


Risk Assessment Worksheet				1. Project/Incident/Work Activity:			2. Location:					
				Trail Maintenance and Field Operations			Colorado Trail Foundation					
3. Specific		Volunteer Field Work		4. Name and Title of Preparer:				5. Date Prepared:				
				Forest Service				April 1, 2022				
6. Risk Decision Authority: The risk decision authority block should be signed after the worksheet is completed. Use the Risk Decision Authority matrix to determine the authorization required to sign in block 6.												
Signature: 				Title: Field Operations Manager				Dates: 2022 Field Season				
Identify Hazards		Assess Hazards			Risk Control Options			Residual Risk		Decisio	Implement	
7. Task	8. Hazard	9. Hazard Probability	10. Severity / Consequence	11. RAC	12. Identify hazard mitigations & abatement measures			13. Hazard Probability	14. Severity / Consequence	15. RAC	16. Task Necessa ry?	17. Hazard Control Assigned to:
Field operations	<ul style="list-style-type: none"> Trips, slips and falls Cuts Sprains and strains Impact injuries Flying debris Splinters Drowning 	Unlikely	Critical	Moderate	<ul style="list-style-type: none"> Wear required personal protective equipment (PPE): boots with lug soles (no low-cut shoes), hard hat, eye protection, long pants, gloves and (recommended) long sleeve shirt. Ask for training if unfamiliar with use of a tool. Carry first aid kit and share with group members where it is kept. Discuss emergency evacuation plan and communications methods with group members. Be aware of dead and leaning trees, unstable slopes, rockfall potential, or high water and determine if conditions are safe; monitor changing weather conditions (wind or rain) that increase hazard. Plan escape route for unforeseen events. Consider returning at later date if conditions warrant. 			Unlikely	Critical	Moderate	YES	All persons involved
Field operations	<ul style="list-style-type: none"> Dehydration 	Rare	Moderate	Low	<ul style="list-style-type: none"> Drink frequently throughout the day. Don't use thirst to gauge need for hydration. Maintain blood sugar and electrolyte balances. Carry enough water to meet hydration needs and/or water treatment system if reliable water sources present. 			Rare	Moderate	Low	YES	All persons involved

Field operations	<ul style="list-style-type: none"> Lightning 	Rare	Critical	Moderate	<ul style="list-style-type: none"> Be familiar with the weather forecast before heading out to perform work and take that information into consideration when making route decisions. Monitor weather and move to safe location prior to imminent lightning. <ul style="list-style-type: none"> Take cover but avoid the tallest objects. Separate group members to avoid multiple injuries in the event of a strike. <ul style="list-style-type: none"> Avoid ridge lines, hill tops, open spaces, isolated trees, rock outcrops, and other likely lightning targets. Discard metal tools, backpacks with metal frames, and electrical devices during an electrical storm. Do not use radios or other electrical devices during an electrical storm. Stand down for 30min after the sound of the last lightning strike that was heard within 30 sec of its associated flash. 	Rare	Critical	Moderate	YES	All persons involved
Field operations	<ul style="list-style-type: none"> Altitude sickness 	Rare	Moderate	Low	<ul style="list-style-type: none"> Be familiar with the symptoms of altitude sickness. If experiencing symptoms, descend immediately. <ul style="list-style-type: none"> Take frequent breaks, don't overexert, eat carbohydrates, and drink lots of water. 	Rare	Moderate	Low	YES	All persons involved

Field operations	<ul style="list-style-type: none"> • Hypothermia • Hyperthermia 	Rare	Critical	Low	<ul style="list-style-type: none"> • Dress properly for altitude, weather, and climate of work area. Carry extra clothing for worst-case weather. • Pack rain gear and put on before getting soaked. • Wear synthetics or wool in cool, wet conditions; avoid cotton fabrics. • Layer clothing to maintain a comfortable body temperature. Avoid getting too hot or cold. • Stay fit, drink lots of water, eat high-energy foods, get adequate rest, and take time to acclimate. • Always keep head and neck protected from the sun and cold. • Learn how heat and cold affect the body and how to regulate body temperature. <ul style="list-style-type: none"> • Be familiar with proper first aid techniques appropriate to hypothermia and hyperthermia. • In dangerous cases of hypothermia or hyperthermia, when safe, seek medical attention immediately. 	Rare	Critical	Low	YES	All persons involved
Field operations	<ul style="list-style-type: none"> • Fatigue 	Possible	Moderate	Moderate	<ul style="list-style-type: none"> • Take breaks, as needed, and get plenty of sleep at night. Avoid over exertion. • Eat and drink well, particularly at high altitude. • Regulate body temperature. Avoid high heat and extreme cold. • Use extra care at the end of the day when fatigue is greatest and trail accidents are most common. 	Unlikely	Moderate	Moderate	YES	All persons involved

Field operations	<ul style="list-style-type: none"> • Bee Stings • Hornet Stings • Wasp Stings 	Rare	Moderate	Low	<ul style="list-style-type: none"> • Be alert to hives in brush or hollow logs. Watch for swarms of lines of bees traveling one direction. Inform others of presence of hives or activity. • Inform supervisor of bee allergies and carry emergency medication at all times. • Wear light-colored, long shirts and pants. Avoid wearing bright colors and metal objects. <ul style="list-style-type: none"> • Avoid heavy or perfumed scents. • If attacked, shield the face and quickly leave the area. • Be familiar with proper first aid techniques appropriate to bee stings, including the use of EpiPens. • If stung and having an allergic reaction, administer first aid and seek medical attention immediately. 	Unlikely	Moderate	Low	YES	All persons involved
Field operations	<ul style="list-style-type: none"> • Disorientation 	Rare	Critical	Moderate	<ul style="list-style-type: none"> • Carry and know how to use maps and compass/gps. • Monitor travel on a map and note landmarks along the way. • Carry a basic survival kit and enough equipment to survive. • Carry appropriate communication device (cell phone, satellite communicator, personal locator beacon (PLB)); ensure devices are fully charged prior to field visit and bring backup batteries or charging method. • If lost, maintain position, call for assistance, and wait patiently; erect shelter/camp if assistance will be delayed. 	Rare	Critical	Moderate	YES	All persons involved

<p>Travel to the worksite on trails</p>	<ul style="list-style-type: none"> • Trips, slips and falls • Sprains and strains • Fatigue • Cuts • Blisters 	<p>Possible</p>	<p>Moderate</p>	<p>Moderate</p>	<ul style="list-style-type: none"> • Carry tools on the down hillside of the trail with the cutting edge pointing down. Never carry tools over the shoulder. • Use extra caution and pay attention to your footing. <ul style="list-style-type: none"> • Leave sufficient following distance from others. • Ensure that you are in physical condition to travel to the project site. Consult with your doctor if you have a preexisting health condition that may limit your activities. <ul style="list-style-type: none"> • Take periodic rest breaks. • Treat “hot spots” before blisters develop. 	<p>Unlikely</p>	<p>Moderate</p>	<p>Low</p>	<p>YES</p>	<p>All persons involved</p>
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<p>Use of hand digging and striking tools during trail maintenance and construction activities</p>	<ul style="list-style-type: none"> • Cuts • Sprains and strains • Falls • Impact injuries • Flying debris • Splinters 	<p>Unlikely</p>	<p>Critical</p>	<p>Moderate</p>	<ul style="list-style-type: none"> • Ensure the area is clear of overhead and upslope hazards prior starting work. • Ensure that crew members are never working above one another paying close attention to switchback trail areas. <ul style="list-style-type: none"> • Sheath or tape cutting tools when not in use. • Maintain a 10' space between individual workers swinging tools. • Ensure adequate overhead clearance when preparing to use swinging / cutting tools. <ul style="list-style-type: none"> • Keep tools sharp. Sharp tools require less force (strain) and are less likely to glance off of work surfaces. • Keep tool handles in good condition (immediately flag and remove from service tools with loose heads and cracked or splintered handles). • Position your body so that glancing blows of swinging tools will not come in contact with your feet or legs. • Use the weight of a swinging tool to accomplish the work to limit required force. • Store tools securely on uphill side of trail and outside of trail corridor when not in use. 	<p>Unlikely</p>	<p>Critical</p>	<p>Moderate</p>	<p>YES</p>	<p>All persons involved</p>
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Rock Work	<ul style="list-style-type: none"> • Impact injuries • Sprains and strains • Flying debris 	Unlikely	Critical	Moderate	<ul style="list-style-type: none"> • Ensure that the area below is clear of people when harvesting rock. Post lookouts on the trail if necessary to ensure the safety of the public. • Only handle rocks that you can comfortably manage – get help for larger rocks. Never handle rocks that are at or near the limit of what you can lift. • Slide rock on ground or move in controlled roll rather than lifting, if possible. • Always “test lift” (slightly move) a load to judge its weight before actually lifting. <ul style="list-style-type: none"> • Stand close to the object with feet in a stable position and lift with your legs by straightening the legs. • Never twist the upper body while lifting!!! • Never mix hands and tools when lifting or placing rock, i.e. never hold up a rock with a pick or pry bar while manipulating the rock or something near it with your hands. • Communicate the plan if moving a rock with others; designate a leader to direct lifting, moving and setting down. Any team member can call for setting down, as needed. <ul style="list-style-type: none"> • Use goggles when striking rocks. 	Unlikely	Critical	Moderate	YES	All persons involved
Power tool use (drills, circular saws, and reciprocating saws)	<ul style="list-style-type: none"> • Cuts • Puncture injuries 	Possible	Critical	High	<ul style="list-style-type: none"> • Ensure that work area is clear. • Always use sharp drill bits and saw blades. Discard damaged blades and bits to ensure that they will no longer be used. • Always position hands away from the cutting or drilling area. • Use clamps to stabilize work pieces. 	Possible	Moderate	Moderate	YES	All persons involved

Saw and lopper use	<ul style="list-style-type: none"> • Cuts and blunt force injury • Sprains and strains from lifting 	Unlikely	Critical	Moderate	<ul style="list-style-type: none"> • Ensure that work area and escape routes are clear. • Cut only within your level of training – bucking only (no felling). • Keep fingers and hands away from cutting blades when cutting. • Analyze binding forces and plan cutting sequence and share with assisting volunteers. Request CTF or USFS assistance if situation is beyond your level of training and/or complex binding scenario. • Bend knees and look up and ahead when lifting; don't bend at waist and lift with back. • Use stout limbs or smaller trees as levers and position logs or limbs as rollers to move heavy logs. • Keep saws and loppers sharp to require less effort. Cover blades/teeth when not in use or when transporting. • Wear chaps and hearing protection when using chainsaw. 	Unlikely	Critical	Moderate	YES	All persons involved
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Public Interactions	<ul style="list-style-type: none"> Potential for physical danger 	Rare	Moderate	Low	<ul style="list-style-type: none"> Consider personal safety first. Be aware of your surroundings and unusual or abnormal behaviors and activities. Watch the person's hands, where they are, what is in them. Position yourself so that you are not surrounded <ul style="list-style-type: none"> Avoid hostile persons. Do not antagonize by word, deed or action. Assess situation & have plan for getting out of situation; stay calm; if potential exists for physical confrontation – LEAVE AREA! Maintain communication (if available) – use radio or phone to report incident and/or request assistance. If a subject enters your personal space making you feel uncomfortable, exercise one of more of these options that you think are safe in the situation: 1. Step back or step away. 2. Try to place yourself so have something between you and the subject 	Rare	Moderate	Low	YES	All persons involved
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Trash cleanup	Sharps, Chemicals, Bloodborne Pathogens, Spiders, Snakes, Personal Injury, Hanta Virus	Rare	Critical	Moderate	<ul style="list-style-type: none"> • Evaluate the nature of the trash – if it looks like it might contain items such as needles, bottled liquids, unidentified powders, glass paraphernalia, human waste, and similar, DO NOT ATTEMPT TO CLEAN UP AND REMOVE WITHOUT PROPER PPE & TRAINING – notify local authorities of location & nature of waste, with photos. • If trash appears to be minor amounts of normal household or camper trash, consider cleaning up using gloves and heavy-duty trash bags. If there is a significant amount of trash, notify local authorities of location of trash. • Be careful where you reach while picking up trash (bees nest, spiders, snakes, etc.). • Be aware of mice droppings and dust generated from mice droppings in enclosed spaces. Wear gloves and breathing masks as necessary. Avoid handling items soiled with mice droppings, urine. Properly dispose of soiled items to prevent further exposure. 	Possible	Moderate	Moderate	YES	All persons involved
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