

Constructing Water Features And Ponds 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. Preparation	Slips, trips, and falls, Manual handling injuries	3H	<ul style="list-style-type: none"> - Ensure the worksite is clear of debris and tripping hazards - Develop a manual handling plan and instruct workers in safe lifting techniques - Provide appropriate personal protective equipment (PPE) such as gloves and boots - Conduct a pre-start safety briefing with all workers and contractors involved - Use mechanical aids for moving heavy materials wherever possible - Ensure workers are adequately trained in manual handling and lifting techniques - Establish clear walkway free of obstructions - Schedule tasks to allow adequate time for safe completion - Make use of signage to highlight hazardous areas - Conduct a site-specific risk assessment prior to commencement 	2M
2. Excavation	Trench collapse, Contact with underground services	4H	<ul style="list-style-type: none"> - Verify and mark the location of underground services before excavation - Use appropriate shoring or trench boxes to prevent trench collapse - Ensure a competent person supervises excavation activities - Conduct regular inspection of excavations for signs of instability - Educate workers on safe excavation practices and emergency procedures - Apply a permit-to-work system for all excavation work - Maintain a safe excavation edge by using barricades and signage - Use spotters when operating excavation machinery - Install trench support systems before workers enter the trench - Employ safe digging practices like using hand tools near known services 	2M
3. Installation of Liner	Chemical exposure from liners, Injury from handling heavy materials	3H	<ul style="list-style-type: none"> - Use liners made from non-toxic materials to avoid chemical exposure - Provide MSDS and educate workers on the safe handling of chemicals - Use the buddy system for handling large or heavy liners - Implement proper lifting techniques to avoid musculoskeletal injuries - Store heavy materials close to the areas where they will be used - Ensure workers wear appropriate PPE, including gloves and eye protection - Keep the workspace well-ventilated when using adhesives or chemicals - Provide mechanical lifting aids to handle heavy rolls of liner 	1L

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			<ul style="list-style-type: none"> - Use temporary supports or fixings when positioning liners - Conduct regular toolbox talks focusing on manual handling and chemical safety 	
4. Installation of Pump and Filtration System	Electrical hazards, Strains from awkward postures	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> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	1L
5. Masonry and Stone Work	Silica dust inhalation, Strains from tool use	4A	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M
6. Water Testing and Filtration Adjustment	Chemical exposure, Drowning risk during maintenance	3H	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	1L

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7. Planting and Landscaping	Use of sharp tools, Exposure to allergens and pests	3H		1L
8. Cleaning and Debris Removal	Slips on wet surfaces, Injuries from sharp objects	3H		1L
9. Completion and Handover	Incomplete safety checks, Operational failures	2M		1L

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10. Emergency Preparedness	Inadequate emergency response, Unapproved evacuation paths	3H		1L
11. Training and Competency	Lack of skill, Improper tool usage	3H		1L

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12. Equipment Maintenance	Failure of equipment, Injury from malfunctioning machinery	3H	<ul style="list-style-type: none"> 1. Lock out/tag out (LOTO) procedures must be strictly followed before any maintenance work begins. 2. Only trained and authorized personnel are allowed to perform equipment maintenance. 3. Safety barriers and warning signs must be placed around the work area to prevent unauthorized access. 4. Personal protective equipment (PPE), including safety glasses, gloves, and hard hats, must be worn at all times. 5. Regular inspection and testing of safety interlocks and emergency stop buttons are required. 6. Clear communication and coordination are essential when working near other personnel or equipment. 7. A detailed maintenance log must be kept to track all repairs and inspections. 8. The equipment must be thoroughly tested and cleared for operation before returning to service. 9. Adequate lighting and clear walkways must be maintained throughout the maintenance process. 10. A permit-to-work system should be implemented for all high-risk maintenance activities. 	1L
13. Waste Management	Chemical spills, Environmental contamination	3H	<ul style="list-style-type: none"> 1. All waste handling activities must be conducted in designated areas with proper containment. 2. Spill kits must be readily available and used immediately in the event of a chemical spill. 3. Waste containers must be clearly labeled and sealed properly to prevent leaks or spills. 4. Employees must receive specific training on the safe handling and disposal of hazardous waste. 5. Regular leak checks and inspections of storage tanks and containers are mandatory. 6. Environmental monitoring should be conducted regularly to detect any contamination early. 7. Strict adherence to local, national, and international waste disposal regulations is required. 8. Emergency response procedures for environmental incidents must be clearly defined and practiced. 9. Proper documentation and record-keeping for all waste management activities are essential. 10. Contingency plans should be in place to manage potential environmental emergencies. 	1L
14. Communication	Miscommunication, Failure to convey safety information	2M	<ul style="list-style-type: none"> 1. Standardized communication protocols and terminology must be established for all safety-related messages. 2. Regular safety meetings and briefings should be held to ensure all personnel are informed of current risks and procedures. 3. Clear and concise instructions must be given, avoiding ambiguity or jargon. 4. Active listening techniques should be encouraged to ensure messages are understood correctly. 5. Written safety notices and signs should be used to supplement verbal communication. 6. Immediate feedback loops should be implemented to correct misunderstandings on the spot. 7. Training exercises should include communication drills to build confidence and skill. 8. Designated communication channels (e.g., radios, intercoms) should be used consistently. 9. A chain of command for communication should be clearly defined. 10. All safety-critical information must be confirmed and acknowledged by the recipient. 	1L

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15. Weather Considerations	Adverse weather conditions, Heat stress or cold exposure	3H		1L

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) 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>

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.