

# Safety Plan

*The risk of physical injury or illness is always present in outdoor work whether done by volunteer or paid workers.*

## Avoiding injury is the highest priority

Though serious project-related injuries and illnesses are rare, their consequences for the injured and the sponsoring organizations can be severe.

*VOAz has drawn on its own experience and information from other organizations engaged in similar work to prepare these recommendations on safety planning. The authors, editors, Volunteers for Outdoor Arizona and its underwriting partners make no representations or warranties whatsoever, and shall not have any liabilities to any person or entity for any use made of this information. Every organization is encouraged to employ its own risk management procedures and appropriate professional guidance in managing safety issues related to its trail and other outdoor stewardship activities.*

The procedures described below limit the interventions undertaken by those not licensed to provide assistance to the injured. Most states have enacted “Good Samaritan” laws to protect citizens who render aid at the scene of an emergency. Arizona’s statutory language is as follows:

**ARS §§32-1471. “Health care provider and any other person; emergency aid; non-liability**

*Any health care provider licensed or certified to practice as such in this state or elsewhere, or a licensed ambulance attendant, driver or pilot as defined in section 41-1831, or any other person who renders emergency care at a public gathering or at the scene of an emergency occurrence gratuitously and in good faith shall not be liable for any civil or other damages as the result of any act or omission by such person rendering the emergency care, or as the result of any act or failure to act to provide or arrange for further medical treatment or care for the injured persons, unless such person, while rendering such emergency care, is guilty of gross negligence.”*

This law does not protect anyone whose actions might be found negligent. In plan language, be prudent, use good sense, and don’t attempt action for which you are not prepared. Above all, seek qualified medical assistance. Obtaining Basic First Aid and CPR certification and Wilderness First Aid training is recommended.

Organizations engaged in volunteer trail work can never guarantee safety, but the risks of injury can be minimized. Volunteers must be apprised of the risks as best they can be anticipated. Acceptance of these risks should be acknowledged by each volunteer before an event in the form of a signed waiver of liability.

Protecting volunteers and the sponsor organizations requires the following:

1. A **Risk Assessment** conducted prior to each event to determine if the event presents unacceptable risk levels; and, what risks will be considered in planning and managing the event.
2. A written **Safety Plan** for every event that identifies all of the actions to be taken to minimize the risk of injury or illness during the event.
3. A written **Safety Net** protocol to guide actions should an injury or illness occur that would warrant securing emergency medical support.

## Risk Assessment

Risk assessment is part of the project selection phase. No project should be undertaken if it entails risks that the organization cannot adequately manage, taking into consideration any support that may be available from the host or other project partners. Potential considerations should include:

## Base Camp and Work Site Access Risks

### Navigability

- Getting lost en route to and from the work site

### Accessibility

- Not having appropriate means of transportation to get to base camp
- Not having appropriate transportation to work site
- Special access permissions or other barriers (locked gates, anticipated road construction, seasonal flooding, fire restrictions)

Remote base camps that are accessible only by foot or animal entail other additional risks to be assessed, such as food storage. If the base camp is only accessible by foot, note any

significant challenges to meeting food service needs, gear, water and sanitation requirements.

## Walk-in and Work Area Risks

Length and general condition of trail

Falling or sliding rock

Dead fall (burned or infected forest)

Wildlife (including insects)

Work specific risks that exceed those commonly associated with normal trail work

## Standard Safety Plan

Every event should have a safety plan that documents the measures taken to *minimize the risk of injury and illness* to volunteers and references the organizations Safety Net procedures for dealing with injuries should they occur. There is a core set of measures that apply to all events, which can be incorporated into a *Standard Safety Plan*. This is provided to all partners and referenced in event-specific agreements along with any safety provisions specific to the event including the name of the event Safety Officer.

Sample language for a Standard Safety Plan is included below. The sample is written with trail work in mind; however, these work safety measures also apply to other types of stewardship work.

### Fitness Requirements

Each participant must understand the required level of fitness to participate. Advance literature will be sent to volunteers and posted at the sponsoring organization's website. Information provided will describe the physical requirements of the work involved, the amount of walking required to reach and complete work and if tools must be carried by hand, pre-hydration recommendations, and "what to bring and wear." A description of the work may also be included to allow volunteers to identify tasks they believe appropriate to their abilities. Crew Leaders have the authority to direct volunteers away from tasks that they believe the volunteer is unqualified to perform for either safety or quality control reasons.

### Crew Assembly and Safety Introduction

Before being assigned to a crew, the volunteer must sign an event waiver of liability. Basic safety items are addressed as crews assemble for the walk/shuttle to the work area. Smaller events can have an initial safety talk as one group; otherwise this responsibility falls to each Crew Leader. Items include confirming that volunteers have appropriate clothing, gloves, weather protection, water, and food. If tools must be carried, the Crew Leader will make sure each person is instructed how to properly carry tools and maintain a safe walking distance between each other. A "sweep" for the walk in is designated. Crew Leaders should utilize the Safety and Tool Use check list (available from VOAz) for all phases of crew orientation.

### Safety and Tool Use

The safety and tool use orientation is completed once the crew has arrived at the work area. The safety talk includes self-monitoring, communication, working distances, and tool handling. Efficient tool use is closely related to safe tool use — both are addressed at the work area. Crew Leaders may break tool use training into stages corresponding to work stages. The more proximate training is to the actual application of the skills to be learned, the more effective it is apt to be.

## Tool Handling

Crew Leaders use the first 30 minutes or so as a training and orientation period during which the Crew Leader helps everyone learn the appropriate technique and quality standards. Crew Leaders should observe and promptly correct tool-handling errors during the first part of each work phase. *Volunteers are never required to perform work they do not feel comfortable doing.*

## Monitor Fatigue, Water Consumption, Sunburn

The safety talk will have already addressed these issues. In addition, Crew Leaders should continuously monitor for and address overexertion, heat exhaustion, dehydration, sunburn, and, under wet and cold conditions, hypothermia.

## First Aid & Safety Net

Volunteers may treat their own minor injuries, but this is not to be encouraged. If a Crew Leader determines the injury requires advanced care, that volunteer and the remainder of the crew must stop work. This allows the Crew Leader to focus on addressing the needs of the injured or ill volunteer. The Crew Leader will secure emergency assistance through the event Safety Officer. *Those who are not certified for first aid are not allowed to administer first aid.* Volunteers are apprised of this in advance literature. Specific instructions for communicating with emergency services are covered in the Event Memorandum of Understanding (MOU).

The Event Safety Officer is responsible for implementing the *Safety Net* protocol when injuries at or near a work area require medical assistance.

## Exit Strategy

While unlikely, leaving the work area may be necessary should an unforeseen danger arise. A sudden, unseasonable storm or severe lightning and rainstorms are possible reasons for evacuation. Implement the Safety Net protocol to evacuate crews. When directed to evacuate, the Crew Leader assembles her/his crew and appoints a “sweep”. When all are accounted for, the crew proceeds as a group to the trailhead or as otherwise directed. Event specific exit instructions are covered in the Event Safety Plan.

## Food Service & Camp Hygiene

When meals are prepared or assembled at a work event all food handlers are required to use a hand washing station that should be available to volunteers, as well. If a wash station is not available, sanitary wipes should be provided. Food service disposable gloves should also worn by food service staff/volunteers.

Adherence to appropriate sanitary facility standards is observed at every event. Standards are as follows:

- Primitive camping with fewer than 10 volunteers: Pit toilet or cat holes, depending on the environmental conditions.
- Primitive camping with 10-15 volunteers: Pit toilet or better.
- Primitive camping, developed campgrounds, urban sites with more than 15 volunteers: Portable toilet or better. The number of toilets depends on the size and duration of the event. Consult with the provider of the service and/or the host.
- Host standards, if they are higher than the above

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## Safety Net – responding to emergencies

A “Safety Net” is an organization’s documented procedure for responding to medical emergencies in the field. Whereas a Safety Plan identifies the measures that are taken to minimize the risk of injury, the Safety Net addresses steps taken when medical problems require assistance. The Safety Net has four parts: communication, medical response, evacuation, and follow-up.

### Safety Net: Communication

The Safety Net is activated when the event Safety Officer (SO) is summoned by a Crew Leader or another volunteer and s/he determines that an *injury or illness requires immediate outside assistance*. If there is a first aid station, the SO will be based there. The safety net is not activated in response to a minor scrape that the volunteer seems able and willing to self-treat. It is not activated when a Crew Leader asks a volunteer, who appears to be getting overheated or exhausted, to sit down in the shade, rest, and take a long slow drink of water.

The first step in activating the Safety Net is for all work to stop. This is necessary to allow the Crew Leader to assist the SO in resolution of the apparent medical problem. The Crew Leader must stay calm so that s/he can help an ill or injured volunteer and to help other volunteers remain calm. The SO takes charge of the injury/illness situation, though he may designate the Crew Leader to act on his or her behalf. This SO must have radio or phone communication with available local emergency assistance. All Crew Leaders must know the basic Safety Net implementation process.

Other crew members should be called upon to help, as needed. If the situation is such that others may be at risk (for example, rockslides, bee or wasp attacks, dead fall) take action to prevent additional injuries. Notify leaders of adjacent crews.

One or more crew members (“messengers”) are sent to the SO if the Crew Leader is unable to establish contact without leaving the crew. Before they are sent out, the messenger must have exact information about the nature of the problem. To make sure the messenger understands, ask him/her to repeat the information back before departing. Make sure that messenger also understands that they must relay the information to the SO and that they are to report back to the Crew Leader. *The Crew Leader does not leave the injured or ill person until responsibility is transferred to the event SO or emergency personnel.*

*Do not move ill or injured persons.* A SO, Crew Leader or other volunteer certified in First Aid or CPR may offer assistance, following the protocol for their level of certification.

Incident details should not be discussed with other volunteers. If others inquire, simply report that there has been an incident. Do not explain how it occurred, talk about the cause, assess the consequences, or attempt to fix responsibility.

Injured volunteers should be strongly encouraged to remain on the project site until the SO has obtained appropriate assistance or reviewed the situation.

### **Safety Net: Medical Response**

Medical response capacity may be on-site or accessed from the nearest community. The SO or her/his designate retains control of the situation until responsibility is transferred to EMS personnel.

### **Safety Net: Evacuations**

Advance planning will set the route and mode for removing an ill or injured individual, or if need be, all volunteers on a crew or project. EMS helicopter landing coordinates should be part of the plan and incorporated in the event MOU. EMS personnel or certified Wilderness First Responders are to be in charge of moving injured volunteers.

If a crew must be evacuated, the Crew Leader is responsible for making sure everyone remains calm and exits to a designated location. If more than one crew is involved, the SO must coordinate the evacuation and determine whether it is practical to carry tools.

### **Safety Net: Follow-up**

Once an emergency situation is controlled, the Crew Leader may inform crew members. The Crew Leader must also complete an incident report. The SO or his or her designee will contact the victim within one week of the incident. To encourage the victim to speak freely about her/his experience, contact is best made by someone other than the Crew Leader.