Plumbing Installation and Repairs			
Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

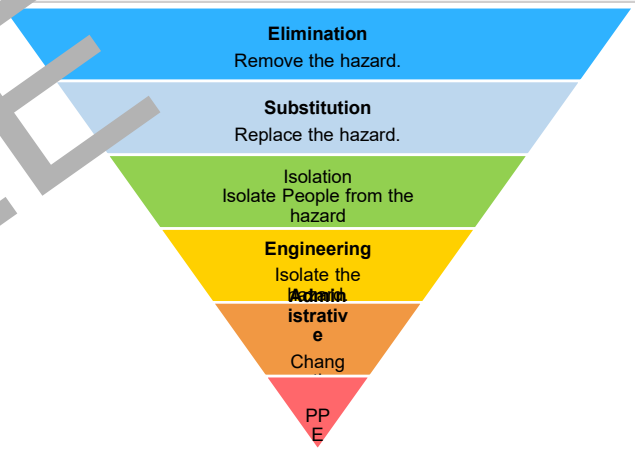
THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE PROJECT		
Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.		
Full Name:		
Signature:	Title:	Date:

CLIENT OR PRINCIPAL CONTRACTOR DETAILS	SCOPE OF WORKS
Client:	
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 Management, Governance and Legal Compliance	• Absence of a documented WHS Management System aligned with WHS Act 2011 and WHS Regulations • Inadequate WHS policy implementation and communication across plumbing operations • Lack of clear WHS objectives, targets and performance indicators for plumbing work • Poor integration of WHS duties into business decisions (quoting, scheduling, procurement) • Failure to monitor changes in legislation, Australian Standards and Codes of Practice relevant to plumbing • Unclear allocation of WHS duties between PCBUs, officers, supervisors, workers and subcontractors • No formal consultation and issue-resolution procedure with worker and Health and Safety Representatives • Inadequate systems to verify licences, registrations and insurances (plumbing licence, high risk work, contractor licence) • Failure to maintain a current WHS Risk Register for plumbing activities (installations, maintenance, call-outs)	4A	• Establish, implement and maintain a WHS management system consistent with WHS Act 2011, WHS Regulations and AS/NZS ISO 45001 • Develop a written WHS policy endorsed by officers, communicated to all workers and included in induction materials • Document WHS responsibilities for officers, managers, supervisors, leading hands and workers within position descriptions and contracts • Maintain a legal and standards register for relevant plumbing legislation, Codes of Practice and Australian Standards, reviewed at least annually • Integrate WHS risk assessment and consultation into business planning, tendering, project start-up and change management processes • Implement a formal consultation procedure with toolbox talks, pre-start meetings and opportunities for workers to raise WHS issues • Maintain and regularly review a WHS Risk Register specific to plumbing installation, maintenance and call-out activities • Establish governance meetings (e.g. monthly WHS committee or management review meeting) to review incidents, audit findings and WHS KPIs • Implement a documented process to verify and record licences, registrations, VOCs and insurances for employees and subcontractors • Ensure officers receive due diligence training so they understand and can fulfil their WHS governance obligations	3H
2. Competency, Training and Licence Management	• Workers undertaking plumbing installation and repairs without current plumbing trade qualifications or state/territory licences • Inadequate competency for specialised tasks such as thermostatic mixing valve (TMV) work, hot water system installation, backflow prevention and gas fitting (where applicable) • Lack of training in WHS responsibilities, risk assessment and safe work procedures for plumbing	4A	• Implement a competency and training matrix covering all plumbing roles, tasks and locations, including installations, maintenance and emergency call-outs • Verify and record current plumbing licences, high-risk work licences and any specialist certifications prior to allocation of relevant work • Develop and maintain documented training modules for WHS induction, risk assessment, permits, isolation procedures and incident reporting • Provide task-specific training and VOC for equipment such as force pumps, pressure testing gear, elevated work platforms, power tools and pipe threading machines • Deliver working at heights training for workers required to perform high-level water heater installation or other elevated plumbing tasks	2M

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	• Insufficient training in working at height for tasks such as installing showerheads at a height, roof-mounted water heaters or high-level pipework • Inadequate training in confined space awareness for sewer system and underfloor service work • No formal verification of competency (VOC) for the use of power tools, force pumps and specialised plumbing equipment • Failure to provide refresher training on hazardous manual tasks, silica dust, asbestos awareness and traffic management • Poor supervision and mentoring of apprentices and new starters performing general plumbing repairs or call-outs • Inadequate instruction on system-level procedures (isolation, testing and commissioning, potable water system maintenance, preventing water leaks)		• Provide confined space awareness training and, where relevant, full confined space training for workers involved in sewer systems and underfloor services • Schedule regular refresher training on hazardous manual tasks, PPE use, silica dust and asbestos awareness in plumbing contexts • Assign competent supervisors to oversee apprentices and less experienced workers, with documented supervision ratios and sign-off processes • Ensure plumbers performing TMV, backflow prevention and hot water system commissioning hold appropriate endorsements and are recorded in the training matrix • Evaluate training effectiveness through on-the-job observation, audits and review of incident and near-miss data	
3. Planning, Design Review and Job Scoping	• Insufficient pre-job planning for plumbing installations, repairs and maintenance, leading to rushed or unsafe work • Lack of coordination with designers, builders and clients regarding underfloor services before concrete pour, causing rework and service conflicts • Poor identification of service locations, depths and clearances for potable water, sewer and gas, leading to clashes or damage to existing services • Inadequate assessment of structural integrity for sink foundations, toilet installation and fixture replacement • Failure to consider WHS requirements in design decisions (e.g. locating hot water systems at inaccessible heights, poor access to valves and meters) • No process to evaluate high-risk elements such as relocating sewer,	4A	• Implement a formal job scoping process for all plumbing projects, including maintenance and call-outs, that requires hazard identification and WHS planning before work commences • Introduce a design review procedure to assess accessibility, isolation, future maintenance and safe installation of water heaters, meters and sanitary fixtures • Use service coordination meetings and drawings to confirm routing and clearances for underfloor services before concrete pour and other embedded services • Require pre-start review of existing services information (dial-before-you-dig, as-built plans, CCTV sewer inspections where applicable) • Include WHS requirements (access, working space, clearances, isolation points) in project scopes of work and contract documentation • Adopt a formal change management process for variations such as relocating sewers or altering fixture layouts, including updated risk assessments • Plan for water isolation, diversion or temporary supply arrangements during major repairs such as fixing burst mains and replacing meters • Ensure coordination with principal contractor on site rules, access controls, emergency procedures, amenities and overlapping duties	2M

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	repairing sanitary plumbing stackwork or temporary water installations • Inadequate planning for isolation of mains during burst main repairs and water meter installations, leading to uncontrolled water release • Lack of consultation with the principal contractor about site-specific WHS arrangements, inductions and emergency plans		• Incorporate specific planning requirements for testing and commissioning activities, including pressure testing, TMV calibration and flow checks	
4. Procurement of Materials, Fixtures and Equipment	• Purchasing substandard or non-compliant plumbing materials, fixtures and appliances not meeting Australian Standards or WaterMark requirements • Acquiring tools and force pumps without adequate safety features or guarding • Use of incompatible materials in potable water systems, risking contamination or accelerated corrosion • Inadequate consideration of manual handling when procuring fixtures (e.g. water heaters, pans, cisterns, sinks) • Selection of hot water systems or boiling water units that are difficult to access for safe installation, service and repair • Insufficient specification of requirements for secure sink foundations and fixture support in the procurement process • Lack of standardisation of plumbing fittings and components, increasing complexity and error rates during installation and repairs	H	[redacted]	2M
5. Plant, Tools and Equipment Management	• Lack of systematic inspection and maintenance of force pumps, pressure testing rigs and plumbing tools • Use of defective or untested electrical tools without RCD protection during	4A	[redacted]	2M

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	general plumbing repairs and installations • Inadequate control of high-pressure testing equipment leading to hose failure, component rupture or unintentional water discharge • No tagging and tracking system for equipment calibration (e.g. pressure gauges, TMV testing devices, flow measurement equipment) • Improvised or unsuitable tools used for stubborn or seized fixtures, increasing risk of sudden release, laceration or musculoskeletal injury • Inadequate storage and transport arrangements for tools, leading to damage or unavailability during critical repairs • Failure to maintain guards, safety interlocks and emergency stop features on mechanical equipment • Poor management of hose routing and trip hazards around testing and commissioning activities		[redacted]	
6. Isolation, Permits and Energy Control (Water, Gas, Electrical Interfaces)	• No formal system to isolate and verify isolation of water mains, hot water systems and pumps during installation and repair • Uncontrolled release of water pressure when fixing burst mains, repairing leaks or replacing meters • Inadequate coordination with electricians or gasfitters when working on hot water system installation or replacement of boiling water units • Failure to identify and manage residual energy (pressure, temperature) in hot water systems and TMVs prior to service • Absence of permit-to-work arrangements for high-risk activities (e.g. work on shared risers, main building services, or in plant rooms)	4A	[redacted]	2M

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	• Inadequate communication with clients and occupants regarding isolation of services, leading to unintended use during work			
7. Working at Height, Access and Fall Prevention	• Inadequate systems for managing work at height during water heater installation on roofs, high-level pipework and installing showerheads at a height • Reliance on inappropriate access equipment (e.g. domestic ladders) for recurring plumbing tasks • Lack of planning for safe access routes to elevated plant rooms, rooftops and high-level service zones • Insufficient inspection and maintenance of ladders, scaffolds and elevated work platforms used by plumbers • Poor control of falling objects (tools, fittings, offcuts) during overhead plumbing works • Inadequate emergency rescue planning for height-relat dents	4A	[redacted]	2M
8. Hazardous Manual Tasks and Materials Handling	• Repetitive lifting d awkward handling of water heaters, pans sinks and pipe bund • Awkward postures when working der benches, in cupboards, ceiling ces or trenches during general plumbing repairs • High force exertion when handling stubborn or seized fixtures, valves and fittings • Poor planning for transport and handling of materials for underfloor services and sewer relocation works • Lack of mechanical aids or team-lift planning for heavy or bulky items like hot water units and boiling water units	3H	[redacted]	2M

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	• Inadequate training on safe manual handling techniques specific to plumbing tasks			
9. Exposure to Hazardous Substances, Biological and Environmental Hazards	• Exposure to sewage, greywater and bio-aerosols during sewer repairs, stackwork replacement and clearing blockages • Potential exposure to asbestos-containing materials when working on older buildings during fixture replacement and pipe rerouting • Silica dust exposure from chasing walls, cutting concrete for underfloor services or sink foundations • Risk of Legionella and other pathogens during potable water system maintenance, hot water system work and periods of stagnation • Use of sealants, adhesives, solvents and cleaners without adequate ventilation or controls • Inadequate management of chemical storage, SDS access and [illegible] response on vehicles and at depots	4A	[redacted]	2M
10. Excavation, Underground Services and Underfloor Work	• Damage to underground services (electricity, gas, communications, water, sewer) during excavation and underfloor service installation • Collapse of excavations or trenches used for sewer relocation or underfloor plumbing • Inadequate egress, lighting and ventilation in underfloor spaces and pits • Working in proximity to mobile plant without defined exclusion zones or communication protocols • Insufficient planning for safe work in confined or restricted underfloor areas	4A	[redacted]	2M

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11. Traffic Management, Call-outs and Remote/After-Hours Work	• Unmanaged exposure to road traffic during emergency plumbing call-outs, water meter work and burst main repairs • Fatigue risks from after-hours and weekend plumbing services, including emergency repairs and leak response • Lone work hazards when plumbers attend remote or high-risk sites alone, particularly for sewer repairs and underbuilding work • Poor communication and location tracking for mobile plumbing workforce • Insufficient journey management planning for travel to and from multiple sites in a day	3H	[redacted]	2M
12. Quality of Plumbing Work, Testing, Commissioning and Preventing Water Leaks	• Inadequate testing and commissioning of plumbing services leading to undetected leaks and water damage • Failure to properly calibrate and test TMVs, thermostats and hot water systems, increasing risk of scalds or Legionella • Poorly documente[illegible]low check procedures and in[illegible]nsistent ap[illegible]tion by different plumbe[illegible] • Incorrect installation of plumb guar[illegible], meters, sanitary fixtures and pipe supports resulting in mec[illegible] damage or leaks • Lack of systematic inspection of repairs, such as repairing sewer systems, leak repairs and fixture replacements • Insufficient feedback from defects and warranty work into system improvements	4A	[redacted]	2M
13. Workplace Environment, Site Coordination and Housekeeping	• Poor housekeeping leading to slips, trips and falls from offcuts, packaging and tools during plumbing works • Inadequate coordination with other trades during fit-off, testing and	3H	[redacted]	2M

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	commissioning causing congestion and interface risks • Blocked access to emergency exits, fire equipment or isolation points due to stacked plumbing materials • Uncontrolled discharge or temporary routing of water creating wet surfaces, mould growth or electrical hazards • Insufficient management of noise, dust and vibration impacts on occupants during maintenance works in operational facilities		[redacted]	
14. Documentation, Records, Reporting and Assurance	• Incomplete or inaccurate records of plumbing installations, modifications and repairs, leading to future safety and maintenance issues • Under-reporting of incidents, near misses and defects related to plumbing activities • Lack of traceable documentation for TMV servicing, hot water system maintenance and potab[redacted] system maintenance • Poor retention ar[redacted] retrieval s[redacted]s for SWMS, risk assess[redacted]ts, warranties and commissioning data • Limited management review of W[redacted]S and quality performance [redacted]dentify trends and systemic weaknesses	3H	[redacted]	1L
15. Emergency Preparedness, Incident Response and Business Continuity	• Inadequate planning for plumbing-related emergencies such as major water leaks, burst mains, sewer overflows or hot water failures • Lack of clear internal procedures for responding to serious incidents or notifiable incidents under the WHS Act 2011 • Insufficient first aid equipment and training for foreseeable plumbing injuries and exposures	3H	[redacted]	2M

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	• Poor communication channels between field staff, supervisors and clients during emergency call-outs • No structured process to investigate plumbing incidents and implement corrective actions		[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