



JOB SAFETY ANALYSIS

Region or District: Forest and Ecosystem Management, JSA 005

Date: 15 September 2015

Job: Bush walking

Location of job: Field

Job description: Walking and navigating through vegetation (sometimes densely vegetated) using manual and/or electronic instruments.

Workshop

Manager approval: Martin Rayner and Danielle Wiseman

Office

Other (please specify)

PPE Required:



Other, please specify. Sunscreen, gaiters (advisable)



Training Required: 'Provide first aid' or equivalent certificate

Relevant Procedures or Guidelines: SAR procedures, GPS instructions, Procedures 'Ensuring the public is aware of workers in the field' and 'Managing risk during unexpected discharge of firearms', Aboriginal customary activities: Firearm use and employee safety, Corporate policy 60 'Work health and safety', Corporate guideline 30 'Fitness for work' (Working alone JSA 020 and procedure may also apply).



Job breakdown List the main steps involved in the job	Potential hazards Identify the hazard associated with each step	Initial risk rating Assign each hazard a risk rating using the matrix below	Control measures Try to eliminate the hazard, if that is not possible use substitution, engineering, isolation and administrative controls	Revised risk rating Reassess the risk now controls are in place.
Working in areas where firearms may be used for hunting	Injuries sustained by unexpected discharge of firearms	Extreme	<ul style="list-style-type: none"> Ensure all staff are aware of and use the latest procedures to increase visibility and public awareness of their presence in the field (see <i>Ensuring the public is aware of workers in the field HSP001</i>) Be aware of the latest local area arrangements Ensure all staff are aware of tactics used during unexpected discharge of firearms (see <i>Managing risk during unexpected discharge of firearms HSP002</i>) Report any incidents immediately. 	Medium
Walking to field work areas and walking while undertaking field work	Employee becomes disoriented and lost	High	<ul style="list-style-type: none"> Where possible, maintain line of sight with other staff or remain in communication Carry a map, compass and GPS device and know how to use each instrument to navigate to and from field sites Carry drinking water If working alone, staff are advised to use Spot tracker or Satellite phone for communication. See <i>JSA 020 Working alone</i> If lost, follow stream systems downslope to find roads and major rivers. Following the edge of riparian vegetation rather than the stream itself will usually be easier. Once at a major intersection stay in the one area and don't wander off Wear high-vis to be more visible to other staff or searchers and use whistle for emergency communication. 	Low

	Slips, trips or falls	Extreme	<ul style="list-style-type: none"> • Wear sturdy footwear with a slip resistant sole and good ankle support • Pay attention to surroundings, particularly holes, undulating or rocky ground, and hidden hazards particularly in recently burnt or harvested areas, under leaf litter or other side of logs • Be aware of slippery surfaces in wet or damp conditions. Do not stand on wet logs • Go around obstacles where possible • Use a forestry vest or backpack to keep hands free. Keep hands out of pockets while walking to maintain a natural balance. Share the weight of equipment amongst team members • When consulting GPS, compass or other equipment, stop walking. Resume walking once finished • Inform co-workers of potential hazards as you walk. Break off or remove very hazardous projections, if easily done. 	Medium
	Cuts	Medium	<ul style="list-style-type: none"> • Wear gloves when walking through areas of sharp edged vegetation such as rushes. 	Low
	Sun exposure and dehydration	Extreme	<ul style="list-style-type: none"> • Apply sunscreen; wear a wide brim hat or helmet fitted with a wide brim, sunglasses, long sleeved shirt and pants • Start work in a well-hydrated state and maintain this with regular drinking to keep pace with sweat losses, (i.e. drink small amounts of cool fluids every 20 minutes, rather than consume 1 litre every now and then) • Consider using a hydration pack (such as 'camelbak') to help with regular hydration on hot days • Check the colour of your urine as a guide (Clear to light yellow is ok, darker usually means dehydrated) • Be aware you may need to gradually adjust your workload when starting or returning to work in hot conditions 	Medium

			<ul style="list-style-type: none"> Consider changing working hours during summer to start earlier and finisher earlier Where possible plan to work in more exposed areas early in the day and shaded areas during the middle of the day Stand in the shade whenever possible. 	
	Animal hazards	Extreme	<ul style="list-style-type: none"> Be alert for snakes. Make a lot of noise when walking. Check escape route if faced with a snake, let the animal make its own way from the area. No sudden movements Wear sturdy boots and gaiters Consider carrying snake bite kits if working more than 200m from vehicle Ensure your 'Provide first aid' (or equivalent) certificate is current Employees to notify workmates of allergies and to carry appropriate medication if needed Take note of pig furrows, and any noises in the vicinity. Check for escape route or high vantage point if pigs in the area Take action to minimize risk of tick bites with insect repellent, tucking pants into socks and wearing gaiters. Check for infestation of ticks on a regular basis. 	Medium
	Eye injuries	Extreme	<ul style="list-style-type: none"> Wear eye protection in thick scrub, rushes, or woody thickets. 	Medium
	Falling objects	Extreme	<ul style="list-style-type: none"> Wear a helmet at all times, even when having a break. Replace helmet as required (if damaged or 'use-by' period expired) Look for and limit the time spent under dead and senescent trees or suspended branches. 	Medium
	Extreme weather events	Extreme	<ul style="list-style-type: none"> Plan field work to avoid working outdoors during extreme weather events Know the symptoms of heat stroke and monitor team members in hot weather. In strong winds, use Beaufort scale indicators to identify actions 	Low

			<ul style="list-style-type: none"> At first sign of thunder and potential lightning switch off equipment, lower aerials and return to vehicle to seek shelter If too far from vehicle, avoid crests of hills and tall trees. Use second storey or shrubs as shelter Wait 30min after lightning ceases to recommence working. 	
	Bushfire or prescribed fire risks	Extreme	<ul style="list-style-type: none"> Check current burn program maps before departure from office Check weather conditions and fire danger rating for the day Check with District office if working adjacent to programmed burns and advise of intended work location Determine the location / cause of any smoke observed during the day Park vehicle away from grass and flammable fuel Monitor fires and burning operations in the area via ABC radio, Departmental radio/intranet Take note of escape routes and landmarks Observe vehicle movement bans and ensure employees are registered with local councils to receive movement bans via SMS Advise District office in the event of unexpected fire. 	Medium
	Muscle strain from carrying heavy equipment	Medium	<ul style="list-style-type: none"> Use correct lifting and carrying techniques (see <i>JSA 014 Lifting and carrying</i>) Distribute equipment evenly between crew members Use survey vests or backpacks to carry equipment. 	

The following hazards and controls apply to many situations but especially in **densely vegetated areas or where large amounts of debris from harvesting** obstruct movement. All controls above also apply to these areas. Densely vegetated areas may be defined as any area where body movement is restricted, where visibility is less than 10 m and where forest floor obstacles are restricted from view.

All tasks in dense vegetation	Fatigue causing disorientation or slips, trips or falls	Extreme	<ul style="list-style-type: none"> • Look for landmarks above vegetation height for orientation or use a compass or GPS • Take regular short breaks within the work area - at least every half hour • Avoid working in dense vegetation on hot days and for many consecutive days • Maintain a steady pace • Maintain hydration. Be sure to drink small amounts regularly rather than drinking too much all at once. Carry extra water • Set a predetermined time to exit the vegetation and abide by it • Use flexitime to manage fatigue. 	Medium
	Natural obstructions which hinder free body movement	High	<ul style="list-style-type: none"> • Move steadily and deliberately through the vegetation • Limit the use of backpacks and items that can get caught up in vegetation • Look for alternate routes around dense areas of limited size • Keep hands free • Help your partner through dense areas by holding away obstructions and vice versa. 	Low
	Separation from partner	Extreme	<ul style="list-style-type: none"> • Use and be familiar with calling techniques and keep regular contact with your partner by audio or radio means • Carry small hand held radios or use whistle • Have predetermined rendezvous points. 	Low

All personnel involved in the job need to write and sign their name below to confirm they have read, understood and agree to the instructions outlined in this JSA.

Full Name	Signature	Date

Full Name	Signature	Date

This JSA, **Bush walking**, is valid for one year.

This JSA needs to be reviewed when the job changes, following a near-miss or incident, or annually if the job has not changed.

Review date: 30 November 2016

RISK MATRIX

Use the matrix below to determine a risk rating for each hazard involved in the job.

Likelihood	Consequence				
	Insignificant No treatment required; <\$10,000 damage.	Minor First aid treatment required; ≥\$10,000 to <\$50,000 damage.	Moderate Medical treatment required; ≥\$50,000 to <\$250,000 damage.	Major Extensive injuries; permanent disability or impairment; ≥\$250,000 to <\$1 million damage.	Catastrophic Loss of life; ≥\$1 million damage.
Very likely The event is expected to occur in most circumstances; more than once per year.	MEDIUM	HIGH	EXTREME	EXTREME	EXTREME
Likely The event will probably occur in most circumstances; at least once per year.	LOW	MEDIUM	HIGH	EXTREME	EXTREME
Possible The event should occur at some time; at least once in 3 years.	LOW	MEDIUM	HIGH	HIGH	EXTREME
Unlikely The event could occur at some time; at least once in 5 years.	LOW	LOW	MEDIUM	MEDIUM	HIGH
Highly unlikely The event may occur only in exceptional circumstances; less than once in 5 years.	LOW	LOW	LOW	LOW	MEDIUM

Risk Rating

Low

Risk Acceptance Criteria

Risk acceptable.

Medium

Risk may be acceptable with adequate controls.

High

Risk only acceptable with effective controls.

Extreme

Risk not acceptable. Implement effective controls and seek approval from manager or supervisor before undertaking task.

In cases where it is not possible to reduce the risk rating to *low*, it is important to ensure effective controls are in place to reduce the risk as much as is reasonably possible.

CONTROL THE RISK

Try to control the hazard by:

- Eliminating it
- Finding a safer alternative
- Isolating the hazard from people using barriers or guards
- Considering relevant policies, guidelines and procedures, training requirements, signage and communication
- Using PPE

Use as many controls as you feel is necessary to effectively reduce the risk of injury.

Consider whether the controls:

- Could introduce any new hazards
- Would reduce the risk injury