MINNESOTA LAND TRUST

FIELD SAFETY GUIDELINES

Updated 6/16/2026

Minnesota Land Trust ("Land Trust") staff and volunteers visit private and public conservation lands throughout the year. These visits may involve hiking on or off designated roads or trails, within dense vegetation canopy, through small bodies of water, or in the vicinity of wildlife and/or livestock. The Land Trust cannot anticipate all situations, therefore staff and volunteers will need to make decisions while in the field. These guidelines are intended to address the most common concerns while working in the field.

The Land Trust values staff and volunteer safety above all other considerations. This document provides guidance and resources for many of the common hazards a person may encounter, but it cannot address every situation. The Land Trust acknowledges that women and individuals who are BIPOC, LGBTQ+, and/or who have experienced trauma may have additional safety concerns when they are in the field. The Land Trust will support anyone who takes action to be more safe, e.g., leave a site, incur an additional expense, request a second person accompany them, or other action. The Land Trust strives to learn from these experiences and to create a work environment where all staff and volunteers feel safe in the field.

All staff and all volunteers: If at any time you feel unsafe, remove yourself from the situation immediately.

TABLE OF CONTENTS

GENERAL PREPAREDNESS 3

BASIC FIELD GEAR 4

CONSTRUCTION PERSONAL PROTECTIVE EQUIPMENT (PPE) 6

COMMON HAZARDS & CONCERNS 7

NAVIGATING THE FIELD 11

SAFE VEHICLE USE 12

EMERGENCIES AND ACCIDENTS 14

WORKERS' COMPENSATION 15

GENERAL PREPAREDNESS

Responsibility of Supervisor and Employee/Volunteer
Communication and trust between a supervisor and an employee are critical elements in any safety plan.

The supervisor is responsible for understanding their employee's field work and should be a resource for creating a safe plan. The supervisor should be aware if the employee is planning a multi-day trip and if the employee plans to work alone. The supervisor should listen to the employee's concerns and modify the trip so that the employee feels safe.

The employee is responsible for informing their supervisor of their plan for field work in advance and with ample notice so that the plans may be revised. The employee should raise any safety concerns and request additional resources or a schedule change if applicable. The employee is responsible for avoiding excessive risks in the field and while traveling. Any safety concerns encountered in the field should be reported to the supervisor. Volunteers should consult the Stewardship Program Manager.

Employees and volunteers have the authority to make decisions to improve the safety of the situation, including leaving a situation or incurring additional expenses.

Out of Office Itinerary
Supervisors should be aware of the itinerary and location of field staff in the event they need to respond to an emergency. Volunteers should leave an itinerary with a family member or friend. Employees who are working in the field should maintain an updated Outlook calendar to indicate their planned itinerary and include details such as location, timing, hotel name, and contact name if meeting someone.

Working Alone
Working alone does not necessarily present a safety issue. You must carefully analyze each assignment to determine whether the location, size and terrain of the property, type of assignment (baseline or simple monitoring trip), or the consequences of an emergency, accident, or injury present a safety concern. Water crossings generally present a greater concern and generally should not be attempted alone. This wide variety of circumstances makes it important for supervisors and employees to assess each situation together.

BASIC FIELD GEAR

Basic field gear is necessary for all activities that involve hiking on or off designated roads or trails, within dense vegetation canopy, through small bodies of water or in the vicinity of wildlife.

Land Trust Identification
All field workers must carry an employee badge, volunteer identification, or a Land Trust business card to identify yourself as an authorized visitor on properties.

Foot Protection
Appropriate footwear may include hiking or steel toe boots. Choose footwear that is designed to protect feet and toes from falling objects and other impacts and that will protect the sole from nails or sharp objects that could pierce through normal footwear. If appropriate, choose footwear that will provide good ankle support. All staff and volunteers must wear closed toe shoes while in the field.

Clothing
Bright colored clothing and/or hats should be worn when working alone in the field to increase visibility. This is especially true during hunting season or while you are working along roadsides or property boundaries. The Land Trust has a supply of yellow green safety vests for staff and volunteers.

Dress for the weather and for the environment. Weather conditions may include strong sun, extreme temperatures, rain, snow, strong wind and, if working on the water, water immersion. It's Minnesota: the weather can change in a single day. Environmental hazards may include ticks, biting or stinging insects, snakes, vegetation, fences or water elements. Layers, hats, long pants, long sleeves, and closed toe shoes provide important protection in the field. The Land Trust has a budget for protective clothing for field employees. Employees should work with their supervisors to request resources for appropriate clothing.

Personal Flotation Device
Staff and volunteers must wear a life jacket if crossing water is necessary to access a site.

Navigation and Communication Devices
Staff and volunteers should bring a charged mobile phone and a printed map if cell coverage is limited. GPS Garmin devices are available to check out. Consider bringing a portable battery-powered charging device with you. At minimum, be sure to have a charger in your car. Download the information you need from mobile apps while you have WiFi service (e.g., Landscape, Avenza).

Mace, Bear Spray, Pepper Spray, etc.
Employees and volunteers are permitted to carry these deterrents, when warranted, but must educate themselves on the proper use and risks.

Whistles or Alarms
A whistle or some type of alarm may help you summon help if phone coverage is spotty. The Land Trust has a supply of whistles for each field employee.

Guns and Weapons
The Land Trust does not allow employees or its volunteers to carry guns or lethal weapons while conducting Land Trust business.

First Aid
Field staff should carry a First Aid Kit in their vehicle. The Land Trust has a First Aid Kit in each office that is available to employees to check out for use with larger groups. Please check with your supervisor if you believe you need your own personal First Aid Kit. Sunscreen (SPF 30 or higher) and insect repellent are recommended.

Volunteers and employees who are allergic to stinging insects or have other allergies should bring necessary medications and make sure their point of contact (supervisor, co-worker, etc.) is aware of any life-threatening allergies.

Safety Gear
The Land Trust has a safety budget that provides safety items and gear to employees. Employees should coordinate with their supervisor to purchase items. In some cases, the expense can be reimbursed by a grant.

CONSTRUCTION PERSONAL PROTECTIVE EQUIPMENT (PPE)

Specialized safety equipment is required when visiting sites with active construction activities. Construction-type activities are common on Land Trust Restoration projects. Requirements are determined by the type of construction, the equipment being used, and your tasks. The requirements are different if you are operating equipment or are inspecting operations. If you do not have proper PPE, stay well away (>50 feet) from active construction.

If you are viewing or inspecting operations, stay out of active construction zones if at all possible. PPE is not required for viewing work that can be done by staying outside the area where work is taking place, including haul roads. A general rule of thumb is to stay out of the area of disturbed ground or more than 50 feet from working heavy equipment like tractors, excavators, bull dozers, or dump trucks.

If you will be entering the construction zone, your best protection is situational awareness. Always be aware of tripping, slipping and falling hazards, crushing, trapping and cutting hazards, moving object hazards and manual handling and lifting. Always assume that operators of equipment (including hand tools) do not know where you are until you make eye contact and they acknowledge you. It is your responsibility to maintain sufficient distance from operating equipment or vehicles and that you are outside their zone of effect.

If you are inspecting or directing work within the construction zone, always check with and follow the construction supervisor's PPE requirements. Common requirements include hard hats, high visibility clothing, safety glasses and steel toe boots.

If you are operating hand tools, other equipment or applying herbicides as part of your job, you must be trained or experienced with the equipment and procedures and wear the appropriate PPE. For example: hardhat, face shield, chaps, gloves, and steel toe boots are needed for chainsaw work. Tyvek jumpsuit, goggles, gloves, and masks are used for herbicide applications. At a minimum, wear regular-fit clothing and tie back long hair if you will be within arm's reach of rotating shafts on equipment such as mowers and seeders.

COMMON HAZARDS & CONCERNS

Insects, Wildlife, Plants

Insect Bites
Insect bites and stings can pose both short-term and long-term health issues. Staff and volunteers should be familiar with the types and seasonal occurrences of nuisance insects such as mosquitoes and ticks. Long pants and shirts, hats and the use of repellants are recommended.

Deer Ticks
http://www.dnr.state.mn.us/insects/deerticks/

Deer ticks, also known as blacklegged ticks, are just one of thirteen known tick species in Minnesota. They are most common in the east and central areas of the state and are found in hardwood forests and wooded and brushy areas. Deer ticks are potential carriers of disease.

The primary risk season is from mid-May through mid-July when the smaller nymph stage of the deer tick is feeding. Risk is present, but lower, in early spring and again in the fall (late September - October) when the adult stage of the deer tick is active.

Prevention Tips

- Wear insect-repellant clothing. Protection can wear off after you wash your clothes. Be sure to re-treat your clothes at the beginning of every field season.
- Check and re-check for ticks, especially mid-May through mid-July and late September through October.
- When in deer tick habitat, walk in the center of the trail to avoid picking up ticks from grass and brush.
- Wear light-colored clothing so ticks will be more visible.
- Create a barrier to ticks by tucking pants into socks, wearing gaiters or tall boots, and tucking long-sleeved shirts into pants.
- After being outdoors in tick habitat, change out of your field clothes as soon as possible, and put them in a plastic bag/bin before getting in the car.
- As soon as possible, do a complete body check, shower and vigorously towel dry. Wash your clothes immediately as to not spread any ticks around your living area.

Venomous Snakes
https://www.dnr.state.mn.us/livingwith_wildlife/snakes/

The majority of Minnesota snakes are harmless. Of the 17 snake species in the state, only two are venomous: the Timber Rattlesnake and the Eastern Massasauga. Both are found only in the southeastern counties of the state and are rarely encountered. Staff and volunteers should be informed of and familiar with sites where they may encounter venomous snakes and know the snakes' preferred habitats (see link above). Long pants and leather boots should be worn at all times on protected properties in southeastern Minnesota. Know the location of the closest medical care facility.

Wildlife
When working in the field, the risk of contact with unpredictable and potentially dangerous wildlife is variable across Minnesota. Remain at a respectful distance from any wildlife. It may be a good idea to check in with the landowners of a protected property to better understand the types of wildlife you may see on the property.

Poisonous Plants
Employee Right-to-Know:
https://files.dnr.state.mn.us/destinations/snas/steward_materials/poisonous_hazardous_plants.pdf

Be aware when working near habitats of poisonous plants such as poison ivy, wild parsnip, or poison oak and be prepared to utilize methods to prevent reactions by wearing long-sleeved shirts and pants and having access to products to remove poisonous oils from skin and clothes. Be prepared to remove contaminated clothing in the field before entering your car to prevent accidental contact with oils from your clothes and other surfaces (equipment, etc.).

Weather

Sun and Heat
Warning Signs and Symptoms of Heat-Related Illness:
https://www.cdc.gov/disasters/extremeheat/warning.html

When outdoors, staff and volunteers should limit their skin's exposure to the sun by using sunscreen (SPF 30 or greater) applied liberally on all exposed skin; and minimizing exposure by wearing long-sleeved shirts, pants, and a hat.

Hydrate, Hydrate, Hydrate!

Stay hydrated. If the temperature is high, be especially cautious. Know the signs of heat exhaustion and take frequent rests, ideally in the shade. Some of the signs of heat exhaustion:

- Headache
- Rapid, shallow breathing
- Dizziness
- Nausea

Cold and Ice
Danger: Thin Ice
https://dps.mn.gov/divisions/hsem/weather-awareness-preparedness/Documents/dangerthinice.pdf

In cold weather, dress warmly, wear layers, and stay dry. Do not walk on thin ice or frozen rivers and be particularly vigilant about getting wet. Hydration is important in cold temperatures too!

Judging whether it is safe to walk on ice is difficult. Many factors may be used to assess ice safety: appearance, age, thickness, air temperature, snow coverage, water depth, water body size, water chemistry and currents, distribution of load on the ice, and local climate conditions.

Inclement Weather
Winter Weather:
https://www.health.state.mn.us/communities/environment/emergency/natural/cold.html

Be aware of impending storms and cancel field visits if lightning or other dangerous weather, such as flooding or hail, is expected. Weather advisories should be followed.

Lightning Safety Tips
When you hear thunder, immediately seek shelter in an enclosed building or vehicle. Stay in safe shelter at least 30 minutes after you hear the last sound of thunder.

If you are caught outside with no safe shelter anywhere nearby, the following actions may reduce your risk:

- Immediately get off elevated areas such as hills, mountain ridges or peaks.
- Never lie flat on the ground. Crouch down in a ball-like position with your head tucked and hands over your ears so that you are down low with minimal contact with the ground.
- Never shelter under an isolated tree. If you are in a forest, shelter near lower trees.
- Never use a cliff or rocky overhang for shelter.
- Immediately get out and away from ponds, lakes, and other bodies of water.
- Stay away from objects that conduct electricity (barbed wire fences, power lines, windmills, etc.).

Other Concerns

Fatigue
After a long day in the field, an employee/volunteer can be tired and at risk for not paying attention or even falling asleep while driving to the next destination. Employees/volunteers should be aware of this risk and take steps to ensure they are alert before driving. Moving around before getting into the vehicle, drinking caffeine, taking a 20-minute nap and turning on music are some ideas for decreasing this risk, but are not foolproof. Employees should consider staying overnight in a hotel if they are very tired.

Fencing
Some fencing is electrically charged to keep livestock controlled. In addition, be aware of any barbed wire fencing and approach it with caution. If the landowner does not accompany you on a visit to the property, ask the landowner if there are any electric fences and, if so, how to navigate the property in a safe manner. It may also be helpful to ask the landowner about gates and how best to open and close them.

Aggressive People
On occasion, staff or volunteers may encounter aggressive individuals in the field. These individuals may be from the general public, landowners, trespassers, or others.

If you encounter an aggressive individual:

It may help to identify yourself as with the Minnesota Land Trust. If you do not feel comfortable, leave the property immediately.

- Call 911 if necessary.
- Be prepared to provide the police with a statement including any pertinent details.
- In many cases, the individual will have parked a vehicle near the property; record the license plate, make and model of the vehicle if possible.
- Try to record the location of the encounter (via GPS or trail markers) for an official report.
- Notify the Land Trust front office at 651-647-9590 or Stewardship Coordinator, Kalleigh Specht at 651-213-7896 (Volunteers). MLT Staff or Contractors should notify Stewardship Program Manager, Amie Schiller at 651-917-6288.

NAVIGATING THE FIELD

Some Minnesota Land Trust conservation easements or fee land properties are large and/or are contiguous with large, remote natural areas. Becoming disoriented or lost is a possibility even for the most experienced. Always carry a map of the property and a compass, GPS unit, or smartphone. Be sure to download maps and other pertinent information about the property onto the Landscape app before entering the property. Bring water and wear appropriate clothing, in case more time needs to be spent on the property than was anticipated.

If you become disoriented in the field:

- Stop, sit and rest.
- Stay on established trails, if they exist.
- **Wait to be found (this is a lot harder than it sounds).**
- Do not throw anything away, being lost with your gear is better than being lost without it.
- Make noise or use a whistle.
- If necessary, make camp and/or primitive shelter if it looks like you will be out overnight.
- If it is cold: Wrap your entire body, including your head, in extra clothing, blankets, or newspapers; Stay awake – you will be less vulnerable to cold-related health problems; As you sit, keep moving your arms and legs to improve your circulation and stay warmer. Do not eat unmelted snow because it will lower your body temperature.

SAFE VEHICLE USE

Staff and volunteers will need to drive to and from field sites, as well as on the properties. When traveling to field sites, follow all traffic rules and adjust your plans to account for road conditions or detours.

When traveling on site — whether in passenger vehicles, all-terrain vehicles, or other modes of transportation — use roads and trails that are appropriate for your vehicle. Drive at a safe speed. On all-terrain vehicles or other off-road vehicles, do not ride with more people than recommended for the vehicle. If you feel unsafe while traveling as a passenger in a vehicle, feel free to exit the vehicle. You should certainly share your concerns with the driver immediately.

Riding with a landowner: Volunteers and employees may ride with a landowner if they are comfortable. This is not required and employees should be knowledgeable about the property ahead of the visit so they can make other arrangements if they are not comfortable riding with the landowner.

Automobiles
All volunteers and employees driving a personal vehicle or rental vehicle must have a valid driver's license and must obey all state laws, including using a seat belt. You may not under any circumstance text or send emails while driving. Even if you have “hands free” or Bluetooth capability in your car, telephone calls should be kept short and infrequent. If you are driving your personal vehicle, you must carry the state-mandated auto liability insurance. If you have an accident while driving your personal vehicle for business purposes, your insurance is the primary coverage. Staff is expected to take a short drivers safety training each year as part of the annual safety training.

Volunteers and employees who use their personal vehicle will be reimbursed for mileage at the then-current IRS reimbursement rate.

The Land Trust has a contract with a rental car company that can be accessed by employees. Employees should check with their supervisor for more information on renting a car through the Land Trust.

Watercraft and ATVs
Minnesota Boating Guide 2023:
http://files.dnr.state.mn.us/rlp/regulations/boatwater/boatingguide.pdf
Paddling Safety Tips:
https://www.dnr.state.mn.us/watertrails/paddling_safety.html

Some properties require boating to access or view them. You must always wear a personal flotation device (PFD). Check the weather and plan accordingly. Understand your boat and the limitations of your experience and knowledge — and do not exceed them. When paddling or boating, be aware of other watercraft and remain visible. In areas of high motorboat traffic, stay near the shore, and approach waves head-on or at a slight angle to avoid capsizing. Scan

ahead for hazards like overhanging trees, rocks, low bridges, or rapids. When transporting canoes and kayaks on your vehicle, firmly strap them down.

Staff who need to rent watercraft must seek approval from their supervisor in advance.

EMERGENCIES AND INCIDENTS

Emergencies are situations in which quick action is necessary to get help. These may include locating a lost person, providing emergency medical response, protection from criminal activity, or other situations. Accidents involve property damage, medical care by a professional, and/or attendance of law enforcement officer.

In the case of an emergency or accident:

- Call 911
- Notify the Minnesota Land Trust main office at 651-647-9590 or the Stewardship Coordinator, Kalleigh Specht at 651-213-7896 (Volunteers), your supervisor (MLT Staff) who will then:
    - Gather more information from the caller about the situation
    - Contact your emergency contacts as provided in volunteer applications or staff list

Incidents

Incidents may involve property damage, non-emergency medical issues, or near misses. In the case of an incident:

- Notify the Minnesota Land Trust main office at 651-647-9590 or the Stewardship Coordinator, Kalleigh Specht at 651-213-7896 (Volunteers), or your supervisor (MLT Staff) who will then:
    - Gather more information from the caller about the situation
    - Contact your emergency contacts as provided in volunteer applications or staff list

WORKERS' COMPENSATION

Employee injuries must be reported immediately to your supervisor and the Operations Director to maintain your eligibility for Workers' Compensation benefits. All Land Trust employees are eligible to receive Workers' Compensation benefits. Even if an employee chooses not to seek medical care, all workplace injuries should be reported using the Incident Report Form. Consult the Land Trust's Operations Director to report a Workers' Compensation claim.

Volunteers are not covered under the Workers' Compensation policy, but the Land Trust does carry Volunteer insurance. If a volunteer is injured, the volunteer should consult the Land Trust's Stewardship Program Manager for coverage information.

This is an update of the Minnesota Land Trust's 2016 Safety Manual. Much of the information in this document was adapted using a template from the Land Trust Alliance: Columbia Land Trust Safety, Health and Risk Management Manual (2016) and the Land Trust of Napa County Field Health and Safety Manual (May 2013).

Other information was gathered from Minnesota Land Trust staff experience and the Minnesota Departments of Public Safety, Health, and Natural Resources.