

**Bogged Vehicle Recovery**

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			<b>Elimination</b> Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	<b>Substitution</b> 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.	<b>Engineering</b> 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:	
<b>4A</b>	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.
<b>3H</b>	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
<b>2M</b>	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
<b>1L</b>	Proceed, following standard operating procedures. Monitor and keep records.

  

Consequence Scale:			
Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
<b>Catastrophic</b>	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
<b>Major</b>	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
<b>Moderate</b>	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
<b>Minor</b>	First-aid only, no lost time	negligible delay	Isolated non-conformance
<b>Insignificant</b>	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. Governance, WHS Duties and Risk Management Framework	<ul style="list-style-type: none"> <li>Lack of clear organisational policy for bogged vehicle recovery leading to inconsistent and unsafe practices across sites and projects</li> <li>Failure to explicitly recognise bogged vehicle recovery as a high-risk activity within the WHS risk register and enterprise risk framework</li> <li>Inadequate understanding by officers of their due diligence duties under WHS Act 2011 regarding provision of safe systems for remote and vehicle recovery work</li> <li>Absence of a formal risk management procedure (identify–assess–control–review) specifically applied to vehicle recovery scenarios</li> <li>Poor integration of bogged vehicle recovery risks into contractor management and procurement processes</li> <li>No clear designation of responsibilities and accountabilities for officers, workers, contractors for planning and approving recovery operations</li> <li>Inadequate consultation with workers and health and safety representatives on practical risks and controls for vehicle recovery</li> <li>Failure to monitor and review incidents, near misses and lessons learned related to bogged vehicle events at an organisational level</li> </ul>	High	<ul style="list-style-type: none"> <li>Develop and approve a company-wide Bogged Vehicle Recovery Policy endorsed by senior management, explicitly referencing WHS Act 2011 duties and reasonably practicable control hierarchy</li> <li>Formally include bogged vehicle recovery as a distinct category in the enterprise WHS risk register and link it to remote work, plant, traffic, fatigue, and environmental hazards</li> <li>Establish a written WHS risk management procedure that requires structured risk assessments for vehicle recovery activities prior to authorising high-risk operations</li> <li>Define and document roles and responsibilities for planning, authorising, and supervising bogged vehicle recovery (e.g. line managers, project managers, HSE advisors, supervisors, workers, contractors)</li> <li>Require that all recovery plans for higher-risk locations (remote, flood-prone, soft sand, clay tracks) are reviewed and approved by a competent supervisor or manager before mobilisation</li> <li>Embed consultation obligations by requiring documented worker and HSR input into the design and periodic review of vehicle recovery systems and procedures</li> <li>Integrate bogged vehicle recovery risks and controls into contractor prequalification, contract clauses, and mobilisation requirements to ensure alignment with PCBU systems</li> <li>Implement an incident and near miss reporting standard that specifically tags bogging and recovery events, with mandatory root cause analysis for significant or repeat events</li> <li>Schedule periodic management reviews (e.g. quarterly) of bogged vehicle recovery performance data, including trends, non-conformances, and corrective actions</li> <li>Ensure WHS due diligence training for officers includes case studies on remote vehicle incidents and recovery failures, clarifying expectations for resourcing and oversight</li> </ul>	Medium
2. Vehicle and Recovery Equipment Procurement and Specification	<ul style="list-style-type: none"> <li>Procurement of vehicles not fit for purpose for expected terrain, loads, and environmental conditions, increasing likelihood of bogging and unstable recovery</li> <li>Lack of standardised specifications for four-wheel drive capability, ground clearance, tyres, recovery points and GVM for fleet and hired vehicles</li> </ul>	High	<ul style="list-style-type: none"> <li>Develop and enforce technical specifications for all vehicles used in areas where bogging risk exists, including four-wheel drive capability, ground clearance, tyre type, GVM, rated recovery points and underbody protection</li> <li>Establish standard specifications for recovery equipment (e.g. load-rated bow shackles, soft shackles, snatch straps, rated recovery hitches, winches, tree protectors, dampeners) aligned with relevant Australian Standards and manufacturer guidance</li> <li>Require engineering review or competent person verification of vehicle recovery attachment points and after-market recovery modifications before vehicles enter service</li> </ul>	Medium

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	<ul style="list-style-type: none"> <li>• Purchase or hire of inadequate, incompatible or uncertified recovery equipment (snatch straps, winches, shackles, tow points) without engineering verification</li> <li>• Use of low-quality or non-compliant after-market recovery modifications installed without proper design or load rating verification</li> <li>• No system to ensure that each operational vehicle is supplied with a minimum recovery kit, communication devices, and emergency equipment suitable for its risk profile</li> <li>• Inadequate procurement controls over short-term hire, spot purchases, and subcontractor-supplied vehicles and recovery gear</li> <li>• Failure to consider human factors (visibility, ergonomics, weight of equipment, manual handling demand when specifying recovery equipment</li> <li>• Lack of lifecycle planning for replacement and upgrade of vehicles and recovery equipment leading to continued use of obsolete or unsafe items</li> </ul>		<ul style="list-style-type: none"> <li>• Implement a procurement procedure that prohibits purchase or hire of vehicles and recovery gear that do not meet the documented technical specification and load rating requirements</li> <li>• Standardise minimum recovery kit contents per vehicle class and risk profile, and link this list to procurement catalogues and issue processes</li> <li>• Include requirements for compliant vehicle and recovery equipment in all contracts and hire agreements, with evidence of compliance required prior to mobilisation</li> <li>• Incorporate ergonomic and manual handling considerations into equipment selection, favouring lighter, modular or mechanical-assist solutions to reduce strain during deployment and stowage</li> <li>• Establish asset lifecycle and replacement criteria for vehicles and recovery equipment based on age, hours, condition, and maintenance history</li> <li>• Maintain an up-to-date register of approved makes, models, and configurations of vehicles and recovery gear authorised for use in bogged vehicle recovery</li> <li>• Conduct periodic procurement audits to verify that only specified and approved vehicles and recovery items are being purchased, hired, or supplied by contractors</li> </ul>	
3. Driver and Recovery Operator Competency, Training and Authorisation	<ul style="list-style-type: none"> <li>• Drivers and supervisors undertaking bogged vehicle recovery without formal competency-based training in four-wheel drive operations and recovery principles</li> <li>• Overestimation of driver skill and underestimation of risk, particularly for new or inexperienced workers and contractors</li> <li>• Lack of a structured authorisation system to limit high-risk recovery activities (e.g. snatch recoveries, double-line winching) to competent persons</li> <li>• Inadequate training in risk assessment, communication protocols and</li> </ul>	High	<ul style="list-style-type: none"> <li>• Develop a competency framework that defines specific skills and knowledge required for drivers, recovery operators and supervisors involved in bogged vehicle recovery</li> <li>• Implement accredited or structured training programs in four-wheel drive operation, vehicle dynamics, load ratings, recovery methods, and safe systems of work applicable to the organisation's conditions</li> <li>• Introduce an authorisation system (e.g. licence or endorsement) for higher-risk recovery tasks, with clear criteria for initial authorisation and currency (refresher frequency, logbook hours, assessments)</li> <li>• Ensure training covers WHS legal duties, stop-work authority, dynamic risk assessment, communication protocols, and emergency response for bogged vehicles</li> <li>• Mandate verification of training records and competencies for contractors, labour hire and temporary workers before they are permitted to participate in recovery planning or execution</li> <li>• Deliver scenario-based practical training that reflects local terrain (sand, mud, clay, floodplains, snow), climate, wildlife, and isolation risks</li> <li>• Integrate training on human and organisational factors, including fatigue, cognitive overload, peer pressure and production pressure, and their effect on decision-making during recoveries</li> </ul>	Medium

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	<ul style="list-style-type: none"> <li>emergency procedures specific to bogged vehicle incidents</li> <li>No verification of prior experience or currency of training for labour hire workers, temporary staff or contractors involved in recovery</li> <li>Failure to provide scenario-based training that incorporates local terrain, weather patterns, and site-specific hazards</li> <li>Absence of training in psychosocial factors such as pressure to self-rescue, fatigue, or time pressure during recovery attempts</li> <li>Ineffective assessment of on-the-job competence and unsafe informal techniques passed between workers without organisational oversight</li> </ul>		<ul style="list-style-type: none"> <li>Implement periodic field assessments and mentoring by competent supervisors to confirm that safe techniques are applied in practice and to correct unsafe customs</li> <li>Maintain a central register of trained and authorised personnel, linked to role profiles, scheduling, and mobilisation systems</li> <li>Review and update learning materials frequently based on incident investigations, technology changes, and feedback from workers and HSRs</li> </ul>	
4. Procedures, Safe Systems of Work and Recovery Planning	<ul style="list-style-type: none"> <li>Absence of a standardised procedure or safe system of work for bogged vehicle recovery across projects and locations</li> <li>Overly generic procedures that do not address specific conditions such as remote locations, extreme weather, night operations or flood-prone terrain</li> <li>Lack of clear escalation criteria for when self-recovery must cease and external assistance or emergency services must be called</li> <li>Safe work procedures not being integrated into daily planning tools such as job plans, journey plans, or task risk assessments</li> <li>Procedures written in complex or impractical language that does not reflect how work is actually undertaken in the field</li> <li>Failure to coordinate procedures between multiple PCBUs sharing a worksite, leading to conflicting expectations about recovery methods and authority</li> </ul>	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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	<ul style="list-style-type: none"> <li>Inadequate planning for secondary risks during recovery, such as working near other vehicles, live traffic, unstable ground, or water bodies</li> <li>No requirement to consider environmental and cultural heritage impacts of recovery routes and techniques (e.g. track damage, sacred sites)</li> </ul>		[REDACTED]	
5. Journey Management, Route Planning and Remote / Isolated Work	<ul style="list-style-type: none"> <li>Inadequate journey planning leading to vehicles entering unsuitable or high-risk terrain where recovery resources are unavailable or severely limited</li> <li>Drivers travelling alone in remote or isolated areas without effective communication, tracking or welfare checks during potential bogging conditions</li> <li>Lack of seasonal and weather-related planning (flooding, cyclones, fire danger, extreme heat) increasing likelihood of severe bogging and entrapment</li> <li>Failure to pre-identify safe turnaround points, alternative routes, or designated no-go zones for vehicles with limited off-road capability</li> <li>Poor coordination between multiple vehicles and teams leading to separation, miscommunication, and delayed assistance in an emergency incident</li> <li>Absence of clear instructions regarding maximum acceptable detours, off-track driving, or risk-taking to meet schedules or delivery deadlines</li> <li>Inadequate planning for supplies such as water, food, shelter and fuel in the event that a vehicle becomes bogged for an extended period</li> <li>No integration of journey management data with emergency response systems, making location and status of bogged vehicles difficult to verify quickly</li> </ul>	High	[REDACTED]	Medium



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	<p>resulting in missed learning opportunities</p> <ul style="list-style-type: none"> <li>• Tolerance of risk-taking behaviour such as driving beyond planned routes, unauthorised track creation, or using improvised recovery methods</li> <li>• Inconsistent enforcement of procedures and permits, undermining the credibility of the safety management system</li> <li>• Poor communication between shifts, crews and contractors about recent incidents, changed conditions or restricted areas</li> <li>• Limited positive reinforcement for conservative decision-making (e.g. choosing not to proceed or to wait for specialised recovery)</li> </ul>		<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	
8. Communications, Navigation and Technology Systems	<ul style="list-style-type: none"> <li>• Inadequate communications coverage (mobile, radio, satellite) leaving bogged drivers unable to call for assistance or provide accurate location details</li> <li>• Complex or unreliable communication equipment that workers are unfamiliar with, leading to misuse or non-use during emergencies</li> <li>• Lack of standardised communication protocols for declaring a bogging incident, requesting assistance and escalating emergencies</li> <li>• Absence of reliable navigation tools or mapping systems, increasing likelihood of vehicles entering unsuitable terrain or becoming disoriented</li> <li>• Failure of tracking or duress systems due to poor maintenance, battery management or network configuration</li> </ul>	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Low

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	<ul style="list-style-type: none"> <li>Insufficient redundancy in communications and navigation systems for remote and high-risk areas</li> <li>No systematic capture of location, time and conditions data from bogging events to inform future planning</li> <li>Over-reliance on consumer navigation apps that do not reflect current road closures, land access restrictions or site-specific hazards</li> </ul>		[REDACTED]	
9. Emergency Preparedness and Incident Response	<ul style="list-style-type: none"> <li>Lack of a coordinated emergency response plan that specifically addresses bogged vehicle scenarios in remote or hazardous environments</li> <li>Unclear criteria for when a bogged vehicle situation transitions from routine recovery to an emergency requiring medical or rescue response</li> <li>Insufficient training and drills in responding to prolonged vehicle entrapment, exposure to elements, or secondary incidents during recovery attempts</li> <li>Poor integration between corporate emergency plans and local emergency services capabilities, especially on private land or remote worksites</li> <li>Inadequate consideration of psychosocial impacts on workers involved in serious incidents (e.g. fatalities, rollovers during recovery)</li> <li>No structured debriefing or lessons learned process following serious bogging incidents or near misses</li> <li>Emergency equipment (first aid, stretchers, thermal blankets, trauma kits) not matched to the risks of remote bogging and difficult terrain</li> <li>Failure to factor in access limitations for recovery and emergency vehicles</li> </ul>	High	[REDACTED]	Medium



**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/factsheets-and-resources/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.