


Appalachian National Scenic Trail	1. WORK PROJECT/ACTIVITY Performing Work Activities in the Field	2. LOCATION Park Wide	Includes work performed on lands of National Park Service, and various state parks and lands
JOB HAZARD ANALYSIS (JHA)	3. NAME(S) OF ANALYST(S)	4. Work Supervisor	5. DATE PREPARED
References-FSH 6709.11 and -12 OSHA (Instructions on Reverse)	Keith Stegall Facility Manager	Various	09/14/2018
Required Standards and General Notes:	This JHA is intended to address likely general conditions encountered by volunteers working in the field, on or off Trail. It is intended to be used in combination with other JHA's that address specific Tasks such as using hand tools, operating mechanized equipment, etc.		
Required Personal Protective Equipment	Dress for anticipated weather conditions, treadway conditions, and on-treadway and off-treadway travel through unimproved landscapes		
Tools and Equipment	Personal first aid kit, sufficient water and/or water treatment, sturdy, closed-toed shoes with good traction, appropriate work gloves, headlamp, map of work area, radio or cell phone for emergency calls. Long sleeves/Long pants as indicated by work area, temperature, exposure to poisonous plants, ticks, or thorny brush. Hard hat (where required). Eye protection as needed.		
Available Training	Trail club project manager/overseer/coordinator		
<b>7. TASKS/PROCEDURES</b>	<b>8. HAZARDS, POTENTIAL HAZARDS / INJURY SOURCE</b>	<b>9. ABATEMENT ACTIONS OR PROCEDURES</b> Engineering Controls * Substitution * Administrative Controls * PPE	
Pre-Work Trip (Field) Operations	Unpreparedness For Work Trip	<ul style="list-style-type: none"> <li>● Review all relevant / appropriate JHA's for your work trip prior to conducting any work.</li> <li>● Conduct a tailgate safety meeting prior to leaving the trailhead or conducting any work activities.</li> <li>● Research and discuss with your crew what the objectives of the work trip are, and where you will be working.</li> <li>● Ascertain if any crew members may be allergic to insects or plants that are likely to be encountered on the work trip.</li> <li>● Critically think through what potential safety issue may be at or near your work/travel sites.</li> <li>● If possible conduct a risk analysis for your planned work activities.</li> <li>● Insure communication devices are in working condition: phones, locator beacons, or radios are charged and functional.</li> <li>● Leave your itinerary with a responsible party, including where you will be, when you plan to return, who to contact if you don't return when expected.</li> <li>● Check the forecasted weather conditions for area(s) of travel</li> <li>● Ensure you have sufficient water and food supplies.</li> <li>● Ensure you have an up-to-date first aid kit.</li> <li>● Ensure you have an up-to-date and intact Injury Reporting Kit. Review the reporting procedures with your crew.</li> <li>● Identify access points for first responders.</li> </ul>	

Performing Work Activities in the Field	Working in Remote Areas / Working Alone	<ul style="list-style-type: none"> <li>• Avoid working alone when possible.</li> <li>• Always have a communication plan in place with your supervisor or other designee.</li> <li>• Check in with third party to update if situation changes.</li> <li>• Be aware of animals and conditions.</li> <li>• Remain on well marked or known paths of travel as much as possible.</li> <li>• Be aware of surroundings and hazards that may cause injury.</li> <li>• Manage time and allow for adequate time to return to trailhead/vehicle.</li> <li>• Use extreme caution in adverse weather conditions (high winds, lightning, heavy rain/snow/ice, extreme temperatures).</li> </ul>
	Working During Hunting Season	<ul style="list-style-type: none"> <li>• Remain as visible to the public as possible.</li> <li>• Wear bright colored and/or reflective wear when feasible.</li> <li>• Have radio or phone contact with other project members if feasible.</li> <li>• Do not confront illegal hunters. Call law enforcement.</li> </ul>
	Long Work Hours/Fatigue	<ul style="list-style-type: none"> <li>• Take breaks as necessary</li> <li>• Pace yourself</li> <li>• Distribute work activities among multiple crew members when possible.</li> <li>• Ensure you are getting enough sleep the night prior to work activities.</li> </ul>
	Encounters with Aggressive Public	<ul style="list-style-type: none"> <li>• If the public becomes aggressive or physically threatening, leave the area immediately via foot or vehicle (DO NOT ENGAGE).</li> <li>• Move a safe distance away and write down any pertinent information (including vehicle description, license number and identify if known, <i>report it immediately</i>).</li> <li>• (Public Concern) have the person explain the concern fully, then assess the situation and take appropriate action. Do not argue, be as polite as possible.</li> <li>• Call your supervisor to report the issue or 911/APPA dispatch @ 1866-677-677 if threat or situation is deemed an emergency.</li> <li>• If you do not know the answer to a question, take their name and contact information. Be honest, and inform them that you will try and get the answer for them. Don't make something up, be a good host.</li> <li>• Travel in pairs or more whenever possible.</li> <li>• Be cognizant of your surroundings and anything that may appear unusual.</li> <li>• If possible, avoid areas of known conflict.</li> <li>• Wear appropriate clothing identifying yourself as a volunteer for the land managing agency if possible.</li> </ul>
	Overhead Hazards	<ul style="list-style-type: none"> <li>• Be observant of surroundings (i.e. snags that have already fallen or trees that appear to be leaning severely)</li> <li>• Do not take breaks or set up camp in hazard tree areas (standing, sitting, etc)</li> <li>• Be aware of increasing winds or a forecast of increasing winds</li> <li>• Identify high-risk tree species and avoid prolonged exposure.</li> <li>• Seek shelter in a less dangerous or protected area (i.e. clear-cut or meadow, face into wind and prepare to avoid falling material).</li> <li>• Wear proper PPE (hard hat/safety glasses/ gloves etc). Hard hats are mandatory when working in situations where there is overhead work or falling objects are likely.</li> <li>• Maintain safe walking distance between people – at least 10 feet.</li> </ul>

		<ul style="list-style-type: none"> <li>● Be cognizant of broken tops or branches that may be lodged in live or dead limbs</li> </ul>
	Cuts and Scrapes	<ul style="list-style-type: none"> <li>● Wear gloves, long pants, and long sleeve shirts</li> </ul>
	Sore feet, blisters, and strains	<ul style="list-style-type: none"> <li>● Wear comfortable lace-up work boots with a non-skid sole.</li> <li>● Wear snug fitting socks to provide cushioning, sweat absorption, insulation, and comfort.</li> <li>● Take appropriate action to protect hot spots, blisters, or any other foot tenderness.</li> <li>● Use proper body positioning, firm grip, lift with legs, and get assistance when needed.</li> </ul>
	Working on Uneven Ground: Slips, Trips, and Falls	<ul style="list-style-type: none"> <li>● Use caution walking on uneven surfaces.</li> <li>● Surface conditions can change rapidly and without warning</li> <li>● Plan ahead, select safe routes, and watch for changes in ground surface, slick spots, or other unusual hazards.</li> <li>● Don't get in a hurry and always be sure footing is firm particularly when crossing streams.</li> <li>● In heavy undergrowth, lift knees high to clear obstacles.</li> <li>● Avoid walking on logs, step OVER them, not ON them.</li> <li>● While walking downhill, on slippery ground or loose footing, keep your weight on your heels, take shorter strides, keep knees bent, lean slightly backwards, and use as much of the inside of your feet as possible.</li> <li>● Wear appropriate clothing and footwear.</li> </ul>
Exposure To Inclement Weather: Heat / Cold / Wet Conditions	Heat Stroke	<ul style="list-style-type: none"> <li>● Check weather forecast before heading out for work trips.</li> <li>● Research and share with other crew members the symptoms of Heat Stroke.</li> <li>● Limit strenuous activity in hot or humid weather.</li> <li>● Wear a broad-brimmed hat and light-colored clothing in the summer.</li> <li>● Take time to get used to a new climate before being very active or staying in the sun.</li> <li>● Drink plenty of water whenever you spend a lot of time in the sun or in a hot environment.</li> <li>● Be aware of how your body reacts to intense sun and high temperatures, and plan accordingly.</li> <li>● Limit food intake to small meals, and limit alcohol intake and activity when it is very hot or when you're not used to a hot climate</li> </ul>
	Hypothermia	<ul style="list-style-type: none"> <li>● Research and share with your crew members symptoms of Hypothermia.</li> <li>● Check weather forecast before heading out for work trips.</li> <li>● Wear several layers, and bring along extras just in case you need more <ul style="list-style-type: none"> <li>○ Layer One: Wear wicking fabric next to your skin. Wicking fabric is designed to keep moisture away from your skin as you sweat, so your body stays dry. Get a long-sleeved undershirt and long johns made from this type of polyester.</li> <li>○ Layer Two: Wear wool or another warm fabric over the base layer. Wool is the best choice for cold weather, since it breathes but provides excellent insulation and is extremely warm.</li> <li>○ Layer Three: Wear a waterproof or a windproof layer on top. Determine what type of weather you might encounter and put on one more layer to protect</li> </ul> </li> </ul>

		<p>yourself. You might need a windbreaker or rain gear to keep your other layers from getting wet.</p> <ul style="list-style-type: none"> <li>● Avoid wearing cotton in cold / wet weather.</li> <li>● Avoid tromping through wet areas unless you're wearing waterproof shoes and waterproof covers for the bottom of your legs to keep your feet and legs dry.</li> <li>● If you feel you are at risk of hypothermia, it's important to turn around right away. Don't ignore shivering and other early signs of hypothermia.</li> <li>● If you believe that you or someone you know has hypothermia, take action right away instead of waiting. Look for the following symptoms of hypothermia:<sup>[2]</sup> <ul style="list-style-type: none"> <li>○ Moderate hypothermia: 'shivering, dizziness, hunger, nausea, faster breathing, trouble speaking, slight confusion, lack of coordination, fatigue, increased heart rate'</li> <li>○ Severe hypothermia: 'shivering, clumsiness, lack of coordination, slurred speech or mumbling, confusion and poor decision-making, drowsiness, low energy, progressive loss of consciousness, weak pulse, slow/shallow breathing'</li> </ul> </li> </ul>
	Lightning	<ul style="list-style-type: none"> <li>● Check weather forecast before heading out for work trips.</li> <li>● Seek indoor shelter that is grounded immediately, if available.</li> <li>● Stay away from trees, machinery, fences, and other groups of people.</li> <li>● Do not carry metal tools or equipment</li> <li>● If on a ridge top, stop what you are doing and seek lower ground.</li> <li>● Turn off all radios and electronic equipment.</li> <li>● If you feel a tingling sensation on your hair or your hair stands on end, immediately crouch and cover your head. <b>DO NOT</b> lie down or place hands on the ground</li> </ul>
	Sunburn	<ul style="list-style-type: none"> <li>● Limit direct exposure to the sun.</li> <li>● When possible, wear a hat with a wide brim.</li> <li>● Use sunscreen with an SPF of 15 or higher. When selecting a sunscreen product, be sure to read the label before you buy. Sunscreen products labeled "broad-spectrum" protect against UVA and UVB radiation. Apply it as directed on the product container.</li> <li>● Wear sunglasses that block UV rays.</li> <li>● Check you skin regularly. You can improve your chances of finding precancerous skin conditions, such as actinic keratosis – (a dry, scaly, reddish, and slightly raised lesion) and skin cancer by examining your skin regularly.</li> </ul>
Exposure To Poisonous Snakes	Insufficient Education / Information	<ul style="list-style-type: none"> <li>● Research what poisonous snakes are potentially located in your work area(s). Learn to identify them.</li> <li>● Do not engage snakes for any reason.</li> <li>● Do not stick your hand in areas you can not see behind; such as in between rock crevices, under thick brush, etc.</li> <li>● Wear long pants, gaiters, leather boots, and shirt with long sleeves where poisonous snakes are prevalent.</li> </ul>
Exposure to Poison Ivy	Insufficient Education / Information	<ul style="list-style-type: none"> <li>● Research to identify the plant in its various stages of growth and where it occurs, even infrequently.</li> <li>● Understand that any portion of the plant, with or without leaves, contains the oils that cause allergic reactions.</li> </ul>

		<ul style="list-style-type: none"> <li>• During winter months when the plant has no leaves, use identifying characteristics such as twig color and alternate leaf scars/buds.</li> </ul>
	Degree of Allergic Reaction /Broken Skin Exposure	<ul style="list-style-type: none"> <li>• Maintain awareness of previous exposures to poison ivy and associated reaction</li> <li>• Seek medical advice concerning allergy medication</li> <li>• Be aware of and protect any breaks in the skin that may come in contact with oils as reactivity may be exacerbated.</li> </ul>
	Improper Planning for Exposure	<ul style="list-style-type: none"> <li>• Plan routes through areas clear of poison ivy when possible</li> <li>• If possible, request other non-sensitive personnel to perform duties requiring exposure</li> <li>• If exposure is necessary, apply "masking" lotion (i.e. products such as IvyBlock) and put on all PPE prior to exposure, ensure all points of overlap are tight using adhesive to seal openings</li> <li>• Travel in areas where least density of poison ivy occur</li> <li>• Maintain awareness that abrasions or cuts can exacerbate reactivity.</li> <li>• Wear Tyvek suits or other secondary barrier clothing.</li> </ul>
	Contact with Contaminated Surfaces: Tools, Clothing, Vehicles, PPE, etc.	<ul style="list-style-type: none"> <li>• Assume that all cutting and digging gear is contaminated--including mowers, string trimmers and brush cutters. Wear gloves when using or servicing this equipment and wash up with Technu™ or similar cleanser.</li> <li>• Be aware that all equipment and clothing exposed to poison ivy may contaminate other surfaces and affect other personnel.</li> <li>• To the extent possible, decontaminate all items prior to leaving the field.</li> <li>• Until completely decontaminated, avoid sitting in vehicles or on furniture with which other employees may have contact.</li> <li>• Ensure that personnel not allergic to the oil are taking proper post-exposure measures to avoid increasing the chances of exposure for those who are allergic</li> </ul>
	Post Exposure	<ul style="list-style-type: none"> <li>• As soon as possible, remove contaminated PPE/clothing/boots and place in a sealed plastic bag, paying attention to avoid contact with any potentially contaminated items.</li> <li>• Apply Tecnu™ cleanser and follow with shower or sponge bath, launder exposed clothing with Tecnu, spray and/or wipe exposed boots with a Tecnu™ cleanser ideally within 2-8 hours of exposure or as soon as practical.</li> </ul>
	Allergic Reaction Worsens	<ul style="list-style-type: none"> <li>• Monitor areas of potential exposure.</li> <li>• If history of moderate to severe reaction, request supervisor fill out a CA-1 and CA-16, and get medical attention</li> </ul>
Drinking Water In the Field	Illness From Non-Potable Water Source(s)	<ul style="list-style-type: none"> <li>• Take plenty of potable water with you into the field to last for at least the length of the planned work trip whenever possible.</li> <li>• Research and share with your crew where the known potable water sources are in the field - if applicable.</li> <li>• Always treat water from field sources (filter, boil, chemical)</li> </ul>
Exposure To Ticks	Tick-Borne Diseases	<ul style="list-style-type: none"> <li>• Spray clothing with insect repellent as a barrier. Follow manufacturer's instructions.</li> <li>• Wear light colored clothing that fits tightly at the wrists, ankles, and waist.</li> <li>• Each outer garment should overlap the one above it.</li> <li>• Cover trouser cuffs with high socks or gaiters.</li> <li>• Tuck in shirt tails.</li> </ul>

		<ul style="list-style-type: none"> <li>• Search the body on a regular basis, especially hair and clothing; ticks generally do not attach for the first couple of hours.</li> <li>• When possible, shower immediately after work.</li> <li>• If a tick becomes attached, pull it by grasping it as close as possible to the point of attachment and pull straight out with gentle pressure, or use tick extractor. Wash skin with soap and water then cleanse with rubbing alcohol. Place the tick in an empty container for later identification. Record dates of exposure and removal.</li> <li>• Do not try to remove the tick by burning with a match or covering it with chemical agents.</li> <li>• If you cannot remove the tick, or the head detaches, seek prompt medical help.</li> <li>• Watch for warning signs of illness: a large red spot on the bite area, fever, chills, headache, joint and muscle ache, significant fatigue, and facial paralysis are reactions that may appear within two weeks of the attack. Symptoms specific to Lyme disease include: confusion, short-term memory loss, and disorientation. Seek medical attention if these symptoms occur. <a href="https://www.cdc.gov/ticks/tickbornediseases/index.html">https://www.cdc.gov/ticks/tickbornediseases/index.html</a></li> </ul>
Exposure To Bee Stings	Allergic Reactions / Stings	<ul style="list-style-type: none"> <li>• Be alert to hives in the ground or in hollow logs. Watch for insects travelling in and out of one location.</li> <li>• If you or anyone you are working with is known to have allergic reactions to bee stings, tell the rest of the crew and your supervisor. Make sure the allergic person carries emergency medication with them at all times.</li> <li>• Wear long sleeve shirts and trousers; tuck in shirt. Bright colors and shiny metal objects may attract bees.</li> <li>• If you are stung, cold compresses may bring relief.</li> <li>• If a stinger is left behind, scrape it off the skin. Do not use a tweezers as this squeezes the venom sack, worsening the injury.</li> <li>• If the victim develops hives, asthmatic breathing, tissue swelling, or a drop in blood pressure, seek medical help immediately. Administer appropriate medication if available and if you are qualified to do so.</li> <li>• If hive is disturbed, drop tools and run.</li> </ul>
Exposure To Mosquito/Black Fly Bites	Skin Irritation / Encephalitis	<ul style="list-style-type: none"> <li>• Wear long sleeves and trousers. Head net or bug jacket for extreme conditions</li> <li>• Avoid heavy scents.</li> <li>• Use insect repellents, follow manufacturer's instructions</li> <li>• Carry after-bite medication to reduce skin irritation.</li> </ul>
10. OFFICIAL SIGNATURE 	11. TITLE Acting Chief Ranger	12. DATE 9-18-18
Previous edition is obsolete	(over)	

JHA Instructions (References-FSH 6709.11 and .12)	Emergency Evacuation Instructions (Reference FSH 6709.11)
The JHA shall identify the location of the work project or activity, the name of employee(s) involved in the process, the date(s) of acknowledgment, and the name of	

the appropriate line officer approving the JHA. The line officer acknowledges that employees have read and understand the contents, have received the required training, and are qualified to perform the work project or activity.

Blocks 1, 2, 3, 4, 5, and 6: Self-explanatory.

**Block 7:** Identify all tasks and procedures associated with the work project or activity that have potential to cause injury or illness to personnel and damage to property or material. Include emergency evacuation procedures (EEP).

**Block 8:** Identify all known or suspect hazards associated with each respective task/procedure listed in block 7. For example:

- a. Research past accidents/incidents.
- b. Research the Health and Safety Code, FSH 6709.11 or other appropriate literature.
- c. Discuss the work project/activity with participants.
- d. Observe the work project/activity.
- e. A combination of the above.

**Block 9:** Identify appropriate actions to reduce or eliminate the hazards identified in block 8. Abatement measures listed below are in the order of the preferred abatement method:

- a. Engineering Controls (the most desirable method of abatement). For example, ergonomically designed tools, equipment, and furniture.
- b. Substitution. For example, switching to high flash point, non-toxic solvents.
- Work Leader  
c. Administrative Controls. For example, limiting exposure by reducing the work schedule; establishing appropriate procedures and practices.
- d. PPE (least desirable method of abatement). For example, using hearing protection when working with or close to portable machines (chain saws, rock drills, and portable water pumps).
- e. A combination of the above.

**Block 10:** The JHA must be reviewed and approved by a line officer. Attach a copy of the JHA as justification for purchase orders when procuring PPE.

Blocks 11 and 12: Self-explanatory.

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
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