



## Peak Steward Handbook

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[www.14ers.org](http://www.14ers.org)



**Colorado Fourteeners Initiative**  
*A Partnership for Preservation*



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# Colorado Fourteeners Initiative

## HISTORY

Before 1994 there was no single organization with the sole responsibility for protecting Colorado's highest peaks. Climbing 14ers was not as popular, hikers were more experienced, trails were non-existent in some cases, and in need of repair in other cases. Forest Service personnel patrolled some trails and peaks, but their ability to do so was limited due to funding cuts which stressed resources.

CFI was formed in 1994 as a partnership of nonprofit organizations, concerned individuals, and public agencies who sought to create an organization whose primary focus was the protection and enhancement of Colorado's 14,000-foot peaks. The founding organizations were the Colorado Mountain Club, Colorado Outward Bound School, Volunteers for Outdoor Colorado, the Rocky Mountain Field Institute, Leave No Trace Center for Outdoor Ethics, and the United States Forest Service.

Colorado's population has been among the fastest growing in the nation and along with that growth, outdoor recreation

has dramatically increased. CFI has responded to this growth by becoming the nation's leading high-altitude trail-building, terrain-restoration, and hiker- education organization. CFI has been honored by Congress, the United States Forest Service, the National Forest Foundation and other organizations.

CFI builds sustainably located, designed, and constructed summit trails using durable, native materials. CFI's goal is to ensure every Fourteener has at least one sustainable summit route to minimize impacts to the surrounding alpine terrain. Educating the estimated [279,000](#) people who climb the Fourteeners annually is vital to reducing impacts on the rare and fragile alpine tundra found on these peaks.

CFI uses a multi-pronged strategy to educate Fourteener enthusiasts nationwide about Leave No Trace practices, including web videos, community presentations, trailhead kiosks, and on-mountain talks. Short videos on several educational topics ranging from alpine botany to mountain weather are posted on CFI's [YouTube Channel](#).

## MISSION STATEMENT

**Colorado Fourteeners Initiative protects and preserves the natural integrity of Colorado's 54 14,000-foot peaks—the Fourteeners—through active stewardship and public education.**

CFI accomplishes its mission by:

- a) constructing sustainably located summit routes and restoring vegetation on existing trails,
- b) using paid crews and mobilizing volunteers to perform annual trail maintenance and terrain restoration
- c) inventorying and monitoring both the condition of previously constructed and hiker-created summit trails and the amount of hiking use occurring on them to prioritize maintenance work, and
- d) utilizing various media, paid crews, and volunteer “Peak Stewards” to educate Fourteener hikers about Leave No Trace techniques designed to protect the fragile alpine ecosystems.

## THE ROLE OF PEAK STEWARDS

Peak Stewards strive to inspire the public to think about how their actions can affect every aspect of the alpine environment. An attitude of respect for the mountain, for plants and wildlife, is the foundation for all the work of the Colorado Fourteeners Initiative and the Peak Steward program. Peak Stewards serve as ambassadors in the field, contacting 14er hikers to reinforce Leave No Trace practices, as well as

monitoring visitor actions for the Forest Service. Talks at education and outreach events, including REI's “How to Climb a 14er” clinics, serve to reach hikers before they leave town.



Most of the time Peak Stewards share a natural experience with hikers—a colorful sunrise, a wildlife sighting, the distant view of a thunderhead. At other times they are there to provide advice about weather, proper clothing, adequate food, footwear, etc. They look for “teachable moments”—a hiker has wandered off the trail, a dog is off leash, someone is feeding a wild animal or has carelessly dropped a piece of trash.

Note: Peak Stewards are Forest Service volunteers. Forest Service regulations prohibit fund raising while serving as a volunteer on national forest lands. You cannot solicit donations. However, if they would like to donate you can refer hikers to the CFI website. [www.14ers.org](http://www.14ers.org)

## THE WILDERNESS ACT (1964)

The Wilderness Act, written by Howard Zahniser, created the National Wilderness Preservation System, which protects 111 million acres of wilderness areas from coast to coast. 36 of Colorado's 54 14,000-foot peaks lie in formally established wilderness areas. The Wilderness Act was signed into law on September 3, 1964 and reads:

*"A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain."*

The Wilderness Act recognized the need to restrain human influence and protect natural areas. These areas provide a place to escape the pace of modern life, a place to enjoy quiet, a place to be awed by something untouched by man.

## LEAVE NO TRACE: THE 7 PRINCIPLES

### Plan Ahead and Prepare

Let friends know where you are going and when you plan to return. Choose a route that is appropriate for your skill level and know where you are going. Descend by noon to avoid lightning. Prepare for all types of weather- carry appropriate gear, including proper footwear, rain jacket,

food, map, compass, etc. Know where you can expect to find water.

### Travel and Camp on Durable Surfaces

If there is no trail, travel on durable surfaces such as rock or snow. Camp below treeline in existing campsites, 200 feet from trails and water sources (70 adult steps). Walking around muddy areas encourages trail braiding which leads to erosion and more damage. Watch where you park your car.



Photo: Cars parked on fragile alpine tundra

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### **Dispose of Waste Properly**

“Pack it in, pack it out.” A candy wrapper, banana peel, or apple core carelessly discarded can ruin the “wilderness experience” for other hikers. Avoid urinating on plants; salt attracts animals to chew on them. Human waste and food will not decompose above treeline. WAG bags are an excellent solution for human and other waste.

### **Leave What You Find**

Leave plants, rocks and historical items for others to enjoy. Cairns may be considered an eyesore and detract from the wilderness experience when not built by professionals for route finding purposes. Small stacks of rocks can be harmful to hikers as they may lead them astray and off established routes.

### **Minimize Campfire Impact**

Check ahead to determine if fires are allowed where you plan to camp. Campfires damage soil, deplete wood resources, scar rocks, and can lead to massive forest fires. Avoid campfires near or above treeline; dead wood is crucial to those ecosystems. Use a camp stove to prepare meals.

### **Respect Wildlife**

Be quiet and keep your distance. Approaching animals can be dangerous. It can also cause stress to the animal by interfering with nesting, breeding, and

eating patterns. Don't feed animals as it can cause them to become dependent on humans. An emboldened bear who approaches humans looking for food will likely be euthanized at some point in the future. Unfortunately, “A fed bear, is a dead bear.” Keep dogs leashed to prevent them from disturbing wildlife.

### **Be Considerate of Other Visitors**

Travel in small groups, talk quietly, use headphones when listening to music, avoid brightly colored clothing and gear (except in hunting season) because it will cause you, and not nature, to stand out. Have situational awareness on the trails to promote friendly interactions. Be kind, say hello. Downhill hikers (people going up) have the right of way but use your voice to communicate intentions. This lessens the chance of hikers walking off trail.

**For more information and to take the free online awareness course:**

<https://Int.org/get-involved/training-courses/online-awareness-course/>







## HIKER ENGAGEMENT

Peak Stewards are ambassadors of CFI and the Forest Service and are protectors of the fragile alpine ecosystems. It is important that public encounters be positive while performing this dual role. Peak Stewards need to be calm, engaging, friendly, and polite.

### **Use The Authority of the Resource:**

Before you start, "establish rapport to open the door." Say hello, introduce yourself, ask if they have a minute to chat. If you see a teachable moment, use the following steps to guide your communication:

1. Give an objective statement, without placing blame. Avoid using value laden terms.
2. Explain the implications of the observed actions on the resource (the why)
3. Tell them how to improve the situation. Criticism without solutions or opportunities for improvement is not well received.

Good rules of successful communication should apply: Take off your sunglasses; if the hiker is sitting, sit down too; listen; ask questions and show interest in them. In the unlikely possibility that there is a problem, simply thank them for listening and depart.

## COMMON ISSUES

### **Dogs off leash (cont. on page 7)**

Even good dogs can threaten the community of life on the mountain. A dog off leash does damage to the alpine tundra, threatens wildlife, and other dogs. Dogs can get injured or lost while on Fourteeners. Dogs can intimidate other visitors.

### **Trail cutting**

Trail cutting damages the fragile alpine tundra. It leads to braiding and erosion. Someone cutting a trail is more likely to set free a rock which would then threaten other hikers.

### **Disturbing, feeding wildlife**

Remind folks that feeding or following animals is harmful to them. A positive wildlife encounter is most likely the memory hikers will take away from a Fourteener hike. Let's ensure others can experience these sightings.

### **Unprepared Hikers:**

Unprepared hikers are often the cause of Search and Rescue missions. These missions frequently put the lives of SAR

personnel in jeopardy and can cause damage to the tundra. It is important to emphasize the importance of proper clothing, sufficient food, and water. Remind people they may experience all four seasons in a day on a 14er. An ill-prepared hiker can find themselves in a life-threatening situation.

### **Urgent health Issues**

Sprains, broken bones, and even heart attacks happen all too frequently on Fourteeners. Because of the altitude, hikers may also encounter High Altitude Pulmonary Edema (HAPE), High Altitude Cerebral Edema (HACE), heat stroke, heat exhaustion.

Note: You should learn to identify the symptoms for these conditions (see Appendix B) If you ever choose to provide first aid, you are deemed “signed off the CFI project.” Never attempt to provide help that is beyond your ability. Call 911, provide the location of the emergency, and stay with the injured person.

### **Thunderstorms**

You will likely encounter thunderstorm activity while serving as a Peak Steward. Thunderstorms can be dangerous and are common in Colorado. Days may begin with clear blue skies, but thunderstorms will develop in the afternoon, seemingly from nowhere. Descend by noon to avoid lightning. Check the weather but be aware

and be prepared. (See Appendix C for Lightning Safety).

### **Mines and Private Property**

Mines are inherently dangerous places. Access roads to Fourteener trailheads and hiking trails to the peaks often pass through or nearby mining claims and private property. In a few cases, a climb of a Fourteener is possible only because of the goodwill of a property or mine owner. There is always the potential that this permission could be revoked. This is an especially serious concern on Lincoln, Democrat, and Bross, but there are other peaks where mining and private property issues exist.



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## Reasons to Leash a Dog (cont. from page 5)

Leashing a dog in the alpine, or any natural environment, is important for several reasons, both for the well-being of the dog and the preservation of the environment. Here are some reasons to leash a dog in the alpine:

### Wildlife Protection:

Leashing prevents dogs from chasing and potentially harming wildlife. Alpine environments often have fragile ecosystems, and the disturbance caused by unleashed dogs can disrupt local fauna.

### Vegetation Conservation:

Unleashed dogs can trample on delicate alpine vegetation, which may take years or even decades to recover. Keeping dogs on a leash helps minimize their impact on fragile plant life.

### Safety for Dogs:

In alpine environments, there are often steep and rocky terrains, as well as potential hazards such as cliffs and crevices. A leash provides control over the dog, reducing the risk of accidents or injuries.



Photo: Dog being rescued from Grays and Torreys

### Respect for Other Hikers:

Leashing a dog shows consideration for other hikers who may not be comfortable around dogs or have their own dogs on leashes. It helps prevent unwarranted interactions between dogs and other hikers or their pets.

### Trail Etiquette:

Following leash regulations is part of good trail etiquette. Many alpine areas have specific rules about dog leashing to maintain a positive and safe experience for all visitors.

### Wildlife Habituation:

Allowing dogs to roam freely can lead to wildlife becoming accustomed to the presence of dogs, which can be detrimental to the natural behaviors of the wildlife. This habituation may lead to increased stress or alter the natural balance of the ecosystem.

### Avoiding Spread of Invasive Species:

Unleashed dogs may inadvertently carry seeds or invasive plant material on their fur or paws, contributing to the spread of non-native species in alpine regions.

### Compliance with Regulations:

Many wilderness areas have specific rules and regulations regarding dogs, including leash requirements. Adhering to these rules helps maintain the integrity of the environment and ensures a positive experience for all visitors.





## PEAK STEWARD BASICS:

Each season complete the following forms:

- Volunteer Waiver and Health Disclosure
- Peak Steward Check-In Policy
- Risk Assessment

### The Details:

#### 1. Mentoring

Once you complete training, you may begin your Peak Steward service. Mentoring is available for your first field day. Your mentor will be an experienced Peak Steward who will help you with your assignment. (**details later**)

#### 2. Pick a Peak

CFI will always have priority peaks, usually those easily accessible from the Front Range, which have high traffic. You may also pick a different peak.

Before you go out on the mountain, you will want to identify:

- a. the trailhead to be used
- b. the round-trip length
- c. the elevation gain
- d. the Forest Service district and its phone number
- e. the local sheriff's phone number
- f. the local hospital and/urgent care facility's phone number and location

Note: All hikers should do their own research and know this information. Carry this as back-up information in case a hiker has been neglectful.

#### 3. Utilize the Peak Steward Calendar

Sign up for a date and location by using the online calendar. This informs other Peak Stewards that you will be covering the peak. They may want to contact you and work with you, or they will go to another peak.

[www.14ers.org/peak-steward-calendar](http://www.14ers.org/peak-steward-calendar)

#### 4. Forest Service regulations

Know the regulations regarding the maximum group size allowed; camping and campfire restrictions; restrictions regarding dogs. Are there any "alerts" for the ranger district: e.g. warnings about dead and falling trees, fires, road closures? If the peak is in a designated wilderness area, the regulations are more restrictive.

## 5. Check-in Policy for Peak Stewards

Tell someone where you are going and when you plan to return, especially when volunteering alone. This policy follows from the need to assure that all Peak Stewards are safe after a day on the mountain.

## 6. Take Notes

You will need to complete a log at the end of your day on the peak. Be sure to carry a pencil and paper. Also, you may be successful in recruiting hikers for CFI trail maintenance projects or Peak Steward Service. Get their name and email address.

## 7. Fill out a Log

At the completion of your day on the mountain, you will need to fill out a brief log (see below). You can submit the log electronically or mail a hard copy of the Peak Steward log. **(Details later)**

## 8. Log Information

Your Log should include the following:

- a) Peak climbed
- b) Trailhead used
- c) Was registration required?
- d) Trail conditions, especially if noticeable maintenance is required
- e) Weather conditions
- f) Your name
- g) Your email address

h) Did you work with other Peak Stewards?

i) Date

j) Time of arrival

k) Time of departure

l) Day of the week

m) Vehicles at the trailhead (on arrival and on departure)

n) The number of the following “seen” and “contacted”: Dogs on leash, dogs off leash, hikers shortcutting trails, hikers unprepared for mountain environment, etc.

o) Any additional comments

## 9. Take Pictures

If you volunteer with another steward, ask them to take your photo. Good photos are those that show Peak Stewards talking with hikers. Photos help persuade CFI’s funders to continue supporting the mission. You may even end up in CFI’s Annual Report.

Email photos to: [hannah@14ers.org](mailto:hannah@14ers.org)



## APPENDIX A

### Peak Steward Checklist

#### Suggested Items

- Basic First Aid Kit
- Map
- CFI Identification (Badge, Cap, or CFI Logo Clothing)
- CFI Literature (“LNT” cards and “Don’t Just Summit, Give Back” cards)
- Phone numbers for the local Sheriff, Hospital, and Forest Service District
- Compass
- Notepaper and Pen
- Cell Phone
- Sunglasses, sunscreen, hat
- Duct Tape
- Layers (short sleeve, long sleeve, fleece, down jacket raincoat/pants)
- Gloves, beanie
- Space Blanket
- Headlamp
- Matches or Lighter
- Knife
- Whistle (use only in emergencies)
- Extra Food and Water
- Small Trash Bag
- Wag Bag

#### You May Also Consider Taking

- Collapsible Water Cup for Dogs
- Cord for a Makeshift Dog Leash
- Gloves for Collecting Trash
- Hand Warmers
- Water Treatment





## APPENDIX B

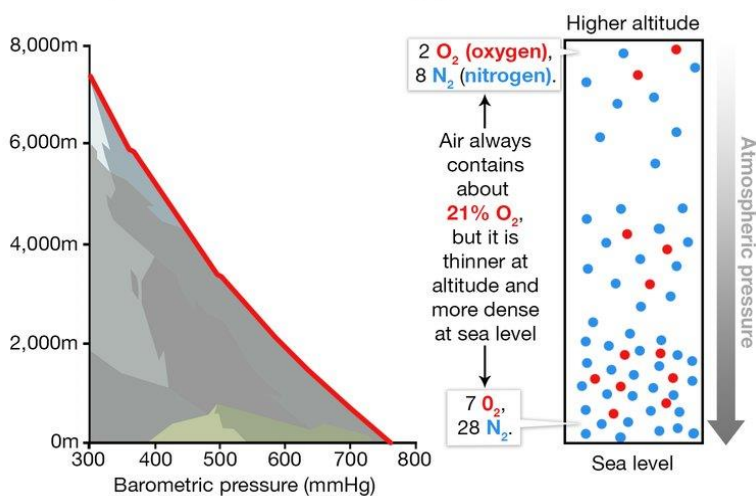
### High Altitude Health Issues

This information is provided as a tool used to inform hikers about high altitude health issues and to recognize the symptoms of Acute Mountain Sickness, HACE, and HAPE (see below).

### Oxygen Depletion at Altitude

As altitude increases, atmospheric pressure declines. At sea level, the weight of the atmosphere concentrates oxygen molecules and makes it much easier to breathe. At higher altitudes and lower atmospheric pressure, the volume of air expands, and the oxygen molecules are dispersed making it harder to take in enough oxygen. Dense air at sea level has about 21% oxygen. But the thin air atop a Fourteener will have an effective oxygen percentage of just 12%. Denver's air: 17%. Everest: less than 7%.

### The impact of altitude on oxygen levels



As people travel to higher altitudes, they can develop Acute Mountain Sickness (AMS). At roughly 8,000 feet, the risk of developing AMS increases, especially for those who have not acclimatized.

Symptoms of AMS can appear regardless of training and physical fitness. The cause may be genetic. Marathoners or other very fit athletes can have trouble on Fourteeners. The risk of developing AMS is influenced by the rate of ascent and exertion. Over time, bodies will acclimatize to higher altitudes by breathing faster, elevating the heart rate, and by changes in our blood chemistry. But before bodies adjust to higher altitudes, AMS may develop into far more dangerous and life-threatening conditions affecting our brains (HACE, High Altitude Cerebral Edema) and pulmonary system (HAPE, High Altitude Pulmonary Edema).

**Acute Mountain Sickness (AMS):** AMS is the most common form of altitude illness, especially for those who arrive in Colorado from much lower elevations. In fact, about 25% of all visitors who sleep above 8,000' will experience AMS. Symptoms are: insomnia, headache, fatigue, loss of appetite, nausea, and sometimes vomiting. AMS can often be alleviated by traveling to lower elevations.

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### **High Altitude Cerebral Edema (HACE):**

HACE, though rare, is a far more serious condition that can develop from AMS. HACE (which is often associated with HAPE) can be life-threatening. In addition to the symptoms associated with AMS, hikers with HACE will display lethargy, drowsiness, confusion, and ataxia or a lack of coordination of voluntary muscular movements (They may appear to be intoxicated). This condition requires immediate descent.

### **High Altitude Pulmonary Edema (HAPE):**

HAPE can occur by itself or be associated with AMS and/or HACE. According to the Centers for Disease Control, about 1 skier per 10,000 and 1 hiker per 100 at 14,000' experience HAPE. Symptoms: AMS and HACE symptoms may be present; breathlessness, even at rest; weakness and cough; pink or bloody sputum. Descent is mandatory. HAPE can lead to death more rapidly than HACE.

### **For more information:**

Centers for Disease Control and Prevention

<https://wwwnc.cdc.gov/travel/yellowbook/2020/noninfectious-health-risks/high-altitude-travel-and-altitude-illness>



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## APPENDIX C

### Lightning Safety

Lightning follows the path of least electrical resistance, which makes high promontories, isolated trees, and even caves particularly dangerous.

Complete any high pass crossings or peak ascents early in the day and plan to be safely back to lower elevations by afternoon. Get off ridges, high cols (saddles), and exposed hilltops before thunderheads are right on top of you.

When planning your hike itinerary, plan alternate routes in case you are faced with excessive lightning activity.

The natural inclination in a heavy storm is to seek shelter under an overhanging rock wall or large boulder. However, such places are conduits for ground currents. By sheltering in them you are offering yourself as an alternate path for the spark gap.

When lightning threatens, move to the safety of a substantial building or a roofed vehicle if possible. Backcountry procedures will be used only when no building or vehicle is available.



### Procedure:

**1. While at high elevation, above tree line or in an exposed space-** At no closer than 5 miles (25 seconds between flash/boom) you should do the following:

- If available go to a building or vehicle.
- If no building or vehicle is available- Avoid high pointed terrain, including peaks, ridges, and higher ground. Get below tree line and down low on mountains.
- In wide open spaces or gently rolling hills the safest place is a ravine or relative depression.
- Avoid lone trees or tall metal objects.
- Avoid long conductors such as metal fences, power lines, phone lines, railway tracks, handrails, wet extended ropes, metal stays, anchor rode, tape measures, wet lichen-covered rock, cracks and crevices, overhangs, caves, and tree roots.
- When amongst trees of equal height, being equidistant between two is the most favorable position.

**2. While below tree line or in a wooded/covered area-** At no closer than two miles (10 seconds between flash/boom) you should be in a vehicle or safe location, or in lightning position and stay in this position until the storm passes and is more than two miles away. In the



event of a fast-moving storm, you should respond more quickly.

**Sequence for drill:**

- Prepare for the potential of hypothermia by utilizing necessary raingear, insulating clothing, water, and food/snacks, along with any additional gear for lightning drill position (pad and pack/dry bag).
- If possible, spread group out so that there is 50-100 feet between each person in order to avoid multiple injuries from a strike.
- Squat on something non-conductive like a foam pad or backpack (as long as it does not have metal stays).

**Lightning Position should be:**

- Squat or crouch as low as possible with your feet together and your arms wrapped around your legs.



- If the storm lasts so long that squatting is no longer practicable, the next safest position is kneeling with knees touching each other.

- If the storm continues and kneeling is no longer practicable, the next safest position is sitting with arms folded across legs, keeping feet as close to the butt as possible.



Groups should not move in a way that increases exposure until the storm is at least 5 miles away, as it is common for lightning strikes to happen in front of, to the sides of, and behind storms.

## APPENDIX D

### Resources

#### Books

Abbey, Edward. Desert Solitaire

Baden, John. Managing the Commons (particularly the article entitled “The Tragedy of the Commons” by Garrett Hardin)

Brinkley, Douglas. The Wilderness Warrior: Theodore Roosevelt and the Crusade for America

Egan, Timothy. The Big Burn

Gellhorn, Joyce. Song of the Alpine

Leopold, Aldo. A Sand County Almanac

Mills, Enos. Radiant Days

Nash, Roderick. Wilderness and the American Mind

Rolston III, Holmes. Environmental Ethics

Spearing, George. Dances with Marmots

Strayed, Cheryl. Wild

Turner, Jack. Teewinot: A Year in the Teton Range

Zwinger, Ann. Land Above the Trees

#### Websites

[www.14ers.org](http://www.14ers.org)

[www.14ers.com](http://www.14ers.com)

[www.lnt.org](http://www.lnt.org)

[www.wunderground.com](http://www.wunderground.com)

[www.weather.gov](http://www.weather.gov)

[www.weather.com](http://www.weather.com)

[www.fs.fed.us](http://www.fs.fed.us)

[www.noaa.gov](http://www.noaa.gov)

