

Testing And Purifying Water Resources Risk Assessment

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:								Notes on Hierarchy of Controls:	
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.						Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H		Review and approve additional controls before task starts. Senior supervisor sign-off needed.						1. Eliminate	
2M		Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.						2. Substitute	
1L		Proceed, following standard operating procedures. Monitor and keep records.						3. Isolate	
								4. Engineering	
								5. Administrative	
								6. PPE	
Consequence Scale:								Always document why a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
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				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

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. Review Project Requirements	Misunderstood objectives, Incomplete data	3H	<ul style="list-style-type: none"> - Clarify project objectives with stakeholders - Gather all necessary project data before proceeding - Conduct a kickoff meeting with the project team - Document all project requirements - Assign responsibilities for each task - Schedule regular review meetings - Verify data sources for accuracy - Ensure all team members are briefed - Use checklists to confirm all aspects covered - Set up communication channels 	2M
2. Site Inspection	Geographical barriers, Hazardous wildlife	4H	<ul style="list-style-type: none"> - Conduct a preliminary assessment using satellite images - Use appropriate PPE for site terrain - Plan inspections during daylight hours - Have a first aid kit available - Train staff in wildlife awareness - Inform local authorities of site visits - Employ experienced personnel for difficult terrains - Use communication devices for remote areas - Ensure detailed route and emergency contacts are documented - Conduct inspections in pairs for safety 	3H
3. Transport Equipment	Equipment damage, Manual handling injuries	3H	<ul style="list-style-type: none"> - Use appropriate transport vehicles for heavy equipment - Secure equipment properly during transit - Conduct manual handling training - Use equipment like trolleys for transport - Perform pre-transport checks on all equipment - Ensure all drivers have valid licences - Use lifting aids whenever necessary - Plan routes to avoid bumpy roads 	2M

Hazard	Likelihood	Control Measures
Slips, Trips and Falls	3H	<ul style="list-style-type: none"> - Establish a loading protocol to prevent overloading - Use proper lifting techniques - Wear slip-resistant shoes - Keep work area clean and free of clutter - Use handrails on stairs - Avoid walking on wet or oily surfaces - Use caution when carrying loads - Perform regular maintenance on floors - Use proper footing and base - Avoid distractions - Use proper body mechanics - Use proper posture - Use proper balance - Use proper coordination - Use proper communication - Use proper teamwork - Use proper safety equipment - Use proper safety procedures - Use proper safety training - Use proper safety awareness - Use proper safety attitude - Use proper safety mindset - Use proper safety culture - Use proper safety climate - Use proper safety environment - Use proper safety system - Use proper safety management - Use proper safety leadership - Use proper safety supervision - Use proper safety control - Use proper safety monitoring - Use proper safety evaluation - Use proper safety improvement - Use proper safety innovation - Use proper safety research - Use proper safety development - Use proper safety education - Use proper safety training - Use proper safety awareness - Use proper safety attitude - Use proper safety mindset - Use proper safety culture - Use proper safety climate - Use proper safety environment - Use proper safety system - Use proper safety management - Use proper safety leadership - Use proper safety supervision - Use proper safety control - Use proper safety monitoring - Use proper safety evaluation - Use proper safety improvement - Use proper safety innovation - Use proper safety research - Use proper safety development - Use proper safety education
Material exposure, Slips and Falls	3H	<ul style="list-style-type: none"> - Establish a loading protocol to prevent overloading - Use proper lifting techniques - Wear slip-resistant shoes - Keep work area clean and free of clutter - Use handrails on stairs - Avoid walking on wet or oily surfaces - Use caution when carrying loads - Perform regular maintenance on floors - Use proper footing and base - Avoid distractions - Use proper body mechanics - Use proper posture - Use proper balance - Use proper coordination - Use proper communication - Use proper teamwork - Use proper safety equipment - Use proper safety procedures - Use proper safety training - Use proper safety awareness - Use proper safety attitude - Use proper safety mindset - Use proper safety culture - Use proper safety climate - Use proper safety environment - Use proper safety system - Use proper safety management - Use proper safety leadership - Use proper safety supervision - Use proper safety control - Use proper safety monitoring - Use proper safety evaluation - Use proper safety improvement - Use proper safety innovation - Use proper safety research - Use proper safety development - Use proper safety education

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7. Conduct Water Analysis	Chemical exposure, Equipment malfunction	4A		3H
8. Purification Process Design	Design flaws, Inadequate information	3H		2M
9. Equipment Calibration	Inaccurate calibration, Instrument failure	3H		1L

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10. Implementation of Purification Systems	System integration issues, Contamination during installation	3H		2M
11. System Testing and Validation	Incorrect system operation, System leaks	3H		2M
12. User Training and Education	Misuse of systems, Lack of knowledge	3H		1L

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13. Monitoring and Maintenance	Unnoticed system wear, Irregular maintenance	3H		2M
14. Emergency Response Preparation	Inadequate emergency procedures, Delayed response	4A		2M
15. Record Keeping and Reporting	Data loss, Incomplete records	2M		1L

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			<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	
16. Post-Implementation Review	Overlooked improvements, Ineffective systems	3H	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	1L

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 IF 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 2017

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) Regulations 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>

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

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.