

Water Jetter

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 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. Governance, WHS Duties and Legal Compliance	<ul style="list-style-type: none"> Lack of clear WHS governance framework for water jetting activities leading to unmanaged high-risk work PCBU officers not adequately exercising due diligence regarding water jetting plant and systems of work Failure to identify water jetting as high-risk plant under WHS Regulation and relevant Australian Standards (e.g. AS/NZS 4233) Inadequate consultation with workers and health and safety representatives on water jetting risks and controls Absence of formal process to review incidents, near misses and legislative updates related to water jetting drains 	High	<ul style="list-style-type: none"> Establish and document a WHS governance structure that clearly allocates responsibilities for water jetter safety (PCBU, officers, managers, supervisors and workers) in line with WHS Act 2011 and WHS Regulation Explicitly recognise water jetting equipment as high-risk plant in the WHS management system and reference applicable standards (including AS/NZS 4233 and manufacturer instructions) Develop and implement a water jetting WHS policy and supporting procedures that require risk management, consultation, information sharing and ongoing review Implement a formal consultation process with workers and HSRs on water jetting hazards, proposed controls, changes to plant and review of incidents Establish a goal and standards register for water jetting, with scheduled reviews to ensure ongoing compliance with current WHS legislative codes of practice and relevant Australian Standards Require documented risk assessments and safe systems of work for all water jetting operations, covering drains and associated confined or restricted spaces, before work commences Include water jetter risks, responsibilities and expectations in WHS induction, toolbox talks and annual WHS refreshment programs Implement a management review process (e.g. quarterly) to analyse water jetting performance data, incidents and audit findings and to track corrective actions to completion 	Medium
2. Procurement, Design and Selection of Water Jetting Plant	<ul style="list-style-type: none"> Purchase of water jetters not fit for purpose for drain cleaning tasks (e.g. inadequate pressure, incompatible hoses or nozzles) Selection of equipment lacking essential safety features such as pressure relief, emergency stop, guarding and interlocks Failure to obtain or review manufacturer information, operating manuals and safety instructions at the time of procurement Incompatibility between jetter unit, hoses, guns, lances, nozzles and attachments leading to hose rupture or component failure Engagement of hire or subcontracted water jetting equipment without adequate verification of safety and compliance 	High	<ul style="list-style-type: none"> Implement a formal procurement procedure requiring WHS review before purchase, hire or lease of any water jetter or associated accessories Specify compliance with WHS Regulation, AS/NZS 4233 (or successor standard) and relevant Australian Standards as mandatory procurement criteria Require that water jetters used for drains include engineering controls such as pressure relief valves, properly rated hoses, whip-checks, guards, emergency stop systems and lockable isolation Ensure all accessories (hoses, nozzles, guns, reels, foot controls, control panels) are pressure-rated and compatible with the jetter system and intended drain cleaning pressures and flows Obtain, record and review manufacturer documentation (manuals, maintenance schedules, training requirements, limitations) before the equipment is introduced into service Include WHS and technical specialists in procurement decisions to verify suitability for drain jetting, including maximum pressure, flow rate and hose length limitations Ensure hire and subcontractor agreements specify safety performance requirements, inspection records, maintenance history and provision of up-to-date operating instructions Maintain an asset register of all water jetters and attachments, including unique ID, specifications, safe operating limits and location 	Medium

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
			[REDACTED]	
5. Procedures, Safe Systems of Work and Permits	<ul style="list-style-type: none"> Absence of formal procedures for water jetting drains leading to inconsistent and unsafe methods of work Reliance on informal knowledge and past practice rather than risk-based documented systems Lack of structured process to manage high-risk aspects such as working near live traffic, excavations or confined spaces Procedures not reflecting current plant, attachments, site conditions or legislative requirements Failure to coordinate water jetting activities with other contractors and trades on multi-contract sites 	High	[REDACTED]	Medium
6. Plant Maintenance, Inspection and Calibration Systems	<ul style="list-style-type: none"> Degradation or failure of hoses, couplings, reels or nozzles due to inadequate inspection and maintenance systems Bypassing or failure of safety devices such as pressure relief valves, emergency stops or guards Use of uncertified repairs or non-genuine parts affecting system integrity and pressure ratings Lack of scheduled maintenance leading to unpredictable failures and uncontrolled water release within drains or work areas 	High	[REDACTED]	Medium

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
	<ul style="list-style-type: none"> Failure to remove defective equipment from service promptly and track its repair status 		[REDACTED]	
7. Pre-Start Checks, Monitoring and Condition Verification	<ul style="list-style-type: none"> Systematic failure to identify defects before water jetting operations begin Normalisation of operating with minor leaks, damaged hoses or malfunctioning controls Inadequate recording and escalation of identified issues that affect plant safety Pre-start checks relying solely on memory, leading to inconsistent coverage of critical items Supervisors lacking visibility over the actual condition and maintenance of water jetters used on drains 	Medium	[REDACTED]	Low
8. Site Access, Traffic and Public Interface Management	<ul style="list-style-type: none"> Water jetting taking place in public areas, roads or car parks without appropriate systems to manage vehicle and pedestrian interaction Hoses crossing access ways, footpaths or driveways creating trip, entanglement and vehicle-strike hazards Insufficient planning for vehicle-mounted or trailer-mounted jetter positioning in tight or congested sites Poorly defined exclusion zones around drains, pits and hose entry points leading to persons entering high-risk areas 	High	[REDACTED]	Medium

SAMPLE

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
	<ul style="list-style-type: none"> Emergency services and third parties not being able to access the site effectively due to uncontrolled layout of vehicles, hoses and barriers 		[REDACTED]	
9. Environmental and Waste Management for Drain Jetting	<ul style="list-style-type: none"> Uncontrolled discharge of contaminated effluent, sediments, fats, oils or chemicals from drains into stormwater or the environment Failure to comply with local water authority, environmental regulator or council requirements for discharge and waste transport Inadequate systems for containment and disposal of debris dislodged by high-pressure jetting Lack of planning for noise and spray impacts on neighbouring properties or sensitive receptors Spills or leaks of fuel, oils or chemicals associated with the jetter unit and ancillary equipment 	High	[REDACTED]	Medium
10. Emergency Preparedness, Incident Response and First Aid	<ul style="list-style-type: none"> Delayed or ineffective response to high-pressure injection injuries, eye facial trauma and lacerations Lack of clear escalation and communication processes for major equipment failures or flooding incidents during drain jetting Inadequate preparation for rescue or retrieval where drains interface with confined spaces or deep pits Poor recording and investigation of incidents and near misses preventing learning and system improvement First aiders not trained in the specific nature and urgency of high-pressure water injection injuries 	High	[REDACTED]	Medium

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
			[REDACTED]	
11. Contractor, Subcontractor and Client Interface Management	<ul style="list-style-type: none"> • Inconsistent safety standards between the PCBU and contractors undertaking water jetting of drains • Lack of clarity over who controls the work area and who is responsible for managing specific risks • Inadequate sharing of information about site hazards, underground services and drainage system condition • Subcontractors using different jetting equipment or methods without integration into the principal WHS management system • Failure to verify contractor competence, training and maintenance systems for their water jetters 	High	[REDACTED]	Medium
12. Health Monitoring, PPE Policy and Exposure Controls	<ul style="list-style-type: none"> • Inadequate organisational controls for selecting and enforcing appropriate PPE for high-pressure drain jetting • Exposure to biological contaminants, sewage, chemicals and aerosols released from drains during jetting • Inconsistent use of eye and face protection leading to increased risk of eye injuries from high-velocity debris • Lack of systems to manage fatigue, thermal stress and noise exposure for operators and offsideers • No structured approach to vaccination or health advice where workers are regularly exposed to sewage or contaminated effluent 	High	[REDACTED]	Medium

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
			[REDACTED]	
			[REDACTED]	

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.