

4WD Safety

Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:

CLIENT OR PRINCIPAL CONTRACTOR DETAILS

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	



RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			Elimination Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Substitution Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	Engineering Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	Administrative Change	
								PPE	

Risk Rating & Required Action:	
4A	Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.
3H	Review and approve additional controls before the task starts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
1L	Proceed, following standard operating procedures. Monitor and keep records.

Consequence Scale:			
Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
Catastrophic	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
Major	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
Moderate	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
Minor	First-aid only, no lost time	negligible delay	Isolated non-conformance
Insignificant	No injury	no schedule impact	Deviation caught and corrected on site

Notes on Hierarchy of Controls:
Remember to apply controls in the preferred order shown by the coloured pyramid:

1. **Eliminate**
2. **Substitute**
3. **Isolate**
4. **Engineering**
5. **Administrative**
6. **PPE**

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Vehicle Procurement & Fleet Specification	<ul style="list-style-type: none"> • Procurement of vehicles that are not fit-for-purpose for 4WD/off-road conditions • Lack of minimum safety specifications (e.g. no ANCAP 5-star rating where practicable) • Inadequate rollover protection or stability features for rough terrain use • Insufficient payload and towing capacity leading to overloading • Lack of appropriate off-road features (e.g. low-range gearing, differential locks, recovery points) for intended terrain • Absence of engineering controls such as seatbelt reminders, ESC, traction control and ABS suitable for 4WD environments • No standardisation of fleet leading to inconsistent safety performance and training complexity 	4A	<ul style="list-style-type: none"> • Develop and implement a 4WD Fleet Procurement Standard specifying minimum safety, performance and off-road capability requirements aligned with WHS Act 2011 duties to provide safe plant • Mandate ANCAP 5-star (or highest practicable) safety rating for all new light vehicles entering the fleet, including applicable 4WD models • Specify mandatory off-road safety features (e.g. ESC, traction control, ABS suitable for loose surfaces, airbags, rollover protection structures where relevant, recovery points front and rear) • Define vehicle selection criteria based on risk assessment of terrain, load, towing, and remote area conditions • Standardise key models across the fleet where practicable to simplify training, maintenance, and parts management • Include requirements for bull bars, underbody protection and long-range fuel tanks only where justified by risk assessment and compliant with ADRs and OEM guidance • Implement a formal procurement review process involving WHS, operations and maintenance representatives to approve 4WD specifications • Establish a governance process for modifying vehicles (e.g. lifts, tyres, accessories) including engineering review and documentation of risk assessments 	3H
2. 4WD Driver Competency, Licensing & Training Systems	<ul style="list-style-type: none"> • Drivers operating 4WDs on rough terrain without formal competency assessment • Inadequate training in engaging and disengaging 4WD modes (high/low range, diff locks) • Limited understanding of vehicle capabilities and limitations on challenging terrain • Lack of training in recovery techniques, including the safe use of recovery equipment • Drivers unaware of how to manage vehicle dynamics on steep, uneven or slippery surfaces • Inconsistent induction for contractors and labour-hire workers • Overreliance on informal 'experience' rather than documented competency 	4A	<ul style="list-style-type: none"> • Develop and enforce a 4WD Driver Competency Standard specifying training, assessment and refresher requirements for all off-road operators • Require evidence of appropriate driver licence classes and endorsements relevant to vehicle type and jurisdiction • Implement accredited 4WD and off-road training programs that cover engaging 4WD systems, operating on rough and challenging terrain, and negotiating water crossings where relevant • Introduce practical competency assessments in realistic terrain prior to authorising unsupervised 4WD use • Maintain a central register of driver competencies, licences, training expiry dates and restrictions • Include 4WD-specific WHS induction modules for employees, contractors and visitors who may be driving off-road • Mandate periodic refresher training and reassessment, with increased frequency for high-risk remote or rugged operations • Develop clear role-based authorisations (e.g. basic formed tracks vs advanced remote/off-track operations) linked to demonstrated competencies 	2M

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3. Journey Management & Trip Approval	<ul style="list-style-type: none"> • Unplanned or ad hoc travel into remote or difficult terrain without risk assessment • Driving in unsuitable weather or visibility conditions on rough terrain • No defined route planning for remote trips involving off-road tracks and challenging terrains • Inadequate assessment of terrain type, remoteness, and access to emergency services • Lack of escalation and approval for higher-risk journeys • Driving alone in remote off-road environments without controls • Failure to consider turnaround points, fuel stops and safe no-go zones 	4A	<ul style="list-style-type: none"> • Implement a formal Journey Management Procedure for all 4WD and off-road trips, scaled by risk level and remoteness • Require documented journey plans for remote and high-risk terrain, including route, timings, fuel stops, rest breaks and communication checkpoints • Define clear triggers for higher-level approval (e.g. remote unsealed tracks, night driving, forecast severe weather, unfamiliar challenging terrain) • Integrate weather, road condition and fire danger checks into the journey planning and authorisation process • Establish rules for minimum vehicle numbers (e.g. two-vehicle rule) for high-risk off-road and remote trips • Define and communicate no-go zones, seasonal closures and terrain restrictions based on risk assessments • Introduce a pre-departure verification step ensuring vehicle suitability, load, communications, recovery gear and emergency supplies align with the planned terrain • Use digital tools (e.g. journey management apps) to log and approve journeys, and retain records for monitoring and review 	2M
4. Fatigue, Work Scheduling & Driving Hours Management	<ul style="list-style-type: none"> • Extended driving on rough terrain leading to rapid driver fatigue and reduced alertness • Inadequate breaks when negotiating continuous corrugations, sand, mud or rocky tracks • Shift patterns that result in long work hours with extended off-road driving • Pressure to complete journeys in single days despite challenging terrain and conditions • Lack of systems to identify and manage fatigue risks in remote 4WD operations • Driving in the dark on unsealed and off-road tracks, increasing collision and rollover risk 	4A	<p>[REDACTED]</p>	2M
5. Vehicle Maintenance, Inspection & Defect Management	<ul style="list-style-type: none"> • Inadequate maintenance systems for vehicles regularly driven on rough or off-road terrain 	4A	<p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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	<ul style="list-style-type: none"> Undetected defects in tyres, suspension, steering and brakes due to poor inspection regimes Failure to identify damage from rocks, ruts, water crossings or corrugations Delays in repairing safety-critical defects due to weak defect reporting systems Use of non-compliant or unsuitable aftermarket parts affecting stability and handling No specific maintenance allowances for heavy 4WD use (e.g. accelerated wear on rough terrain) 		[REDACTED]	
6. Load Management, Towing & Vehicle Stability	<ul style="list-style-type: none"> Overloading vehicles or roof racks, increasing rollover and loss-of-control risk on rough terrain Incorrectly distributed loads affecting vehicle centre of gravity, especially on side slopes Inadequate systems for controlling towing configurations and conditions Carrying loose items in cabins or trays that can become projectiles during sudden movements Lack of clear policies regarding fuel, water, tools and recovery equipment weights for remote 4WD work Use of inappropriate trailers or equipment for rough terrain 	4A	[REDACTED]	2M
7. Remote Area Communications & Location Tracking	<ul style="list-style-type: none"> Loss of contact with drivers operating in remote off-road areas Reliance on mobile coverage in areas known to have limited or no signal No systematic check-in process for remote 4WD journeys Delayed emergency response due to lack of accurate location information 	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> • Failure of single communication devices without redundancy • Insufficient training in use of satellite phones, PLBs, HF radios or tracking devices 		[REDACTED]	
8. Emergency Preparedness, Recovery & Rescue Planning	<ul style="list-style-type: none"> • Lack of systematic planning for vehicle bogging, rollovers or becoming stranded on challenging terrain • Improvised and unsafe vehicle recovery practices due to inadequate procedures • Insufficient emergency equipment (first aid, water, shelter) for remote off-road work • Poorly coordinated response due to unclear roles and contact protocols • Failure to consider limitations for external emergency services in rough terrain • Inadequate post-incident review, leading to repeated systemic failures 	4A	[REDACTED]	2M
9. Environmental & Terrain Risk Assessment (Rough & Challenging Conditions)	<ul style="list-style-type: none"> • Driving on steep, rutted or uneven terrain without prior assessment of risk • Uncontrolled exposure to soft sand, mud, water crossings and rock ledges • Unstable ground, washouts or hidden obstacles causing vehicle loss of control • Inadequate evaluation of seasonal changes affecting track conditions (e.g. wet season, fire season) 	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> Lack of guidance on maximum slope angles or terrain classifications for fleet vehicles No system to capture and communicate local terrain knowledge and incident learnings 		[REDACTED]	
10. Organisational Policies, Procedures & Governance for 4WD Use	<ul style="list-style-type: none"> Absence of a cohesive 4WD Safety Policy covering off-road and rough terrain operations Fragmented or outdated procedures that do not address modern 4WD technology and risks Inconsistent application of rules between departments, sites or contractors Lack of clear accountabilities for 4WD risk management at management and supervisor levels Poor integration of 4WD risks into the broader WHS management system Failure to consult workers and HSF on 4WD safety matters as required by WHS legislation 		[REDACTED]	2M
11. Contractor, Labour-Hire & Visitor 4WD Management	<ul style="list-style-type: none"> Contractor and labour-hire drivers operating off-road without meeting company competency standards Use of non-compliant contractor vehicles on rough or challenging terrain Lack of clarity over which organisation's procedures apply when working on shared sites or joint ventures Visitors being transported in off-road vehicles without adequate briefings or controls 	3H	[REDACTED]	2M

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	<ul style="list-style-type: none"> Insufficient verification of contractor systems for 4WD training, maintenance and journey management 		[REDACTED]	
12. Safety Culture, Supervision & Behavioural Expectations	<ul style="list-style-type: none"> Normalisation of risk-taking behaviours when driving on rough or off-road terrain Supervisors not enforcing journey management, fatigue and loading rules Drivers feeling pressured to continue in unsafe conditions to meet schedules Underreporting of near misses and minor incidents related to off-road driving Perception that 4WD skills are informal and do not need structured oversight or review 	3H	[REDACTED]	2M
13. Information, Signage, Mapping & Route Intelligence	<ul style="list-style-type: none"> Drivers entering challenging terrain without adequate maps or information on track conditions Outdated or inaccurate route information leading to exposure to unexpected hazards Lack of clear signage regarding speed limits, track closures and restricted areas on company-controlled lands Inadequate dissemination of local knowledge about rough terrain, seasonal hazards or previous incidents Overreliance on consumer GPS navigation systems that are unsuitable for off-road use 	3H	[REDACTED]	2M

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			[REDACTED]	
14. Regulatory Compliance, Documentation & Continuous Improvement	<ul style="list-style-type: none"> • Non-compliance with WHS Act 2011 due to inadequate risk management for 4WD operations • Poor documentation of risk assessments, training, maintenance and incident investigations • Lack of systematic review of 4WD risks and controls as operations or legislation change • Inability to demonstrate due diligence if a serious off-road incident occurs • Failure to incorporate industry best practice and lessons learnt into existing systems 	3H	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	2M

SAMPLE

EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES FOR ANY STATE THAT ARE NOT APPLICABLE

Queensland & Australian Capital Territory

Work Health and Safety Act 2011
 Work Health and Safety Regulations 2011
 Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>
 Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>
 Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>
 Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

Victoria

Occupational Health and Safety Act 2004
 Occupational Health and Safety Regulations 2017
 Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>
 Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

New South Wales

Work Health and Safety Act 2011
 Work Health and Safety Regulations 2025
 Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>
 Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

Western Australia

Work Health and Safety Act 2020
 Work Health and Safety Regulations 2022
 Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>
 Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011
 Work Health and Safety (National Uniform Legislation) Regulation 2011
 Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>
 Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

Safe Work Australia Links

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>
 Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

South Australia

Work Health and Safety Act 2012 (SA)
 Work Health and Safety Regulations 2012 (SA)
 Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>
 Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

Tasmania

Work Health and Safety Act 2012
 Work Health and Safety (Transitional and Consequential Provisions) Act 2012
 Work Health and Safety Regulations 2012
 Work Health and Safety (Transitional) Regulations 2012
 Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>
 Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.