

U. S. Department of Agriculture Forest Service JOB HAZARD ANALYSIS (JHA) References – FSH 6709-.11 and -12 <i>(Instructions on Reverse)</i>	1. WORK PROJECT/ACTIVITY Trail Maintenance	2. LOCATION Nantahala National Forest	3. UNIT Cheoah/Tusquitee Ranger Districts
	4. NAME OF ANALYST Heath Emmons	5. JOB TITLE Natural Resource Specialist	6. DATE PREPARED 11/1/2021
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE	
Travel to and From Project Sites	Vehicle Accidents Injuries	Ensure volunteer has working knowledge of Job Hazard Analysis for General Driving.	
Use of Hand Tools	Injuries	<ul style="list-style-type: none"> a. Wear hardhat, gloves, shin guards, and safety goggles. b. Maintain a working distance of at least 10 feet between crew members. c. Place tools and equipment not in operation a safe distance from the work area. d. Training in proper use and selection of tools for the job should be provided to each employee. e. Tailgate safety sessions are required. 	
Working Remote Areas	Emergency Situations	<ul style="list-style-type: none"> a. Maintain radio contact with other personnel. b. Carry a First Aid Kit. c. Have an emergency evacuation plan for the area of work. 	
	Falls and Sprains	<ul style="list-style-type: none"> a. Watch your step. b. Wear non-skid boots. 	
	Insect and Snake Bites	<ul style="list-style-type: none"> a. Use insect repellent. b. Ensure volunteer is aware of hazardous insects and snakes in the area and recommended first aid procedures if bitten. 	

7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE
Use of Chainsaw	Injuries	<ul style="list-style-type: none"> a. Operator must have chain saw certification. b. Ensure volunteer has working knowledge of Job Hazard Analysis for Brushing/Chainsaw Use. c. Wear hardhat, gloves, face shield, ear protection and chaps when using chainsaw.
Working during Hunting Season	Injuries Death	<ul style="list-style-type: none"> a. Wear hunter orange vest. b. Avoid times of poor visibility.
Emergency Evacuation Procedures	Illness/Injury	<p>All vehicles shall have first aid/infectious control kits. Each work crew shall have at least one person currently certified to render first aid and CPR. If broken down on the open road, use two-way radio or cell phone to initiate call for EMS. 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. All volunteers treating patients shall observe Universal Precautions at all times. In remote work areas, it may be quicker to transport the injured patient out to meet with the EMS agency. Care shall be taken while moving and transporting the injured and communications must be maintained. Use Blood Borne Pathogen precautions. Notify the Forest Service of the injury. Complete necessary paperwork.</p>

7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE
Walking and Working in the Field	Falling Down Twisted Ankles and Knees Poor Footing	Always watch your footing. Slow down and use extra caution around logs, rocks, and animal holes. Extremely steep slopes (>50%) can be hazardous under wet or dry conditions; consider an alternate route. Tree root holes are prevalent and should be flagged. Work boots, hiking boots, or sturdy shoes will be required. Open toes shoes such as sandals, tennis shoes, and the like are prohibited.
	Damage to Eyes	Watch where you walk, especially around trees and brush with limbs sticking out. Exercise caution when clearing limbs. Wear eye protection. 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.
	Insect Stings and Bites	Review the Job Hazard Analysis for Insect Stings/Bites.
	Tools and Equipment	<ul style="list-style-type: none"> a. Ensure that tools are not modified or used in any manner that increases the risk of injury. b. Ensure that tools remain in a safe condition through periodic inspection and repair. c. Monitor performance periodically to ensure proper methods are followed. d. Gloves shall be worn while performing work tasks.
	Lifting	Ask for help if the load is too heavy. Do not try to lift or otherwise move material beyond abilities.

7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE
Environmental Health Considerations	Heat Stress	<p>a. 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.</p> <p>b. Know the signs and symptoms of heat exhaustion, heat cramps, and heat stroke. Heat stroke is a true medical emergency requiring immediate emergency response action.</p> <p>NOTE: The severity of the effects of a given environmental heat stress is decreased by reducing the workload, increasing the frequency and/or duration of rest periods, and by introducing measures which will protect volunteers from hot environments.</p> <p>c. Tailor the work schedule to fit the climate, the physical condition of volunteers, and mission requirements.</p> <ol style="list-style-type: none"> 1. A reduction of workload markedly decreases total heat stress. 2. Lessen workload and/or duration of physical exertion the first days of heat exposure to allow gradual acclimatization. 3. Alternate work and rest periods. More severe conditions may require longer rest periods and electrolyte fluid replacement.

7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE						
<p>Environmental Health Considerations (Continued)</p>	<p>Wet Bulb Globe Temperature (WBGT) Index</p> <p>Wind</p> <p>Dusty Conditions</p>	<p>Curtail or suspend physical work when conditions are extremely severe (see attached Heat Stress Index).</p> <p>Compute a Wet Bulb Globe Temperature Index to determine the level of physical activity (take WBGT Index measurements in a location that is similar or closely approximates the environment to which volunteers will be exposed).</p> <p>WBGT THRESHOLD VALUES FOR INSTITUTING PREVENTIVE MEASURES</p> <table data-bbox="1165 633 1963 1055"> <tr> <td data-bbox="1165 633 1470 730">80-90 degrees F</td> <td data-bbox="1470 633 1963 730">Fatigue possible with prolonged exposure and physical activity.</td> </tr> <tr> <td data-bbox="1165 730 1470 909">90-105 degrees F</td> <td data-bbox="1470 730 1963 909">Heat exhaustion and heat stroke possible with prolonged exposure and physical activity.</td> </tr> <tr> <td data-bbox="1165 909 1470 1055">105-130 degrees F</td> <td data-bbox="1470 909 1963 1055">Heat exhaustion and heat stroke possible with prolonged exposure and physical activity.</td> </tr> </table> <p>Terminate all work during periods of high winds due to snag hazards.</p> <p>Dust masks will be worn while working in dusty conditions along with eye protection.</p>	80-90 degrees F	Fatigue possible with prolonged exposure and physical activity.	90-105 degrees F	Heat exhaustion and heat stroke possible with prolonged exposure and physical activity.	105-130 degrees F	Heat exhaustion and heat stroke possible with prolonged exposure and physical activity.
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7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE
Environmental Health Considerations (Continued) Emergency Evacuation Procedures	Lightning Illness/Injury	Although most common in the summer, thunder and lightning can occur anytime. If caught in a storm near a vehicle, return to the vehicle and stay inside while the storm is most active. Park vehicle in an open area away from trees. Turn off radios during the storm. If caught in a storm away from your vehicle, try to find some form of building or shelter. DO NOT seek shelter under large trees or open areas. Stay off ridge tops and mountain tops. Seek shelter in low lying areas such as a ditch or cave. High winds can snap off snags and healthy trees unexpectedly. Each work crew shall have at least one person currently certified to render first aid and CPR. Render first aid to the sick or injured until relieved by a higher level medical responder. Do not abandon the patient. All volunteers treating patients shall observe Universal Precautions at all times. In remote work areas, it may be quicker to transport the injured patient out to meet with the EMS agency. Care shall be taken while moving and transporting the injured and communications must be maintained. Use Blood Borne Pathogen precautions. Notify the Forest Service of the injury. Complete necessary paperwork.

HEAT STRESS INDEX

Actual Thermometer Reading (F°)

	74	76	78	80	82	84	86	88	90	92	94	96	98	100	102	104
RELATIVE HUMIDITY	HUMIDITURE F° (Equivalent Temperature)															
10 %	68	70	72	75	77	78	80	82	85	87	89	91	93	95	97	98
20 %	70	72	75	77	79	81	84	86	88	90	93	95	97	99	101	104
30 %	73	75	77	78	80	83	85	87	90	92	95	98	101	105	108	110
40 %	74	76	78	79	81	85	87	89	92	96	100	104	106	110	117	120
50 %	75	77	79	81	84	86	90	93	96	100	105	108	110	120	125	132
60 %	75	77	80	83	86	89	92	95	100	106	111	120	125	132		
70 %	75	77	81	85	89	91	96	100	106	115	122	128				
80 %	76	78	83	86	91	95	100	106	114	122						
HUMIDITURE F°	Below 80		80 - 90			90 - 105			105 -130			Above 130				
DANGER CATEGORY	NONE		CAUTION			EXTREME CAUTION			DANGER			EXTREME DANGER				
NONE	Little or no danger under normal circumstances.															
CAUTION	Fatigue possible, if exposure is prolonged and there is physical activity.															
EXTREME CAUTION	Heat cramps and heat exhaustion, if exposure is prolonged and there is physical activity.															
DANGER	Heat cramps or exhaustion likely; heat stroke possible, if prolonged and there is physical activity.															
EXTREME DANGER	HEAT STROKE IMMINENT!															

NOTE: Add 10 ° F when protective clothing is worn and add 10 ° F when in direct sunlight.

WIND CHILL INDEX

Actual Thermometer Reading (F°)												
	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
Wind Speed (mph)	Equivalent Temperature (F°)											
Calm	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
5	48	37	27	16	6	-5	-15	-26	-36	-47	-57	-68
10	40	28	16	4	-9	-21	-33	-46	-58	-70	-83	-95
15	36	22	9	-5	-18	-36	-45	-58	-72	-85	-99	-112
20	32	18	4	-10	-25	-39	-53	-67	-82	-96	-110	-124
25	30	16	0	-15	-29	-44	-59	-74	-88	-104	-118	-133
30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	-125	-140
35	27	11	-4	-20	-35	-49	-67	-82	-98	-118	-129	-145
40	26	10	-5	-21	-37	-53	-69	-85	-100	-116	-132	-148
	LITTLE DANGER (for properly clothed person)				INCREASED DANGER				GREAT DANGER			
	DANGER OF FREEZING EXPOSED SKIN											

NOTE: Wind speeds greater than 40 mph have little additional effect.

7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE
Fueling Chain Saw	Burns Spillage Fire	<ul style="list-style-type: none"> a. Stop the saw when checking fuel or bar oil levels and when refueling. b. Fill tank on bare ground or other noncombustible surface. c. Wipe spilled fuel off saw. d. Never start saw within 10 feet of the fueling area. e. Refuel saw at least 50 feet from persons smoking or potential sources of ignition.
Environmental Conditions	Lightning Rain Strong Winds Darkness	All work shall terminate and each volunteer shall move to a place of safety when environmental conditions create a hazard for the volunteer.
Starting Saw	Kickback Cuts	<p>There are two recognized methods for safely starting a saw. In both methods, the trigger lock should not be used.</p> <ul style="list-style-type: none"> a. On ground starting b. Stand starting. c. ***Drop starting is prohibited***.
Personal Protection Equipment	Cuts Hearing Loss Eye Injuries Head Injuries	<ul style="list-style-type: none"> a. Wear gloves, chaps, hardhat, safety glasses, and hearing protection, long-sleeved shirt, and sturdy boots with slip resistant soles. b. Use shoulder pads for carrying chainsaw. c. Keep shirt collar up while carrying saw on shoulder. d. The leg protection (chaps) shall cover the full length of the thigh to the top of the boots. e. First aid kits shall be available at the work site and on each transport vehicle.

7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE
<p>Brushing and Limbing</p>	<p>Kickback Puller/Swamper Uneven Terrain Fatigue</p>	<p>a. Secure footing. Keep feet spread apart in wide balanced stances. Feet should be placed to keep feet and legs away from saw chain. Keep a firm grip on saw with both hands. Fatigue is a major hazard. Do not operate chain saw when fatigue makes proper stance and handling difficult.</p> <p>b. Look up for widow makers and other loose debris. Don't cut under a hazard. Remove the hazard or relocate the cutting location. Flush cut limbs and stems.</p> <p>c. Never cut with powerhead higher than your chest.</p> <p>d. Clear debris from cutting location so that the guide bar tip is not accidentally stubbed.</p>
<p>Chain Saw Swampers</p>	<p>Various Injuries Damage to Equipment</p>	<p>a. Swampers should be trained and familiar with basic chainsaw use and reactive forces while cutting.</p> <p>b. Never let swampers into the cutting circle without constant, direct supervision from the chainsaw operator.</p> <p>c. Ensure that swampers are in good physical condition before allowing them to swamp for a sawyer. A sawyer should never work alone.</p>
<p><u>**Special Considerations for the Use of Electric Chainsaws**</u></p>	<p>Various Injuries Damage to Equipment Kickback (there is no delay in torque on start-up so that as soon as the user pushes the power button, the saw is in full torque under a flat torque curve)</p>	<p>a. Be appropriately trained, certified and follow applicable Job Hazard Analysis abatement actions for gasoline powered chainsaws described above.</p> <p>b. Remove battery for transportation and carrying.</p> <p>c. Insulate contacts with a non-conductive material such as electrical tape, or wrap in cloth, when carrying in a pack to protect battery.</p> <p>d. Personal Protective Equipment is the same as described above, <u>except that 9-layer chaps are required for battery operated chainsaws.</u></p>

Brushing/Chain Saw Use Job Hazard Analysis (Continued)

7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE
<p>Personal Safety</p> Emergency Evacuation Procedures	<p>Violence or Threat of Violence</p> Illness/Injury	<p>Violence occurs at different levels of intensity, and usually increases overtime. In order to prevent violence from escalating, volunteers need to pay attention to the work environment, recognize the signs of possible violence early, and take all necessary actions to reduce the risk to life and property. Violent people may come from inside or outside your organization. Call 911 for law enforcement if needed.</p> <p>All vehicles shall have first aid/infectious control kits. Each work crew shall have at least one person currently certified to render first aid and CPR. If broken down on the open road, use two-way radio or cell phone to initiate call for EMS. 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. All volunteers treating patients shall observe Universal Precautions at all times. In remote work areas, it maybe quicker to transport the injured patient out to meet with the EMS agency. Care shall be taken while moving and transporting the injured and communications must be maintained. Use Bloodborne Pathogen precautions. Notify your supervisor of the injury. Complete necessary paperwork.</p> <p>For sites with chain saw operations, as a minimum, supply Type IV (Belt) first aid kit.</p>

U. S. Department of Agriculture Forest Service JOB HAZARD ANALYSIS (JHA) References – FSH 6709-.11 and -12 (Instructions on Reverse)	1. WORK PROJECT/ACTIVITY General Driving	2. LOCATION Nantahala National Forest	3. UNIT Cheoah/Tusquitee Ranger Districts
	4. NAME OF ANALYST Heath Emmons	5. JOB TITLE Natural Resource Specialist	6. DATE PREPARED 11/1/2021
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE	
Traveling Driving	Stress and Fatigue Type of Vehicles Weather	Follow established work/rest guidelines. A 16 hour workday is the maximum allowed for any activity of which only 10 hours may be spent driving. When driving, stop for a break at least every 2 hours. Select appropriate vehicle for work needs and location. Familiarize yourself with the vehicle and know where the controls are. Make the “circle of safety” check of vehicle condition. Review maps and plan route prior to beginning your trip. Report any accident (government, leased or private owned vehicle) regardless of dollar amount. Changes in climatic conditions require adjusting to different weather situations. Do not drive in adverse weather conditions if the trip can be delayed. Avoid being rushed; you will need more time to prepare the vehicle and get to your destination. Remove all frost and snow prior to starting your trip. Make sure vents are clear of snow to provide adequate airflow for defrosting. Always carry PPE for changing weather conditions. Listen to weather forecasts and plan field-work projects and activities accordingly.	

7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE
<p>Field Work Driving</p> <p>Driving Qualifications</p> <p>Travel, Check-Out, Check-In</p>	<p>Off Highway Driving</p> <p>Skills</p> <p>Personal Safety</p>	<p>Check with local unit or District as necessary prior to driving on mountain roads regarding logging traffic, and other items such as construction, washouts, blow-downs, and closures. Proceed slowly around corners and drive on the right side. Be able to stop within ½ of viewing distance.</p> <p>Drivers must have a valid state driver’s license.</p> <p>When traveling, leave an itinerary with someone you trust. Include destination, departure and return times and as appropriate, a contact where your family or the Forest Service can reach you in case of an emergency.</p> <p>There are certain situations when no one is expecting the volunteer to arrive on a specific schedule. When appropriate, the volunteer should call their contact to let them know that the trip was completed as planned.</p>

7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE
<p>Emergency Evacuation Procedures</p>	<p>Illness/Injury</p>	<p>All vehicles shall have first aid/infectious control kits. Each work crew shall have at least one person currently certified to render first aid and CPR. If broken down on the open road, use two-way radio or cell phone to initiate call for EMS. 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. All volunteers treating patients shall observe Universal Precautions at all times. In remote work areas, it may be quicker to transport the injured patient out to meet with the EMS agency. Care shall be taken while moving and transporting the injured and communications must be maintained. Use Blood Borne Pathogen precautions. Notify the Forest Service of the injury. Complete necessary paperwork.</p>

<p>U. S. Department of Agriculture Forest Service</p> <p>JOB HAZARD ANALYSIS (JHA) References – FSH 6709-.11 and -12 (Instructions on Reverse)</p>	<p>1. WORK PROJECT/ACTIVITY Insect Stings and Bites</p>	<p>2. LOCATION Nantahala National Forest</p>	<p>3. UNIT Cheoah/Tusquitee Ranger Districts</p>
	<p>4. NAME OF ANALYST Heath Emmons</p>	<p>5. JOB TITLE Natural Resource Specialist</p>	<p>6. DATE PREPARED 11/1/2021</p>
<p>7. TASKS/PROCEDURES</p>	<p>8. HAZARDS</p>	<p>9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE</p>	
<p>Avoiding/Treating Tick Bites</p>	<p>Lyme Disease Rocky Mountain Spotted Fever Etc.</p>	<ul style="list-style-type: none"> a. Spray clothing with insect repellent as a barrier. b. Wear light colored clothing that fits tightly at the wrists, ankles, and waist. c. Each outer garment should overlap the one above it. d. Cover trouser legs with high socks or boots. e. Shirts should be tucked in and secured with a snug belt. f. Search the body on a regular basis, especially hair and clothing; ticks generally do not attach for the first couple of hours. g. 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. Wash skin with soap and water then cleanse with rubbing alcohol. Place the tick in an empty container for later identification. If the victim should have a reaction, record dates of exposure and removal. h. Do not try to remove the tick by burning with a match or covering it with chemical agents. 	

7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE
<p>Avoiding/Treating Tick Bites (Continued)</p>		<ul style="list-style-type: none"> i. If you cannot remove the tick, or the head detaches, seek prompt medical help. j. Watch for warning signs of illness <ul style="list-style-type: none"> 1. A large red spot on the bite area 2. Fever 3. Chills 4. Headache 5. Joint and muscle ache 6. Significant fatigue 7. Facial paralysis k. Reactions may appear within two weeks of the attack. l. Symptoms specific to Lyme Disease include: <ul style="list-style-type: none"> 1. Confusion 2. Short-term memory loss 3. Disorientation m. Seek medical attention immediately if any symptoms listed above appear. Notify Forest Service if symptoms appear.

7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE
<p>Avoiding/Treating Bee Stings</p>	<p>Allergic Reactions Painful Stings</p>	<ul style="list-style-type: none"> a. Be alert to hives in brush or in hollow logs. b. Watch for insects traveling in and out of one location. c. If you or anyone you are working with is known to have allergic reactions to bee stings, tell the rest of the work crew. Make sure you carry emergency medication with you at all times. d. Wear long sleeve shirts and trousers. e. Shirts should be tucked in. f. Bright colors and metal objects may attract bees. g. If you are stung, cold compresses may bring relief. h. If a stinger is left behind, scrape it off the skin. Do not use tweezers to remove sting, as this squeezes the venom sack, worsening the injury. i. Seek medical attention immediately if victim develops any symptoms shown below: <ul style="list-style-type: none"> 1. Hives 2. Asthmatic breathing 3. Tissue swelling 4. A drop in blood pressure j. Give victim antihistamine, such as Benadryl.

7. TASKS/PROCEDURES (CONTINUED)	8. HAZARDS (CONTINUED)	9. ABATEMENT ACTIONS (CONTINUED) Engineering Controls * Substitution * Administrative Controls * PPE
<p>Avoiding/Treating Mosquito Bites</p> <p>Emergency Evacuation Procedures</p>	<p>Skin Irritation Encephalitis</p> <p>Illness/Injury</p>	<ul style="list-style-type: none"> a. Wear long sleeves and trousers. b. Avoid heavy scents c. Use insect replants. If using DEET, do not apply directly to skin, apply to clothing only. d. Carry after-bite medication to reduce skin irritation. <p>All vehicles should have first aid/infectious control kits. Each work crew shall have at least one person currently certified to render first aid and CPR. If broken down on the open road use two-way radio or cell phone to initiate call for EMS. 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. All employees treating patients shall observe Universal Precautions at all times. In remote work areas, it maybe quicker to transport the injured patient out to meet with the EMS agency. Care shall be taken while moving and transporting the injured and communications must be maintained. Use Blood Borne Pathogen precautions. Notify the Forest Service of the injury. Complete necessary paperwork.</p>

U. S. Department of Agriculture Forest Service JOB HAZARD ANALYSIS (JHA) References – FSH 6709-.11 and -12 <i>(Instructions on Reverse)</i>	1. WORK PROJECT/ACTIVITY Cutting with Weed Eater	2. LOCATION Nantahala National Forest	3. UNIT National Forest in North Carolina
	4. NAME OF ANALYST Heath Emmons	5. JOB TITLE NRS	6. DATE PREPARED 11/1/2021
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS <small>Engineering Controls * Substitution * Administrative Controls * PPE</small>	
Carrying Weed Eater	Injuries Cuts Falling objects	a. Carry only with harness while in operation. b. Conduct tailgate safety sessions. c. Wear hardhat, gloves, goggles, and shin guards. All protective equipment should meet standards set forth in Job Hazard Analysis for Personal Safety – Personal Protective Equipment.	
Starting	Injuries	Start only with harness securely attached.	
Refueling	Burns	a. Allow weed eater to cool for at least 5 minutes before refueling. b. Fill on bare ground only. c. Start at least 10 feet from the refueling area.	
Kickback	Cuts Injuries	a. Maintain a safe distance between operator and other crewmembers. b. Maintain a minimum of 100 feet between workers.	

<p align="center">U.S. Department of Agriculture Forest Service</p>	<p align="center">1. WORK PROJECT/ACTIVITY COVID-19</p>	<p align="center">2. LOCATION National Forests in North Carolina</p>	<p align="center">3. UNIT Cheoah/Tusquee Ranger Districts</p>
<p align="center">JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 (Instructions on Reverse)</p>	<p align="center">4. NAME OF ANALYST Heath Emmons</p>	<p align="center">5. JOB TITLE Natural Resource Specialist</p>	<p align="center">6. DATE PREPARED 11/1/2021</p>
<p align="center">7. TASKS/PROCEDURES</p>	<p align="center">8. HAZARDS</p>	<p align="center">9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE</p>	
<p>General Considerations</p>	<p>COVID-19 Exposure: Reported illnesses have ranged from mild symptoms to severe illness and death for confirmed coronavirus disease 2019 (COVID-19) cases.</p> <p>The following symptoms may appear 2-14 days after exposure.</p> <ul style="list-style-type: none"> • Fever above 100.4F • Cough • Shortness of breath <p>UPDATE: CDC recently added the following symptoms as possible indicators of COVID-19:</p> <ul style="list-style-type: none"> • Chills • Repeated shaking with chills • Muscle pain • Headache • Sore throat • and, new loss of taste or smell. 	<p>The best way to prevent illness is to avoid being exposed to this virus.</p> <p>Clean your hands often</p> <ul style="list-style-type: none"> <input type="checkbox"/> Wash your hands often with soap and water for at least 20 seconds especially after you have been in a public place, or after blowing your nose, coughing, or sneezing. <input type="checkbox"/> If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol. Cover all surfaces of your hands and rub them together until they feel dry. <input type="checkbox"/> Avoid touching your eyes, nose, and mouth with unwashed hands. <p>Avoid close contact</p> <ul style="list-style-type: none"> <input type="checkbox"/> Avoid close contact with people who are sick. <input type="checkbox"/> Practice social distancing (i.e., six feet distance between individuals) to the extent practicable. <input type="checkbox"/> Use of audio and video teleconferencing capabilities, where possible. <p>Stay home if you're sick</p> <ul style="list-style-type: none"> <input type="checkbox"/> Stay home if you are sick, except to get medical care. Learn what to do if you are sick. Notify the Forest Service immediately if you have any of the mentioned symptoms or if you have tested positive to COVID-19 after volunteer activities. <p>Cover coughs and sneezes</p> <ul style="list-style-type: none"> Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow. Throw used tissues in the trash. Immediately wash your hands with soap and water for at least 20 seconds. If soap and water are not readily available, clean your hands with a hand sanitizer that contains at least 60% alcohol. 	

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE
		<p>Wear/use appropriate PPE</p> <ul style="list-style-type: none"> <input type="checkbox"/> Wear a facemask <ul style="list-style-type: none"> ○ N-95 masks should be reserved for first responders. ○ CDC is now recommending the use of facemask coverings in public settings where other social distancing measures are difficult to maintain. Face coverings should be maintained in a sanitary manner and should not be distracting or offensive to others. CDC recommends that face coverings should: <ul style="list-style-type: none"> • fit snugly but comfortably against the side of the face; • be secured with ties or ear loops; • include multiple layers of fabric; • allow for breathing without restriction; • and be able to be laundered and machine dried without damage or change to shape. <input type="checkbox"/> Nitrile gloves <input type="checkbox"/> Safety glasses/eye protection <input type="checkbox"/> Hand sanitizers <p>Clean and disinfect</p> <ul style="list-style-type: none"> <input type="checkbox"/> Clean AND disinfect frequently touched surfaces daily. This includes tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, computer mouse, toilets, faucets, and sinks. Avoid sharing writing instruments like pens and pencils. <input type="checkbox"/> If surfaces are dirty, clean them: Use detergent or soap and water prior to disinfection.
<p>Driving</p>	<p>COVID-19 exposure</p>	<p>Avoid close contact</p> <ul style="list-style-type: none"> • Avoid close contact with people who are sick. • Practice social distancing by traveling one person/ vehicle, to the extent practicable. <p>Clean and disinfect</p> <ul style="list-style-type: none"> • Disinfect vehicle after each use using approved disinfectant for COVID19.

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE
Travel to and From Project Sites	COVID-19 Exposure	Limit the use of each individual vehicle to one individual or co-habitant. Throughout the day, spray the equipment with disinfectant spray or wipe it down using disinfectant wipes. Following the completion of a job, disinfect your hands and wipe down your vehicle. Wipe down the inside of the vehicle and any exposed surfaces with spray disinfectant or disinfectant wipes. Have a small trash bag to dispose of soiled gloves, towels and wipes; make sure that you dispose of that small trash bag at the end of each shift. At the end of your shift, wash your hands again thoroughly at a sink for 20 seconds with soap and water.
Stay Informed		<p>NOTE: Pandemic information changes rapidly. Refer to the USDA Be Prepared site for the latest specific guidance: https://www.dm.usda.gov/beprepared/Covid19.htm</p> <p>The Forest Service will reference national and international guidelines as published by the CDC (www.cdc.gov) and the WHO https://www.who.int/influenza/preparedness/pandemic/en/</p>

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) writing the JHA, the date(s) of development, and the name of the appropriate line officer approving it. The supervisor 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 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.

10-12. LINE OFFICER SIGNATURE/DATE/TITLE

District Ranger

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 frequency(s).
- e. Contact person.
- f. Local hazards to ground vehicles or aviation.
- g. Weather conditions (wind speed & direction, visibility, temp).
- h. Topography.
- i. Number of person(s) to be transported
- j. Estimated weight of passengers 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:

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