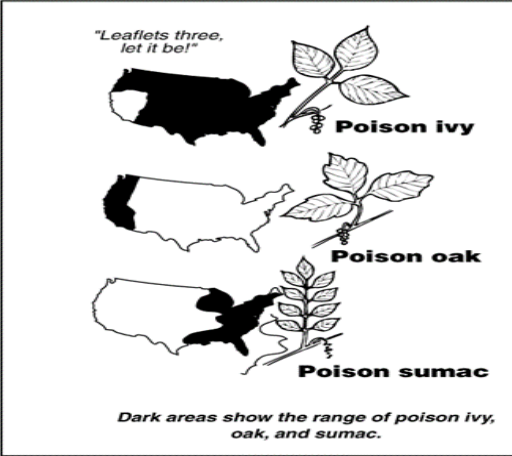
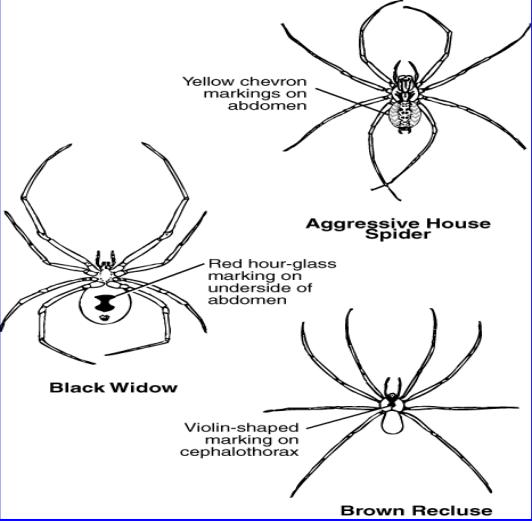


Forest Service	1. WORK PROJECT/ACTIVITY Wilderness Steward Patrol	2. LOCATION Gifford Pinchot National Forest	3. UNIT Mt. Adams Ranger District
JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12	4. NAME OF ANALYST Jon Nakae	5. JOB TITLE Wilderness Steward Coordinator	6. DATE PREPARED 05/22/2003
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE	
Check-In/Check-Out	USFS contacts (Jon Nakae & Wilderness Rangers: Beth Orton, Toni Cordas, Gene Wixson, Kate Idzorek) do not know your location.	<u>Always</u> follow established check-in/out procedures. Do not begin or end your patrol unless you are 100% sure that your USFS contact knows your status. Always check in at the Mt. Adams Ranger Station when you return from patrol. If you know you will be late returning from the field, inform your USFS contact of changes to your schedule.	
Radio Contact/Use	USFS contact cannot communicate with you in the field	Become proficient and comfortable with use of 2-way radio. Make radio conversations concise and professional but never be afraid to use radio for <u>any</u> reason. Monitor appropriate channels continuously, perform routine “check-in’s” at beginning/end of each day as well as random “radio checks” throughout the day. Lunch is a good time to check in with the front desk and report weather, trail conditions etc. Remember to continuously monitor battery life and signal strength of your radio (<u>always</u> carry an extra battery).	
Driving	Driving on FS roads	<u>Slow speed required!!!</u> Observe all posted speed limits. Speed limit on all dirt/gravel roads is 25 mph- use extra caution on these roads. Watch out for oncoming vehicles when driving on single lane forest roads- use turn-outs. Be aware of any road maintenance in your area of travel and watch out for large trucks, especially on blind corners. Make notes of any road problems/incidents and report them to your USFS contact.	
Foot Travel/Alpine Travel	Improper Footwear	Sturdy leather or leather/nylon combi boots with good tread (vibram preferred) and water proofing are recommended. Be sure boots are well broken in before using on patrol.	
	Injury: sprains, strains, slips, trips & falls	Stretch thoroughly before beginning hike (or after short warm up) to avoid muscle pulls/strains. Maintain an even comfortable pace. Watch out for downed limbs/trees, brush and other trail obstacles. Use caution when climbing over/under large trees, especially when carrying a heavy pack. Use caution in steep terrain and where steep, exposed sideslopes/drop-offs are present. Keep alert and eyes focussed on trail. Use caution when crossing streams/rivers. Crossing on slippery logs/rocks is not recommended- wade if necessary.	
	Alpine/Snow travel/Altitude	Remember to pace yourself when traveling at high altitudes on the mountain. Be aware of current snow and weather conditions during your patrol. Listen to daily weather forecasts. Travel with an ice axe and crampons when conditions require it: be trained in the proper/safe use of this equipment. Always carry extra clothing during high alpine travel, and take extra precautions to shield your skin from the sun.	

	Fatigue/heat/stress/ Dehydration	Don't overdo it! Know your limits. Take frequent breaks. Stay hydrated- drink lots of water throughout the day. If you prefer "energy" drinks such as Gatorade, be sure to supplement them with plenty of water, as they contain large amounts of sugar and sodium. Always treat your water with a filter, iodine, or by boiling.
Equestrian Travel	Dangerous Trail Conditions	Stewards should be sure that USFS contact provides trail condition info for area to be patrolled. Some stock trails, while not officially closed, are in need of maintenance/reconstruction and could present a significant hazard. Some other trails that are fully maintained have steep, exposed side slopes (ie. Thomas Lake Trail #111). <u>Know your own and your animal's ability and stay well within your comfort zone. Be prepared to turn back or choose an alternate route if conditions are not safe.</u>
	Bees/Yellow Jackets	Stay alert and keep eyes focussed on trail. If bees are present, wait until they settle down then move through quickly or find another route.
	Stream Crossings	Study the water. If you can't see the bottom because of turbulence, watch the current and you will be able to see the effects of large rocks under the water. Cross moving upstream if possible. Watch for hazards as you progress.
	Meeting on-coming foot traffic	Ask hikers to yield to your horse and have them move off the trail to the downhill side. Ask them to speak so the horse knows they are human.
Camping	Falling trees, snags, limbs	<u>Look up!</u> Avoid campsites with lots of blowdown, dangerous snags, or widow-makers (hanging limbs). You'll be surprised what hazards you find just by looking up.
	Rock/land slides	Avoid camping in areas prone to slides or that are in potential slide paths.
	Flash floods	Avoid camping in areas prone to flash floods such as dry creek beds or flood plains of a river canyon- especially during periods of heavy rain or thunderstorms.
Environmental/Weather	Rain/snow/cold	Carry/wear appropriate (synthetic) clothing to protect you from the elements. Always carry the 10+ essentials. Use extra caution when traveling in inclement weather as rain/snow can make surfaces slippery. Return to station if weather becomes too unpleasant- <u>do not feel obligated to finish your patrol if weather conditions are unsafe or unpleasant.</u> Use caution when crossing snowfields in spring, especially snow-filled creek beds, as these can be melted (hallowed) out underneath.
	Heat/sun	Always carry and use sunscreen, a hat with a brim, and sunglasses. Don't over exert yourself on hot days. Know signs/treatment of heat cramps, heat exhaustion, and heat stroke. Always drink ample water, even if you are not thirsty (2 quarts/day <u>very minimum</u>). If you are thirsty, you are already dehydrated. Beat thirst before it arrives by drinking water even when you are not thirsty. If you prefer "energy" drinks such as Gatorade, be sure to supplement them with plenty of water, as they contain large amounts of sugar and sodium. Always treat your water with a filter, iodine, or by boiling.

	Wind	Get out of woods if you encounter extreme winds. Avoid areas with lots of blowdown/snags. At high altitude carry and wear clothing that will protect you from the wind.
	Lightening	Know local weather conditions and avoid being in exposed areas during potential storms. Stay out of the open, off ridge tops, and out of gullies or overhangs. Avoid water and solitary trees. If possible, leave the backcountry during lightning storms. In the event that you are unprotected in a lightning storm, with no escape, remove any metal objects from your body and crouch on a piece of non-conductive, insulating material (i.e. a foam sleeping pad, rope, or pack). If lighting is close, do not bunch, spread your group out or separate from your partner.
<p style="text-align: center;">POISONOUS PLANTS</p> 	Poison Oak	Most prevalent at mid-lower elevations in the Columbia River Gorge. The best way to deal with it is to avoid it! If you will be working in poison oak terrain you should know how to identify it. If exposed, wash area with liberal amounts of <u>cold</u> water as soon as possible. Serious exposures may require medical care and internal medicine.
	Bees: including any/all stinging insects. Extremely dangerous if person is allergic. Other hazards include falls/punctures (from trees or limbs) when in panic/retreat.	Bee nests are normally found in ground and under logs/stumps etc., but paper nests can also appear in brush/trees. Keep track of areas where bees are encountered and pass this information on to USFS contact. When bees are encountered, retreat in a quick but <u>calm</u> manner. Try to stay on the trail and avoid running towards hazardous areas (ie. steep drop-offs or thick brush). All 1 st aid kits should have swabs to treat single stings. <u>Stewards with known allergies should carry appropriate prescription medication (Epinephrin) and should notify USFS contact and patrol partner(s) of this condition before starting each patrol.</u> Multiple stings can be life threatening to <u>anyone</u> , even if they are not allergic to stinging insects, (or they are unaware of an allergy). If multiple stings occur, Stewards should return to the station <u>immediately</u> and seek medical attention. NOTE: Antihistamines are recommended for use in personal first aid kits: They are an effective over the counter treatment for systemic reactions to insect toxins. If multiple stings occur, wash the

		<p>effected area, treat immediately with an antihistamine, and return from the field.</p>
	<p>Ticks: Mostly on eastside of crest. Deer ticks present most danger.</p>	<p>Ticks are not usually discovered until they have attached themselves. When in tick terrain, Stewards should check themselves regularly and do a thorough check upon returning to District. Travel wearing light colored clothing, and long sleeves/pants. Also wear bug repellent. If a tick is found, remove it gently with sharp tweezers and rinse the bite area (be sure to remove the entire tick) Save the tick for identification. Stewards should know how to identify <u>deer ticks</u> and the early signs of <u>Lyme Disease</u>- ring like rash around bite area and flu like symptoms. Note that ticks must be implanted for at least 24 hours to transmit bacteria to humans, and the early signs of Lyme disease to not appear for days-weeks. The Pacific Northwest is at low risk for Lyme Disease. However, if a deer tick is found embedded, Stewards should seek medical attention.</p>
<p style="text-align: center;">SPIDERS</p>  <p>Yellow chevron markings on abdomen</p> <p>Aggressive House Spider</p> <p>Red hour-glass marking on underside of abdomen</p> <p>Black Widow</p> <p>Violin-shaped marking on cephalothorax</p> <p>Brown Recluse</p>	<p>Spiders</p>	<p>Black widow and brown recluse are the only venomous spiders Stewards might encounter in the field. Black widow bites can sometimes be fatal. Learn how to identify these species and avoid them if possible. Both species prefer dark, out-of-the-way places where they are seldom disturbed such as permit boxes, wood piles, and under stones, logs, and vegetation.</p> <p>Female Black Widow: Shiny black with red hourglass mark on stomach. Female's Body is ~1/2 in long, male is less than 1/2 this size. Initial bite may be sharply painful, but many bites are not recognized initially. Bites can be fatal (mostly in small children, and the elderly). Initial symptoms include severe muscle cramping and pain progressing to the chest, back, abdomen and limbs. Patients occasionally present with difficulty breathing, paralysis, or seizures. Evacuate and seek immediate medical attention if these symptoms are presented.</p> <p>Brown recluse: Light brown with darker brown violin shaped marking on top of its 1/3-2/3 inch long body. Most active at night from spring through fall. Usually painless bite. "Bull's eye" lesion develops at bite site w/in 6-12 hrs, resembling a cigar/cigarette burn. Area can enlarge, resulting in significant tissue loss. Systemic reactions are usually minimal. Treat with local wound care/pain meds, and ice (to minimize local circulation).</p>
	<p>Black Bears</p>	<p>Injuries from close encounters are extremely rare and are usually minor. Most bears prefer to stay away from humans, and they are rarely seen. Stewards should know how to identify bear signs (tracks, scat, scrapes, kills, and claw marks). If you are traveling through areas with historic bear activity (Indian Heaven Wilderness), or areas with evidence of recent bear activity, try to keep a high profile and make lots of noise. This will warn bears of your presence and hopefully eliminate any surprise encounters. If a bear is encountered, slowly back away, avoid making eye contact and do not turn your back on it or run. When camping, practice proper food handling/storage techniques.</p>

	<p>Mountain Lions (Cougar)</p>	<p>Generally, they are solitary, quiet, elusive animals. They are most active from dusk to dawn, although they travel and hunt in daylight. Working with others and making noise when in cougar terrain reduces the chance of a surprise encounter.</p> <p>In the event of a confrontation:</p> <ol style="list-style-type: none"> 1. Give the lion a way to escape. 2. Talk calmly, yet firmly. 3. Stop or back away slowly. Never crouch, try to hide, turn away, or run away. 4. Try to appear larger by raising arms or an object over the head. 5. If the lion behaves aggressively, throw stones, branches, or whatever can be reached without crouching down or turning away. 6. Fight back if attacked. Shout loudly. Try to remain standing. If down, try to get up. Protect the head and neck with hands and arms.
	<p>Hantavirus (Rodents): May be present in shelters, cabins (Sandy guard Station) and even in permit boxes.</p>	<p>Hantavirus is a cause of acute pulmonary disease and death in many regions of the United States. The primary carrier is the deer mouse.</p> <p>Transmission occurs by inhalation of the air born virus when dried materials contaminated by rodent excreta are disturbed; introduction into broken skin, eyes, nose, mouth; or ingestion of contaminated food or water. People have also become infected after being bitten by an infected animal.</p> <p><u>Treat all rodents as if they carry the virus.</u> Avoid direct contact with rodents (live or dead), their droppings, urine, saliva, nests, or items that may be contaminated. <u>Do not feed mice, chipmunks, or other rodents.</u> Seek early treatment if there was possible contact with carriers and signs of potential symptoms. Symptoms may appear 1 to 6 weeks (usually 2 to 3) after contact and include fever, nausea, headache, muscle aches, cough, and increasing acute respiratory trouble.</p>
<p>Public contact/personal safety</p>	<p>Threatening/violent visitors</p>	<p>RADIO CONTACT!!! Follow radio procedures to ensure radio contact at all times.</p> <p>“Size up” situation before making contact with visitors. If you are uncomfortable (for any reason), Do Not Make Contact! If there is any sign of drugs, alcohol, or weapons, Do Not Make Contact!</p> <p>Practice the “Good Host” technique. Maintain a calm, professional, demeanor- do not be aggressive or argumentative. If someone gives you a hard time, don’t let yourself become agitated or emotional. Try to listen rather than talk. Speak and act professionally, do not let situation get personal. Use available resources (info hand-outs, phone # list, Forest website, etc) to appease visitor and refer them to someone with more detailed information (pass the buck). Remember that it is okay to say “I don’t know, but I can help you find the answer to your question.”</p>

		Always maintain a comfortable and safe distance between yourself and visitors. Be aware of your surroundings and always leave yourself an exit. If a contact becomes threatening or violent, or it has potential to, LEAVE!!! Remove yourself from situation politely and quickly. Get to a safe location and call your USFS contact or Mt Adams dispatch for back-up if necessary.
Litter pick-up/cleaning fire rings	Heavy lifting	When lifting rocks from fire rings or logs/fire wood from campsite use proper lifting technique. Remember to lift with your legs, and not your back. Use a partner to lift heavier objects. Don't over do it! If you can't lift it, don't.
	Cuts, bruises	Wear proper personal protective equipment (PPE)- leather gloves, long pants, long sleeved shirt, boots, etc. Use caution when picking up glass/broken bottles.
	Infections, disease	Generally, Stewards should not be in a position where they might be exposed to bloodborne pathogens. If you do decide to pick up/manage potentially hazardous materials (needles, feces, toilet paper, etc) proper PPE should be utilized. Anyone who's skin is broken by a hypodermic needle should undergo inoculation for Hepatitis B and should be monitored for HIV antibodies.
	Hazardous materials (drug/industrial waste)	Stewards are not to handle, transport, or dispose of suspected hazardous materials (chemicals, etc). Call USFS contact and Mt. Adams dispatch, secure area, and wait for Haz-Mat team.

LINE OFFICER SIGNATURE	TITLE	DATE
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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.
- 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
