

U.S. Department of Agriculture Forest Service #6		1. WORK PROJECT/ACTIVITY Dragging and stacking brush	2. LOCATION Green Mountain and Finger Lakes National Forests	3. UNIT All
JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 (Instructions on Reverse)		4. NAME OF ANALYST Sue Staats	5. JOB TITLE Fish & Wildlife Technician	6. DATE PREPARED 04/12/2021
7. TASKS/PROCEDURES (List them in the order they will occur)	8. HAZARDS What will happen and to whom under what circumstances?	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls (state if you considered these) Training * PPE Be specific – who needs to do what?		
Provide training	Lack of training/orientation leads to personal injury	<ul style="list-style-type: none"> Project supervisor shall ensure that all workers involved in dragging and stacking brush are trained/oriented on the hazards and abatement actions outlined below. Project/activity supervisor shall ensure that all workers be alert to and communicate unanticipated hazards not listed below. Repeat training whenever a new employee or volunteer begins this type of work or when site conditions or work processes change. The general <i>Guide to Working Safely Outdoors</i> on the GMFL (JHA #0) assesses the hazards and abatement actions for these work activities: driving; exposure to temperature and weather extremes; walking; exposure to ticks and other animal and plant threats; and making safe public contacts. Personnel shall be familiar with this information, but do not repeat it here. 		
Working near chainsaws, and/or with hand tools.	Improper use of tools, lack of PPE and lack of training can lead to injuries.	<ul style="list-style-type: none"> Wear long sleeved shirts and long pants. Follow JHA for using chainsaws. All workers must wear the following PPE: <ul style="list-style-type: none"> ANSI approved hard hat or chainsaw hardhat. Ear muffs with properly inserted formable ear plugs inside muffs. Safety glasses meeting current ANSI standards for all tool use. Leather gloves. 		
Planning work to be done and specific locations of work within the site.	Lack of communication about areas of saw work can lead to injuries.	<ul style="list-style-type: none"> Be aware of location(s) of sawyer(s) at all times. Keep in communication with sawyer(s) to plan where cutting areas will be and to determine where and how high to build brush piles. 		
Dragging brush	Tripping on stubs or other obstacles or slipping on slick ground can result in a fall that can	<ul style="list-style-type: none"> Watch out for stumps, rocks, branches and uneven terrain on which you can trip. Watch out for wet terrain or debris on which you can slip. Many of these types of hazards are covered by tall vegetation and are 		

	<p>break your bones especially in your wrist, face, arms, legs, ankles.</p>	<p>therefore not easy to see. Cut stumps low to the ground to remove hazards. Use same path repeatedly while maintaining awareness of the hazards; keep path clear.</p> <ul style="list-style-type: none"> • Designate area where you plan to make brush piles so that you reduce dragging distance. • Avoid dragging and tossing pieces of brush or small diameter trees that are more than 50 lbs total weight – less if you do not do this type of work regularly. Be mindful of how much weight you can normally lift or drag.
<p>Stacking brush</p>	<p>This type of work poses ergonomic risk factors with an elevated risk of muscle and joint injuries.</p> <p>Lifting heavy branches or chunks of wood, especially while twisting, can cause permanent and debilitating injury to your spinal discs that will limit your ability to work or do other life functions. Creating brush piles requires moving branches, twigs and stems of various sizes; handling these can cause damage to your eyes and face.</p>	<ul style="list-style-type: none"> • People doing this kind of work should be fit for the work. This may require an active shoulder, arm and back strengthening program for 8 to 10 weeks in advance of the work to avoid joint and muscle injuries. Alternatively, adjust initial output expectations to allow strengthening to happen OJT. • When lifting blocks of wood or chunks of stem and bole, use proper lifting techniques to avoid strains; lift with your legs. Cutting brush into smaller, manageable lengths can help avoid strains. <ol style="list-style-type: none"> 1. If possible, begin a physical strengthening program at least 8 weeks prior to beginning brush work. Focus especially on upper and lower back, abdominal, and wrist, arm, shoulder, knee, ankle strength. 2. When lifting, spread feet 2 to 2½ times wider than hips with toes turned outward. Bend knees to reach object but always keep an inward arch in your low back (maintain neutral spine position). Keeping the load close to your body, lift your chin and lift the load straight up like an elevator with your legs. Lower the load using the same technique. 3. When lifting, never let your low back round out. 4. For long pieces of wood, raise one end up and with the lower end resting on the ground between your feet in the same position as described in #2. Tilt the upper end away from you, grab the bottom end with the other hand, raise your chin, keep the inward arch in your low back and lift straight up with your legs like an elevator. 5. Do not rotate torso or knees while carrying a load. Take a step to make a turn. - Avoid twisting. 6. Avoid throwing brush without setting your legs. Do not twist your back at the end of a throw. 7. Work slowly to prevent crushing hands and feet.

		<p>8. Wear heavy duty gloves and eye protection.</p> <p>9. Know and do not exceed your personal ability for lifting and tossing – it may be less than 50 lbs. Be mindful of how much weight you can normally lift, drag, or throw.</p> <ul style="list-style-type: none"> • Drag brush close to pile to avoid overextending while stacking. • Make sure all the brush is cut into manageable size pieces before stacking, including cutting widely branched limbs and stems into narrow pieces. • Make several smaller piles as opposed to one tall pile, making sure the heights of the brush piles do not exceed Forest S&G’s.
<p>Emergency response</p>	<p>Lack of emergency response plan causes delays in obtaining emergency medical treatment</p>	<p>Provide the following information to all crew members and document on tailgate safety meeting form. Share with all project participants:</p> <ol style="list-style-type: none"> 1. Means of communication (radio, cell, satellite) 2. Primary contacts (rescue squad, F.S. dispatcher, relay person) 3. Travel routes for emergency responders 4. Location of closest medical facilities 5. How to contact them (phone #s) <p>Keep a two-way radio or cell phone available in case of an emergency and a fully stocked crew type first aid kit on site.</p> <p>Be able to describe crew location to emergency medical responders. Contact them prior to starting work in case directions are difficult to give to an E-911 operator.</p> <p>All crew members should have access to a map and directions to the nearest medical facility and the location of the crew vehicle keys. Do not attempt to transport someone with serious injuries. Call emergency responder for this kind of transport.</p>
<p>10. LINE OFFICER SIGNATURE</p>	<p>11. TITLE Forest Supervisor John A. Sinclair</p>	<p>12. DATE</p>

JHA Instructions (References-FSH 6709.11 and .12)	Emergency Evacuation Instructions (Reference FSH 6709.11)																								
<p>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.</p> <p>Blocks 1, 2, 3, 4, 5, and 6: Self-explanatory.</p> <p>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).</p> <p>Block 8: Identify all known or suspect hazards associated with each respective task/procedure listed in block 7. For example:</p> <ul style="list-style-type: none"> 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. <p>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:</p> <ul style="list-style-type: none"> 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. <p>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.</p> <p>Blocks 11 and 12: Self-explanatory.</p>	<p>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.</p> <p>Be prepared to provide the following information:</p> <ul style="list-style-type: none"> 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. <p>The items listed above serve only as guidelines for the development of emergency evacuation procedures.</p> <p style="text-align: center;">JHA and Emergency Evacuation Procedures Acknowledgment</p> <p>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:</p> <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: center;">SIGNATURE</th> <th style="text-align: center;">DATE</th> <th style="text-align: center;">SIGNATURE</th> <th style="text-align: center;">DATE</th> </tr> </thead> <tbody> <tr> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> <tr> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> <tr> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> <tr> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> <tr> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> </tbody> </table>	SIGNATURE	DATE	SIGNATURE	DATE	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
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