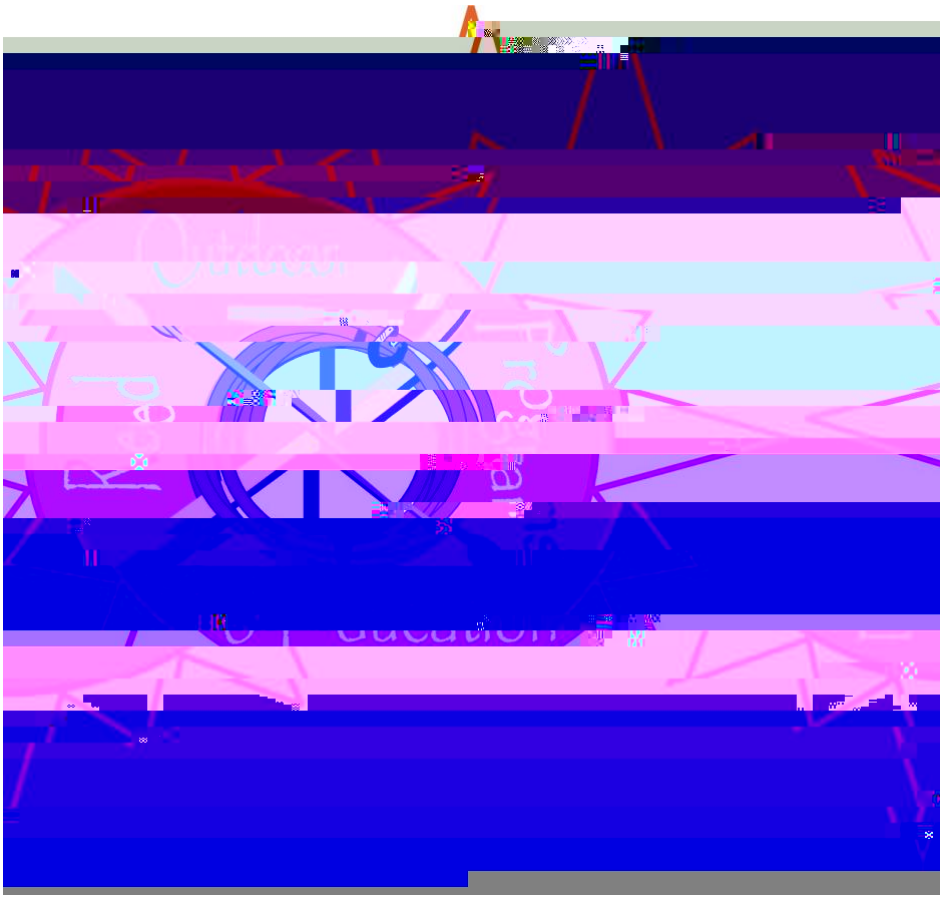

We undertake adventures in the outdoors for a multitude of reasons. Such adventures provide recreation, rejuvenation, and a chance to temporarily escape the pressures of our daily lives. The realities of an outdoor setting are tangible, the consequences real, and the successes earned. We travel with limited resources and often find ourselves in problem-solving situations that require our creativity and dedication. Venturing forth with groups offers the opportunity to learn experientially about each other and the world around us. While we cannot help but focus on forces larger than ourselves, we are also afforded the opportunity to look within and see ourselves in perspective.

Formal outdoor programming has enjoyed increased popularity at Reed College in recent years. Yet, by nature, there is a true wildness in this environment, and there are natural risks inherent in the adventures that we undertake. It is this field guide's intent; therefore, to offer guidance and guidelines for Student Leaders and employees hired to lead our outdoor programs, henceforth called Outdoor Specialists (O.S.). It is your responsibility to read and understand these guidelines. It is our hope that the guidelines help us work well with each other, be deliberate in how we manage risk, and not destroy the environment we love.

Please note these guidelines are not intended to be a substitute for, but for use in conjunction with, your exercise of reasoned discretion and good judgment. It is not a contract, a promise of employment, or a required treatment or course of action.

Reed College strives to provide formal outdoor activities with well-defined leadership. An immense number of books have been written about the topic of leadership, and we think that our outdoor programs provide an excellent opportunity to explore what leadership means in a community such as Reed. There are two types of leaders described in this field guide: Outdoor Specialists and Student Leaders. Although leadership can take various forms, there should be an individual or a team that takes ultimate responsibility for requiring that risk is effectively managed, policies are properly followed, and the activity meets its intended outcomes. Leaders are ultimately responsible for what happens on the trips they lead, and should work with program management in all aspects of design, delivery, and evaluation of a given trip or event. Although leaders may wisely include the group in the decision-making process, leaders are responsible for much more than simply setting the stage for an activity or facilitating group consensus. The leadership role inherently creates a difference between being a participant and a leader; when done well a leadership role should look distinct but not distant.

We know that assuming leadership as a student takes considerable effort. Although there are many intrinsic rewards, we also search for ways as a program to reward our Student Leaders with opportunities for further growth. We also strive to hire exemplary professional leaders as Outdoor Specialists so they can serve as strong role models for how to work with people and carry oneself in the outdoors.

Smoking is also prohibited on trips. Smoking tobacco is a fire hazard and has the potential for alienating many members of the group. Coffee and tea, on the other hand, are allowed.

This section of the field guide is dedicated to working with the physical risks and environmental impact of hiking, backpacking, bicycle riding, and other activities that might be considered non-technical. Despite labeling them "non-technical," there is still risk of harm such that good direction is still important. Although the nature of the activity may be less risky than mountaineering or whitewater kayaking, hiking and backpacking also have risks such as stream crossings or careless cooking. Please take time to review all the following guidelines and considerations before embarking on your trip. You should note that we generally have integrated both environmental and risk management considerations under specific topics in the hope that these are easier to find for future reference.

As a program, we believe in the intrinsic value and beauty of the places we visit. We also believe our presence has the potential to impact that environment both ecologically and aesthetically. We strive to minimize our presence in terms of the number of people and things we bring into the backcountry, and also in terms of the things we may want to take with us from the backcountry — such as wildflowers or rock samples—to help maintain the environmental integrity of the places we visit.

Significant research exists describing that over 80% of campsite damage is done by the first 20% of traffic, and that once stripped of vegetation, a trail or campsite will remain 80% extinct unless actively left fallow (and ideally re-sown). (Source: Hampton & Cole, , Stackpole Books, 1995.) With this in mind, Student Leaders and Outdoor Specialists should be very mindful of managing the group's activities to ensure that, wher ossi ¡ Ḧe,) thœsͻ Ï 0 Ï 1 ¡

- With few exceptions, cotton clothing or even prohibited for trips due to its poor thermal qualities and high weight once wet.
- In the interest of making trips as accessible as possible to all members of the Reed community, trip leaders should encourage participants to check out equipment from the Backpack Co-op and provide participants with alternative equipment choices to which they

¶ . Leaders (Outdoor Specialists and Student Leaders) should instruct participants to be at least a body's length away from the edge along precipices when possible. Many people have died or have been seriously injured by inadvertently tripping while next to a cliff edge. If your designated route makes you feel uncomfortable, please consider alternatives that will permit you and the rest of the group to s91S0912 the please

Campsite Environmental Considerations:

- In the event that a trip is using a maintained campsite, participants should use existing tent areas, tent platforms, or latrines to minimize peripheral damage to the site.
- Endeavor to locate the various components of the campsite on durable surfaces least affected by the physical presence of the group — for example, making camp on a bare rock shelf is preferable to camping on top of a thick layer of duff, which is in turn significantly better than camping in a grassy, alpine meadow (where soft soils and leafy grasses are easily trampled).
- Once in the campsite area, encourage participants to change into soft-soled footwear to minimize the possibility of ground damage from heavy, hard-soled hiking boots.
- Shoes should be worn, unless you are in camp. The leader may decide that it is prudent for students to wear shoes even while in camp. Please keep in mind that cut and/or punctured feet are both an incredibly common injury, and one that greatly hinders the group's ability to travel.
- When possible, group campsites should be split into : a sleeping area, a kitchen area, and a latrine area. Ideally, there should be at least 50ft between these areas. Having three distinct areas offers a number of things that may need to be negotiated and compromised in the event of a not-entirely ideal site:
  - Keeping all food and body waste in distinct areas away from sleeping participants minimizes the possibility of potentially serious animal interactions;
  - Especially if a site is to be used for more than one night, a distinct latrine area offers privacy and minimizes incidental foot traffic that may damage fragile soils or groundcover.
  - Try to avoid a campsite within 200ft of any water source in order to avoid the possibility of any kind of waste product running off an inclined slope into a water source and to minimize any negative impact on a possible wildlife-drinking site.
- When leaving your site, strive to leave absolutely no trace of your presence. This should involve the following:
  1) Even in high use areas, and within reason, endeavor to pack out all garbage (not merely your own).
  2) In the event that you are at a high-use area with several fire rings, attempt to eradicate and erase all but the single-most major of these.
  3) Break down and scatter any non-permanent structures, such as lean-tos or shelters. This includes the destruction of all snow structures, which become increasingly unreliable with age.

- If possible, plan menus so the more strongly flavored meals are later, so that if a student chooses to use a single eating/drinking container, all their meals are not flavored with the first day's curry.
- When possible, buy menu items in bulk.
- Reduce packaging waste by disposing of cardboard boxes and, if necessary, consolidating

treated water in an untreated water source. Otherwise, you will need to purify your water bottle using one of the other two methods outlined above. When filtering water, be very careful to avoid contaminating the treated water outlet on the filter with untreated water. If this happens, you will need to purify your filter using one of the other two methods outlined above.

Even if it is in the parking lot before you hit the trail, avoid an uncomfortable moment by talking about the details of going to the bathroom in the natural environment. Naturalize the process by being open about expectations. Encourage participants to wash their hands with either biodegradable soap or hand-sanitizer afterwards. Three factors should shape your decision regarding the optimal way to dispose of human waste:

- ¶ Minimizing the chance of water pollution;
- ¶ Maximizing the rate of decomposition;
- ¶ Minimizing the chance of others finding it.

If a latrine or outhouse exists, use it!

- ¶ Your toilet-area should be a least 200ft from any water source.
- ¶ It should be on flat ground to avoid run-off.
- ¶ Especially in higher-use areas, cat holes are an appropriate alternative that dissipate the possibility of discovery and, while slower, dispersing solid waste in a number of individual cat holes offers faster decomposition than concentrating it in a single, larger cat hole or latrine. Cat holes should be at least six inches deep — the depth of the blade on an orange trowel — and the remnant soil should be mixed into the solid waste to assist the microbial decomposition of the feces. Two inches of topsoil should cover the cat hole and the surface disguised to hide the site.
- ¶ In an effort to minimize the use of toilet paper in the field, emphasis should be given to natural alternatives — such as smooth rocks, pinecones, moss and lichens, and snow. Since toilet paper decomposes significantly slower than solid waste, if used the user should pack it out in a seal-able plastic bag.
- ¶ Their owners should also pack tampons out — however, in order to minimize the possibility of blood-borne pathogens, as well as their attractiveness to certain animals, these should be double-bagged.
- ¶ It is best to urinate on rocks and other durable, non-vegetated areas.
- ¶ Urinating on vegetation or into soft soil is not directly harmful, but animals are frequently attracted to the salts in urine and will scratch and dig to uncover them.

There are three primary ways lightning travels:

¶ . This means being struck by lightning directly. Lightning takes the easiest path to the ground. Direct hits usually strike the tallest object in a particular area. If a person is victim of a direct hit, the current is apt to be so large as to be fatal.

¶ : When lightning makes a direct hit to the ground, its current does not immediately dissipate and disappear. It seeks the paths of least resistance across the earth's surface and disperses along these — ideally seeking wet surfaces like lichen-covered

and dry ground are, therefore, less likely to conduct electricity. Ground current is sometimes conducted across a "spark gap". This occurs when the electrical current jumps across a gap in a natural feature, such as a small cave or rock-feature. While it might seem sensible to get out of the rain to avoid the possibility of hypothermia, placing oneself in the gap formed by a shallow cave mouth is far riskier. Ground currents are generally weaker, hence the importance of participants assuming a correct lightning position to minimize the effects of the current passing through the body.

¶ . After hitting an object lightning may react in much the same way water reacts, splashing off of a surface in a multitude of directions.

Lightning Procedure:

When lightning comes within five miles (25 seconds between the flash and the sound) the group should move into lightning procedure.

¶ To minimize the potential of a , GET OUT OF HIGH AREAS! In the event that such a move cannot be accomplished in sufficient time, take advantage of prominent natural features like rock pinnacles or, less preferably, trees. Lightning is more likely to hit a large feature than a person standing near it if the feature is significantly taller than the person, and the person is within a horizontal distance half the vertical height of the feature. This is called the "cone of protection." If the person moves out further than the "cone of protection," lighting is as likely to hit them than the feature. HOWEVER, if a person is too close to the feature, they may then be susceptible to ground currents from a direct hit on the feature. Although the "cone of protection" theory has recently come into question, experts recommend relying on topographical features rather than trees, and allowing a

climbs well below a person's actual leading ability. Generally this should only be an Outdoor Specialist who is being belayed by someone proficient at belaying lead climbers.

- All climbs should be set up with multiple, solid, independent anchors. The standard set-up includes at least three solid anchors independently linked to two opposing locking carabiners using separate pieces of 1" tubular webbing.
- If using bolts for top-rope anchors, these should be inspected thoroughly prior to use. If you doubt their integrity, pick another anchor or climb. A lower bolt may also be clipped for redundancy.
- A figure eight follow through tied directly to the harness should be used for all climbers.
- All student rappelers must use a separate belay. One may belay a rappeler using either a figure eight or a bowline on a coil that is also attached to the rappelers harness. When rappelling single pitches for the sake of the experience, or during a participant's first rappel, it is highly encouraged to use a muenter on a mule quick release system.
- No person's feet should go higher than six feet while bouldering. Spotting should be taught and used while bouldering.
- On rare occasions and with prior approval of the Assistant Director of Athletics, Fitness and Outdoor Programs, students may follow an Outdoor Specialist on a short multi-pitch route. Naturally, the Outdoor Specialist needs to lead well within their capability, and the participant follower needs to

¶ As with pure rockwork, all snow and ice rope-work needs multiple, solid, independent anchors. The standard set-up includes at least three solid anchors independently linked to

- One activity on the margins of being classified as water-based is fishing. Fly-fishing in slow moving current may be undertaken without a PFD provided the water level is not over the participant's knees, and that there is good run-out from the area in which they are standing.