**Job Hazard Analysis (JHA)**

**(References-FSH 6709.11 and -12)**

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| **1. WORK PROJECT/ACTIVITY** | **2. LOCATION** | **3. UNIT** |
| Livestock Operations | Pacific Crest NST and side trails | Pacific Crest National Scenic Trail |
| **4. NAME OF ANALYST** | **5. JOB TITLE** | **6. DATE PREPARED** |
| Micahel Morse (R5 Pack Stock Center of Excellence), Beth Boyst (PCT Program Manager), R5 Packers, BCHC, PCTA |   | July 31, 2018 |
| **7. TASKS/PROCEDURES** | **8. HAZARDS** | **9. ABATEMENT ACTIONS****Engineering Controls \* Substitution \* Administrative Controls \* PPE** |
| General | Injury to stock and personnel | Agency supervisors, crew leaders, and the lead designated packer shall ensure that personnel assigned to pack and ride stock are competent in these tasks. Personnel hauling stock in trucks and/or trailer shall have the proper license endorsements. A detailed plan of operation may be used additionally to clarify roles and responsibilities for project implementation.Only employees and volunteers authorized under a signed Volunteer Agreement by the District Ranger/Forest Supervisor may ride and/or pack stock. |
| Communication | Devices | Utilize cellular phones, satellite phones and/or InReach devices. Be aware that cell phones do not work along many sections of the PCT. Know the location of the nearest working landline and, if possible, the nearest location for cell phone service. |
| Radios | Have agency compatable radios on crew. Ensure radios have properly programmed frequencies, in working order, and have an extra set of batteries before leaving on the trip. Know of local repeaters and best locations to use radios during emergency. Know who is available to hear you call on the radio, as agency staffing may be few or none after regular work hours and on weekends. |
| Check-in/Check-out | Check-in before project and check-out after project with desginated tracker, which may be PCTA Regional Representative or federal agency staff.  |
| Emergency Response | Trailhead Communication Plan (TCP)Emergency Action Plan (EAP) | Ensure plans are in place prior to beginning of project. Share TCP with PCTA Regional Rep, agency staff, and tracker. If EAP is activated due to incident, contact PCTA and federal agency staff immediately. |
| **Transporting stock** | Vehicular accidents Personal injuryInjury to stock | All trailers shall be equipped with a non-slip surface and inspected annually for protuding nails and/or rotten boards. Aluminum floored trailers will be inspected for floor warpage between frames and floor corrosion leading to holes. Conduct a pre-trip inspection of truck and trailer. Check spare tire condition and if driving on extended dirt or bad roads an additional spare tire should be considered. Check for proper wrenches to remove tires. Secure safety chains, break-away system and plug in and check electrical system. Avoid quick stops and starts.  |
| Loading and unloading stock in trailer | Injuries to feet, head, back and getting crushed in trailerInjuries to stock | Load/unload in a flat open area. Do not exceed the load carrrying capacity of the vehicle. Do not carry loose gear, personnel and animals together. Do not lead an animal in a two horse trailer by being in the same stall. Do not wrap lead rope around hand or body. |
| Securing stock in trailer | Injury to stockInjury to personel | Halter stock and fasten the animal’s head securely. Use a rolling slipknot or hitching rack-tie to secure stock to trailer or tie with panic snaps. Secure excess rope away from stock so that it doesn’t drag floor of trailer. When hauling one animal in a two–stall trailer load to the left stall. Secure hook divider chains. Close tailgate immediately. If loading only a few animals in a large trailer secure animals so that the center of gravity of the load is just ahead of the axles. |
| Basic riding practices | All | Always speak to an animal when approching. Check & clean all animals shoes/hooves pre and post riding. Inspect all tack for good condition. Bridle stock prior to mounting. Lead an animal around after being saddled and before mounting or being packed. Be alert for insects or animals that may spook stock. Do not wrap reins or packstock’s lead rope around the saddle horn or your hand. Keep excessive slack out of lead rope. Do not ride stock inlightning storms. Watch-out for low hanging branches. Do not run animals. Always carry a cutting tool on your person for emergencies. Exterior tools should be secured and protected in a covered sheath. Riding with a backpack (>10 lbs.) is not allowed. |
| Riding livestock | Injuries to personnel and stock | The designated lead packer or person in charge of the stock shall carry a first aid kit and assure that all personnel have personal protective equipment. This includes long pants, riding boots or work shoes that will not hang up in the stirups, and hat. Protective headgear is recommended for inexperienced riders. Riding bareback is not permitted. Before riding, hold a tailgate briefing to instruct all members of the work party that livestock can be dangerous specifically addressing stock safety, individual stock habits, characteristics, local hazards and environmental concerns. |
| Securing livestock | Injuries to personnel and stock | When tying livestock, clear away debris and tie the lead rope at least 5’ above the ground to prevent entanglement. Tie up using a rolling slipknot. If possible tie to an object that the animal cannot walk around. Do not cross under the lead rope of a tied animal. Do not tie to a wire fence. Use a halter under the riding stock’s bridle – do not tie up with reins. Do not tie animals to movable objects. Use sound sturdy rope at least ½ in. dia. in securing stock. When near the rear of stock, stay close, maintain contact and talk to the animal. |
| Packing and Leading Livestock | Injuries to personnel and stock | Only persons authorized in packing and unpacking livestock shall be allowed to perform these tasks. Keep animals’ backs clean, saddle pad straight, saddle blanket smooth, and ensure saddle is properly fitted and tight. Tighten cinch before riding or loading packstock. Load side packs as equally as possible. Use breakaways to tie pack string together. Generally yield to loaded strings or larger strings when encountered on the trail. Hikers should yield to stock traffic, ask them to step to the downhill side of trail. Lead ropes should be around 10 feet in length, avoiding excessive lengths that may become entangled. Do not wrap coils of the lead rope around the hand or saddle horn. |
| Hauling dirt and gravel with stock | Injury to animals and/or personnel | Use only gentle animals for this operation. If possible use three individuals for this operation (one to hold the lead rope, two to load and unload). Load and unload side boxes together. Do not overload animals. Try to load and unload in areas that will allow for personnel to step away from the animal if they become spooked. Inspect all dirt boxes for smooth operation before use. |
| Shoeing | Injury to animals and personnel | For extended overnight trips, it is recommended to carry shoes, tools, easy-boots and nails. Only competent personnel shall be assigned to shoe a horse/mule. Maintain all tools to a sharp and properly functioning condition. Use caution when heating shoes and handling hot shoes. Wear PPE , leather chaps, etc. Tie stock to a secure location. Tie up in a smooth, shady location if possible.  |
| Feeding livestock | Injury to animals and personnel | Do not feed or water a sweaty animal until it has cooled off. Use caution when feeding or salting animals, animals may become aggressive and/or dangerous. |
| Field work | Sudden loud noises like gunshots, other users – llamas, backpackers, mountain bikers, and wildlife (bears, moose, insects etc.) | Always anticipate problems and be ready to deal with them. Desensitize livestock. Be prepared for animals spooking. Maintain control of your animal at all times.  |
| Local/Project-Specific Concerns (Write in as needed, use back of paper if additional space is needed) |  |  |

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| **10. LINE OFFICER SIGNATURE** | **11. TITLE** | **12. DATE** |
| **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 AcknowledgmentWe, 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:

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