

U.S. Department of Agriculture Forest Service  <b>JOB HAZARD ANALYSIS (JHA)</b> References-FSH 6709.11 and -12 (Instructions on Reverse)		1. WORK PROJECT/ACTIVITY	2. LOCATION	3. UNIT
		Trail maintenance	Columbia River Gorge NSA trails	CRGNSA
		4. NAME OF ANALYST	5. JOB TITLE	6. DATE PREPARED
		Edan Lira	Trail Crew Foreman	12/08/2008
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE		
<b>General outdoor work</b>	<b>Unfamiliar area, remote locations.</b>	<p>If you will be away from the vehicle or civilization, carry some survival items including extra food and water, matches or lighter, map and compass, radio or cell phone, lightweight rain protection, mirror, GPS; work in at least pairs if at all possible; make periodic radio/phone checks; go to high points for better communications. Have at least 1 person in the group trained to administer first aid.</p> <p>Know your terrain and local weather patterns and forecasts; plan your day so you will be back to the trailhead with plenty of daylight; don't panic if lost...STOP=Stop, Think, Observe, Plan; leave markers of your presence; gather fuel wood while there is still plenty of light. If a fire is necessary for warmth, follow proper procedures for clearing to mineral soil, containing and extinguishing. Do not create a fire hazard.</p> <p>Sign out with the front desk and supervisor with specific work location and times; Check in with supervisor if your itinerary changes or you are delayed</p> <p>Be aware of public around you; know hunting seasons and wear bright orange during rifle seasons; avoid confrontational situations</p>		
<b>Working in weather extremes</b>	<b>Cold Weather</b>	<p>Use buddy system when working in extreme cold; know the weather forecast; carry radio/cell phone; dress warmly in layers; prevent getting wet; know symptoms of and first aid for cold injuries such as hypothermia and frost bite; avoid exposure; get adequate rest</p>		
	<b>High wind, falling trees, limbs, dust and debris suspended in the air</b>	<p>Know weather forecasted for the area you will be working in, have chainsaw and certified sawyer, or make arrangements to have one available if blow down blocks your route. Select to work in an area more sheltered from wind, or another area or project all together if possible. Increase safety awareness for overhead hazards, blowing and falling debris, wear hard hat and eye protection, post lookouts if work must continue in hazardous area. Consider the wind chill factor when choosing appropriate dress, breaks, shelter, food and water needs. (See Attached)</p>		
	<b>Hot &amp;/or humid weather</b>	<p>Dress appropriately for warm weather; drink plenty of water; know symptoms of and first aid for heat illnesses such as heat stroke, exhaustion, and cramps ; take frequent breaks; use a moderate work pace; provide well-planned meals and healthy snacks; wear hardhat, sun screen.</p>		
<b>Walking outdoors</b>	<b>Uneven rocky or slippery terrain, stream crossing</b>	<p>Identify safest routes; avoid dangerous stream crossings; warm up/stretch out before walking; keep loads low on body; maintain safe walking distance from others; get adequate rest, food, water; carry tools on downhill side; be aware of slippery surfaces (wet, icy, mossy, loose bark); don't try something just because someone else can do it...look for alternatives...know and stay within your capabilities; wear comfortable, well-fitting footwear with good traction, suitable for the conditions; look where you are putting your feet; put down items in hands before traversing treacherous situations; put off the trip until a safer time; be aware of where tool and equipment is around you; lift feet when walking, carry tools on the down hill side.</p>		
<b>Working around poisonous animals, insects and plants</b>	<b>Ticks and snakes</b>	<p>Avoid tick and snake habitat if possible; check body frequently and after taking off clothes for ticks; check others for ticks on clothing; wear DEET based insect repellent; do not corner snakes; watch wear you are walking; walk on clear paths if possible; know first aid for tick and snake bites; wear light colored clothing to help in detection of ticks; watch for tick-spread disease symptoms.</p>		

	Poison oak	Avoid going through poison oak; wash frequently with Technu throughout the day or, as soon as possible at the end of the day; wash affected clothing in hot water and detergent; be aware that shoes and laces can carry the oil; avoid breathing smoke of poison oak; keep skin covered as much as possible; clean tools each day.
	Bees, yellow jackets, wasps, scorpions	Know first aid for stings; avoid and flag off known nests; avoid likely sites for nests like slash piles and old stump holes; know if anyone in the group is allergic to stings and how to administer their drugs; avoid wearing scents; be cautious of or avoid turning over rocks and logs or use gloves; protect your face in event of an attack; avoid use of sweet or meaty foods or drinks; use a straw rather than drink directly from soda cans; avoid swatting at insects.
Use of tools, general maintenance	Using, transporting, maintaining and repairing mechanical and hand tools	Maintain tools properly; Wear gloves and use tool guards when not in use; maintain safe working distances from others; know proper use of tools; make sure handles are not cracked and are on tight; have proper qualifications and use proper PPE for use of chainsaw, mowers, weed eaters, etc; refer to Health and Safety Code Handbook section 40 for specific tools. Do not use Honda carts unless trained to do so. Operate Honda carts at moderate speeds; watch that fingers do not get crushed between handlebars and trees or cliffs; do not ride in carts; go slow over bumps and water bars. Only FS certified chainsaw operators may run saws on FS projects.
Driving to and around site	Poor visibility, slippery surfaces, unaware personnel	Make sure vehicle is in proper working condition; use appropriate vehicle for the job; make sure operator is licensed to drive the vehicle; passengers should be aware of road conditions; use horn when backing; look behind vehicle before backing or have a spotter; be sure footing is secure before stepping on bumpers or truck beds; use parking brake when parked; make sure items in bed of pickup are secured; avoid backing when possible.
Picking up limbs, debris and litter	Sharp objects	Wear appropriate gloves for the job, watch out for nails and glass in debris piles, maintain 8 foot working distance from others; do not throw debris where you are not looking; pick up sharps (needles) only with tongs or litter grabbers and place only in sharps containers.
	Heavy or awkward objects, improper lifting	Use proper lifting technique (use legs not back); get help or use mechanical means for lifting heavy items; stretch out before working
	Noxious substances	Do not attempt to deal with hazardous substances; refer to hazmat policy and report to LEO if necessary; control access to the area; wash yourself and clothes soap and water as soon as possible after exposure.
Working with and around public	People, precarious work site	Be aware of your surroundings; use “good host” techniques when dealing with the public. Back off if you feel threatened/uncomfortable and call for help; post warning signs or lookouts if necessary to protect public (rock fall, slippery floors, chainsaw use, etc); report suspicious activity to supervisor or LEO; know regulations governing area and report violations to LEO/FPO/police  Know what is below you before releasing rocks and logs. Be aware of roads and trails below your work site.
General	Miscellaneous, unexpected hazards	Have radio or cell phone on site...do radio/phone check on work site; check out with supervisor/front desk as to location and time of return; conduct and document daily tailgate safety sessions; make sure first aid kits are stocked and available; have first aid qualified persons on site
10. LINE OFFICER SIGNATURE		11. TITLE
		12. DATE

**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.

**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:

SIGNATURE	DATE	SIGNATURE	DATE
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