

U.S. Department of Agriculture: USFS		1. WORK PROJECT/ACTIVITY <b>Chainsaw Operation</b> under Volunteer Agreement 12-SV-11080500-005		2. LOCATION <b>Florida National Scenic Trail</b>		3. UNIT: Region 8	
JOB HAZARD ANALYSIS(JHA) : References-FSH 6709.11-12			4. NAME OF ANALYST: Megan Eno		5. JOB TITLE: FNST Partnership Coordinator		6. DATE: 07/30/2013
7. TASK		8. HAZARDS		9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE			
Chainsaw Operation		Warning		This activity is extremely dangerous. Timber felling is among the most dangerous occupations in the woods. Sawyers must have a valid certification card from successful completion of the MTDC Chainsaw Training Course. Current			
Training Requirements		Mandatory		certification in First Aid/CPR is also required.Do not attempt to fell, buck or limb trees without all the essential equipment, including PPE, chainsaw, small axe and swamper. See FS Health & Safety Code 3 - 15, MTDC Chain Saw Training Course Guidebook, and Fallers Buckers Handbook for more information.			
Protective Equipment		PPE		• Hardhat• Chaps (must overlay top of boots by atleast 2")• Eye and Hearing Protection• Sturdy boots (8" high, cut resistant (leather), with rugged soles)• Long Pants and Long Sleeve Shirt, Gloves, and First Aid Kit			
Tree Felling Making Undercuts Back-cut Wedging and Falling Material		Size up conditions and area		• Determine natural lean and condition of tree (rot, splits, loose bark etc.) and the best direction to be felled. • Be aware of other trees leaning into the tree being felled. • Be aware of snags in the area. • Do not cut during shifting, high, or gusty wind conditions. • Clean materials away from the tree's base that may post a hazard. Avoid cutting above your shoulders. • Before cutting, determine your primary and secondary escape routes to a predetermined safe area. • Prepare your escape route by cutting all tripping hazards. • Keep proper spacing between operators (atleast 2 1/2 tree lengths). • If the identified tree can not be safely removed and presents a hazard, the area will be flagged off at a safe distance and an alternate mitigation used.			
Falling Trees and Pieces		Saw cuts and Flying material Announce Felling  Falling Material		• Use open face method- notch is greater than 90 degrees- notch width is 80% of diameter (i.e., 20' tree means notch width is 16") • Bore into tree at same hieght as middle of notch to set up holding wood. Holding wood should be 10% of tree diameter (i.e., a 20' tree would have 2" of holding wood). • Use wedges where appropriate and finish back cut at the same height as bore cut. • Leave no Dutchman. • Notify others in the area tha the tree is about to fall. • Remove loose bark before beginning back cut. • Make the back-cut slightly above (approximately 2" undercut), must be level and even. • Utilize swamper lookout under adverse conditions. • Wedge tree as soon as possible after beginning back-cut continue with the back-cut and tamp in wedges periodically. • Try to avoid hanging tree up in standing timber. • When the tree begins to fall, withdraw the saw from cut and shut it off. • Retreat to your safety area at an angle, not straight back. • Do not turn your back on a falling tree. • Continue to watch for falling limbs and/or other trees after the tree hits the ground.			
Swamping Saw Maintenance and Fueling		Being cut by fellow worker running brushcutting saw		Matinain a safe distance that is twice the length of the brushcutting saw. • Keep chain sharp and with proper tension at all times. • Use gloves whenever working with the chain. • Beware of hot muffler. Ensure chain brake is working properly. • Ensure the carburetor is adjusted properly so the chain doesn't run at an idle. • Stop saw if the bar oil runs out before the saw gas does. • Fix pinched bar guide rails, bent bars or damaged tips immediately. • Use proper saw gas and oil fuel mixture. Never use motor oil or bar lubricant to mix with saw gas. • Clear an area around saw of flammable materials before fueling. • No smoking during fueling. • Do not start the saw at the point of fueling. • All timber fellers shall carry at least an 8-ounce fire extinguisher during the fire precaution period.			
Extra Equipment Bucking Felled Trees and Kickback Limbing Axe cut		Safeguard Tools Kick-backs Crushing from logs Falling or rolling debris		• Keep axes sharp and handles tight and without cracks. • Never use wooden or metal wedges. Keep burs filed or cut down on plastic wedges. • Use only approved gas and oil containers. • Utilize bar covers when the saws are transported and stored. • Watch saw tip and avoid cutting only with the tip of the bar. • Always keep a firm grip on the saw. • When bucking logs, be aware of the direction the logs may roll or move after bucking • Do not stand on the downhill side of logs. • Stand on the opposite side of the tree from the side you are limbing; watch the saw tip. • Use extra caution with spring poles.			
		Tool Caution		• Be alert and handle tools with care. • Use the proper carrying method. Keep the sharp side of the tool down. • Keep the cover on axe when not in use. • Add wedges to tool handles when loose or cracked.			
Fatigue and Heat Stress		Body Stress		• Set a pace appropriate for the weather conditions. • Take frequent short breaks if necessary. • Stay alert at all times and watch your step. • Carry and drink plenty of water (up to 1 quart/hour if temperature is over 80). • Pay attention to your physical condition. • Observe team members for signs of dehydration and heat stress.			
10. LINE OFFICER SIGNATURE			11. TITLE			12. DATE	
/s/Susan Jeheber-Matthews			Forest Supervisor			8-5-13	

Previous edition is obsolete (over)

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. 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.

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
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____