Sewer and Drain Cleaner			
Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

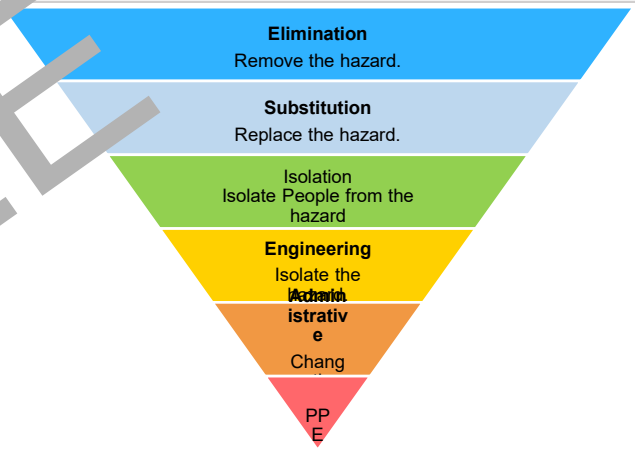
THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE PROJECT		
Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.		
Full Name:		
Signature:	Title:	Date:

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
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE		
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Rev before work
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACU	2M MO RATE	Ensure control measures in place.
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 H	1L LOW	Monitor and keep records.

HIERARCHY OF CONTROLS



Risk Rating & Required Action:

4A	Stop work. The risk is intolerable. E inate the hazar redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or hi er-level authorisati is required.
3H	Review and approve additional c rols b ask arts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in ace and effe ive. 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. WHS Governance, Legal Compliance and Consultation	• Lack of documented WHS management system aligned with WHS Act 2011 and relevant Regulations for sewer and drain cleaning activities • Inadequate consultation with workers and health and safety representatives (HSRs) about risks associated with civil drain clearing, sewer blockage clearing and use of mechanical drain cleaners • Failure to identify and manage legal duties around confined spaces, hazardous chemicals, high pressure water jetting and plant • No formal WHS objectives, KPIs or management review process specific to sewer and drain cleaning operations • Poor integration of contractor management into the organisation's WHS system for plumbing, drain re-lining and stormwater drain unblocking work	High	• Develop, implement and maintain a documented WHS Management System that explicitly references duties under the WHS Act 2011 and WHS Regulation (including Confined Spaces, Hazardous Chemicals, Plant and PPE sections) for sewer and drain cleaning operations • Establish a formal WHS Governance framework including a WHS policy signed by senior management, clear responsibilities for officers, PCBUs, workers and contractors, and specific authority for sewer and drainage line work • Implement structured worker consultation arrangements (e.g. HSRs, WHS committees, toolbox talks) covering key risk areas such as drain cleaning machine – cable, drain cleaning machine – water jet, chemical use (e.g. MOMAR), confined space entry, drain cleaning and gross pollutant trap cleaning • Maintain a formal and standards register identifying applicable legislation, codes of practice (e.g. Confined Spaces, Hazardous Chemicals, Managing the Risk of Plant in the Workplace) and Australian Standards relevant to drain and sewer work, and review it at least annually • Introduce a scheduled WHS management review process (e.g. six-monthly) where senior management reviews incident trends, audit findings and risk assessments specific to clearing blocked drains and sewer blockage cleaning and allocates resources to address gaps • Ensure all sewer and drain cleaning contracts, work orders and service level agreements include explicit WHS requirements, including compliance with the organisation's WHS system, permit to work processes and reporting obligations	Medium
2. Risk Management, Planning and Job Authorisation	• Absence of formal risk assessments for sewer and drain cleaning activities (including use of mechanical drain cleaners, cable machines and water jetting units) • No standard process for assessing site-specific conditions such as traffic, public access, ground stability, contaminated water, sewage and stormwater flows • Inadequate planning for simultaneous operations (e.g. multiple crews clearing blocked drains and working near mobile plant in civil drainage projects) • Poorly controlled variations and scope changes during plumbing drain re-lining or stormwater drain unblocking • Lack of formal permit to work or authorisation for high-risk activities such as confined space entry, work in pits and	High	• Implement a documented risk management procedure that mandates formal risk assessments for all sewer and drain cleaning tasks, including civil drain clearing, use of mechanical drain cleaners and high pressure water jetting • Develop standardised risk assessment templates and guidance notes tailored to sewer and drainage work (e.g. prompts for sewage exposure, traffic interfaces, contaminated atmospheres, collapse of pits or trenches, uncontrolled water flow and stored energy in cables) • Introduce a job planning and authorisation system where higher-risk work (e.g. clearing blocked sewers with chemical MOMAR, confined space entry into manholes, gross pollutant trap cleaning) requires supervisor review and sign-off prior to commencement • Establish a permit to work framework for confined space entry, isolation of services, hot work, and high-risk excavation associated with accessing buried drains and sewers, and ensure permits are only issued by competent authorised persons • Require pre-job planning meetings or toolbox talks for complex jobs (e.g. large civil drainage systems, multi-crew sewer blockage clearing) to coordinate sequencing, exclusion zones, traffic management and emergency arrangements • Introduce a formal variation management process where any change to method (e.g. switching from mechanical to chemical clearing, or adding water jetting) triggers a review of the risk assessment and, where necessary, re-authorisation	Medium

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	shafts, or hot work associated with re-lining systems		• Maintain records of all risk assessments, permits and job authorisations and periodically review them for trends and opportunities to improve controls	
3. Procurement and Management of Plant, Equipment and Tools	• Procurement of drain cleaning machines, cables, water jetters, vacuum units and other plant that are not fit for purpose or not compliant with Australian Standards • Lack of engineering controls on water jetting equipment leading to uncontrolled high-pressure release, hose whip or injection injuries • Inadequate guarding, emergency stop functions or isolation capabilities on mechanical drain cleaners and rotating cable machines • Use of non-intrinsically safe or unsuitable electrical equipment in wet, confined or potentially explosive sewer environments • No formal system for plant registration, commissioning, decommissioning and disposal for major sewer and drain cleaning plant	High	• Implement a formal plant procurement procedure that requires verification of compliance with relevant Australian Standards and codes, manufacturer specifications and suitability for sewer and drain cleaning applications before purchase or hire • Specify minimum safety features in procurement documents for drain cleaning plant including guards, emergency stop devices, interlocks, pressure relief valves, hose restraint systems, dead-man controls and lockable isolation points • Require documented commissioning checks for new or hired equipment (e.g. water jetters, cable machines, vacuum units) including verification of pressure ratings, safety devices, electrical safety, and compatibility with existing systems • Maintain a central plant register for all sewer and drain cleaning equipment, including serial numbers, safe operating limits, inspection intervals, maintenance history and any modifications • Prohibit unauthorised modifications to plant and establish an engineering change control process where any alterations are risk assessed, approved by a competent person and documented • Ensure electrical equipment used in wet, sewer or stormwater environments (including pumps, lights and inspection cameras) meets appropriate IP ratings and, where necessary, hazardous area requirements; maintain test and tag regimes • Include clear WHS performance and maintenance obligations in hire agreements for third-party plant and verify compliance prior to and during use	Medium
4. Maintenance, Inspection and Calibration Systems	• Lack of preventative maintenance leading to failure of drain cleaning machines, water jetting units, hose systems and lifting gear during operation • Unreliable pressure gauges, relief valves and control systems on water jetting equipment resulting in over-pressurisation risks • Worn, damaged or incorrectly sized cables, hoses and fittings increasing likelihood of snap, burst or hose whip • Failure to identify corrosive damage from sewer environments on metal plant, vehicles or structural components of gross pollutant trap cleaning equipment • Inadequate inspection and testing of gas detection instruments used around sewers and enclosed drainage structures	High	[redacted]	Low

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			[redacted]	
5. Hazardous Chemicals and Chemical Drain Cleaning Management	• Uncontrolled use of chemical drain cleaners (including MOMAR products) causing chemical burns, inhalation exposure, toxic gas generation or violent reactions with existing substances in drains and sewers • Inadequate chemical labelling, storage and segregation leading to incompatible materials being mixed during drain clearing activities • Lack of up-to-date Safety Data Shee (SDS) and absence of site-specific procedures for chemical use in sewer and stormwater system • Improper disposa chemical residues and contaminated ater from ging drainage systems environmental harm and regulatory non-compliance • Inadequate training and ency in hazardous chemical risk management for workers and supervisors	h	[redacted]	Medium
6. Confined Space, Atmospheric and Biological Risk Management	• Unidentified confined spaces in sewer systems, manholes, pits and gross pollutant traps, leading to entry without adequate controls • Atmospheric hazards including low oxygen, toxic gases (e.g. hydrogen sulphide, methane), flammable	High	[redacted]	Medium

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	atmospheres and chemical vapours from cleaning agents • Biological hazards from sewage, stagnant water and decomposing matter causing infection, illness or disease • Inadequate gas monitoring systems or failure to calibrate and bump-test instruments used in sewer and drainage environments • Lack of emergency response planning and rescue capability for workers engaged in sewer blockage clearing and open drain cleaning		[redacted]	
7. Worker Competency, Training and Supervision	• Workers operating mechanical drain cleaners, cable machines and water jetters without adequate training or verification of competen • Supervisors lacki technical knowledge of sew and drainag systems, leading t or ight high-risk tasks such as stormwater d n unblocking and plumbing drain re-li g • Insufficient training in h recognition for biological, chemical, atmospheric and high-pressure risks associated with sewer work • No structured induction for new workers and contractors covering the specific risks of sewer and drain cleaning • Inadequate literacy, language or numeracy support resulting in workers not understanding procedures, permits or safety information	High	[redacted]	Medium

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			[redacted]	
8. Safe Systems of Work, Procedures and Work Instructions	• Absence of standardised safe systems of work for activities such as clearing blocked drains, sewer blockage clearing, gross pollutant trap cleaning and open drain cleaning • Inconsistent work practices between crews and contractors, leading to uncontrolled variation and increased likelihood of incidents • Procedures that are overly generic, out of date or not tailored to specific plant types (e.g. cable versus water jet drain cleaners) • Failure to integrate administrative controls such as exclusion zones, barricading and traffic management int routine sewer and drainage workflows • Reliance on informal [redacted]structions rather than controlle[redacted] accessible documentation	High	[redacted]	Medium
9. PPE Programs and Hygiene Management	• Inadequate or inconsistent use of PPE leading to exposure to sewage, contaminated water, chemicals, noise, and high-pressure water spray • Poor PPE selection not matched to hazards (e.g. incorrect glove type for chemical drain cleaners, insufficient eye and face protection for water jetting) • Lack of systems for cleaning, storage and replacement of PPE contaminated by sewage and chemicals • Insufficient hygiene facilities and practices leading to ingestion or	High	[redacted]	Medium

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	cross-contamination from sewer work to vehicles, lunchrooms or homes • No monitoring of heat stress, hydration or manual handling support for workers in heavy PPE during civil drain clearing in hot environments		[redacted]	
10. Traffic, Public Interface and Site Security Management	• Uncontrolled interaction between sewer and drain cleaning activities and live traffic near roads, car parks and public areas • Members of the public entering work zones around open drains, manholes, pits and gross pollutant traps • Inadequate traffic management plans when clearing blocked drains in civil road corridors or near pedestrian routes • Poor vehicle and plant movement controls in depots, treatment facilities and job sites leading to collisions or run-overs • Insufficient lighting and signage for night or low-visibility sewer blockage clearing and stormwater drain unblocking	High	[redacted]	Medium
11. Contractor, Labour Hire and Subcontractor Management	• Contractors conducting sewer and drain cleaning without aligning to the organisation's WHS standards or procedures • Poor communication of hazards, control measures and emergency arrangements to subcontractors	High	[redacted]	Medium

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	performing open drain cleaning or plumbing drain re-lining • Inadequate verification of contractor competency, licences and insurances for specialised tasks such as high pressure water jetting and confined space work • Overlapping duties and unclear responsibilities between PCBUs leading to gaps in risk control implementation • Inconsistent incident reporting, investigation and lessons-learned sharing across contractor workforce		[redacted]	
12. Emergency Preparedness, Incident Management and Recovery	• Lack of planning for emergencies specific to sewer and drain cleaning, such as gas exposure, engulfment, collapse, high pressure injection, chemical splash or public fall into open drains • Inadequate communication systems for remote or dispersed drainage worksites, delaying emergency response • No clear procedures for spill response and containment when using chemical drain cleaners or when sewage overflows occur • Poor incident reporting and investigation culture leading to repeat events and missed learning opportunities • Absence of post-incident support for workers exposed to traumatic events (e.g. serious injuries, deaths, exposure to decomposed remains in sewers)	High	[redacted]	Medium

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			[redacted]	
13. Health Monitoring, Fatigue and Wellbeing Management	• Chronic exposure to sewage-borne pathogens, chemicals and noise without systematic health monitoring • Fatigue from irregular hours, emergency call-outs for sewer blockage clearing and extended shifts during storm events • Musculoskeletal strain from repetitive handling of hoses, cables, lids and equipment used in drain cleaning • Psychological stress from working in unpleasant environments, dealing with the public and responding to high-pressure service demands • Inadequate systems to identify and support workers with health conditions that may be aggravated by sewer and drain cleaning work	High	[redacted]	Medium
14. Monitoring, Audit and Continuous Improvement	• Failure to detect [redacted] and drain cleaning [redacted] • Inaccurate or incomplete WHS [redacted] limiting the organisation's [redacted] manage risk effectively • Lack of systematic review of incidents, near misses and non-conformances related to sewer blockage clearing and drain maintenance • No mechanism to capture and implement worker feedback on safety issues and improvement opportunities • Complacency due to long periods without serious incidents leading to erosion of safety standards	Medium	[redacted]	Low

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			[redacted]	

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

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-of-codes-of-practice

Northern Territory
Work Health and Safety (National Uniform Legislation) Act 2011
Work Health and Safety (National Uniform Legislation) Regulations 2011
Legislation NT: https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws
Codes of Practice NT: https://worksafe.nt.gov.au/forms-and-resources/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

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.

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

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

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

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