

## Ensuring Clean Drinking Water Availability Risk Assessment

Business Name:	ABN:	
Business Address:		
Contact Person:	Phone:	Email:

## THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON 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	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			<b>Elimination</b> Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	<b>Substitution</b> 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.	<b>Engineering</b> Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	<b>Administrative</b> Change	
								<b>PPE</b>	

### Risk Rating & Required Action:

<b>4A</b>	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.
<b>3H</b>	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
<b>2M</b>	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
<b>1L</b>	Proceed, following standard operating procedures. Monitor and keep records.

### Consequence Scale:

Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
<b>Catastrophic</b>	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
<b>Major</b>	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
<b>Moderate</b>	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
<b>Minor</b>	First-aid only, no lost time	negligible delay	Isolated non-conformance
<b>Insignificant</b>	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:

- Eliminate**
- Substitute
- Isolate
- Engineering
- Administrative
- 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. Preparation	Contaminated source water, Inadequate site assessment	3H	<ul style="list-style-type: none"> <li>- Conduct thorough site assessment to identify potential sources of contamination</li> <li>- Regularly test water quality using accredited laboratories</li> <li>- Implement a comprehensive water safety plan</li> <li>- Engage with local authorities for updated environmental data</li> <li>- Train staff on water safety standards and protocols</li> <li>- Establish emergency contact with health services</li> <li>- Maintain an updated risk register</li> <li>- Review water safety plan annually</li> <li>- Consult with water quality experts</li> <li>- Evaluate impact of local industry on water sources</li> </ul>	2M
2. Source Water Collection	Biological contamination, Chemical spill	4H	<ul style="list-style-type: none"> <li>- Use appropriate filtration and disinfection technologies</li> <li>- Implement secondary containment measures for chemical handling</li> <li>- Assign trained personnel for water collection</li> <li>- Install real-time water quality monitoring systems</li> <li>- Secure collection facilities to prevent unauthorised access</li> <li>- Coordinate with environmental agencies for guidelines</li> <li>- Develop spill response procedures</li> <li>- Regularly maintain and calibrate collection equipment</li> <li>- Conduct risk assessments for collection activities</li> <li>- Communicate potential risks with collection team</li> </ul>	3H
3. Water Transport	Cross-contamination during transport, Vehicle accidents	3H	<ul style="list-style-type: none"> <li>- Use designated, clean vehicles for water transport</li> <li>- Ensure tanks and containers are sealed and sanitized</li> <li>- Develop a transport schedule that reduces exposure time</li> <li>- Train drivers in safe water transport methods</li> <li>- Install in-vehicle monitoring systems for spills</li> <li>- Conduct vehicle inspections before transport</li> <li>- Use GPS tracking to monitor transport routes</li> <li>- Communicate clear transport protocols to drivers</li> </ul>	2M

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			<ul style="list-style-type: none"> <li>- Develop contingency plans for accidents</li> <li>- Evaluate transport routes for hazard potential</li> </ul>	
4. Water Storage	Biological growth in storage tanks, Structural tank failure	4A	<ul style="list-style-type: none"> <li>- Implement regular cleaning and disinfection schedules for storage tanks</li> <li>- Use biocides to prevent biological growth</li> <li>- Conduct structural integrity assessments and repairs as needed</li> <li>- Implement safety protocols for working with large tanks</li> <li>- Ensure proper ventilation in storage areas</li> <li>- Use personal protective equipment (PPE) when working with tanks</li> <li>- Establish clear access and egress routes</li> <li>- Implement fall protection measures</li> <li>- Conduct regular safety training for personnel</li> <li>- Establish emergency response procedures</li> </ul>	2M
5. Filtration and Purification	Filter malfunction, Improper chemical dosing	4A	<ul style="list-style-type: none"> <li>- Implement regular filter maintenance and replacement schedules</li> <li>- Monitor filter performance and pressure drops</li> <li>- Establish proper chemical dosing procedures and controls</li> <li>- Use automated dosing systems where possible</li> <li>- Conduct regular water quality testing</li> <li>- Implement safety protocols for handling chemicals</li> <li>- Use PPE when handling chemicals</li> <li>- Establish clear labeling for chemical containers</li> <li>- Conduct regular safety training for personnel</li> <li>- Establish emergency response procedures</li> </ul>	2M
6. Testing and Quality Control	Incomplete testing protocol, Calibration errors	3H	<ul style="list-style-type: none"> <li>- Develop comprehensive testing protocols</li> <li>- Implement regular calibration schedules for testing equipment</li> <li>- Use certified reference materials</li> <li>- Conduct regular quality control checks</li> <li>- Implement safety protocols for testing procedures</li> <li>- Use PPE when handling samples</li> <li>- Establish clear labeling for samples</li> <li>- Conduct regular safety training for personnel</li> <li>- Establish emergency response procedures</li> </ul>	2M

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7. Pipeline Distribution	Pipe corrosion, Pressure loss leading to contamination	3H		1L
8. Public Access Points	Vandalism, User confusion	3H		1L
9. Maintenance and Repairs	Exposure to hazardous substances, System downtime	4A		2M

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10. Emergency Response	Delayed response, Inadequate plans	4A		2M
11. Staff Training and Competence	Lack of training, Human error	3H		1L
12. Record Keeping and Documentation	Data loss, Incomplete records	2M		1L

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13. Communication and Reporting	Misinformation, Inadequate reporting	3H		2M
14. Regulatory Compliance	Non-compliance with standards, Incomplete legal updates	4A		2M
15. Community Engagement	Lack of awareness, Resistance to change	3H		2M

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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 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.