

# FORM

## RISK ASSESSMENT



This form is to be used in conjunction with the relevant How To Manage Risk document, which will document how to undertake the appropriate assessment in accordance with the relevant risk matrix.

| BRIEF DESCRIPTION OF TASK / ACTIVITY                                          |
|-------------------------------------------------------------------------------|
| Excavate a trench for plumbing- 100m long , 2m deep in the middle of the bush |

| HAZARD / ASPECT                    | RISK / IMPACT                                                                                                                                                              | INTRINSIC RISK SCORE |   |     | CONTROL MEASURES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | RESIDUAL RISK SCORE |   |    |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---|----|
|                                    |                                                                                                                                                                            | C                    | L | R   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | C                   | L | R  |
| Collapse of trench wall            | Excavating a trench can weaken the surrounding soil, leading to the collapse of trench walls. This can result in injuries to workers and damage to equipment.              | 16                   | 5 | H21 | Shoring: Installing supports to prevent soil movement.<br>Shielding: Using trench boxes or other types of supports to protect workers from cave-ins.<br>Benching: Create a series of steps or benches in the trench wall to reduce the risk of collapse.                                                                                                                                                                                                                                                                                                                                                                                             | 6                   | 3 | L9 |
| Encountering Underground Utilities | There is a risk of accidentally encountering underground utilities such as gas lines, electrical cables, or water pipes, which can pose serious safety hazards if damaged. | 16                   | 7 | H23 | Locate Utilities: Conduct comprehensive surveys to identify the presence and location of underground utilities including reviewing site plans, as-built drawings and utility records.<br>Utility Marking: Use utility detection services to accurately locate and mark the positions of underground utilities on the ground surface with paint or flags.<br>Obtain permits: Ensure all necessary permits are obtained before starting excavation.<br>Notify Stakeholders: Inform relevant utility companies and stakeholders about the planned excavation work. Utilise one-call services (e.g., "Call Before You Dig") to notify utility providers. | 6                   | 3 | L9 |

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| Unstable Soil Conditions | The soil in the bush may be unstable or prone to erosion, increasing the risk of trench collapse or landslides during excavation.                           | 11 | 5 | M16      | Geotechnical Surveys: Conduct thorough geotechnical investigations to understand soil properties, including bearing capacity, moisture content, and composition.<br>Soil Classification: Classify the soil according to its stability (e.g., Type A, B, or C in OSHA standards) to determine the appropriate protective measures.                                                                                                                                                                   | 6  | 3 | L9      |
| Presence of wildlife     | Working in the bush environment may expose workers to encounters with wildlife, including venomous snakes, insects, or larger animals, posing safety risks. | 16 | 9 | VH2<br>5 | Wildlife Surveys: Conduct an environmental survey to identify the types of wildlife present in the area and their habitats.<br>Environmental Impact Assessment (EIA): Perform EIAs to understand the potential impact of construction on local wildlife and develop mitigation strategies.<br>Habitat mapping: Map out critical habitats, nesting sites, and migration paths to avoid disturbing them during excavation.                                                                            | 11 | 5 | M1<br>6 |
| Weather Conditions       | Weather conditions such as heavy rain, strong winds, or extreme temperatures can impact the safety of workers and the stability of the trench walls.        | 16 | 7 | H23      | Site Assessment: Conduct a thorough assessment of the site to understand potential weather-related risks, such as flooding, high winds, or extreme temperatures.<br>Monitoring: Regularly monitor weather forecasts specific to the location. Weather can change rapidly, especially in wilderness areas.<br>Emergency Plan: Have a well-defined emergency plan in case weather conditions become severe. This includes knowing evacuation routes, shelter locations, and communication procedures. | 11 | 5 | M1<br>6 |

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|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|---------|
|                          |                                                                                                                                                                             |    |   |          | Shelter: Make sure there is access to a suitable shelter such as a tent, tarp, or emergency bivvy, to protect yourself from rain, wind, or extreme temperatures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |   |         |
| Access and Egress        | The remote location of the trench may present challenges for access and egress, making it difficult for workers to enter and exit the site quickly in case of an emergency. | 16 | 7 | H23      | Ladders and ramps: Provide safe access points such as ladders or ramps at regular intervals (e.g., every 7.5 meters) for safe entry and exit. Stability checks: Ensure access points are stable and secure, avoiding placement on unstable ground.                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 6  | 3 | L9      |
| Communication Challenges | Limited communication infrastructure in remote areas may hinder communication between workers, increasing the risk of accidents or delays in responding to emergencies.     | 16 | 9 | VH2<br>5 | Communication Plan: Develop a comprehensive communication plan that addresses potential challenges and solutions. Identify communication channels, protocols, and backup systems. Technocology Assessment: Evaluate communication technologies suitable for the excavation site, considering factors such as range, reliability, and interference. Two-way Radios: Provide workers with two-way radios or walkie-talkies for real-time communication. Ensure radios are fully charged, properly programmed, and maintained. Signage: Install clear and prominently displayed signage around the excavation site, including safety instructions, hazard warnings, and emergency contact information. | 11 | 5 | M1<br>6 |
| Equipment Failure        | Mechanical equipment used for excavation, such as excavators or backhoes, may malfunction or                                                                                | 11 | 5 | M16      | Equipment Inspection: Conduct thorough pre-use inspections of all excavation equipment to identify any signs of wear, damage, or malfunction. Establish regular maintenance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 6  | 3 | L9      |

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|                      | break down, posing safety risks to workers and delaying the project.                                                                                              |    |   |     | schedules and procedures to ensure equipment is in top condition.<br>Spare Parts and backup equipment: Maintain an inventory of critical spare parts and components for essential equipment. Have backup equipment available on-site or readily accessible in case of equipment failure.                                                                                                                                                                                                                                     |   |   |    |
| Environmental Impact | Excavation activities can have environmental impacts such as soil erosion, habitat disruption, or pollution of water sources if proper precautions are not taken. | 16 | 7 | H23 | Environmental impact Assessment (EIA):<br>Conduct a thorough environmental assessment to identify sensitive habitats, water bodies, and protected species in the excavation area.<br>Consider potential impacts on soil erosion, water quality, air quality, and vegetation.<br>Permits and regulations: Obtain all necessary permits and approvals from environmental regulatory agencies before starting excavation activities. Ensure compliance with local, state, and federal environmental regulations and guidelines. | 6 | 3 | L9 |

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