

U.S. Department of Agriculture Forest Service		1. WORK PROJECT/ACTIVITY Trail Maintenance and Construction for Volunteers	2. LOCATION Coronado National Forest Nogales Ranger District	3. UNIT 030502
JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 (Instructions on Reverse)		4. NAME OF ANALYST James R Coleman	5. JOB TITLE Recreation Technician	6. DATE PREPARED 8/31/2013
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE		
ENVIRONMENTAL FACTORS	Weather	<ol style="list-style-type: none"> 1. Thunderstorms: Be aware of developing cells. Plan in advance to leave work area before storms occur. If caught in a thunderstorm, seek shelter in a solid place. Be aware of potential flash flooding, land / mud slides, and falling trees or limbs. Do not shelter in drainages. If moving during a thunderstorm, be aware of reduced visibility and slippery footing. 2. Cold: Be aware of the potential for temperatures at the work area being much colder than the temperatures at lower elevations. Dress appropriately in layers. Guard against excessive perspiration. Stay dry. Carry an emergency "space blanket". 3. Wind: Be aware of sudden increases in wind velocity. Observe developing weather patterns to anticipate high winds. Be prepared for balance and footing issues caused by high winds. Be extremely careful to avoid snags and trees with dead limbs during wind events. 4. Lightning: If lightning activity develops anywhere in the area, leave the work area. Do not attempt to shelter and "wait it out". 		
	Heat Related Issues	<ol style="list-style-type: none"> 1. General: Be aware of the potential for the development of heat related illnesses in this environment. Learn the symptoms of heat related illnesses and how to treat them. Early recognition of developing heat related illnesses is the key to preventing minor events from becoming major health threats. Realize that the person suffering the illness is not likely to recognize it. It is the responsibility of each individual to look after all the others in the group. If you notice that someone is presenting the symptoms of heat related illness, inform the group leader immediately. In the event that a person experiences a heat related illness, activate the emergency medical plan. 2. Dehydration: Dehydration is due to loss of bodily fluid which exceeds fluid intake. It leads to loss of ability to control body temperature and heat related illness. Symptoms of dehydration include; increased thirst, dry mouth, dark urine and muscle cramps. It can be prevented by adequate fluid intake. Excessive alcohol consumption, inadequate sleep, diarrhea, and vomiting are contributors to dehydration. Dehydration can lead to organ failure and death if not treated. Treatment for mild dehydration consists of removing the patient from the hot environment, cooling the patient, administering water and possibly some sports 		

drinks. Do not give coffee or energy drinks. If the patient develops nausea or syncope (fainting), or cognitive disorders, immediate medical intervention is necessary. Activate the medical plan and seek professional help.

3. Heat Stress: Symptoms; cramping, lethargy, profuse sweating, general unwell feeling, and a rash. Treatment; shade, fluids, rest, cool patient, electrolyte replacement if available. The patient shall be removed from the project work and placed in a position to rest.
4. Heat Stroke: Symptoms include; high body temperature, rapid pulse, hot skin, dizziness, nausea, confusion, loss of coordination, and seizures. Heat Stroke is a serious medical emergency requiring transport to a hospital as soon as possible. Cool the victim as much as possible, loosen restrictive clothing, and administer fluids if the person is coherent. Activate the emergency medical plan and follow instructions.
1. Bees: Generally, bees will leave you alone if you leave them alone. If bees are encountered, try not to agitate them. Leave the area and return later if the bees have dispersed or calmed down. Group leaders will determine if any individuals in the crew are allergic to bee stings. If so, the leader will ensure that the individual has their proper epi pens, that they are current, and the individual knows how to use them.
2. Snakes: If a rattlesnake is encountered, back away from it and notify the group leader. Do not attempt to catch, move, or harass a rattlesnake. If a bite does occur, activate the medical plan
3. Bears: Bears are generally not aggressive unless they think you are a threat to them or their cubs. If you encounter a bear, stop and stand your ground. Continue facing the bear and slowly back away in the direction from which you came. If a bear charges you, make yourself as large as possible and make as much loud noise as possible. The bear will most likely break off the charge short of an actual attack. If a bear does attack, fight back with any tool or weapon you have available. Curl into a fetal position and protect your head and face with your arms. Never feed a bear.
4. Mountain Lions: Mountain Lions are very secretive. They almost never attack humans. If you encounter a lion, your response should be the same as to a bear. DO NOT RUN FROM A LION. Running from a lion makes it think you are prey.
5. Small Animals: Small animals can bite if you attempt to handle them. They present a hazard from infection and disease. Leave them alone. Do not feed small

Wildlife

animals.

Hazard Trees

1. **Snags:** Snags are standing dead trees. They can fall at any time and without warning. Snags that fall on a trail are potentially fatal to hikers and workers. If you encounter a snag that can reach trail areas if it falls, document its location, and report it to the group leader. Do not attempt to fell snags. Snag removal will be done only by properly trained agency personnel. If the snag poses an immediate hazard, flag the area and request help. If necessary, agency personnel will make the decision to close the trail.
2. **Widowmakers:** Widowmakers are dead branches or sections of otherwise live trees. They may be dislodged and fall at any time. Pay attention to the trees in the area where you are working and identify any potentially hazardous situations. Do not work on trees with widowmakers. When working in the vicinity of these, assign one individual to watch the widowmaker and sound the alarm if it decides to fall. This should be that person's sole responsibility. Identify escape routes ahead of time and ensure that these remain clear of debris. Document the location and inform agency personnel of the hazard.

TERRAIN

Steep Slopes

1. **Fatigue:** Steep slopes increase fatigue in workers. Increased fatigue leads to more injuries and tends to increase their severity. All personnel, and especially group leaders must remain aware of the condition of members of the crew. Adjust the pace of the work and take frequent breaks as necessary to prevent excessive fatigue.

Poor Footing, Sharp Rocks

1. **Sprains and Strains:** Poor footing due to loose surfaces, rocks that roll underfoot, and oddly shaped rocks, can result in strained or sprained knees and ankles. The most effective mitigation measure is to wear good quality, properly fitted footwear that offers adequate support and good traction.
2. **Falls:** Falls due to poor footing can result in serious trauma. Specific injuries include bruises, cuts, and fractures. The primary agent of injury is sharp rocks, and the main secondary agent is falling on tools. Prevent falls by ; exercising care in foot placement, reducing pack loads, properly balancing and stabilizing pack loads, and using balance aids (hiking poles etc.) when necessary.

TOOLS

Digging and Scraping Tools

1. **Injury from Tool Usage:** The main hazard from the use of digging and scraping tools is injury to the feet and legs. These are usually caused by either the tool ricocheting off rocks, or overly aggressive tool use. Take shorter, more controlled

BORDER ISSUES

Saws

Illegal Immigration

Smuggling

strokes with the tool. Use the correct tool for the specific task at hand. Be especially careful when using picks and Pulaskis.

2. Injuries to Others: It is very easy to injure adjacent workers when swinging a tool. Ensure that workers maintain adequate separation to prevent interference by one worker with another.

1. Chainsaws and Crosscut Saws: Only personnel who hold a valid and current Coronado National Forest Certification

2. When not in use, saws shall be carried with blade guards or scabbards in place.

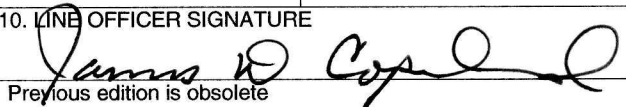
1. If approached by suspected illegal immigrants, do not engage them. Call for assistance from appropriate Forest Service personnel.

2. Do not handle or disturb debris left by suspected illegal immigration activities. It can be contaminated. Call for assistance in disposing of it properly.

1. Smugglers will generally leave you alone, however, if they are spotted, ignore them and do not make any attempt to contact them. Call for Law Enforcement.

2. Should you encounter a cache of contraband material, LEAVE IT ALONE! Clear the area immediately. Do NOT approach to investigate. It is probably being watched. Call appropriate Forest Service personnel to assist in involving the proper Law Enforcement agencies.

10. LINE OFFICER SIGNATURE



Previous edition is obsolete

11. TITLE

District Ranger, Nogales RD

(over)

12. DATE

12/03/2013

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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Work Leader	
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