

U.S. Department of Agriculture Forest Service	1. WORK PROJECT/ACTIVITY <b>Trail Maintenance</b>	2. LOCATION <b>Cibola NF</b>	3. UNIT <b>Sandia RD</b>
JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 (Instructions on Reverse)	4. NAME OF ANALYST <b>Lisa L Jones</b>	5. JOB TITLE <b>Trails/Wilderness Program Manager</b>	6. DATE PREPARED <b>02/27/2008</b>
<b>7. TASKS/PROCEDURES</b>	<b>8. HAZARDS</b>	<b>9. ABATEMENT ACTIONS</b> Engineering Controls * Substitution * Administrative Controls * PPE	
Tool Preparation (hand file or power grinder)	Cut fingers, arms, eye injury	Wear leather gloves, safety glasses/goggles, long sleeves securely buttoned at the wrist. Use a stable work surface. Watch what you are doing and don't rush. Sharpen tools away from your body.	
Loading tools in vehicles	Cut fingers, arms, backstrain, avulsions	Wear leather gloves, long sleeve shirts and long pants. Place tools in secured tool bins or secure tools to truck bed with appropriate materials. Tools should not move around or out of bed during transport.	
Driving to Trailhead (in government vehicle)	Vehicle accidents, personal injury, hazardous road conditions	Operate agency vehicle only if you have official drivers training and license for type vehicle used.  Inspect vehicle prior to leaving office. Sign out vehicle according to district protocols. Turn on the headlights, wear seat belts at all times while vehicle is in motion, keep floorboards clear of loose objects, and secure items in the cab and bed prior to leaving.  Drive for current road conditions. Think ahead. Be aware driving conditions can change abruptly and adjust driving techniques accordingly.  Do not park the vehicle where traffic or other operations could damage it. Use parking brake and chock blocks when parking on inclines. Check before backing, choose a clear area and use a spotter when possible.	
Removing hazard trees ( crosscut saws, power saws, pulaski, wedges)	Cuts from saws, logs falling or under tension, cuts from glancing blows, logs under tension, hanging tops	Wear long sleeves; long pants; heavy-duty/leather 8 inch high laced,non-skid boots; leather gloves; safety glasses/goggles and hard hat.  Keep proper body positioning when using saws. Do not stand below a tree on steep inclines. Keep hands on handles on top of saws. Don't finish cut on downhill side of larger logs when you cut is nearly finished. Use wedges to avoid pinching saws.  Always replace saw cover when not in use or carry with teeth away from your body. Direct where the log will roll and avoid hitting other people.Communicate with your partner. Maintain safe working distance of 10 feet. Beware of obstructions when when cutting.  Call out a warning if it will roll a distance out of your sight.	

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE
Brushing trails (pulaski, clippers)	Cut to feet and legs, limbs slapping face while cutting, glancing blows from springy branches & small trees, pinched fingers from clippers, mental fatigue	<p>Watch where your cutting/chopping. Communicate with your group/partner. Use the right tools for the job (ie pulaski vs. clippers). Keep alert to where you throw and fall brush and small trees.</p> <p>Do not swing tools toward your body. Be especially aware of ankle position when using a pulaski.</p>
Water bar cleaning/reseating	Back strain, smashed/cut appendages, glancing blows, Chipping rock	<p>Use the most appropriate tool for the job Lift with your legs. Watch what you are doing. Swing in control (NOT OVER YOUR HEAD!) Take breaks when tired.</p>
Power tool use (chainsaws)	Cuts from saws, logs falling or under tension, cuts from glancing blows, logs under tension, hanging tops	<p>Power tools will only be used by trained personnel over the age of eighteen. All potential sawyers are required to attend a saw-training course before operating a chainsaw, and are only allowed to saw to their individual rating qualifications.</p> <p>Protective equipment must be worn at all times when operating a power tool. This includes hardhat; goggles and/or face shield; hearing protection; chaps; heavy-duty/leather 8 inch high laced, non-skid boots; a long-sleeve shirt; long pants without cuffs and gloves.</p> <p>The crew working with a power-tool operator must never approach unannounced. Make sure they see you and motion you over. Always approach from above on inclines. Keep at least tree lengths between you and a feller. Keep a safe distance from an operating brush as it can throw material nearly 25 feet.</p> <p>Operators must be aware of the presence and location of other personnel, and must yell out when a tree is coming down. Guards must be posted when necessary. The public within the area must be made aware of any falling activities.</p> <p>Sawyers must work with a spotter/assistant. No one is allowed to saw alone.</p> <p>If using a chainsaw winch, be sure to position self in a safe location. A chainsaw auger exerts strong torque. A loose grip on the trigger should be used to slow the speed and prevent injury.</p>

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE
Communication	Safety, crew unity	<p>Talk with each other. Let other crewmembers know when you see a hazard. Always know the whereabouts of fellow crewmembers.</p> <p>Supervisors or crew bosses will carry a radio and spare batteries or a fully charged cell phone. Be familiar with the communication plan and know your assigned frequency. Medical Plan of the Incident will be used to address medical emergencies. County and or local medical emergency services will be assigned to the project area.</p>
Boulder removal and Riprack (prybar, shovel)	Smashed appendages, back strain, abrasions	<p>Look the situation over before acting. Lift with your legs, not back. Communicate with your group/partner. Don't be afraid to ask for help. Maintain balance. Take breaks when tired. Plan where the rock will be placed before rolling. Watch where the rock may roll when it's off trail.</p>
Fill rock tread with fines using wheelbarrow or gunny sacks.	Back strain, smashed feet, losing control of wheelbarrow	<p>Find your personal weight limit and do not exceed it. Attempt to use barrow site closest to fill area as possible. Take a break when tired. Watch where you are going at all times. Clear trail of unusual obstacles that might upset wheelbarrow. Get help lifting when unloading if load is heavy, have person at dump site. Give right of way to loaded wheelbarrow.</p>
Tread Work	Falling objects	<p>Avoid working near known hazard trees. Use care working on switch backs. Don't work below the crew without a lookout, alert others if a rock or other heavy object rolls downhill. Yell "rock" if you see one start to roll down the hill.</p>
Animal Contact/Interaction	Bites (animals, insect, snake), Accidents	<p>Be alert for wild animals; especially bears and mountain lions. Avoid females with young or animals. Don't approach or touch any animal that acts strange or out of character.</p> <p>Make your presence known. Do not surprise or confront animals. If possible, walk away slowly, do not run. If attacked, try to lie face down on the ground or curl up with hands clasped behind your neck. Do not struggle or cry out.</p> <p>Use repellent and unscented bath soap. Watch for ant dens, bee/wasp nests when cutting and moving logs/brush. High top boots and leather chaps are helpful in snake country. Pay attention to where you sit or put your hands, especially when moving rocks or cutting brush.</p> <p>Reduce speed when travelling at dusk or dark. Watch for deer and other animals on roadway.</p>

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE	
Weather	Exposure, hypothermia, lightning strike, heat stroke/exhaustion	<p>Always anticipate bad weather. Dress accordingly and carry protective gear.</p> <p>Most hypothermia cases will occur when outside temperature is about 50 degrees F. Wear rain gear to prevent hypothermia.</p> <p>During lightning storms, discontinue work and take cover in dense vegetation. Avoid lone trees. Turn off radios, cell phones. Get away from large tools until lightning subsides. Be alert to wet surfaces as they become slippery. Carry tools on the downhill side.</p> <p>During hot weather, carry plenty of clean, pure water. Set a moderate work pace and gradually slow down as temperature increases. Schedule the hardest work during the cooler morning hours. Avoid prolonged periods in the sun and use sunscreen when practical.</p>	
Trash Pickup and Removal	Cuts from sharp objects, chemical burns, back strain	<p>Use sturdy leather gloves or trash pickup device to bag garbage. Do not grab into piles of trash without looking for sharp objects such as glass or needles.</p> <p>Lift with legs and not with back. Do not exceed your personal ability. Be careful of slippery footing.</p> <p>DO NOT pick up medical waste (needles, razor blades, red bags, bandages, etc). Inform crew leader of find and location immediately. Report all cuts to supervisor/crew leader no matter the size of injury.</p> <p>DO NOT move containers if you do not know contents. If hazardous wastes are found, report to supervisor/crew leader. Wastes should not be removed except by trained personnel.</p>	
10. LINE OFFICER SIGNATURE <i>1st CID H. MORGAN</i>		11. TITLE DISTRICT RANGER	12. DATE 02/28/2008

Previous edition is obsolete

(over)

