tetracycline and oral medications for diabetes) can increase skin sensitivity to the sun and the danger of burning.
- ◆ UV radiation is not filtered by cloud cover, so skin protection must be maintained even on a cloudy day.

### Prevention

- ◆ The most effective prevention is to cover exposed skin with clothing. Clothing's ability to screen UV radiation depends on its weave and fiber. Hats should include a wide brim to protect the back of your neck as well as face and ears.
- ◆ When skin must be exposed, sunscreen products should be applied.

### Safety

- ◆ Staff will be familiar with the first-aid procedures for all heat related conditions

## **Ocean Specific**

### **Tides**

Tide heights must be known when planning to launch or land because the tide height determines how much land will be exposed. Changes in tide height can turn an easy landing into an impossible one (eg. Intertidal zone west of West Pompay Island).

Knowledge of tide heights is also critical for planning crossings over tidal flats. Areas that can be crossed at high tide may be impossible to cross at low tide. Keep in mind that paddling in deep water is far easier than paddling in shallow water.

### **Tidal Currents**

In areas where the tide funnels through a narrow (e.g. the straights around Rigolet) tidal eddies and strong currents can result. Current flowing against the wind can cause a dramatic increase in the steepness of the waves often resulting in whitecaps that make paddling downwind comparable to paddling in surf (except the wave crests are closer together). When paddling upwind in strong favorable current, the short steep seas caused by the opposing wind, along with the adverse force of the wind often hinder paddling progress more than the favorable current aids.

Staff will be aware of tidal current strengths and weather conditions at all times when paddling on the ocean. Staff will use their professional judgment when making a decision regarding paddling in tidal currents.

## **Fog**

From a practical marine point of view there are two kinds of fog: sea fog and radiation fog. It is fundamental to safety to know the distinction between them.

- ♦ Radiation fog comes with no wind, and it burns off as the day heats; sea fog can come with strong winds and last for days. All fog is formed the same way. When the air temperature drops to the dew point, water vapor in the air condenses to fog. Distinctions in the two types of fog lie only in the way the air is cooled and in the subsequent behavior of the fog mass and associated weather. Radiation fog is formed over land on clear calm nights whenever the relative humidity is high at sunset. The lack of cloud cover allows the heat of the land to radiate away overnight, which cools the air near the ground. The ideal wind for the formation of radiation fog is a light breeze of under 3 knots. Although it is formed on land, radiation fog can be a concern for kayakers as can spill out over water, obscuring shore side aids to navigation. Radiation fog usually burns off as the day heats
- ♦ Sea fog presents a much more serious hazard to sea kayakers than radiation fog. Sea fog is formed over offshore waters but can spread far into long coastal embayments. Most commonly, it is formed when warm moist air flows over cold coastal waters. Areas of denser sea fog can extend over hundreds of miles and persist for many days. Sea fog is often accompanied by winds.

Staff must take extra caution traveling in fog. Sea fog is often accompanied by winds making paddling more dangerous.

If possible, crossings will be avoided in heavy fog. If a group is to make a crossing in fog, staff will take extra care to follow a bearing and ensure students are comfortable with the crossing.

## **Icebergs**

An iceberg is a large piece of freshwater ice that has broken off from a snow-formed glacier or ice shelf and is floating in open water. Because the density of pure water ice is less than sea water, only one-ninth of the volume of an iceberg is above water. The shape of the remainder under the water can be difficult to surmise from looking at what is visible above the surface. Icebergs are known to be unstable and may rotate or pieces may unexpectedly break apart.

In the event of seeing an iceberg while paddling in Labrador, staff and students are to maintain a distance of 1 kilometer from the berg. Observation from a distance through binoculars (if available) is encouraged however approaching the iceberg to a close distance is very dangerous and not permitted.



## **Forest Fires**

See the Environmental Ethics section of the Gould Lake Standards and Practices document.

Staff should be aware of the ministry of natural resources restricted fire zone postings. If a trip is taking place in a restricted fire zone, no campfires will occur during the trip.

You can find the MNR restricted fire zones on their web site:

<http://www.mnr.gov.on.ca/en/index.html>

If a forest fire occurs or is seen while on trip, the group is to travel to an alternate safe location and report the fire as soon as possible. In the event of a large scale forest fire the trip is to travel to the nearest evacuation location and seek external assistance.



# **ANIMALS AND INSECTS**

## **Animal Proofing**

All food and food-smelling items should be carefully packed away every night (see course specific practices). If pots/dishes are well cleaned, it is up to the discretion of the instructors to determine if these are stored away with food or simply placed well away from tents.

The best thing groups can do to keep animals out of there campsite is to keep food tidy during meal times as well as ensuring all food and smelly items are out of tents and properly packed away at night.

What needs to be animal proofed at night?

- ◆ Toothpaste, sun screen and other skin creams
- ◆ Water bottles that have had juice in them
- ◆ Garbage
- ◆ All food
- ◆ Used feminine hygiene products
- ◆ Pots, pans, dishes (see above)
- ◆ Anything else smelly

## **Course Specific Animal Proofing Practices**

### **Quest/GAP (Frontenac Prov. Park)**

### **Outreach (Algonquin Prov. Park)**

### **OS (Killarney Prov. Park)**

#### Bear Canoe

The bear canoe is an excellent method for large groups with lots of food. When loaded, the bear canoe should be waterproofed (Paddles can be placed in the bottom of the canoe to keep items out of puddles. Items can be wrapped in a tarp like a burrito.), anchored at least 10 metres from shore and secured to a tree on shore with a safety line.

### **OS (Georgian Bay)**

#### Bear Kayak

Food and smelly things will be stored in sealed kayak hatches overnight. Kayaks will be placed 150 feet down wind and away from camp and overturned.

### **OS (Adirondacks)**

#### Bear Canisters

Bears are very common in the High peaks region of the Adirondacks. Food/smellies are to be stored in bear canisters at night. The canisters are to be clumped together along with pots and dishes and placed in a shallow depression at least 300 feet from tents/lean-tos

## **OS (Palmer Rapids)**

### Bear Clump

Food and smelly items will be placed in barrels at night and stored 75-100 feet from group tents (if possible).

## **WIC (Missinaibi River)**

### Bear Clump

Food and smelly items will be stored in closed barrels and if possible placed downwind and 75-100 feet away from tents.

## **KIC (Labrador Coast)**

### Bear Kayak

Food and smelly items will be stored in sealed and closed kayak hatches at night. Kayaks are commonly used for tarp set-up and securing tents while in camp. As a result overturning kayaks at night is not usually required. In the event of a bear in camp, instructors will have students secure tents and tarps without kayaks, storing food in sealed kayak hatches down wind and 75-100 feet away from all tents (if possible).

## **Black Bears**

Black Bears are normally shy of humans and will quickly move away. However, if they become accustomed to finding food in a campsite, they may lose their fear of humans and visit regularly in search of food. Being careful to keep a clean campsite and properly store your food at night will decrease the chance of having a bear in camp.

## **Protocol for Bear Encounters and Prevention**

- ◆ Whenever possible groups should keep their distance from bears. If a bear is seen while on the water the group will continue to paddle to a campsite far from the bear.
- ◆ If a bear enters your camp and it is possible to leave without disturbing the bear, the group should do so.
- ◆ If a bear comes into a campsite and it is not possible to leave, the staff will remain calm and inform the group that there is a bear in camp. The group will get together and ensure the bear has a clear escape route. If possible, staff will have the group go to the water close to canoes or kayaks. Near the water they will be able to leave the campsite if the bear becomes aggressive.
- ◆ Instructors will speak loudly and firmly to the bear with the intention of encouraging it to leave the campsite. During the day, wave your arms to appear bigger. At night, shining a flashlight at the bear may help to move it out of camp. If the above are not successful in deterring the bear, staff will use pots/pans, air horn, bear bangers and as a last resort bear spray as a means of moving the bear out of camp. All staff should be familiar with using bear spray and ensure the bear is downwind of the direction the spray.

- ◆ If the bear stands upright, makes huffing noises and or beats the ground with its paws the bear is feeling threatened by your presence and wants you to back off. Staff should pay attention to such signs and back off when necessary.
- ◆ Staff must be familiar with the contents of the emergency kit and be comfortable with using each item. Emergency kits will be kept inside or next to staff tents during the night and staff will know their location at all times. The emergency kit will be carried on staff at all times during the day, especially on portages.

## **Predatory Black Bears**

- ◆ In RARE situations Black Bears will stalk humans with the intent to kill. Only 56 people in North America have been killed by predatory black bears since 1900.
- ◆ In the rare event of an encounter of a predatory black bear, research says the best action to take is to fight back. Do everything you can to make the bear think twice about attacking you. Be very aggressive, yell, use sticks/paddles and bear spray. Again, predatory black bear attacks are extremely rare.

## **Rattlesnakes**

The Eastern Massasauga rattlesnake (*Sistrurus catenatus catenatus*) is a concern in the Georgian Bay and Killarney sections of the Outdoor Skills course.

## **Snakebite Prevention**

- ◆ Staff instructing trips in Georgian Bay and/or Killarney are expected to be able to identify the Eastern Massasauga Rattler by sight.
- ◆ All students and staff on trips on Georgian Bay are required to bring a pair of rubber boots. These can significantly reduce the likelihood of a rattlesnake bite – most of which are to the feet and ankles and occur when the snake is startled by a person walking too close to it. If staff have reason to believe that there is an elevated likelihood of a rattlesnake encounter, all students and staff should wear their rubber boots.
- ◆ If a snake is seen, keep your distance. Many people are bitten because they try to approach a snake, pick it up, kill it, or get a closer look.
- ◆ Avoid tall grass as much as possible. Boots are recommended if you must walk through tall grass.
- ◆ Keep hands and feet out of areas you cannot see.
- ◆ Be cautious and alert whenever picking anything up off the ground such as equipment, rocks, firewood, etc.
- ◆ Check kayak cockpits carefully for snakes prior to entering the boat.

## **Treating a Rattlesnake Bite**

- ◆ Allow the bite to bleed freely for 15-30 seconds.
- ◆ Immediately apply suction to the wound using the snakebite kit provided in your first aid kit. Be sure to read instructions carefully. Extractor should be left in place until there is no more drainage from the fang marks – up to 30 minutes or more if necessary.
- ◆ Thoroughly clean the wound with running water and soap.
- ◆ Apply an antiseptic solution (such as bactine or iodine)
- ◆ Immobilize the affected limb.
- ◆ Apply a snug bandage or tensor a few inches above the bite – ensure this does not block blood flow. It should not be wrapped any tighter than you would wrap a sprained ankle.
- ◆ Evacuate to hospital immediately. Up to 50% of rattlesnake bites may be ‘dry bites’ (no venom injected), but we are not medical professionals or snakebite experts. We will not attempt to make this determination ourselves. We will assume that venom has been injected
- ◆ **Do not:**
  - Apply any tourniquet – cuts blood flow and can result in loss of limb.
  - Applying ice or other type of cooling on the bite can be harmful.
  - Consult your wilderness first aid manuals for further information.

## **Chipmunks and other Small Animals**

Chipmunks and other small animals (mice, squirrels etc) are frequently known to enter a campsite and happily eat any treats that have been left around. Staff should ensure that food is organized and not left out during the day. During meal times students should eat carefully so as to not spread food throughout the site. There is to be no food in tents. After meals, staff must ensure food is put away and the site is organized in a way that will not be inviting to other creatures.

## **Safety**

- ◆ In the event of food being chewed by chipmunks or other critters, the food must be put into the garbage and packed out at the end of trip.

## **Moose**

Moose in general are not known to be a threat; however they may be seen on numerous Gould lake trips. If a moose is seen the group will act in a respectful manner disturbing the moose as little as possible. If a moose is acting in an aggressive manner, it is probably because it feels you are in its territory. If possible, staff will have the group move to a location away from the moose. If the moose continues to threaten, staff will follow the steps for dealing with an in-camp bear (see notes on ‘what to do if you encounter a bear’).

### **Whales, Seals, Porpoises (KIC)**

Minkie whales, seals and porpoises are a common sight off the coast of Labrador (KIC). There have been no past incidences of whales contacting kayaks, however they commonly surface within a few feet of boats. When kayaking in the presence of whales, staff must ensure students are comfortable and inform them that there's very little risk of a whale capsizing their boat.

### **Mosquitoes and Black flies**

Mosquitoes and black flies can be a concern on any Gould Lake trip. Prevention of bites is the best approach. Due to the high numbers of bugs (especially on WIC and KIC) it is sometimes impossible to avoid being bitten.

#### **Bite Prevention**

- ◆ Staff should discuss different possibilities for preventing bug bites on trip.
- ◆ Bug jackets are recommended on WIC and KIC where there are a lot of black flies and mosquitoes. Also, wearing long clothing will help in preventing bites.
- ◆ Numerous repellents (chemical and botanical) are sold to prevent bites.
- ◆ If staff, students and or parents would like further information regarding Insect bite prevention they should refer to the KFL&A Public Health web site. (<http://www.kflapublichealth.ca/>)
- ◆ In the event of severe bites, staff will follow Standard/Wilderness First-Aid procedures.

### **Bees and Wasps**

If there is a group member with a bee allergy, the staff should be aware of the allergy and the student and staff will carry an Epi-pen. A staff with an Epi-pen and Benadryl will walk with the student on portages.

The individual with the allergy will ensure they are with a buddy when they are away from the group.

In the event of an allergic reaction staff will follow Standard/Wilderness First-Aid procedures.

## **PROGRAM SPECIFIC EQUIPMENT**

The summer program demands safe and well maintained equipment. We all need to do our part to keep a system that works for all programs.

There is a well thought out system and progression for which program is assigned which gear, and it is important for us to respect this and not put pressure on equipment staff to give special treatment of gear.

In general, please treat the equipment as if it were your own and ask this of the students as well.

### **Notes on Equipment**

- ◆ Food barrel lids should not be used as cutting boards or for sitting upon. Instead use pot lids or actual cutting boards – use items that can be washed properly. (Reason- many trips use the barrel's to bear proof their food. If the lids are constantly used for cutting food on- especially cheese and meat, it kind of defeats the purpose – even if you are using the inside of the lid.)
- ◆ Senior tents should only be used by designated senior trips. (reason- the gale force winds that can occur in Labrador, James Bay, and Georgian Bay need tents that are able to sustain that kind of wind. We also need to know how many times these tents have been used on trip to make sure they are safe to go on certain types of trips.)
- ◆ Please ensure that tent bags and pole bags are secure or put away as soon as the tent is set up.
- ◆ Please teach proper care of paddles.
- ◆ Please ensure that packs and barrels are washed and dried upon returning from trip.
- ◆ Please try to fix what you can and inform the equipment manager of things you cannot repair.

### **Notes on Staff borrowing GL Equipment**

We encourage staff to borrow equipment; however we would like all staff to have this facilitated through the office. Please email us a list of what you need and we can check to be sure there are no conflicts. We will also arrange a sign out time with you. Please make sure that all equipment is returned as soon as possible and signed back in.

EQUIPMENT	QUEST /	OUT	WIC	KIC
Boats	ABS/Al	ABS/Al	ABS	KIC Kayak
Paddles	wood	wood	Plastic	Light wt
Pfds (students bring)				
Tent 3 person -			*	*
Tent 4 person -			*	*
Tent 4person -	*	*		
Thelma	✓	✓	✓	✓
Tarp	✓	✓	✓	✓
Canoe Pack	*	*	*	
Barrel Pack	2/trip	2/trip	*	
Mtn Pack				
Bear rope	*	*		
Outback oven			*	*
Pot set / Fry pan	Large	Large	Small set	Small set
Cookie Tray	*	*		
Utensil set	✓	✓	✓	✓
Cup/bowl/spoon	*	*		
Cook book- menu	✓	✓	✓	✓
Scorch Pad			*	*
Stove	2 burner	peak	Peak/whis	Dragonfly
Fuel bottle	✓	✓	✓	✓
Water filter	✓	✓	✓	✓
Pristine	✓	✓	✓	✓
Water jug (large)	✓	✓	✓	✓
Emergency kit	✓	✓	✓	✓
Repair kit	✓	✓	✓	✓
First aid kit	✓	✓	✓	✓
Snake bite kit				
Wrap kit			*	
Scenario kit			*	
Foot first aid kit mtn				
Compass	✓	✓	✓	✓
Map &Map case	✓	✓	✓	✓
Armv stuff bag	✓	✓	✓	✓
Cathole shovel	✓	✓	✓	✓
Toilet paper	✓	✓	✓	✓
Rope/bailer/whistle	✓	✓	✓	✓
Food bags kayak				*
Bilge pump				*
Cockpit slings				*
Paddle floats				*
Tow ropes				*
Lap bag				*
Sponge				*
Spray skirt				*
Helmets			*	
Throw bag			*	*
Bear barrels				
Specialized phones	*	*	*	*
Radios GPS	*		*	*
Thigh Straps/end			*	



EQUIPMENT	OS-K/	OS-A	OS-P
Boats	OS Kayak		ABS
Paddles	Plastic/		Plastic
Pfds (students bring)			
Tent 3 person -Nunatuck	*		
Tent 4 person -	*		
Tent 4 person - Eureka		*	*
Thelma	✓	✓	✓
Tarp	✓	✓	✓
Canoe Pack	*		
Barrel Pack	2/trip-Geoargian		
Mtn Pack		*	
Bear rope	*		
Outback oven	*	*	
Pot set / Fry pan	Small set	Small set	Large
Cookie Tray			*
Utensil set	✓	✓	✓
Cup/bowl/spoon			
Cook book- menu	✓	✓	✓
Scorch Pad	*	*	
Stove	Peak/whis	Peak/whis	2 burner
Fuel bottle	✓	✓	✓
Water filter	✓	✓	✓
Pristine	✓	✓	✓
Water iug (large)	✓	✓	✓
Emergency kit	✓	✓	✓
Repair kit	✓	✓	✓
First aid kit	✓	✓	✓
Snake bite kit	✓	✓	✓
Wrap kit			*
Scenario kit			*
Foot first aid kit mtn		*	
Compass	✓	✓	✓
Map &Map case	✓	✓	✓
Army stuff bag	✓	✓	✓
Cathole shovel	✓	✓	✓
Toilet paper	✓	✓	✓
Rope/bailer/whistle	✓	✓	✓
Food bags kayak	*		
Bilge pump	*		
Cockpit slings	*		
Paddle floats	*		
Tow ropes	*		
Lap bag	*		
Sponge	*		
Spray skirt	*		
Helmets			
Throw bag		*	*
Bear barrels		*	
Specialized phones	*	*	*
Radios GPS	*		*
Thigh Straps/end bags			*



# **EMERGENCY EQUIPMENT**

The following are the emergency items carried by Gould Lake groups. Staff should be familiar with their purpose and usage. Please ensure that you have this emergency gear easily accessible and in good working order.

## **Notes on Flares, Bear Spray and Bear Bangers**

- ♦ **Flares\***
  - Project 45 meters.
  - Red Flare-‘DISTRESS, White Flare-‘I AM HERE’, Green Flare-‘SAVE NOW’.
  - *Safety Note:* do not remove safety cap from cartridge before you want to use it. Shoot only with a launcher that is in good condition. Do not keep the cartridge loaded onto the launcher.
- ♦ **Bear Bangers\***
  - Explode with a loud bang after travelling 40 meters.
  - Safety same as above.
- ♦ **Bear Spray** –Effective range up to 5.5 m or 18ft. The canister empties in about 8 seconds. Used for close encounters.

\*Both the Bear Bangers and Flares are to be used with pen launchers

## **Emergency Communication Devices**

### **Satellite Phones**

- ♦ Should receive service anywhere we travel
- ♦ Calls can often be cut-off after a couple of minutes so ensure you are prepared to deliver necessary information quickly, efficiently, and accurately
- ♦ We will generally carry two batteries with each satellite phone. Phones should be used as little as possible to ensure the battery remains charged, should further need for the phone arise.
- ♦ Instructors should use their professional judgment to determine where the phone should be carried.
- ♦ Each satellite phone has its own number which can be called. Be sure your phone has this information listed on it.
- ♦ Instructions for use should be located in the phone’s case. Familiarize yourself with these prior to your trip.
- ♦ Coverage can be blocked by even moderate forest canopy or high terrain so you may need to find high, open ground, or paddle out onto a lake to receive optimal coverage.
- ♦ The phone works better if you are walking around and it could take some time before you get a signal.

## **Personal Locator Beacon (PLB)**

- ◆ **What is it?**

A 406 MHz PLB is a battery-powered emergency transmitter which, when activated, sends a coded signal. A signal received by the Cospas-Sarsat System from a PLB is considered to be an indication of serious distress and search and rescue authorities in Canada will react to the alert in the appropriate manner.

- ◆ **How does it work?**

Once activated, a 406 MHz PLB sends a digitally encoded signal indicating an emergency exists. An orbiting Cospas-Sarsat satellite receives the distress signal as it orbits the earth and relays pertinent data to a ground receiving station, where the location of the distress beacon is computed. The location information is relayed to the Mission Control Centre (MCC) at Canadian Forces Base Trenton, Ontario. The MCC conveys this information to the search and rescue point of contact. The MCC also provides search and rescue authorities with additional information in the PLB registry which may assist in the successful resolution of the emergency.

- ◆ **Is a PLB waterproof?**

Yes, but typically only to one metre so submersion could damage/destroy it.

- ◆ **Is 24 hours long enough to get rescued?**

Typically yes. The vast majority of PLB initiated rescues are accomplished in far less than 24 hours.

- ◆ **When should I use my PLB?**

Your PLB must only be activated in a distress situation and only in remote areas where conventional communication facilities are not available. A distress situation involves an incident concerning grave danger to the safety of human life.

- ◆ **Do I need a PLB if I already have a satellite phone?**

A satellite phone makes a very nice adjunct to a PLB. However, satellite phones have coverage limitations, no matter what their maps show, are easily blocked by even a moderate forest canopy or high terrain, are not very abuse resistant, and are not waterproof. All have only rechargeable batteries with very limited life.

# **CANOES, SOLO CANOES, SEA KAYAKS**

## **Maintenance and Repair**

### **Staff Notes**

- ♦ Check in advance that your boats are in good working order, and make sure that your repair kit has the appropriate items to fix the type of boat that you have in the wilderness.
- ♦ All staff should promote boat care when loading and unloading trailers, launching / landing, and on portages.
- ♦ Ensure boats are well secured (tied together at night), especially if winds are strong, or if you are traveling in areas that are susceptible to storms and wind.
- ♦ Ensure boats are pulled up above high tide water levels and tied together.
- ♦ Rinse mud, gravel and salt from kayaks when returning from Georgian Bay and Labrador.
- ♦ Ensure all equipment and gear is taken out of the bow and stern storage areas of the kayak before putting on the trailer and putting back in the barn.

### **Common Boat Repairs**

Check that your repair kit has the appropriate items to fix (as best as possible) these repairs in the wilderness.

- ♦ Seat bolts break in ABS canoes
- ♦ Center thwart bolts break in Grumman and ABS canoes
- ♦ Center thwart cracks and sometimes totally breaks in both types of canoes
- ♦ Puncture holes or leaks in Grumman canoes
- ♦ Kayak hatch seals, rudder cables, neoprene repairs to skirts and hatch covers, bungee cord repairs

## **Gould Lake Tandem Canoes**

<b>Tandem Canoes</b>	<b>Material</b>	<b>Weight</b>	<b>Width or Beam</b>	<b>Depth Mid</b>
16' Esquif Prospector Used by Outreach	Royalex	65lbs	35"	15"
16' Trailhead Prospector Used by Quest, OS	Royalex HD Royalex	65lbs 74lbs	34"	14"
17' Trailhead Prospector Used by OS, WIC	Royalex	75lbs	34.5"	16"
16'.6"Evergreen Starburst Used by OS, WIC	Royalex	75lbs	33.5"	15"
17' Grumman – Standard Used by Outreach, Quest	Aluminum LW	82lbs 69lbs	36"	13"

### Gould Lake Solo Canoes

Solo Canoes	Material	Rocker	Width or Beam	Depth Mid
Esquif – Nitro - 11'6"	Royalex	5"	27.5"	16"
Evergreen – Solito - 9'11"	Royalex	5"	28"	14"
Bell - Ocoee	Royalex	5.5"	27-29"	11'2"
Dagger - Phantom	Royalex	4.5"	28.5"	15"

### Gould Lake Kayaks

Used by OS and KIC and 2 <sup>nd</sup> year Outreach students	Length	Weight	Width or Beam	Cockpit
Necky Amaruk-Tandem	17'10"	91lbs	28.5"	
Necky Looksha IV	17'	65lbs	22.5"	29.5"x16"
Necky Kyook	15'	60lbs	25"	
Boreal Innuksuk	17'	63lbs	23.5"	31"x16.5"
Current Design Storm	17'	64lbs	24"	32.5"x17.5"

### Gould Lake Tents

Tent	# people	Area Sq.m	Kg	Fabric / Coating
Eureka -Kananaskis 4 person -used for Quest, Outreach, OS	4 (4 person Junior)	5.63	5.5	Polyester 1500
MEC Nunatak -used for OS, WIC, KIC	3 (3 person Junior)	4.01	5.0	Polyester 2000
MEC Monadnock -used for WIC, KIC	4 (4 person Senior)	5.28	5.28	Polyester 2000

# **TENTS**

## **Maintenance and Repair**

Most tents spend the majority of their nights stuffed in a dark storage room, rather than pitched under the stars. So, to preserve your tent the best thing you can do is make sure it is dry before you put it away.

### **Tent Care and Maintenance**

- ◆ When packing the tent to fit it in the stuff sack, don't fold the fabrics at the same place every time. Over time, an established fold line creates a crease that can crack the waterproof coating.
- ◆ If the poles were exposed to salt air, rinse them in fresh water and let them air dry to prevent corrosion.
- ◆ Tent zippers that are exposed to sand and or salt air should also be rinsed and air dried.
- ◆ To clean your tent, you can set it up and wipe it down with a sponge.
- ◆ To protect tent poles and to keep segments sliding easily, apply a light coat of silicone lubricant. The same lubricant can be put on zippers to keep them moving smoothly.
- ◆ Ensure your tent is set up away from the kitchen and campfire areas to avoid sparks from putting holes in the tent fly.
- ◆ Avoid trees that might drip pitch or drop branches.
- ◆ Avoid intense sun when ever possible. At the very least, protect the vulnerable canopy fabric by keeping it covered with the fly.
- ◆ Once you have your tent up, ensure that it's well anchored and tensioned, so strong winds won't move it.
- ◆ To preserve the floor of your tent, especially on rocky terrain, use a ground sheet on the outside of the tent. The ground sheet or footprint should go on the outside of the tent and should be entirely covered by the tent to prevent rain from being channeled under the floor. (use 2 ground sheets if you want one inside).
- ◆ Poles that are stored for longer than 3 months should be put together as it is easier on the shock cord.
- ◆ Please don't put big rocks inside the tent to hold it down. Put extra ties on the outside of tent.
- ◆ Tent and tarps should be set up in the direction of the wind to reduce strain on equipment.

### **Staff Notes**

- ◆ Please do not use the tent fly as a sail. Use your Canadian tire blue tarp or Thelma Fly as they are far less expensive to replace and it is not part of your tent.
- ◆ Ensure that students enjoy horseplay away from the tents and definitely not in the tent.
- ◆ Ensure that your repair kit has the items to fix broken tent poles, zippers and tears in fabric.
- ◆ When returning from trip make sure all tents are dry, clean and properly packed with all its parts.
- ◆ Clearly detail with a label exactly what is wrong with your tent if it needs repair.

# **STOVE & FIRE USE AND SAFETY**

## **Stove Maintenance and Repair**

White gas stoves are designed to provide you with long-term reliability and cost-effective cooking. Due to their design and function, they do require some routine maintenance.

Examples of stoves we take on trip are: Coleman Feather 442, MSR WhisperLite and Dragonfly, Coleman double burner.

## **Stove Care and Staff Notes**

- ◆ Pack stoves in barrels where they are kept dry and damage is minimized.
- ◆ Make sure stoves are put away and kept dry when not in use.
- ◆ Keep stoves out of sand (place something under them if you are camping on a beach).
- ◆ Staff should directly supervise any repairs done to the stoves by senior students.
- ◆ Pot bottoms should be clean before placing on stoves.
- ◆ Be careful not to lay the fuel cap on the ground, where it will pick up debris.
- ◆ Most stoves should only be filled  $\frac{3}{4}$  full. Overfilling does not allow the fuel to pressurize properly and thus vaporize properly.
- ◆ Let the stove cool before packing it.
- ◆ Release fuel pressure, prior to packing, by loosening the cap (cap pointed up) but be sure to re-tighten it securely.
- ◆ Pack the stove upright and well away from food items to prevent potential contamination.
- ◆ Empty fuel bottles should be rinsed with fuel prior to being refilled in order to get rid of any sand/dirt that may have accumulated.
- ◆ When using MSR stoves one fuel bottle should be used for the entire trip and the pump should remain attached to this bottle at all time. Ensure the temperature adjustment knob is set securely to "off".
- ◆ Fuelling should be done well away from the area in which the stove will be lit.
- ◆ Any fuel spilled on hands/body should be allowed to evaporate fully before lighting the stove.
- ◆ Stoves should be used on flat ground, free of any flammable materials.
- ◆ Avoid sand where possible – it easily gets into the fuel line and blocks the flow of fuel.
- ◆ You should always be in a crouched position on your feet when lighting your stove to allow you to quickly move away from the stove should the flame get larger than expected.
- ◆ Long hair should be tied back and no clothing should be hanging from anyone using a stove.



- ◆ Stoves should not be used on top of picnic tables due to pots of boiling water falling onto someone sitting at the table and potentially burning a large part of their body. (Only double burner Coleman stoves maybe used on picnic tables)
- ◆ Where possible cooking should be done at least 100 feet (30 yards) away from tents.
- ◆ Group members should be made aware that a stove is on – the popular “Hot Pot” call.
- ◆ Stoves should not be set up in areas of a campsite that people are very likely to walk through.
- ◆ Burn prevention should be covered with students – how to carry a pot of boiling water with pot grips, how to drain pots of boiling water, how to stabilize a pot on a stove and how to stabilize the stove itself.

## **Common Problems and Preventative Maintenance**

### **Carbon Deposits**

A common problem with malfunctioning stoves is carbon deposits or foreign debris blocking the flow of fuel to the jet. To reduce this build-up, get in the habit of blowing out the blue flame when the fuel supply is turned off, instead of letting it flicker out. Stoves with shaker jets (Whisperlite) can be tilted backwards and forwards to allow the needle to force carbon from the jet. Eventually though, all stoves need full cleaning to restore optimum performance.

### **Old Fuel**

Old fuel will not burn cleanly, causing a weak or surging flame, or block your stove. Try and replace fuel when it's over a year old. Using a filter funnel with a fiber disc keeps your stove running smoothly by removing deposits from fuel.

Water in the fuel could also be a problem. Totally empty tank if you suspect this to be an issue.

### **Pump Problems (MSR-Whisperlite)**

If your pump does not seem to build pressure in the bottle, and pumping seems excessively easy, your pump washer may require greasing with pump oil or, failing that, lip balm or Vaseline.

If your check valve spring (located at the bottom of the pump), and ball valve are worn out or missing, you can replace them.

### **Operation**

To minimize the chance that grit will migrate into your fuel line, leave your stove attached to the pump and its fuel bottle. (MSR-Whisperlite, Dragonfly)

Improper priming can cause dangerous flare-ups. Allow your stove to cool completely before priming and re-lighting, or refueling.

**If all else fails clean all parts of your stove.**

## **Tips for Building a Safe Campfire**

### **Choose a Site**

- ◆ Pick a site that is close to a water source and sheltered from the wind.
- ◆ Build your fire on a rock surface or bare dirt.
- ◆ Build your fire at least 3 meters away from logs, stumps, trees and overhanging branches.
- ◆ Build your fire 15 meters away from buildings or tents.

### **Prepare the Site**

- ◆ Clear a space (about 2 meters wide) where the fire will be.
- ◆ Make sure you remove pine needles, grass, leaves and twigs.
- ◆ Be sure you have a pail of water and a shovel to control the fire.

\*Note: programs are in provincial parks and will be required to build fires in the provided park fire pits.

### **Build Your Campfire**

- ◆ Keep your fire small - it shouldn't be bigger than 1 meter high and half a meter wide.
- ◆ Small fires are safer, easier to control and easier to put out.
- ◆ A small fire will also keep your cooking tools from blackening and will let you get close enough to cook.

### **Stay Nearby**

- ◆ Never leave a campfire unattended.
- ◆ If you start a campfire, you are responsible for tending the fire, ensuring it is kept under control and extinguishing it.

### **Put the fire out**

- ◆ Drown the fire with water and stir the ashes with a stick to uncover hot coals.
- ◆ Pour water over it a second time.
- ◆ Hold your hand above it to make sure that the ashes have cooled.

## **Program Specifics**

### **Quest, Gap, Outreach, OS (Killarney)**

- ◆ These programs take place in Provincial Parks. All fires must be built in the provided fire pits.
- ◆ Staff will be up-to-date regarding park fire bans.
- ◆ For information on Ontario Provincial Park fire bans visit <http://www.parkreports.com/report.php>

### **OS (Adirondacks- High Peaks)**

- ◆ Staff must follow Adirondack Park regulations.
- ◆ No campfires in the Eastern High Peaks Zone.
- ◆ In the Western High Peaks Zone, campfires are allowed only at designated sites or at locations at least 150 feet (46 m.) from any road, trail, or water source.

## Student Specific Clothing and Gear

Item	Quest	Gap	Outreach
Toque (wool)	1	1	1
Sun hat	1	1	1
Bandana	1	1	1
T-shirt	2	2	2
Rain Jacket	1	1	1
Long underwear top	1	1	1
Warm Jacket	1	1	1
Sweater / Fleece	1	1	1
Nylon Jacket	1	1	1
Bug Jacket	1	1	1
Swim suit	1	1	1
Quick dry shorts	2	2	2
Underwear	3	3	3
Long pants /fleece	1	1	1
Long underwear bottom	1	1	1
Rain pants	1	1	1
Nylon pants	1	1	1
Wool socks	3	3	3
Wet shoes (covered)	1	1	1
Dry shoes	1	1	1
Sleeping Bag with stuff sac	1	1	1
Ground Sheet (4x8)	1	1	1
1 L. Water Bottle	1	1	1
Whistle	1	1	1
Flashlight-headlamp	1	1	1
Insect Repellent	1	1	1
Sun screen, lip block	1	1	1
Camera	1	1	1
Toiletries (tooth brush, toothpaste, comb, gender specific items)	✓	✓	✓
Stuff Sacs (sealines)	1-2	1-2	1-2
Sun glasses	1	1	1
Cup/bowl/spoon/J-knife			
Gloves / Mitts			
Wetsuit			
Matches / Lighter			
Thermos			
Helmet (we can provide)			
Therma rest			
Hiking Boots			
Rubber Boots			
Neck warmer			
Extra spending money			✓
Watch with alarm			
PFD (new item as of 2007)	✓	✓	✓

## Student Specific Clothing and Gear

Item	OS	WIC	KIC
Toque (wool)	1	1	2
Sun hat	1	1	1
Bandana	1	1	1
T-shirt	2	2	2
Rain Jacket	1	1	2
Long underwear top	2	2	2
Warm Jacket	1	1	1
Sweater / Fleece	1	1	1
Nylon Jacket	1	1	1
Bug Jacket	1	1	1
Swim suit	1	1	1
Quick dry shorts	2	2	2
Underwear	3	4	3
Long pants /fleece	1	1	1
Long underwear bottom	1	1	2
Rain pants	1	1	1
Nylon pants	1	1	1
Wool socks	4	4	6
Wet shoes (covered)	1	1	1
Dry shoes	1	1	1
Sleeping Bag with stuff sac	1	1	1
Ground Sheet (4x8)	1	1	1
1 L. Water Bottle	2	1	1
Whistle	1	1	1
Flashlight-headlamp	1	1	1
Insect Repellent	1	1	1
Sun screen, lip block	1	1	1
Camera	1	1	1
Toiletries (tooth brush, toothpaste, comb, gender specific items)	✓	✓	✓
Stuff Sacs (sealines)	2	2	2-4
Sun glasses	1	1	1
Cup/bowl/spoon/J-knife	✓	✓	✓
Gloves / Mitts		✓	✓
Wetsuit			✓
Matches / Lighter	✓	✓	✓
Thermos			✓
Helmet (we can provide)	✓	✓	
Therma rest	✓	✓	✓
Hiking Boots	✓		
Rubber Boots	✓		✓
Neck warmer			✓
Extra spending money	✓	✓	✓
Watch with alarm	✓	✓	✓
PFD (new item as of 2007)	✓	✓	✓

# **GENERAL CLOTHING INFORMATION**

Many synthetic materials made for camping and outdoor use are expensive, particularly if they are only used for camping or a specific trip a few times a year. However, items such as long underwear and fleece can also be used for hockey, skiing and all cool-weather outdoor activities. Many items can be found inexpensively at second hand stores or army surplus stores (often have wool clothing). You should expect that all gear that comes on trip will get dirty and be subject to hard use. Keep this in mind when choosing your gear.

## **Clothing for Hot Weather**

Most days at the barn and on trip, students will be more comfortable in the following: a sun hat (ball cap), a T-shirt (usually cotton, sleeves are needed to prevent burnt shoulders), fast drying (nylon) shorts which can double as swim suit, wool socks, which stay warm when wet and dry faster than cotton, old running shoes: 1 pair to get wet during the day and 1 dry pair to wear in camp at night.

## **Clothing for Colder Weather**

It can get cold enough on trip that you will need to wear a toque, many layers on your top (long underwear, a T-shirt, 2 sweaters/fleeces/wool shirts, a windbreaker and rain coat), long underwear bottoms, wind pants and rain pants, wool socks and running shoes all at the same time!

## **Raincoats vs Wind Breakers**

Ideally you need both on a camping trip. Raincoats are designed to keep you dry in rain. Wind gear is meant to be worn as an outer layer to keep you warm, not necessarily dry, it can be useful in all seasons. The wind gear may be optional. Both rain and wind gear should fit loosely enough, so many layers of other clothing can fit under them and not restrict your movement. If these are too big it can also be difficult. You should try on all your layers with your rain coat and wind clothes at home before trip.

## **Equipment Organization**

**1.** The **stuff sacs** that sleeping bags come in are not usually water proof. One way to waterproof your gear is to stuff clothes and/or sleeping bags into a water proof plastic bag (large garbage bag), then stuff that into another garbage bag and then into the stuff sac. Your gear will be sandwiched between a plastic garbage bag and the stuff sac. The air can be squeezed out of the clothing or sleeping bag and be compressed to a very small size. This procedure will ensure that your items remain dry and costs very little.

**2.** Another method is to pack your clothing and sleeping bag into a **dry sac** ('Sealine' is one brand). These bags are very easy to pack as they come with clips that are easy to close. They are fairly sturdy, can be used on multiple trips and cost about \$25.

# **NUTRITION**

The aim of this section is to make us aware of the body's fundamental nutritional requirements and how we meet them while on trip. With this knowledge, students will be able to plan nutritious, well-balanced menus for extended wilderness trips.

## **Food Planning**

- ◆ Summer courses are set up by menu and by bulk rations.
- ◆ Quest / GAP food is planned by a menu and staff pack this food on staff training day.
- ◆ Outreach food planning is a combination of menu and ration planning, this food is also packed by staff on barn days before trip.
- ◆ Outdoor Skills is a combination of menu and ration planning. Palmer Rapids and Adirondacks food are planned by menu and Killarney / Georgian Bay by rations. Their food is packed by the students on barn days.
- ◆ WIC and KIC food is planned by rations. The food is packed by the students on barn days.

## **Rations Planning**

### ***Advantages***

- ◆ A large variety of foods can be used to make an endless variety of meals
- ◆ It allows spontaneity and creativity in cooking and eating.
- ◆ It does away with the need to plan specific meals.
- ◆ The financial savings are generally substantial.

### ***Criteria***

- ◆ Caloric needs during the summer are 3200-3750 per person per day.
- ◆ Approximately two pounds of food per person per day are required.

### ***Canada's Food Guide suggested servings per day (updated 2007)***

- ◆ Vegetables and Fruit – 7 servings (e.g. dried fruit, juice, fresh veg.)
- ◆ Grains – 6-7 servings (e.g. bread, bagel, rice, pasta, cous cous, cereal)
- ◆ Milk and Alternatives – 3 servings (e.g. cheese, powdered milk)
- ◆ Meat and Alternatives – 2-3 servings (e.g. nuts, seeds, peanut butter, beans, powdered eggs, hummus)

## **The 6 Classes of Nutrients:**

1. Carbohydrates
  - ◆ Energy source (4 cal/g)
2. Fats (lipids)
  - ◆ Energy source (9 cal/g)
3. Proteins
  - ◆ Energy source (4 cal/g)
4. Vitamins
  - ◆ Function as regulators of bodily functions
5. Minerals
  - ◆ Function as parts of bodily structures or regulators of bodily functions
6. Water
  - ◆ Function as parts of bodily structures or regulators of bodily functions

## **Calories/Kilocalories Defined:**

- ◆ This is a unit by which energy is measured.
- ◆ It is the amount of heat energy required to raise 1000g of water by 1 degree Celsius.
- ◆ When the term 'calorie' is used to express an amount of energy provided by food or expended by the body during exercise, the term Kilocalorie or Large Calorie is actually meant.
- ◆ In general, individual daily caloric needs for wilderness travelers range between 2500-4000 in summer and 3500-6000 in winter.

## **Carbohydrates**

- ◆ Provide short-term energy and make up the bulk of the diet.

## **Fats**

- ◆ Provide long-term energy and are found in cheese, nuts, vegetable oil, meats, margarine.

## **Proteins**

- ◆ Provide for the building of cells and tissue.
- ◆ Keeps the immune system running well.
- ◆ Delivers oxygen and nutrients to muscles.
- ◆ Complete proteins are found in meats, fish and soy products.
- ◆ Incomplete proteins (cereals, vegetables, fruit, legumes) can be made complete by combining two or more foods (e.g., beans and vegetables) within the same day for maximum protein benefit.

## **Food plays an important role in:**

- ◆ Staying Healthy - Keeping well nourished plays an instrumental role in fighting illness and disease.
- ◆ Building and repairing body tissue.
- ◆ Attitude: Without good nutrition, disposition and attitude deteriorate rapidly.
- ◆ Energy: Food provides the energy that allows us to take part in physical activities.
- ◆ Mental alertness: Thought processes and decision-making abilities deteriorate without good nutrition.

# **WATER PURIFICATION**

## **Maintenance and Repair**

All backcountry water sources, including fast-flowing, glacier-fed streams can be contaminated by passing birds, animals, or humans.

The less dirty and contaminated water is to start with, the more effective any treatment method will be. If possible, avoid still water, and use the clearest water available. If you must use cloudy or muddy water, let it settle in a pot or bucket, and siphon off the clear water to treat it.

### **Staff Notes**

- ◆ Ensure that all drinking water is properly treated.
- ◆ Ensure that student hydration levels are monitored.
- ◆ Ensure that students do not share their water bottles.
- ◆ Ensure that staff are carrying the pristine and water filter in their day bag or where it is accessible and cared for properly.
- ◆ Ensure that staff and students are careful not to drop the ceramic filter, if it cracks it will be ineffective at treating the water.
- ◆ Ensure that when using over the side of the canoe that it is not dropped. Especially when cleaning.
- ◆ Ensure that when being used at camp or at the end or beginning of a portage that it is not forgotten.

### **Water Filter Care**

- ◆ Filters should be taken apart and left to air-dry to help prevent mildew and bacteria growth during storage or between uses.
- ◆ Filters can be cleaned many times with a brush before needing to be replaced, but should be cleaned only when necessary in order to prolong your filter's life.
- ◆ Silty water clogs filters with debris and makes the pumps more difficult to operate. To make pumping easier, let silt settle for an hour or two in a container before pumping the water.
- ◆ Wash your hands after handling or cleaning the ceramic filter.

### **Pathogens**

The waterborne pathogens (disease-causing micro-organisms) of most concern:

- ◆ Protozoa include cryptosporidium and giardia. Protozoa are increasingly widespread in North America. They are larger than one micron (one-millionth of a metre.)
- ◆ Bacteria exist in water all over the world. Most are harmless, but some cause sicknesses such as diarrhea and dysentery. Most bacteria are about 1.0 micron in size, although some, such as the disease-causing campylobacter, can be as small as 0.2 microns
- ◆ Viruses cause hepatitis, polio, and other diseases. They can be present in any water contaminated by human waste. Most viruses are in the 0.1 micron size range, but they can be as small as 0.0002 microns.



## **TREATMENT METHOD**

<b>Treatment Method</b>	<b>Protozoa</b>	<b>Bacteria</b>	<b>Viruses</b>	<b>Particulate</b>
Boiling	Y	Y	Y	N
Chlorine dioxide (Pristine)	Y	Y	Y	N
0.5 mi filter and pre-filter (MSR Mini-	Y	MOST	N	Y
0.2 mi filter and pre-filter	Y	Y	N	Y

# **BARN**

The Barn and surrounding area are obviously key features of the Gould Lake Outdoor Centre. It is important that these areas are kept clean, safe, organized and professional looking at all times (not like a barn).

## **BARN CLEANINESS**

- ◆ All of the floors and surfaces (tables, counters, etc.) should be kept clear of any clutter and personal (staff and student) items. Any personal items found lying around should be placed in its appropriate spot or in a student or staff Lost & Found. All equipment, lesson materials, and props should be returned to their rightful locations after use.
- ◆ In order to cut down on the amount of daily garbage accumulation at the barn, staff and students are encouraged to bring *Boomerang Lunches* (all garbage brought from home, returns home).
- ◆ When a garbage can becomes full, staff are expected to remove the bag from the can, tie it up, put a new bag in the garbage can, and then arrange for the full bag to be taken to the dumpster at the office to be disposed of.
- ◆ All paddles and PFDs should be put back at the end of each paddling session.
- ◆ All classroom and work area floors should be swept and organized at the end of each workday.
- ◆ Any gear that is wet should be completely dried out prior to being returned. (However, don't forget about it and leave it hanging up for five days).
- ◆ Following the conclusion of each session or trip the Staff Room and designated lockers should be cleared out of all personal items.

## **THE FOLLOWING AREAS ARE TO BE CLEAN AT THE END OF EACH DAY**

- ◆ Staff Room
- ◆ Mouth of the Barn
- ◆ Upstairs Teaching Areas
- ◆ Games Room
- ◆ Downstairs Classrooms
- ◆ Student Change-Rooms
- ◆ Top Floor Storage Areas
- ◆ Lower and Front Foyers
- ◆ Equipment Room
- ◆ Food Room

## **PARKING AT THE BARN**

- ◆ The main parking lot gates should remain closed and locked at all times.
- ◆ Staff should ensure that the car they are driving is displaying a valid parking pass.

## **G.L.O.s AT THE BARN**

- ◆ All Staff are to allow students to exercise challenge by choice when playing group games.
- ◆ Games may be adapted to suit individual groups, however, safety precautions should be taken to ensure the safety and well-being of all participants.
  - (i.e. All climbers must have as many spotters as possible, and feet are not to go above the head while going up the Ice Wall)
- ◆ Proper footwear and clothing should be worn at all times.
- ◆ Accessories (i.e. jewelry) that may pose a risk to a participant's safety should be removed.
- ◆ All large scale/area games should be defined with specific boundaries and a game ending signal (i.e. Air horn).

## **PARENTS' NIGHT DEMOS**

- ◆ All demonstrations need to be safe for students, staff, equipment, environment, and viewers.
- ◆ Demonstrations should be appropriate with regards to language and content.
- ◆ Rescue boats are to be present and appropriate (i.e. Solo whitewater canoes are not to be used).
- ◆ Appropriate attire (i.e. such as staff shirts and or formal wear) is to be worn by all staff members.
- ◆ All equipment or props should be returned following the demonstrations.

## **FOOD & FOOD ROOM**

- ◆ Non-Critter proofed food should not be left at the barn for any extended amount of time.
- ◆ Students and staff are encouraged to bring "Boomerang" Lunches (all garbage that is brought from home; goes home.)
- ◆ All staff and students MUST wash hands prior to entering the Food Room
- ◆ A fresh hand-washing station should be set up each morning and afternoon, each day and refilled as required.
- ◆ All items that may have been contaminated by nuts must stay out of the food room.
- ◆ Food room should be kept locked unless a designated staff is present.
- ◆ Food barrel lids and metal cabinets should be closed and tightly secured when not being used.
- ◆ Left over trip food should be divided up into good and bad food piles. Good food should be clean and able to go on other trips. Bad food should be thrown into the garbage.

# **WIC CHALLENGES ON PLACEMENTS**

WIC challenges have been happening almost as long as the WIC program itself. It has become somewhat of a tradition that both staff and the WIC students themselves expect and embrace.

A good WIC challenge needs to be an enhancement of the WIC placement rather than a hindrance. The gain to the WIC student and the group should come before benefit to the staff involved.

## **Guidelines of an appropriate WIC Challenge:**

- ♦ All WICs and Staff must be clearly aware that a WIC challenge is optional.
- ♦ All Challenges must be safe for everyone involved.
- ♦ Staff must ensure that the challenge will not harm the environment or any living creature.
- ♦ Staff and Students must be made aware that the completion of a WIC challenge will not have a negative effect on the student's mark.
- ♦ If a WIC student decides at any point during their WIC challenge that they do not wish to continue the challenge for any reason, staff will support them in the decision and if necessary continue the challenge themselves.

WIC challenges should be a fun enhancement of the placement and not just a fun enhancement for the staff.

## **Examples of good challenges:**

- ♦ Carrying a treat for the group (watermelon)
- ♦ Teaching the group a new language
- ♦ Fun appropriate costumes or mascots
- ♦ Bedtime stories
- ♦ Daily baking/hot choc for group
- ♦ Carrying/setting up a game each day
- ♦ Organizing a daily activity (Tai-Chi or Zimbabwean dancing)
- ♦ Organizing an event on trip (Formal Dinner/Wedding)
  
- ♦ **Anything that promotes positive confidence and a sense of accomplishment**

## **Examples of bad challenges:**

- ♦ Sleeping in bear canoe
- ♦ Washing socks
- ♦ Caring for live animals
- ♦ Wearing a costume that is too hot (wool suit)
- ♦ Long distance swims/tows
  
- ♦ **Anything demeaning, embarrassing, illegal, inhumane...**