

Plumbing Temporary Services Connection

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. WHS Governance, Roles and Legislative Compliance	<ul style="list-style-type: none"> Lack of clear allocation of WHS responsibilities for temporary plumbing services connection activities Inadequate understanding of WHS Act 2011 and WHS Regulations duties by PCBUs, officers and supervisors Failure to identify temporary plumbing connections as construction work and apply construction-specific WHS requirements Insufficient oversight of contractor compliance with site WHS management plans and client requirements Poor integration of plumbing temporary services risks into overall project risk management framework 	4A	<ul style="list-style-type: none"> Establish and document a WHS governance structure that clearly defines PCBUs, officers, supervisors and workers' duties in relation to temporary plumbing services connections Ensure officers exercise due diligence by verifying that resources, processes and competent personnel are in place to manage risks arising from connecting water supply, cross-connection control and foul sewer connections Integrate plumbing temporary services connection risks into the project WHS management plan, risk register and design risk assessments Require all subcontractors performing temporary plumbing services to provide project-specific WHS management documentation aligned with the WHS Act 2011 and relevant Australian Standards (e.g. AS/NZS 3500 series) Implement a periodic WHS governance review (e.g. quarterly) to confirm legal compliance, update processes and address audit findings related to temporary plumbing services Include temporary plumbing services WHS responsibilities and legislative requirements in supervisor and project engineer position descriptions and performance measures 	2M
2. Design Management and Temporary Services Engineering	<ul style="list-style-type: none"> Poor design of temporary water and sewer systems leading to cross-connection or contamination risk Inadequate design documentation for temporary services, resulting in ad hoc field modifications Failure to design sufficient capacity for peak construction water use leading to system overloading Lack of engineering assessment for backflow prevention and pressure management Insufficient coordination with permanent services design, causing unsafe tie-ins or rework under time pressure 	4A	<ul style="list-style-type: none"> Require temporary plumbing services (water, cross-connection control, foul sewer) to be designed or reviewed by a suitably qualified and competent designer or hydraulic engineer Develop formal design documentation for temporary networks, including schematics, pressure calculations, backflow prevention locations and discharge paths to foul sewer Ensure temporary services design complies with relevant Australian Standards (e.g. AS/NZS 3500, AS/NZS 2845 for backflow prevention) and authority requirements Implement a design review and approval process involving the principal contractor, hydraulic engineer and licensed plumber before installation commences Coordinate temporary and permanent services through design coordination meetings and clash detection, ensuring planned safe tie-in, isolation and decommissioning strategies Maintain a controlled revision system for temporary services drawings so field changes are formally assessed for WHS impact and approved before implementation 	2M
3. Authority Liaison and Network Interface Management	<ul style="list-style-type: none"> Unauthorised connection to water authority or sewer infrastructure Incorrect information about network pressure, flow and sewer capacity leading to overload or surcharge Poor communication with water authority regarding backflow prevention and metering requirements 	3H	<ul style="list-style-type: none"> Establish a documented procedure for managing interfaces with water and sewer authorities, including approval pathways and technical requirements for temporary connections Obtain all necessary permits, approvals and service diagrams from relevant utilities prior to installation of temporary water and sewer connections Formally confirm authority requirements for backflow devices, metering, discharge limits and trade waste conditions and incorporate them into design and work planning 	2M

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	<ul style="list-style-type: none"> Failure to obtain and comply with permits or connection approvals Lack of clarity about responsibility boundaries between site and water/sewer authority assets 		<ul style="list-style-type: none"> Maintain contact records and documented correspondence with authorities regarding any changes to connection points, capacities or operating conditions Define and document responsibilities and demarcation points between authority assets and site infrastructure, including isolation provisions and emergency contact details Include authority-specific conditions and connection constraints in the project risk register and induction materials for relevant supervisors and contractors 	
4. Contractor Competency, Licensing and Supervision	<ul style="list-style-type: none"> Use of unlicensed or inadequately licensed plumbers for temporary water and sewer connections Inadequate supervision of apprentices or labourers performing critical connection tasks Poor competence in cross-connection control and backflow prevention practices Lack of familiarity with local authority and Australian Standard requirements for temporary installations Over-reliance on a single competent person leading to gaps during absence or turnover 	3H	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	1L
5. Systematic Planning of Temporary Water Supply Connections	<ul style="list-style-type: none"> Unplanned tapping into existing water lines causing uncontrolled water release or pressure fluctuations Inadequate isolation planning leading to inadvertent water supply disruption to occupied areas Poor planning for pressure management resulting in pipe bursts or fittings failure Insufficient consideration of contamination risks during cut-in to potable water systems Lack of staged planning for temporary to permanent switchover increasing rework and time pressure 	4A	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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6. Cross-Connection and Backflow Risk Management System	<ul style="list-style-type: none"> Uncontrolled cross-connection between potable water and non-potable or contaminated sources Failure of backflow prevention devices due to poor selection, installation or maintenance Inadequate identification of high hazard zones (e.g. connection to construction tanks, pumps, chemical dosing equipment) Lack of systematic verification of backflow devices after installation or modification Temporary cross-connection arrangements (e.g. hoses, manifolds) bypassing permanent controls 	4A	[REDACTED]	2M
7. Foul Sewer Connection and Discharge Management	<ul style="list-style-type: none"> Connection to incorrect sewer line (e.g. stormwater instead of foul sewer) causing environmental harm and regulatory breaches Overloading of existing foul sewer system causing spillage, spills or backflow into buildings or private Release of untreated or contaminated construction wastewater (e.g. sediment, concrete washout, chemicals) into foul sewer beyond authorised limits Exposure of workers to sewage, pathogens and hazardous atmospheres during connection or inspection activities Lack of controls for accidental discharge during testing, flushing or dewatering activities 	4A	[REDACTED]	2M
8. Asset Identification, Labelling and Documentation	<ul style="list-style-type: none"> Misidentification of temporary versus permanent water and sewer infrastructure leading to incorrect isolation or tie-in 	3H	[REDACTED]	1L

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	<ul style="list-style-type: none"> • Unmarked or poorly labelled pipework increasing the risk of unintentional cross-connection • Loss of configuration control when temporary layouts change but documentation is not updated • Difficulty in locating isolations and backflow devices during emergencies • Workers and contractors unaware of the presence or status (live/dead) of temporary services 		[REDACTED]	
9. Isolation, Lock-Out and Change Management for Temporary Services	<ul style="list-style-type: none"> • Uncontrolled energisation or pressurisation of water lines during modification or tie-in works • Inadvertent isolation of essential services (e.g. firefighting water, amenities) during construction activities • Changes to temporary services configuration implemented without formal risk review • Removal or bypassing of valves and backflow devices without authorisation • Inadequate communication on isolation status leading to multiple parties working at cross purposes 		[REDACTED]	2M
10. Inspection, Testing, Commissioning and Quality Assurance	<ul style="list-style-type: none"> • Undetected leaks, cross-connections or blockages due to inadequate testing regimes • Reliance on informal visual checks instead of documented commissioning procedures • Backflow devices not tested or certified after installation or modification • Temporary services placed into use without sign-off from competent persons 	3H	[REDACTED]	1L

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	<ul style="list-style-type: none"> Inadequate recording of test results leading to difficulty tracing system failures 		[REDACTED]	
11. Monitoring, Maintenance and Degradation Management	<ul style="list-style-type: none"> Progressive deterioration of temporary pipework, hoses, supports and fittings leading to bursts or leaks Accumulation of sediment or debris in sewer lines causing blockages and overflows Backflow device failure due to lack of periodic testing and maintenance Unreported minor leaks leading to slip hazards, water damage or undermining of excavations Temporary systems left in operation beyond intended design life without reassessment 	3H	[REDACTED]	2M
12. Training, Information, Instruction and Consultation	<ul style="list-style-type: none"> Workers unaware of the risks associated with possible water contamination and sewer exposure Supervisors lacking knowledge of the site-specific temporary services layout and critical controls Inadequate consultation with workers leading to unreported hazards and near misses Misunderstanding of authority requirements and site procedures for temporary connections Language or literacy barriers affecting comprehension of signage and procedures 	3H	[REDACTED]	1L
13. Emergency Preparedness and	<ul style="list-style-type: none"> Uncontrolled release of water causing flooding, electrical contact or structural damage 	4A	[REDACTED]	2M

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Incident Response for Plumbing Failures	<ul style="list-style-type: none"> • Sewage spills resulting in exposure to biological contaminants and environmental harm • Delayed isolation and clean-up due to lack of clear emergency procedures • Inadequate availability of spill response equipment for water and sewage incidents • Poor coordination between site management, authorities and emergency services during major failures 		[REDACTED]	
14. Environmental and Public Health Interface Management	<ul style="list-style-type: none"> • Contamination of public or neighbouring potable water supplies through backflow or cross-connection • Discharge of contaminated construction water or sewage to the environment or stormwater system • Odour, noise or visual amenity impacts from temporary sewer infrastructure affecting nearby residents/businesses • Spread of pathogens or vectors due to poorly managed sewage leaks or overflows • Negative regulatory or community response due to inadequate incident management 	3H	[REDACTED]	2M
15. Interface with Other Trades, Services and Construction Activities	<ul style="list-style-type: none"> • Damage to temporary pipes and sewer lines by earthworks, cranes or other trades' activities • Uncoordinated layout of temporary services creating trip hazards and access obstructions 	3H	[REDACTED]	2M

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	<ul style="list-style-type: none"> Conflicts between temporary plumbing routes and electrical, fire or mechanical systems Unplanned shutdowns of water or sewer affecting amenities, hygiene and welfare facilities Lack of clarity about responsibility for protecting and relocating temporary services during staging changes 		<div style="background-color: black; height: 15px; width: 100%;"></div>	

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.