

## Ditching And Trenching Operations 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			<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.	<b>Isolation</b> 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:

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. Preparation	Inadequate planning, Insufficient site assessment	3H	<ul style="list-style-type: none"> <li>- Conduct comprehensive site assessment before commencement</li> <li>- Develop a detailed trenching plan including all safety measures</li> <li>- Ensure all relevant permits are obtained</li> <li>- Communicate plans with all workers involved</li> <li>- Provide adequate training for all personnel</li> <li>- Use competent personnel for planning</li> <li>- Consider environmental factors</li> <li>- Schedule work to avoid high-risk periods</li> <li>- Ensure clear access and egress routes identified</li> <li>- Confirm availability of emergency equipment</li> </ul>	2M
2. Site Setup	Improper equipment setup, Hazardous site conditions	3H	<ul style="list-style-type: none"> <li>- Conduct site inspection prior to equipment setup</li> <li>- Secure and level the site for equipment</li> <li>- Use barriers and signage to control site access</li> <li>- Ensure equipment is properly maintained and tested</li> <li>- Keep areas around machinery clear of obstructions</li> <li>- Identify and flag any underground services</li> <li>- Ensure adequate lighting is available</li> <li>- Keep emergency contact information at hand</li> <li>- Ensure all workers wear proper PPE</li> <li>- Verify communication systems are operational</li> </ul>	2M
3. Excavation	Collapse of trench walls, Falling materials	4A	<ul style="list-style-type: none"> <li>- Implement benching, battering, or shoring</li> <li>- Ensure regular inspection from a competent person</li> <li>- Prohibit entry if water accumulation is noticed</li> <li>- Schedule excavation during dry conditions if possible</li> <li>- Use trench shields and supports appropriately</li> <li>- Limit vibration in the vicinity of the trench</li> <li>- Secure materials and spoil heaps away from edges</li> <li>- Assign a trained spotter to warning duties</li> </ul>	3H

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			<ul style="list-style-type: none"> <li>- Keep machinery at least 1 metre from the edge</li> <li>- Instruct workers to avoid working under loads</li> </ul>	
4. Pipe Laying	Struck by moving pipes, Lifting injuries	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>	2M
5. Backfilling	Equipment rollover, Trench collapse	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>	2M
6. Clean-Up	Slips, trips and falls, Exposure to hazardous substances	2M	<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

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7. Incident Response	Delayed response to incidents, Inadequate first aid	4A		2M
8. Working in the Vicinity of Utilities	Electrical shock, High voltage sound utilities	4A		3H
9. Manual Handling	Musculoskeletal injuries, Dropped tools	3H		2M

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10. Working At Depth	Low oxygen levels, Confined space entry	4A		3H
11. Fatigue Management	Increased incident risks, Reduced alertness	3H		2M
12. Vehicle Movements	Collision, Reversing accidents	4A		2M

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13. Noise Management	Hearing damage, Distracted communication	3H		2M
14. Dust and Airborne Particulates	Respiratory issues, Reduced visibility	3H		2M
15. Final Inspection	Undetected hazards, Unfinished work	2M		1L

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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.