

Job Hazard Analysis (JHA) (References-FSH 6709.11 and -12)

1. WORK PROJECT/ACTIVITY Trail Maintenance		2. LOCATION Pacific Crest NST and side trails		3. UNIT Pacific Crest National Scenic Trail	
4. NAME OF ANALYST Beth Boyst (PCT Program Manager) and PCTA		5. JOB TITLE		6. DATE PREPARED July 31, 2018	
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE			
Create an Inclusive and Respectful Work Environment	Bullying, harrassment, disrespectful communication	Strive to create a safe crew environment where all members are repected, valued and different perspectives are heard. If you are subjected to or witness harassment or disrespectful communication in the workplace you are encouraged to inform the individual directly that the conduct is unwelcome and must stop or report the behaviour to a crew leader.			
Communication	Devices	Utilize cellular phones, satellite phones and/or InReach devices. Be aware that cell phones do not work along many sections of the PCT. Know the location of the nearest working landline and, if possible, the nearest location for cell phone service.			
	Radios	Have agency compatable radios on crew. Ensure radios have properly programmed frequencies, are in working order, and have an extra set of batteries before leaving on the trip. Know local repeaters and best locations to use radios during emergency. Know who is available to hear you call on the radio, as agency staffing may be few or none after regular work hours and on weekends.			
	Check-in/Check-out	Check-in before project and check-out after project with desginated tracker, which may be PCTA Regional Representative or federal agency staff.			
Emergency Response	Trailhead Communication Plan (TCP) Emergency Action Plan (EAP)	Ensure plans are in place prior to beginning of project. Share TCP with PCTA Regional Rep, agency staff, and tracker. If EAP is activated due to incident, contact PCTA and agency staff immediately.			
Personal Protective Equipment		Wear long pants, long sleeve shirts, hard hats, boots with slip-resistant heels and soles with firm, flexible support. Eye protection (compliant with ANSI Z-87.1), ear protection and work gloves must be worn as appropriate for the specific tool. Any prescription safety glasses must have side shields. Carry compliant first aid kit.			
Chain and Crosscut Saw Operations		Only qualified sawyers may operate chain and/or crosscut saws within the scope of their current certification. Sawyers must follow safety and cutting techiques taught in a Forest Service-approved Nationally Recognized Sawyer Training Course. Comply with PPE requirements found in the Forest Service Health & Safety Handbook, Saw Operations Guide (FSH 6709 Ch. 22.48c). All sawyers need to be certified in Basic First-aid and CPR. When working in or near felling situations ensure an area 2 1/2 times the height of the tree to be felled is clear of personnel.			
Vehicle Operation	Fatigue Narrow, Rough Roads Poor Visibility	Drive defensively and slowly. Always wear seatbelts and turn lights on. Obey speed limits and reduce speed as appropriate for road conditions. Use spotter when backing. Use parking brake, chock blocks, and do not leave vehicle while it is running. Stop and rest if fatigued; refer to pages 20-72 in the H&SC handbook.			

	Getting Lost	Carry a map. Use GPS, if available. Drivers should know where the destination point is before getting in the vehicle. Maintain visual contact with another vehicle if traveling in a group.
On the Trail	Dehydration Contaminated Water	Don't overdo it! Know your limits. Take frequent breaks. Drink up to 12 quarts of water per day when the temperature is above 80 degrees. Increase fluid intake on hotter days or during extremely strenuous activity. Observe team members for signs of dehydration. Review map or ask crew leader about water sources, keeping in mind the seasonality of the water source. Use proper water filtration or treatment techniques when drinking from a non-municipal water source.
	Falling Objects Overhead hazards Snags Trail Hazards	Be aware of your surroundings and watch where you step. Look for overhead dead limbs, overhead dead hung up limbs (widow makers), root sprung trees and snags. Be watchful of loose limbs on trees. Be careful of dead trees. Avoid working at an unsafe site. Be aware of water crossings, marshes, and altitude changes. When fording streams, use a walking stick and undo hip belt to avoid drowning.
	Weather	Know the weather forecasts. Take appropriate gear. You can experience rain, hail, snow, lightning, or extreme heat on the PCT. Be watchful throughout the day of changing weather. In the event of lightning stay out of the open, off ridge tops and avoid water and solitary trees. If you are unprotected in a lightning storm, with no escape, remove any metal objects from your body and crouch on a piece of non-conductive, insulating material (i.e. a foam sleeping pad, rope, or pack). If lightning is close, do not bunch, spread your group out or separate from your partner.
	Getting Lost	Identify safe routes and local conditions. Hike in a group. Make sure visual contact is kept at forks in the trail. If one has to depart from the trail, advise the crew. Avoid hiking in the dark. Designate meeting spot should someone become separated. Ensure crew has a topographic map of the work area.
	Foot Damage	Wear appropriate socks and hiking boots with ankle support and traction taking into account the terrain, the work, and the weather. Communicate before moving heavy objects.
	Sun Exposure	Wear protective clothing including long sleeve shirt, long pants, full brimmed hard hat with sunshield. Use sun block and lip balm.
	Heavy Brush	Wear protective clothing such as long sleeve shirt, long pants, hard hat, work gloves, and protective eye wear. Watch for others when discarding brush. Throw brush out of sight from the trail. In heavy undergrowth, lift knees high to clear obstacles. Watch for spring poles.
	Animals	Be observant of snakes which like to live under logs and shady areas. Be bear aware and use appropriate food storage devices. Be aware of potential predators (cougars, bears, dogs) in the area.
	Insects, Ticks, Spiders, Mosquitoes, Bees	Use insect repellent. Be aware of potential for hives in brush, rock crevasses, or hollow logs. Clothing should fit tight at the wrists, ankles and waist. Tuck in shirt tails. Search your body, especially hair and clothing, for ticks and insects on a regular basis. Bathe and/or change clothes after each work day.
	Contact with Poison Oak/Ivy/Sumac	Identify crewmembers that are allergic and keep them out of work locations where poisonous plants are present. Educate crewmembers on plant ID. Whenever the skin contacts a poisonous plant or noxious weed, wash the area with cold water within 1 to 3 minutes or as soon as possible. While working in the poisonous plant environment, do not use soap and/or hot water because they can remove the

	natural protective oils from your skin. Upon returning from the field, use rubbing alcohol to cleanse contacted skin. Wear gloves when pulling weeds.
Hikers	Inform crew members when you see hikers on the trail. Work stops until the hikers clear the work area. If a potential hazard exists, crew members can stand watch at safe distances and stop hikers until the hazard is cleared. Ensure hikers have a clear path. Communicate the clear path to hikers. Place tools off the trail in a centralized location. Keep shields on sharp edges when tool is not in use.
Stock	Inform everyone when stock approaches. Talk to the rider to make contact and receive direction. Work stops until the stock has passed the work site. Stand off the trail on the downhill side. Place tools a safe distance away from the trail. Do not make sudden movements or loud noises. It may be helpful to take your hard hat off until animals pass. Listen and look for approaching stock. Remain calm and back away if animals become unruly.
Carrying Tools	Carry tools safely as instructed by crew leader. Carry tools on the downhill side. Carry sharpened edge of tool downward away from your body. Be aware of others around you. Do not carry tools on your shoulder except rock bar, pole saw or crosscut saw. Maintain a safe walking distance between people (10 feet minimum). Always have sheaths on tools and carry them on the downhill side of the trail. The person carrying the crosscut saw, rock bar, or pole saw should walk last.
Tool Use	Properly maintain and care for tools. Carry tool with scabbard on. Look around for others and hazards before swinging tools. Have firm footing and be balanced when swinging. Never throw a tool. When not in use, shield any sharp edges. Limb and peel logs on the opposite side of you. Keep tools sharp. Wear gloves and hard hat. Move large rocks by hand or with a lever or bar versus hitting with a tool. Maintain tight grip on tool handles. Use gentle but deliberate hoeing action. Be aware of others working around you. Do not use tools with a loose handle. Avoid working in the dark.
Back Injury	Use proper lifting techniques when picking up items. Bend knees, not back. Lift straight. Stretch periodically. Work with a partner.
Hand and Foot Damage	Communicate when moving large or heavy objects. Do not roll anything heavy when people are downhill. Anticipate the roll of any loose object. Watch for limbs and stubs on rolling trees.

<p>Local/Project-Specific Concerns (Write in as needed, use back of paper if additional space is needed)</p>		
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10. LINE OFFICER SIGNATURE	11. TITLE	12. DATE
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Emergency Evacuation Instructions (Reference FSH 6709.11)

Work supervisors and crew members are responsible for developing and discussing field emergency evacuation procedures (EEP) and alternatives in the event a person(s) becomes seriously ill or injured at the worksite.

Be prepared to provide the following information:

- a. Nature of the accident or injury (avoid using victim's name).
- b. Type of assistance needed, if any (ground, air, or water evacuation).
- c. Location of accident or injury, best access route into the worksite (road name/number), identifiable ground/air landmarks.
- d. Radio frequencies.
- e. Contact person.
- f. Local hazards to ground vehicles or aviation.
- g. Weather conditions (wind speed & direction, visibility, temperature).
- h. Topography.
- i. Number of individuals to be transported.
- j. Estimated weight of individuals for air/water evacuation.

The items listed above serve only as guidelines for the development of emergency evacuation procedures.

JHA and Emergency Evacuation Procedures Acknowledgment

We, the undersigned work leader and crew members, acknowledge participation in the development of this JHA (as applicable) and accompanying emergency evacuation procedures. We have thoroughly discussed and understand the provisions of each of these documents:

Signature & Date

Signature & Date

