

3. UNIT	6. DATE PREPARED	10. POST ABATEMENT ACTION RISK RATING (from the Severity/Probability Matrix)
3. LOCATION	5. JOB TITLE	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE
1. WORK PROJECT/ACTIVITY	4. NAME OF ANALYST	8. HAZARDS
7. TASKS/PROCEDURES	8. HAZARDS	8. HAZARDS
Severity	Probability	Risk Code
III	B	3
U.S. Department of Agriculture Forest Service	Field Work	Foot Travel in Forest Terrain
Wallowa Mtns. Office	John Hollenbeak	Foot Travel in Forest Terrain
061602/04/05	John Hollenbeak	Foot Travel in Forest Terrain
01/29/2018	John Hollenbeak	Foot Travel in Forest Terrain
<p>• Wear comfortable foot wear that properly fit the foot. Boots should have a slip-resistant sole and heel such as provided by Vibram soles, protect/support the ankles and have durable weather resistant construction.</p> <p>• Always make sure of secure footing and safe working positions. Walk--never run--down slopes. <u>Watch your step</u>. Ground surface conditions coverings and topographic relief can all contribute to changing footing conditions and the possibility of slips and falls. Work supervisors shall advise crews of particular terrain conditions and precautions to avoid falls and injuries. Rocky slopes, especially slide rock and steep country, are treacherous. Have one hand free, preferably on the uphill side, for protection against falls or obstructions. Always carry tools on downhill side.</p> <p>• Always be on the guard against injury from falling trees, snags, limbs, rolling logs, or rocks. Look up in the tree canopy, periodically, as well as on the ground while walking, and avoid walking under wind fallen or broken trees that are caught up in the canopy. These can be very dangerous.</p> <p>• When contouring a steep slope, maintain an erect posture or slightly leaning out to insure a more secure footing. Make sure stepping surface is solid and stable before placing full body weight onto the foot. Step over logs, never on them, unless caulk boots are worn. Never step on logs with loose bark, even when wearing caulk boots.</p> <p>• In heavy undergrowth, lift your knees high to clear obstacles. Slow down and exaggerate steps in the area of exposed roots of "jack-strawed" bark beetle-killed lodgepole pines to keep from tripping and falling.</p> <p>• On slippery, loose ground, or going downhill, keep most of your weight on your heels. Shorten your stride, keep knees bent, and lean slightly backward.</p> <p>• When moving uphill or in sandy soils, lean slightly forward, turn feet outward, shorten stride, and use as much of the inside of the foot as possible.</p>		

	Getting Lost	I	C	2
	<ul style="list-style-type: none"> Never travel or work alone in isolated areas without an emergency plan and radio. Leave an itinerary of planned trip with family and immediate supervisor or other employee when it is necessary to travel or work alone. When traveling in backcountry it is important to carry plenty of water, and have a first-aid kit available. In addition, make sure you have a compass, map, pocket knife, hand axe, matches in waterproof container, flashlight, day's supply of food, raingear or poncho, extra set of dry clothing, a lightweight shelter or space blanket, and snakebite kit, if in snake country. If you become lost, keep calm, don't panic. Select a warm shelter. Shelter, warmth and liquids are much more important than food. Select sheltered spot and prepare camp, shelter, and firewood well before dark. Check the surrounding country and attempt to orient yourself. Do not walk aimlessly. Carry and trust the map and compass. If you can reach a road, trail, or telephone line, follow it until you can determine you are moving in the right direction. As a last resort, travel downhill parallel to a stream or drainage--roads eventually cross drainages and traveling down a less-travelled road usually always will lead to a more heavily traveled road and increase the likelihood of someone finding you soon. If unsuccessful in attempts to find your way, stay in one place, conserve your strength, and build a fire so that smoke may be seen by searchers. If signal mirror or portable radio is available have ready for immediate use. 			
	Stream or Creek Crossings	II	C	2
	Rain	III	C	3

Snow, Freezing Weather,
Cold Temperatures, and
Adverse Conditions

- As with rainy conditions, hypothermia is a major threat in snowy and/or freezing conditions. Layering of clothing is the most effective way to maintain a steady body temperature as your exert and rest.
- One hazard associated with snow conditions are snow bridges. A snow bridge is formed when heavy snows fall on criss-crossed down logs. The snow fills in the gaps between the logs and gives the appearance of solid ground. Falling through the gaps causes leg joints to bend in directions they were not designed to bend. Testing the ground before you walk in areas you suspect to have snow bridges is the best preventative measure.
- Frozen ground is another hazard associated with freezing weather. When the ground is frozen it is difficult to dig your heel into the slope to gain support, also falling on frozen ground is like falling on concrete. Steep terrain and snow make a dangerous combination, especially when wearing raingear. The raingear tends to act as a "toboggan" and you can quickly slide out of control.
- Always carry PPE for changing weather conditions, such as rain gear, a wool hat, sweater, jacket, and dry socks. The chance of rain and/or cold increases for every day there is warm, dry weather and conditions can change hourly in mountainous areas. Listen to weather forecasts and plan field work accordingly.

The following are key items for winter survival:

- Get adequate rest.
- Dress in layers of loose clothes, cotton, polypropylene or wool underneath.
- waterproof material on top. Be sure to cover hands, feet, neck and head.
- Keep active to maintain body metabolism and high body temperature.
- Prevent dehydration by drinking warm water. Avoid caffeine.
- Eat balanced meals with high energy snacks in between.
- Always travel in pairs as a minimum.
- If camping out, prepare for night (shelter and firewood) before dark.

	Thunder and Lightning	<ul style="list-style-type: none"> • Although most common in the summer, thunder and lightning can occur anytime. If caught in a storm near the vehicle, return to the vehicle and stay inside while the storm is most active. Park vehicle in an open area away from trees. Turn off radios during the storm. Lightning is more likely to strike when radio transmission occurs. After the storm passes, turn forest radio on and check in with dispatch. If caught in a storm away from your vehicle, try to find some form of building or shelter. Do not seek shelter under large trees or open areas. Stay off ridge tops and mountain tops. Seek shelter in low lying areas such as a ditch or cave. • The main hazards associated with windy conditions are falling, snapped-off treetops from healthy trees and dead snags, and branches falling out of trees, often unexpectedly. Even a small branch when falling out of a 150 foot tree can cause serious injury or death. Wearing your hardhat is recommended! Extreme winds can blow down large tracts of timber in short periods of time. Listen to the weather forecast each day and avoid traveling in the woods on days of predicted high winds. If high winds were not predicted by occur anyway, move to open ground, such as meadows and other clearings, to avoid falling debris. 	II	D	3
	Hypothermia	<ul style="list-style-type: none"> • Most hypothermia cases develop in temperatures between 30 to 50 degrees F, usually on a cold, wet windy day. Hypothermia occurs when the body core temperature is lowered leading to mental and physical collapse. Other factors that can cause or aggravate hypothermia include injuries, immobilization, immersion in water, lack of proper clothing or shelter, and fatigue. • SYMPTOMS: Feeling cold, pain in extremities, shivering, numbness, muscle stiffness (especially in the neck, arms, and legs), poor coordination, drowsiness, slow or irregular breathing and heart rate, cool skin, and puffiness in the face. Thinking processes slow down and victims become apathetic and disagreeable. Slurred speech and loss of vision are reported just prior to terminal coma. • TREATMENT: 1) Call for medical help. 2) Give artificial respiration if needed. 3) Move into a warm area. 4) Get out of frozen, wet, or tight, clothes. 5) Bundle in warm clothes or blankets. 6) Drink something warm, not hot (no caffeine or alcohol). 	I	C	2
	Frostbite	<ul style="list-style-type: none"> • CAUSE: exposure of unprotected flesh to subfreezing temperatures. • SYMPTOMS: feeling uncomfortably cold, numbness, sometimes with tingling, aching, or brief pain. Skin color changes from white or grayish yellow to reddish violet and black. • TREATMENT: warm body part quickly with dry material or warm (not hot) water. Once it is warm, exercise it but do not walk on frostbitten feet. Do not rub the body part or break blisters. Get medical help! 	II	D	3

	I	C	2
Bears	<ul style="list-style-type: none"> The best way to travel in bear country is to make as much noise as possible. Bears are most dangerous when they are startled or when they are with cubs. By making plenty of noise, the bear is given time to avoid contact with you. Bears rely on their sense of smell and hearing. Their eyesight is poor at best. This is especially important when traveling on or near streams. The noise of the stream may mask your movement and if you are downwind of the bear, it is possible to come very close without detecting each other's presence. Move out of an area in an orderly manner when a bear is spotted. Do not run! Running tends to excite a bear and can provoke an attack. Black bears must be treated with the same respect shown to brown bears. Both can be unpredictable. 		
Brush	<ul style="list-style-type: none"> When traveling through brushy country, do not follow too close to the person ahead. Being struck in the face or eye by swinging branches is a typical and painful result. Allow at least 10 feet of distance between you and the person you are following. If you must work in brushy country where there is a high probability of being struck by a branch in the face due to the nature of the work you are doing, gloves and protective goggles are effective safety equipment for these conditions. 	C	3
Insects and ticks	<p>Mosquitoes, ticks, yellow jackets, and bald-faced hornets are commonly encountered while conducting field work. Most of the time, these insects and ticks are merely minor nuisances, but if populations are high—as they may be in certain areas and times of the season—certain insects may become more troublesome, and even life threatening to certain sensitive individuals, if not properly prepared for emergency treatment.</p> <p>Mosquitoes are generally among the most benign of the biting and stinging arthropod likely to be encountered in the forest. An insect repellent containing the compound N, N-diethyl-m-toluamide (DEET) has been a highly effective insect repellent for over 30 years against mosquitoes and many other arthropod. It is somewhat less effective against ticks when applied to exposed skin, but when used along with a repellent containing permethrin that is applied to clothing, it will provide maximum protection from ticks, as well as mosquitoes. Permethrin actually kills ticks. Crews that are bothered by mosquitoes should carry and use insect repellents containing DEET, and apply permethrin to their clothing to increase protection against ticks, as well, if they know they will be entering tick habitat (areas with an abundance of bitterbrush usually also contain and abundance of ticks). This is the treatment recommended and used by the U. S. Department of Defense for mosquitoes and ticks. A DEET-containing product, and several permethrin products are available through GSA: Insect/Arthropod Repellent Lotion (DEET) NSN 6840-01-284-3982 Insect Repellent, aerosol, 0.5% permethrin, 6-oz can NSN 6840-01-334-2666 Insect Repellent, 2-gallon sprayer formulation,</p>	B	3

Insects and tick (cont.)

40% permethrin, 151 ml bottle
6840-01-345-0237 Dry cleaning will completely remove permethrin from clothing. Any treated clothing that has been dry cleaned must be retreated, if protection from arthropod is still desired.

NSN

Ticks are responsible for transmission of a number of mammalian diseases including **Lyme Disease** (bacterium transmitted by the deer tick in eastern and midwest US; western black leg tick in Rocky Mountains and Pacific coast); **Rocky Mountain Spotted Fever** (bacterium transmitted by the dog tick in east and west coast; Rocky Mountain wood tick in western mountain states and Lone Star tick in southwest); **Colorado Tick Fever** (virus transmitted by Rocky Mountain wood tick; found in western US, usually at altitudes higher than 4,000 feet); **Tick Bite Paralysis** (neurotoxin released in tick's saliva by Rocky Mountain wood tick and dog tick); and **Tularemia** (bacterium transmitted by Lone Star tick, Rocky Mountain wood tick, Pacific Coast and American dog ticks).

The Centers for Disease Control and Prevention provide the following recommendations for tick control:

- Wear light colored, long-sleeved clothing that fits tight at wrists, ankles, and waist.
- All clothing should overlap, including high-top boots and socks. Tuck pants into boots or top of socks.
- Use chemical repellents:
- DEET containing liquids, aerosols or sticks can be applied to exposed skin or clothing. Avoid face area and any cuts, wounds or irritated skin.
- Permethrin (0.5% permethrin) can be sprayed on clothing. Do not wear clothing until dry. Do not spray on skin!
- Citronella oil and Skin-So-Soft are non-chemical repellents that are less hazardous for children and sensitive adults.
- Try to find ticks on clothing and body prior to attachment.
- Repeatedly search your body, especially around and in the hairy regions.
- Immediately remove attached ticks. Grasp the tick with tweezers, as close to the skin as possible, and pull gently. If fingers must be used, protect with tissue paper, plastic wrap, rubber gloves, etc. After removal, wipe the affected area with antiseptic and wash your hands.
- Keep the tick in a jar or vial for identification should you later develop disease symptoms. Note the date of exposure.
- Any illness within two weeks requires a trip to the doctor immediately.

Most people fear venomous insects such as bees, wasps, yellow jackets, hornets and ants because of the severe pain

Insects and tick (cont.)

they can inflict, and their considerable aggressiveness when the nests of these social insects are disturbed. Under the worst case scenario, a sensitized individual may rapidly develop an allergic reaction that could lead to anaphylaxis, which could be life threatening unless quickly treated. It has been stated that the frequency of insect stinging allergy is probably less than 1% of the population. Of that percentage only a small number will ever develop severe anaphylactic reactions

Several reactions to insect stings are recognized: (1) local reactions; (2) large local reactions; (3) systemic reactions (anaphylactic, allergic reactions—cutaneous reactions, respiratory reactions, and cardiovascular reactions or anaphylactic shock); and (4) toxic reactions.

Treatment for Venomous Insect Stings:

For most people, treatment of an insect sting with a local anti-inflammatory, and analgesic topical solution or compound, such as use of products such as Sting Ease Swabs (by Ever Ready) is all that is needed to relieve pain and help reduce swelling and localized tissue reaction. However, for those who are known to be sensitive to venom of insects, or who develop anaphylaxis, should receive an epinephrine injection via an autoinjector as soon as possible after being stung.

- Move the sting victim to an area well away from the irritated insect(s).
- Flick the stinger off if any remain—speed of removal is more important than method of removal.
- If the victim has laboured breathing, swelling inside the mouth or throat, or loss of consciousness, the first priority is to maintain the airway. If the primary problem is breathing difficulty, raise the victim to a head-forward position (where victim is looking straight ahead). If the primary problem is delirium or unconsciousness, the victim's head should be lower than the body (Trendelenburg position). CPR skills are needed in this situation.
- If the victim is known to be allergic to stings or has airway obstruction, hives, or other signs of anaphylaxis, a subcutaneous or intramuscular injection of epinephrine should be given. We recommend the use of an autoinjector to administer epinephrine. An example is Epi-Pen, which delivers a premeasured dosage via a spring loaded, pre-cocked syringe. The most convenient location for an injection is the outside of the upper arm or the thigh. Autoinjectors will penetrate a shirt or jeans, but should not be applied through more than one layer of clothing. **Do not inject into the neck, chest, or over a vein or artery; only a physician or an emergency medical team should consider these injection sites.**
- If a person is stung in an extremity, apply a loose tourniquet between the sting site and the trunk of the

	<p>Insects and tick (cont.)</p> <ul style="list-style-type: none"> body. A cold pack should be applied directly on the area(s) stung. If victim has no history of allergic reactions to stings, an antihistamine such as Benadryl should be taken orally. Monitor the victim for 24 hours to ensure that there are no delayed reactions. <p><u>If you are known to be allergic to insect stings, do not work in insect-infested areas during the insect season. Follow these precautions when working in areas where bees, wasps, yellow jackets, or hornets are prevalent:</u></p> <ul style="list-style-type: none"> Wear long-sleeved shirts with close fitting collars. Keep trousers tucked in boots. Avoid wearing strong scented lotions—they can attract bees. Keep alert for ground and overhead nests, and avoid these areas if at all possible. Stay in vehicle to eat lunch if wasps, yellow jackets and hornets are especially numerous. Always carry sting kit (e.g., Sting Ease Swabs), first aid kit, and epinephrine autoinjectors when working during times and in areas where stinging insects are active. Know how to recognize onset of allergic reactions, and know how to properly use the autoinjector. 		
<p>Handtools</p>	<p><u>Observe these guidelines when selecting and using a tool:</u></p> <ul style="list-style-type: none"> Hard hats will be worn when working under overhead hazards and falling trees. The wearing of a comfortable hat is fine while riding or walking, but a hard hat is required when work is being done with any overhead hazards. All handles tightly fitted, secured with a wedge, inspected for splitting, checking, warping, and absence of splinters. Only sharp tools available for use. Tool guards in position on the cutting edge while tool is transported to and from the job site. Guards kept by each worker to use when leaving the job site. Use the proper tool for the job. Maintain tool in good condition on the job site by keeping it touched up with a file Always keep tools secure and in a safe place both on the job and in storage. Never transport loose tools inside the same compartment with people, unless the vehicle is equipped with a protective screen or cargo net, or tools can be secured inside a toolbox that is fastened down. When tool is not in use, place it in a predetermined location, away from persons, with the cutting edge shielded or on the ground, resting the handle against a wall, bank or stump. 	<p>II</p>	<p>B</p> <p>2</p>

Handtools (cont.)

- Return worn tools to the tool room or warehouse for repairs. Separate tools needing repair from broken or worn out ones. Tag unrepairable tools that must be disposed of.
- Never throw tools under any circumstances.
- When carrying an unsheathed chopping tool (exempli gratia, axes, adzes, brush hooks, hatchets, machetes, and pulaskis) grasp handle close to the head with fingers and thumb around the shoulder of the handle. Place blade parallel to the leg, at arm's length and free from body. Be sure the area is cleaned of debris, and footing is secure before chopping.
- Never carry chopping tool on shoulder.

General Chopping Rules.

- **When chopping logs, branches, roots, or bark from trees:**
- Never allow bystanders to stand in front of or behind the chopping area.
- Remove any branches or underbrush that might interfere with chopping.
- Remove all overhead branches or vines that the tool might strike or hang up in.
- Never chop cross-handed; always use a natural striking action.
- Protect against flying chips by wearing eye protection.
- Be especially alert when working on hillsides or uneven ground—clear your are and get a firm footing.
- Watch out for springing if cutting a sapling that is bound down; cut from underneath if there is room. Watch for sudden breakage in brittle wood. If there is no need to remove it, leave it.
- When standing on logs, chop only if equipped with nonskid or calked boots.
- Never use chopping tools as wedges or mauls. Use only tools designed for striking to drive wedges or stakes.
- Do not allow two people to chop together on the same tree.
- When grubbing with a pulaski, pull out roots rather than cut them.
- When chopping limbs from a felled tree, always stand on the opposite side of the log from the limb being chopped, swinging toward the top of the tree or branch and keeping the striking angle of the ax head almost perpendicular to prevent glancing.
- Use special tool and shin protection if needed on chopping jobs.
- **Bow Saws**
- When inserting a blade in a bow saw frame, keep hands and fingers in the clear when the tension lever snaps into or against the saw frame.

	<ul style="list-style-type: none"> • When removing a bow saw blade from the frame, see that the blade guard is in place. • Carry bow saw over the shoulder with guarded blade to the rear. • Don't push or force the saw. Begin with light gentle strokes until the teeth begin forming a kerf. 			
<p>Vehicle Travel (Operating a vehicle on paved road surfaces, on unpaved back-country road surfaces, and under adverse conditions).</p>	<p>General General (cont.)</p> <ul style="list-style-type: none"> • General vehicle operation and travel hazards are covered in detail in Chapter 2 of the Health and Safety Code Handbook. (FSH 6709.11). The vehicle operator is responsible for familiarizing with material contained in this chapter before operating a government vehicle. In addition, the vehicle operator must possess a valid state driver's license and a Government Vehicle Operator's Identification Card (form WW-6730-1), and carry both on person while operating any government owned or leased vehicles. Several of the vehicle operation and driving hazards contained in the listed references are emphasized in the following. 		II	B
	<p>Shifting loads</p> <ul style="list-style-type: none"> • Secure all cargo, gear, and loose objects in bed of truck, or behind cargo net in area separated from the passenger area. Never keep loose items on the dashboard or over the sunvisor. 		II	B

Driving Fatigue

- **Warnings**
- A number of warning signs appear when a vehicle operator experiences fatigue:
- Vehicle feels too warm.
- Muscular tension.
- Eye strain.
- Restlessness (rubbing face, neck, or arms, and inability to get comfortable).
- Inattention, daydreaming.
- Impatience or irritability not normally experienced.
- Hallucinations, that is, misinterpreting shadows, reflections, objects on or near road, resulting in impulse to strongly control vehicle.
- Drowsiness, especially after meals.
- Feeling that it is "ok" to close eyes for just a second.
- **Abatement Actions:**
- Don't wait for these signals to overpower you. Pull over and rest, or change to a fresh, rested driver if more than one authorized drivers are in the vehicle. NEVER push yourself to go the last several miles since "you're almost there anyway;" an accident isn't worth that risk!
- Under normal, non-emergency conditions, employees operating government vehicles shall not drive:
- Unless they have had at least eight (8) consecutive hours off duty before beginning a shift.
- More than two (2) hours without a rest stop. Drivers carrying 15 or more passengers shall stop for 10 minutes every hour.
- More than 10 hours per shift.
- (4) After more than 16 hours from beginning of shift, including rest stops and meal stops.

2

C

I

	Driving to and from the work site	<ul style="list-style-type: none"> Loose gravel on road surface can cause loss of traction on grades and curves, and may triple usual stopping distance. Slow down before curves. Watch for flying rocks from other traffic and stay on your side of the traveled portion of the road. Maintain vehicle control, and don't fight ruts, chuckholes, puddles and washboard roads, just drive slowly and calmly. Take the best route. Don't drive with your thumb wrapped on the steering wheel. Hitting large rocks, obstacles or chuckholes may cause the steering wheel to kick back and injure your thumbs. Approach log landings with caution. Low guy lines, mainline and haulbacks are hard to see. Approach any line or cable with caution. Keep clear if there is any movement. If rocks, boulders, and windfalls are on the road, stop if there is room and remove them from the road. Make sure of adequate clearance before driving over or around them. Any adverse weather conditions, such as rain, snow, smoke, or fog affects your ability to see other vehicles and road hazards. The other drivers have similar problems and extra caution is necessary. Slow down and use your headlights. Snow requires proper tires and/or chains and does not always appear slick. Increase following interval to four seconds. On blacktopped logging roads watch for vehicles travelling at a high speed. Usually shoulders are narrow or absent. Frost is more of a hazard on blacktop than on gravel, and crossing over paved overpasses or bridges are especially hazardous. Slow down and maintain control, and drive with greater caution. 	III	A	2
	Approaching Traffic	<ul style="list-style-type: none"> Keep as far to the right as possible and signal your turns as necessary. Anticipate close following traffic and emergency stops. 	III	A	2
	Passing	<ul style="list-style-type: none"> Signal your intention and allow enough clearance. Be sure of adequate passing distance and visibility. Avoid awkward or high-speed pass. Be courteous. 	II	C	2
	Traversing Steep Grades	<ul style="list-style-type: none"> Check brakes, use low gear and alternately apply and release your brakes while descending. Watch for overheating and brake fade on long descents. Stop if necessary for cooling. Use low-range 4WD on steep descending jeep roads or other unmaintained primitive roads. 	II	C	2

	Backings	III	B	3
	<ul style="list-style-type: none"> • If possible, avoid backing up by positioning the vehicle for a forward departure. If backing is necessary, it is generally safer to back at the time of arrival than at the time of departure. • Check for clearance and blind spots before backing. If any problems, get out and look over the situation or have your passenger get out and help guide you. If you use a guide, make sure only the designated person gives signals. • Sound horn and back up slowly. • Backing down steep grades are especially hazardous as weight of the vehicle shifts to the rear, and front wheels lock-up easily when brakes are applied, causing front wheels to skid. Skidding wheels cannot control direction of vehicle. 	III	B	3
Parking	<ul style="list-style-type: none"> • Park off the traveled roadway whenever possible to keep from impeding flow of traffic. Leave plenty of clearance on logging roads, at landings, and truck turns. • Make sure you are on stable ground and avoid soft shoulders. • Leave your vehicle in low or reverse if manual, or park if automatic transmission, and engage parking brake. • Use chock blocks on steep grades. • Even when stopping for a short time on the roadway, watch for oncoming traffic. • Lock up vehicle if it will be unattended for a time. • If possible, turn around only on surfaced turnouts. 	IV	A	4
Turning Around	<ul style="list-style-type: none"> • Make sure you have complete clearance before turning around. • If it's necessary to turn around on a soft spot, keep the driving wheels on solid ground. Get out and check ground condition when in doubt. • Turn vehicle around before leaving vehicle. If you're stuck then you'll have more time to work on the problem. • Always "face the danger" when backing up to turn around. Back rear of the vehicle toward the cutbank. • Avoid putting the front wheels too far out on the fill slope edge of the road. Use a passenger to help guide you. 	III	C	3
Driving to and from the work site (Backcountry driving)	<ul style="list-style-type: none"> • Drive defensively. • Always drive at a safe speed for the weather and road conditions. • Be a courteous driver. sound your horn and drive slowly around blind corners on winding mountain roads, staying well on the right side portion of the road surface, and be able to stop the vehicle within less than half of the visible distance. • Have passenger talk with the driver to help keep him/her awake and alert during long trips. • When approaching a vehicle coming from the opposite direction on a narrow or one lane road, pull over and stop in a turnout to let them safely pass. 	II	C	2

<p>Driving to and from the work site (Backcountry driving) [cont.]</p>	<ul style="list-style-type: none"> • Trade off with other drivers often to avoid fatigue. • Do a safety check on the vehicle before driving it each day. • Always drive with your headlights on. • Always wear a seatbelt, even if the vehicle is only going a short distance. • Before starting downgrade, shift into a lower gear. If you are riding your brakes, you are in too high a gear. Use one gear lower to descend a grade than would be used to ascend it. Release and apply brakes often to avoid burning brake lining. • Use 4-wheel drive judiciously: use it to get you out of a situation; not into trouble. Use when steep grades and road surfaces warrant it. • Fresh berm on road surface means a grader may be on the roadway ahead. Head on traffic is likely, and it is difficult to cross over high or rocky berms so vehicle operator must slow down and drive with extra caution. Stay on your side of the road unless there is not enough room. If you must cross over the berm watch for large rocks that can damage the oil pan, transfer case, transmission housing, drive-line, fuel tank, etc. Also, be extra alert for on-coming traffic. • Don't follow closely behind other vehicles. Their dust cloud can obscure your visibility, especially to see oncoming traffic and other road hazards. 		
<p>Scouting and "Windshield" Surveys</p>	<ul style="list-style-type: none"> • When scouting or surveying the countryside from the vehicle, use a passenger as an observer. • If no observer is available, stop periodically to observe and make notes after pulling off the traveled roadway. 	<p>III</p>	<p>C 3</p>
<p>Map Reading</p>	<ul style="list-style-type: none"> • Use a passenger to read maps and help navigate. If a navigator is unavailable and it is necessary to refer to a map or instructions, pull off the travelled portion of the road and stop. Never try reading a map while you are operating the vehicle! 	<p>III</p>	<p>C 3</p>
<p>Wildlife on Roadway</p>	<ul style="list-style-type: none"> • Occasionally deer, elk, and small animals dart out in front of a moving vehicle. Always be alert to the possibility of unexpected animals appearing on the roadway. • Keep speed down so that vehicle can be stopped in time, or so that control of the vehicle can be maintained while evasive action is taken. • Small animals on the roadway are frequently indecisive in their direction of travel, and will abruptly change directions in front of the closely approaching vehicle. Many times it is best to avoid trying to take evasive action when there is uncertainty what the animal will do. There is greater risk in performing an unsafe maneuver that might lead to loss of vehicle control and result in an accident. 	<p>II</p>	<p>C 2</p>

Operating Conditions Speed	II	C	2
<ul style="list-style-type: none"> • Drive slower on back roads than conditions permit. You must compensate for the different driving conditions such roads present: narrow roads and shoulders, blind curves, dust, fast moving heavy trucks, poor braking surfaces, inexperienced drivers, tourists/sightseers unfamiliar with backroad conditions, and "off-road-vehicle" operators driving at too fast a speed for the conditions. STAY ALERT AND DRIVE DEFENSIVELY! • Remember: there is no work or time schedule, including fire, that justifies driving at speeds that risk accidents, possible injury or death, or property damage! 	<p>Emergency Situations and Corrective Actions</p> <p>YOUR BRAKES COMPLETELY FAIL WHILE DRIVING DOWNHILL.</p> <ul style="list-style-type: none"> • Take action immediately! • First, pump brakes to try to get pressure back. • Use parking brake and gear down to reduce momentum. • Drive into a bank or uphill as necessary to stop vehicle. <p>YOU MEET A LOG TRUCK ON A TIGHT CURVE WITH NO FOREWARNING.</p> <ul style="list-style-type: none"> • Look for nearest turnout. If it's ahead of you, quickly assess whether you have adequate time to make it. If not. You may have to back up quickly to your turnout. Use your passenger to help watch for approaching vehicles. <p>THE STEERING WHEEL BEGINS VIBRATING A LOT AND YOU REALIZE YOU JUST HAD A BLOWOUT.</p> <ul style="list-style-type: none"> • The most important thing to do is to maintain control and gradually slow down and stop the vehicle. NEVER slam on the brakes. Don't use the brakes until you've regained control of the vehicle. Then find enough room off the travelled portion of the road to change the tire, and gradually move the vehicle off the roadway. <p>YOU BEGIN TO SKID ON ICE, SNOW OR A SLICK SPOT.</p> <ul style="list-style-type: none"> • When you begin to slide, Don't slam on the brakes! Decelerate the vehicle by easing your foot off the gas and turning your wheels the same direction as the rear of your vehicle is sliding. As soon as you straighten out and regain traction, get to the right hand side of the road and proceed slowly. • Other emergency situations can occur unexpectedly during back-country driving. Keep an alert attitude and be ready for an emergency situation around each corner. Be prepared to take evasive action. BE AWARE OF DRIVING HAZARDS AND DRIVE DEFENSIVELY! Follow these basic defensive driving principles: <ul style="list-style-type: none"> • Drive slowly. • Keep right. 	I	2
Driving Emergencies		D	2

<p>Driving Emergencies</p>	<ul style="list-style-type: none"> • Keep alert. • Use headlights. • Keep windshield and headlights clean. • Sound horn on blind curves. • Allow following distances. • Park out of the way so vehicle does not impede traffic, and that backing up is unnecessary. • Check condition of vehicle before use. • Turn around in locations affording a view of at least 500 feet in each direction. 		
<p>11. LINE OFFICER SIGNATURE</p> <p><i>[Signature]</i></p>	<p>12. TITLE</p> <p><i>DPR</i></p>	<p>13. DATE</p> <p><i>2/28/18</i></p>	

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 values for Severity, Probability, and the overall Risk Assessment Code (RAC) will correspond to the Risk Management Matrix (attached).

Block 11: The JHA must be reviewed and approved by the appropriate manager / supervisor, as identified in the Risk Decision Authority Matrix.

Block 12 and 13: Self-explanatory.

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

[Signature]

[Signature]

6713.4 - Exhibit 01
Risk Management Matrix

Safety Risk Assessment Codes

		HAZARD PROBABILITY				
		Frequent	Likely	Occasional	Seldom	Unlikely
		A		C		E
		B		D		
SEVERITY	Catastrophic	I Extremely High (RAC 1)	High (RAC 2)	High (RAC 2)	Medium (RAC 3)	
	Critical	II Extremely High (RAC 1)	High (RAC 2)	Medium (RAC 3)	Low (RAC 4)	
	Marginal	III High (RAC 2)	Medium (RAC 3)	Low (RAC 4)		
	Negligible	IV Low (RAC 4)				

6713.4 – Exhibit 02

Severity Definitions

Severity	Effect
Catastrophic I	Death or permanent disability, system loss, major property damage
Critical II	Permanent partial disability, temporary total disability in excess of three months, major system damage, significant property damage
Marginal III	Minor injury, lost workday mishap, compensable injury/illness, minor system damage, minor property damage
Negligible IV	First aid or minor medical treatment, minor system impairment

6713.4 – Exhibit 03

Probability Definitions

Probability	
A. Frequent	The event occurs often, frequently, or with regularity in one's career or the life cycle of equipment items
B. Likely	The event occurs periodically with some regularity but not frequently enough to be predictable
C. Occasional	The event occurs sporadically but not with constant regularity or predictability in ones career of the life cycle of equipment
D. Remote	Possible to occur but the chances of the event occurring are remote
E. Unlikely	In this case, it is unlikely the event will ever occur