

U.S. Department of Agriculture				1. WORK PROJECT/ACTIVITY	2. LOCATION	3. UNIT
US Forest Service				Volunteer Trail Maintenance & Field Work	National Forests in North Carolina & Cherokee National Forest	NFsNC: Appalachian RD, Grandfather RD, Pisgah RD, Nantahala RD CNF: Watauga RD & Unaka RD
JOB HAZARD ANALYSIS (JHA)				4. NAME OF ANALYST	5. JOB TITLE	6. DATE PREPARED
References-FSH 6709.11 and -12 (Instructions on Reverse)				Drew Ford	Forest Safety Officer	09/07/2021
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS				
Engineering Controls * Substitution * Administrative Controls * PPE						
Driving to the Jobsite	Dusty, winding, narrow roads Rocky or one-lane roads Turning around on narrow roads	<ul style="list-style-type: none"> - Employee should drive confidently and defensively at all times - Drive with headlights on at all times - Go slow around corners and over rocks - Stay clear of gullies and trenches - Yield right-of-way to oncoming vehicles- find a safe place to pull over - Safely turn out with as much room as possible. Know what is ahead and behind the vehicle. Use a backer when one is available. 				
Communication	Safety Crew Unity	<ul style="list-style-type: none"> - Talk to each other - Let other crew members know when you see a hazard - Avoid working near known hazards - Yell "ROCK" if you see one start to roll down hill - Always know the location of fellow crewmembers - Supervisors of crew leads will carry a radio and spare batteries. Be familiar with the communication plan and know your assigned frequency - Utilize the check in-check out policy 				
Walking and working in the field	Falling down Twisted ankles and knees Poor footing	<p>Always watch your footing. Slow down and use caution around logs, rocks and animal holes. Extremely steep slopes (>50%) can be hazardous under wet or dry conditions; consider and alternate route. Tree root holes are prevalent and should be flagged. Work boots, hiking boots, or sturdy shoes will be required. Open toe shoes and the like are prohibited.</p>				
	Damamge to eyes	<p>Watch where you walk, especially around trees and brush with limbs sticking out. Exercise caution when clearing limbs. Advise wearing eye protections. Ultraviolet light from the sun can be damaging to the eyes; look for sunglasses that specify significant protection from UV-A and UV-B radiation.</p> <p>Supervisors have the responsibility to:</p> <ul style="list-style-type: none"> - Ensure that tools are not modified or used in any manner that increases the 				

	Tools and Equipment	<p>risk of injury.</p> <ul style="list-style-type: none"> - Ensure that tools remain in a safe condition through periodic inspection and repair. This includes tools furnished by volunteers - Monitor Employees performance periodically to ensure proper methods are followed - Gloves shall be worn while performing work tasks
Use of Hand Tools	Injuries	<ul style="list-style-type: none"> - Wear hardhat, gloves, shin guards and safety glasses. - Maintain a working distance of atleast 10 feet between crew members - Place tools and equipment, not in the operation, a safe distance from the work area - Training in proper use and selection of tools for the job should be provided to each volunteer - Tailgate safety sessions are recommended.
Working during Hunting Season	Injuries Death	<ul style="list-style-type: none"> - Wear Hunter Orange Vest. - Avoid times and areas of poor visibility.
Pre Use Inspection of Equipment (Power Equipment)	Missing or Loose parts Lack of training	<ul style="list-style-type: none"> - Before running equipment, check for missing, worn and loose parts - Ensure guards are attached - Consult operator manual for instructions - Inspect fuel lines and fuel tank - Do not repair unit without proper instructions - Follow manufacturers maintenance and servicing guidelines - Adjust handle and strap for comfort and balance - If unit is unsafe, tag it “out of service” in a position that will be immediately obvious to anyone attempting to operate.
Operator	Lack of Training	<ul style="list-style-type: none"> - Read the operator’s manual - Locate the safety decals on your unit. Make sure the decals are legible and that you understand and follow the instructions on them. - You should be in good mental and physical health before operating power equipment.
Proper PPE	Flying Objects Dust, glass, rocks, cans and wood Hearing Loss Insect stings/Bites Snake Bites	<ul style="list-style-type: none"> - Wear safety glasses or goggles that meet ANSI standard Z87.1 compliance - Faceshild may be worn only if safety glasses are worn underneath - Wear ear plugs of hearing protection headsets - Gloves must be worn - Long sleeve shirts and long pants are required - Non-skid boots are required - Dust masks may be worn
Starting	Injuries	<ul style="list-style-type: none"> - Start only with harness securely attached - Always start unit on the ground - Shutdown immediately if the unit starts to shake or vibrate

<p>Fueling</p>	<p>Burns Fire Spills</p>	<ul style="list-style-type: none"> - Allow engine to cool for atleast 5 minutes before refueling - Fill on bare ground only - Wipe and spilled fuel from the unit and move at least 10 feet from the fueling area before restarting - Fill unit from labeled fuel container only - Never refuel while unit is running - Wear eye protection - Do not smoke or bring flame or sparks near fueling area - Have fire extinguisher near by
<p>Operation</p>	<p>Kickbacks Cuts Burns</p>	<ul style="list-style-type: none"> - Maintain a safe distance between operator and other crewmembers - Maintain a minimum of 100 feet between workers - Never operate the cutting head above your knees - Keep feet and hands away from the rotating cutting head - Do not operate with one hand - Always hold the unit with your fingers and thumbs encircling the handles - Avoid touching muffler and gear shaft until the unit has time to cool
<p>General</p>	<p>Lack of supervision, neglect</p>	<ul style="list-style-type: none"> - When possible, personnel should not work alone; youth groups should have a minimum of 1 adult for every 5 youths. When volunteers are not directly supervised by FS personnel, at least one volunteer should carry a cell phone. - One volunteer must be certified in First Aid and CPR.
<p>Environmental Health Considerations</p>	<p>Sunburn, bees, ticks, mosquitos, lightning, etc.</p>	<ul style="list-style-type: none"> - Use sunscreen when necessary. - Use insect repellent, a 30% solution of Deet is recommended for adults and a 10% solution for youth. - Watch for wasp nests or swarms of wasps when walking or working in field. - Know if anyone in your group is allergic to bee stings. Carry a bee sting kit if you are allergic and instruct co-workers where it is and how to use it. - Check for ticks after working in the woods - Carry rain gear and layer clothing. - Watch for obvious hazards like falling branches during windy conditions. - During rain storms put down all tools, avoid grouping together and get away from water sources and power lines. Seek shelter as soon as possible. - If no shelter is found, avoid ridges, hilltops, wide open spaces, ledges, rock outcrops, and shelter in exposed locations. <ul style="list-style-type: none"> - Remain constantly aware of the four basic factors that determine the degree of heat stress (Air temperature, humidity, air movement, and heat radiation) relative to the surrounding work environment heat load. - Know the signs and symptoms of heat exhaustion, heat cramps and heat stroke. Heat Stroke is a true medical emergency requiring immediate

Garbage Pickup	Hazardous materials, Bio-hazardous waste etc.	Wear latex gloves inside leather gloves. Be aware of suspicious or hazardous items. Do not touch hazardous items and notify FS personel when they are found. Do not work along roadways without orange vests and proper hazard abatement measures in place.
Emergency Evacuation Procedures	Illness/Injury	ALL Forest Service vehicles and volunteer groups shall have first aid kits. Each work crew or office group shall have at least one person currently certified to render first aid and CPR. If broken down on the highway, use radio or cell phone to initiate call for EMS/First Responders. At a facility with a telephone dial 911. Maintain communications with the 911 operator until help arrives. Render first aid to the sick or injured until relieved by a higher level medical responder. Do not abandon the patient. In remote work areas, it may be quicker to transport the injured person out to meet the EMS agency. Care shall be taken while moving and transporting the injured and communications must be maintained. Use Blood Borne Pathogen precautions. Notify your Forest Service Staff point of contact of the injury!! Complete necessary paperwork.
10. LINE OFFICER SIGNATURE & DATE		11. TITLE
JENNIFER BARNHART	Digitally signed by JENNIFER BARNHART Date: 2022.09.14 08:36:20 -04'00'	National Forests in North Carolina, Appalachian District Ranger
NICHOLAS LARSON	Digitally signed by NICHOLAS LARSON Date: 2022.05.24 11:41:41 -04'00'	National Forests in North Carolina, Grandfather District Ranger
DAVID CASEY	Digitally signed by DAVID CASEY Date: 2022.09.30 10:56:35 -04'00'	National Forests in North Carolina, Pisgah District Ranger
MATTHEW WASKEY	Digitally signed by MATTHEW WASKEY Date: 2022.10.05 13:39:51 -04'00'	National Forests in North Carolina, Nantahala District Ranger
	Cherokee National Forest, Watauga District Ranger	
	Cherokee National Forest, Unaka District Ranger	

JHA Instructions (References-FSH 6709.11 and .12)

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.
- 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.

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
