

Risk Assessment

(Job Safety Analysis)



Section/Area/Unit/Location: Park Programs /Conservation Branch /Pests and Weeds /SPC /Various Locations		Project/Job Name/No:		Manager: Ben Matthias	
Work Activity/Task: Ground Shooting - Day/Night operation		Staff consulted:		Signature:	Date:
Date to Commence:	Date of JSA: 16/7/2021			Endorsed in CM9	13/7/2020
Prepared by: SPC PMR				Endorsed in CM9	13/7/2020
Signature: Endorsed in CM9				Endorsed in CM9	16/7/2021

Item	Job Step Break the job down into steps (includes JSA checklist items)	Potential Hazard What can harm you? (includes manual handling, slips and trips)	Risk Level L, M, H, E	Controls What you are going to do to make the job as safe as reasonably practicable (includes prevention of slips and trips)	Residual Risk Level	Person(s) Who Will Ensure Controls Are Implemented
1	1st Aid	Lack of 1st aid.	N/A	Each team must always have access to a suitable first aid kit, and all participants are first aid accredited.	N/A	All Participants
2	Navigation	Being in the wrong place and/or not knowing what or who is around you can lead to legal, physical damage and loss of professional integrity.	M	Each team will use a minimum 2 of 4 available map systems (paper, GPS, Avenza & Field Manager map) to ensure that all project related activity is conducted in a safe direction and within the designated shoot area.	L	All Participants
3	Communications	Not correctly understanding instructions may cause confusion & poor decision making	M	When receiving verbal instructions via radio or phone always repeat the message back to the sender and wait for "A-firm" response. This is the "Read back" method. If unable to be understood, cease operation until clarification is received.	L	All Participants
4	Loading and removing items from vehicle (e.g. signs, equipment and carcasses).	Back and muscle injuries. Hand/finger entrapment. Cuts.	H	Do not lift objects beyond your capability. Use lifting aids if available. Use two people to lift objects over 20kg. Use correct lifting technique.	M	All Participants

				Wear protective gloves when lifting items with the potential to cut or graze you.		
		Load shifting or falling off vehicles.	H	Ensure all loads are safely secured to vehicle with appropriate, rated securing device – e.g. tie down straps, cargo net.	M	All Staff
5	Travel to, from and within operational area on public roads and management trails.	Accident or mishap whilst using vehicle/s.	H	<p>Ensure all vehicles are maintained and serviced to NPWS standards prior to operation.</p> <p>Manage fatigue by stopping and stretching at regular intervals.</p> <p>Operators to adhere to road rules and speed limits.</p> <p>Drive to suit road conditions.</p> <p>Only NPWS staff to operate NPWS vehicles, except in an emergency situation.</p> <p>All operators to have a current driver's licence.</p> <p>Appropriate training and PPE to operate UTV vehicles.</p> <p>Use of UTV within the bounds of training and manufacturers recommendations.</p> <p>Ensure staff know and follow SAR Protocols.</p> <p>Emergency Response Plan is to be completed prior to operation. Ensure NPWS and QSPCV's know the details of the Emergency Response Plan.</p>	M	All Participants
		Getting lost/disoriented.	M	<p>Operation areas to be outlined in maps shown at operation brief. All team members to attend the operational brief. Any potential areas of confusion to be discussed prior to operation.</p> <p>Operations Supervisor to carry an operational map, GPS, PLB and VHF radio. If unable to determine location, contact the Officer in Charge. OIC to assist Operations Supervisor in determining location. OIC to initiate Emergency Response Plan if appropriate.</p>	L	All Participants

				Ensure emergency rations and water are available.		
		Getting trapped in an isolated area through vehicle breakdown or getting bogged.	M	<p>Avoid driving in known boggy areas.</p> <p>Assess predicted weather conditions and determine the best routes for access/egress.</p> <p>All NPWS vehicles to be equipped with approved winch and recovery equipment.</p> <p>All staff to be trained in 4WD operations and vehicle recovery.</p> <p>Notify the OIC of:</p> <ul style="list-style-type: none"> - Description of incident and location - Actions to be attempted - Resolution - Call for assistance if unable to safely extract the vehicle. 	L	All Staff
6	Handling of carcasses.	Cut, injury, infection or disease from handling a carcass.	M	<p>If the animal looks diseased, do not approach. Photograph and report it to the OIC for reporting.</p> <p>Approved PPE to be worn including impervious gloves, impervious apron or overalls and eye protection (face shield or safety glasses) when handling carcasses.</p> <p>Vaccinations against diseases such as Q fever and Tetanus are encouraged but remain the choice of personnel.</p> <p>Use knife safely to reduce likelihood of cuts. Cut away from your body.</p> <p>Maintain personal hygiene. Ensure soap/disinfectant and water is available onsite and used after each exposure.</p> <p>Remove carcasses with consideration to personal, vehicle and site contamination issues.</p> <p>Transport any PPE used in carcass handling in a sealed container.</p>	L	All Participants

				<p>Clean equipment as soon as practicable with soapy water.</p> <p>Do not use high pressure equipment to clean vehicles/equipment where animals have been in contact.</p>		
7	Firearms use, storage, transport and handling.	Accidental shooting fatality, serious injury or damage due to firearm use/incident.	H	<p>All firearm handling and transport are to be done according to the NSW Firearms Act 1996, NPWS Firearms Management Manual, SPC Firearm Safety Protocol and the SPC Operations Manual.</p> <p>Only registered firearms to be used.</p> <p>Ensure firearms and ammunition used comply with what is prescribed in the SPC Operations Manual.</p> <p>Only appropriately cleaned and maintained firearms to be used:</p> <ul style="list-style-type: none"> - Pre-use inspection performed by NPWS staff. - Evidence of annual service to be presented to NPWS staff. <p>Only factory ammunition to be used.</p> <p>Identified and approved PPE worn by all participants.</p>	M	All Participants
		Fatality, serious injury or damage due to incorrectly identified target, intrusion, or straying of staff, contractors or the public into the operational area.	H	<p>Implement Reserve/operation area closure and control access points as per shoot plan.</p> <p>Ensure Uninvited Third-Party Protocol is known and followed.</p> <p>All firearm operations are to be undertaken according to the Firearm Safety Protocol.</p> <p>QSPCV and Operations Supervisor to confirm target and complete spot risk assessment (refer to NPWS Firearm Management Manual v1.1 section 6.2.1.2 Spot Risk Assessments) prior to discharging firearm.</p>	M	All Participants

		Fatality, serious injury or damage due to firearm projectiles reaching outside of the operational area.	H	All firearm operations are to be undertaken according to the Firearm Safety Protocol. QSPCV and Operations Supervisor to confirm target and complete spot risk assessment (refer to NPWS Firearm Management Manual v1.1 section 6.2.1.2 Spot Risk Assessments), including ensuring a safe fall-out zone, prior to discharging firearm.	M	All Participants
		Lead exposure, which may have short-term and long-term health effects.	M	Ensure adequate water and soap is available to wash hands after shooting and prior to eating or drinking. Be aware that lead dust may contaminate clothes and transfer to vehicles and home environments		
		Public concern and/or loss of NPWS reputation through inhumane pest control, killing, injuring or damaging non-target species.	M	Use of appropriately selected and qualified volunteer shooters as outlined in the SPC Operations Manual. Pre-operation induction and briefing of volunteers to be undertaken. Adhere to shoot plan and SPC operational requirements. Maintain an appropriate level of supervision of QSPCV's. Follow the Animal Welfare Protocol. Use thermal imaging equipment to assist in searching for wounded animals if required.	L	All Participants
8	Environmental Conditions	Uneven, slippery surfaces - trips and falls. Vegetation – cuts & scratches. Vegetation – tree branches. Trip hazards. Abandoned mine sites.	M	Move with care, be observant and avoid dangerous or difficult terrain. Carry only necessary items to minimise fatigue and manage backpack weight distribution. Wear appropriate PPE. Avoid parking or standing directly under large trees. Check for dead overhanging limbs. Hard hats to be worn when out of the vehicle and in an uncontrolled forest environment containing trees more than 4 metres tall.	L	All Participants

				Where possible avoid walking in areas where abandoned mine sites are identified. Obtain a map that identifies known mine sites prior to operation. If required to walk in these areas work as a pair and keep a minimum 5 metres from open shafts, pits or depressions.		
		Animals, e.g. insects and snakes.	M	<p>Do not handle any animals outside of the carcass management protocols outlined in this document.</p> <p>Be observant in order to avoid dangerous animals. Always maintain safe distances.</p> <p>Insect repellent available on site and should be worn.</p> <p>Check self for ticks upon return to accommodation at the end of each day.</p> <p>Wear protective clothing - long sleeves, long trousers and boots.</p>	M	All participants
		Dehydration, sunburn, cold/wet environment, hypothermia.	M	<p>Check weather conditions prior to event and be prepared.</p> <p>Ensure drinking water is available and should be consumed at regular intervals.</p> <p>Ensure sunscreen is available and should be worn.</p> <p>Carry water when out of vehicle for extended periods of time.</p> <p>Stop operation if conditions become too extreme to work. Seek shelter as appropriate.</p> <p>Monitor team members for signs of distress.</p> <p>Wear clothing that is appropriate to conditions.</p> <p>When a hard hat is not required to be worn (when in cleared country or outside of Park) wear a broad brim hat.</p> <p>Refer to Emergency Response Plan if required.</p>	L	All participants

		Fire. Working in fire affected areas.	E	Maintain knowledge of weather and fire conditions in the lead up and during an operation. Cancel the operation if the fire risk is extreme or higher. Follow the Fire Planning and Response Protocol and Emergency Response Plan. When working in fire affected areas ensure dangerous trees are identified and avoid during operations. Do not work in these areas during periods of high wind or rainfall.	M	All Staff
		Fatigue.	M	Ground shooting operation teams to consist of at least two people. Monitor team members for signs of fatigue. Follow Fatigue Management Protocol.	L	All Participants
9	Working at Night	Additional to the above listed hazards when working at night. Restricted vision due to lack of light or glare.	M	Ensure spotlight and additional work lights are available as required. Use torches or headlights. Do not look directly into lights. Ensure good communications and observations amongst team members. In the event of a thermal equipment failure the team will cease operations.	L	All Participants
		Driver distractions/workload.	L	A dual spotlight system developed for these operations is utilised. It has the advantages of: better driver orientation, bush and hazard navigation as well as better target acquisition. For safety and efficiency there needs to be limits on how the spotlights are used: <ul style="list-style-type: none">- Speed maximum 35 kph and where terrain is not adverse.- Spotlights are to be turned off when conditions demand.- Each team is to have 10-minute break every 2 hours.- Staff are to reconnoitre their operational area prior to operation start.- All operational areas are closed to the public.	L	All Staff

				No operational activity to be conducted on public roads.		
10	Food Handling	Food Poisoning.	M	<p>Plan food breaks and logistics to be compatible with safe food and handling practices.</p> <p>Ensure there is adequate cold storage for food stuffs.</p> <p>Volunteers to provide for their own special dietary requirements</p>	L	All Participants
11.	Euthanasia of sick or injured animals	<p>Injury or contamination to staff.</p> <p>Animal welfare concerns.</p>	M	<p>Ensure the animal's welfare is priority</p> <p>NPWS staff only to carry out the task</p> <p>Approach animal from spine side to avoid legs</p> <p>Comply with Branch Euthanasia Shoot Plan</p> <p>Comply with DPI SOP GEN001 Methods of Euthanasia</p> <p>Adhere to Firearms Safety Protocol</p> <p>Brain shot from safe distance</p> <p>Avoid direct contact</p>	L	NPWS Staff
<p>List of referenced policies, codes of practice, standards, guides and specific legislation:</p> <ul style="list-style-type: none"> • SPC Operations Manual (DOC19/533310) • SPC Firearm Safety Protocol (DOC19/532525) • SPC Uninvited Third-Party Protocol (DOC19/532641) 						

- SPC Fire Planning and Response Protocol (DOC19/532517)
- SPC Fatigue Management Protocol (DOC19/532507)
- SPC Animal Welfare Protocol (DOC19/532497)
- NSW Firearms Act 1996
- NPWS Firearms Management Manual

List of training requirements of personnel undertaking work:

- Current Firearms Licence Category A & B, current AFAD attendance and authorisation and consent to use firearms
- First Aid certificate
- Drivers licence

Job Supervisor/Project Manager:

Signature:

Date:

Next Review Date:

High Risk Construction Work: *Tick if any apply*

<input type="checkbox"/> Risk of a person falling more than 2 metres (Note: in some jurisdictions this is 3 metres)	<input type="checkbox"/> Work on a telecommunication tower	<input type="checkbox"/> Demolition of load-bearing structure
<input type="checkbox"/> Likely to involve disturbing asbestos	<input type="checkbox"/> Temporary load-bearing support for structural alterations or repairs	<input type="checkbox"/> Work in or near a confined space
<input type="checkbox"/> Work in or near a shaft or trench deeper than 1.5m or a tunnel	<input type="checkbox"/> Use of explosives	<input type="checkbox"/> Work on or near pressurised gas mains or piping
<input type="checkbox"/> Work on or near chemical, fuel or refrigerant lines	<input type="checkbox"/> Work on or near energised electrical installations or services	<input type="checkbox"/> Work in an area that may have a contaminated or flammable atmosphere
<input type="checkbox"/> Tilt-up or precast concrete elements	<input type="checkbox"/> Work on, in or adjacent to a road, railway, shipping lane or other traffic corridor in use by traffic other than pedestrians	<input type="checkbox"/> Work in an area with movement of powered mobile plant
<input type="checkbox"/> Work in areas with artificial extremes of temperature	<input type="checkbox"/> Work in or near water or other liquid that involves a risk of drowning	<input type="checkbox"/> Diving work

Record of Job Safety Brief



Workplace:

Date:

Supervisor/Presenter:

Subject:

Duration:



Persons Present at Brief

Print Name	Signature	Print Name	Signature

Documentation and other information provided (JSA, standards, codes, procedures, videos manufacturers' instructions, etc):

Issues raised by staff:

Corrective Action	Action By	Action Complete	
		Sign Off	Date

Health & Safety Risk Matrix <i>Multiply Likelihood x Consequence to achieve risk score.</i>					
Consequence →	Insignificant 2	Minor 3	Moderate 6	Major 10	Catastrophic 20
Likelihood ↓	May have little or no impact on health and safety	May have some impact on health and safety, but will be able to recover from or repair the damage within a relatively short term	A moderate permanent disability or long-term impairment	A single fatality or severe permanent disability	Multiple fatalities or significant irreversible effects on the health of many people
Likely 5 <i>There is a very good chance this event will occur in the near future</i>	M 10	M 15	H 30	E 50	E 100
Probable 4 <i>This event has occurred several times or more in corporate experience</i>	L 8	M 12	H 24	E 40	E 80
Possible 3 <i>This event might occur once or twice in corporate experience</i>	L 6	L 9	M 18	H 30	E 60
Unlikely 2 <i>This event does occur somewhere from time to time, but very seldom</i>	L 4	L 6	M 12	M 20	E 40
Rare 1 <i>It is theoretically possible for this event to occur, but extremely unlikely that it will</i>	L 2	L 3	L 6	M 10	M 20
Risk tolerance guide – all risks must be eliminated or controlled as soon as practical: 2-9 Low Risk may be tolerated based on cost and practicality, otherwise complete actions within 6 months of approval. 10-20 Medium Actions must be completed within 3 months of approval. 24-30 High Seek urgent approval to implement controls within 1 week or sooner. 40-100 Extreme Stop at risk activity immediately and make it safe. NOTE: Impact/risks rated 10 and above, (Medium to Extreme) are deemed significant .					

Control Type	Example	Effectiveness
Elimination	Proper disposal of redundant items of equipment that contain substances such as asbestos or PCBs. Removal of excess quantities of chemicals accumulated over time in a laboratory, etc.	100%
Substitution	Replacement of solvent-based printing inks with water-based ones, of asbestos insulation or fire-proofing with synthetic fibres or rockwool, the use of titanium dioxide white pigment instead of lead white, etc.	High
Isolation	Removing keys from a tractor and keeping it under supervision so a child can't operate it. Disconnecting the power before repairing an electric appliance.	Medium to high
Engineering	Installation of machine guards on hazardous equipment. Local exhaust ventilation over a process area releasing noxious fumes. Fitting a muffler on a noisy exhaust pipe.	Medium to high
Administrative	Training and education, signs, job rotation to share the load created by a demanding task or tasks, planning or scheduling certain jobs outside normal working hours to reduce general exposure, early reporting of signs and symptoms, instructions and warnings.	Low to medium
Personal Protective Equipment (PPE)	Safety glasses and goggles, earmuffs and earplugs, hard hats, safety boots, gloves, respiratory protection, aprons, etc.	Low

Aim to work above this line!