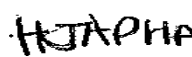
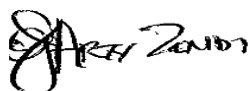




ETHEKWINI MUNICIPALITY

Occupational Health & Safety Unit

BASELINE RISK ASSESSMENT

Document Title	Baseline Risk Assessment
Client	EThekwin Municipality – Cleansing and Solid Waste
Project	Lovu Landfill Site: Construction of Cell 7 and Ancillary Works
Contract Number	6W- 34703
Compiled by (Safety officer)	<p>Name and Surname: Hlengiwe Njapha</p> <p>Signature: </p> <p>Date: 09/02/2026</p>
Approved by (Safety and Risk Manager)	<p>Name and Surname: Hlengiwe Njapha</p> <p>Signature: </p> <p>Date: 09/02/2026</p>
Revision Number	BRA 490/02/2026

BASELINE RISK ASSESSMENT

1. INTRODUCTION: In accordance with the Occupational Health and Safety Act, (Act 85 of 1993) the Legislator places specific requirements on an Employer. One of these is prescribed in Section 8(i) of the Act where it requires the Employer to ascertain the risks and dangers which may occur within the workplace or section of the workplace and then goes on to establish working procedures or practices.

2. PURPOSE: This is conducted to create a benchmark of the potential risks that apply to the whole project or business operation.

3. SCOPE: This assessment could be approached on a site, regional or national level concerning any facet of the business operation or process or activity.

4. REVIEW AND MONITORING PLAN

The risk assessment form part of the health and safety plan to be applied on the site and must include the following:

- (a) The identification of the risk and hazards to which persons may be exposed.
- (b) An analysis and evaluation of the risks and hazards identified based on a documented method

5. REFERENCES

- (a) Occupational Health & Safety Act and its Regulation
- (b) Tender Document 6W-34703

6. LOCALITY PLAN



LOVU LANDFILL – LOCALITY PLAN

Co ordinates are approximately: S 30 ° 6' 54" or 30,115° and E 30 ° 48' 44" or 30,812°

The site does appear on Google Maps as "Illovo DSW" (<https://www.google.co.za/maps/@-30.1206679,30.8233712,15z?hl=en>).

LOCALITY PLAN

Contract WS 7638

LOVU LANDFILL: CELL 6 & ANCILLARY WORKS

SCOPE OF WORK

- a) The time required to comply with the requirements to subcontract 30% of the work to local CPG subcontractors.
- b) Adherence to the safety aspects of working on a landfill site.
- c) Vehicular access within the landfill needs to be maintained and this may require traffic controls, deviations and the planning of the works, particularly the roadworks and concrete drain repairs.
- d) Traffic restrictions. There are no specific traffic restrictions other than noting that access for vehicles disposing of refuse and other tasks will be utilising the roads and other areas within the site
- e) Subsoil drainage will need to be installed in the valley lines prior to earthworks and liner layerworks being undertaken
- f) It may be expected that the earthworks will be in clay soil that may be of less than G10 quality following TRH 14 and require experience to achieve the compaction levels specified.
- g) Some of the work involves operations on slopes of up to 1v in 3h (although generally 1v : 5h) and with slope distances of up to some 150m.
- h) To protect the GCL the geomembrane and protective layer must be placed daily over the section of GCL laid that day.
- i) Work on the layers above the liner elements is to be undertaken using light equipment and must follow procedures which must satisfy the Engineer that they will not damage the liner.
- j) The Tenderer must make themselves familiar with the procedures and methods required to construct and/or lay the CCL, GCL and HDPE liners. Factors that must be considered are:
 - (1) rain
 - (2) wind
 - (3) temperature
- k) For stability it is necessary that the construction of the liner layers must extend upwards from the basal area.
- l) Stormwater drainage must be carefully controlled during the

construction phase. Runoff must be directed away from the area of the works and the liner anchor trenches must be free draining at all times.

- m) Vehicular access to the disposal areas, infrastructure, leachate treatment plant and cover stockpile areas, as well as all other access required by DSW's operations is to be maintained.
- n) There will be other traffic close to the works, primarily waste disposal traffic and the Contractor's work will need to be programmed to interface with these operations.

1. RISK ESTIMATION AND EVALUATION

RISK CLASSIFICATION USING A RISK SCORE TECHNIQUE

Exposure (E) How frequently does the hazardous event occur		Risk classification
Continuously		10
Frequently (daily)		6
Occasionally (weekly)		3
Unusually (monthly)		2
Rarely (few a year)		1
Probability (P) The probability of a loss when the hazardous event does occur		Risk classification
Frequent (happens often)		10
Probable (quite possible)		6
Occasional (unusual, but possible)		3
Remotely possible (has happened somewhere)		1
Improbable (practically impossible)		0.5
Severity (S) Consequences of the hazardous event		Risk classification
Catastrophic many fatalities; or interruption of longer than 2 weeks; or asset or environmental damage (or both) exceeding R100m		100
Disaster (few fatalities; or interruption between one and 2 weeks; or asset or environmental damage (or both) exceeding R10m)		40
Very serious (one fatality; or interruption of 6 days; or asset or environmental damage (or both) exceeding R100,000		7
Important (temporary disability; or interruption between 6 and 24 hours; or damage exceeding R10,000		3
Noticeable (first aid needed; or interruption of less than 6 hours; damage exceeding R1000)		1
Risk classification (Risk score = E x P x S)		
Risk score	Risk classification	
Over 400-----5	Very high risk – discontinue operation or activity	
200 to 400 ----- 4	High risk – immediate correction needed	
70 to 200----- 3	Substantial risk – correction needed	
20 to 70----- 2	Possible risk – attention needed	
Under 20 ----- 1	Risk accepted	

BASELINE RISK ASSESSMENT WORKSHEET: IDENTIFYING EXISTING & POTENTIAL RISKS

1	Site Access								
	Activity	Hazard	Risk	Risk Evaluation			Risk Score	Risk level	Risk Rank
				E	P	S			
	Accessing the site using construction vehicles or walking to site. Delivering of equipment and material to the site	Excessive speed, head on collusion, employees knocked by moving vehicles. Road blocked off due to community protest. Manual Handling and excessive lifting.	Accidents, damage to equipment or severe injuries or death. Back injuries,	6	6	7	252		4
2	Site Establishment								
	Manual and mechanical clearing of the land. Off-loading and positioning of offices by mobile crane. Fencing. Installation of temporary water supply, electricity, ablution facilities	Dust, Snakes, Bees & Wasps. Incompetent operator. Poor connection of temporary services.	Poisoned and death. Collision/impacts of mobile lifting equipment loads and dropped loads with process plant, pipe work, electrical cables and people. Water leaks, Electrocution, improper connection	6	6	7	252		4

3	Site Fencing								
	Clearing bush using bush knives Digging holes using pick and spade	Manual handling of material Dust Moving vehicles	Manual handling injuries Dust being inhaled/getting in eyes Vehicle collision and damage	3	6	7	126		3
4	Existing Services								
	Identify the existing services	Snakes Unforeseen hazards Unknown/ Unidentified underground services	Poisoned and death. Personal injuries. Electrocution	6	6	7	252		4
5	Bulk Earthwork								
	Mechanical excavation	Incompetent operator. Machine running out of control. Open excavation. Dust Poor stockpiling. Operating mobile plant next to open excavation	Personal injury/amputations Property damage. Respiratory problem. Obstruction of walkways	6	6	3	108		3
6	Construction Mobile Plant and Equipment								
	Use of Plant & Equipment on site	Incompetent operator Unsafe plant & equipment.	Personal injuries. Motor vehicle accident. Environmental	6	6	7	252		4

		Collusion with other vehicles. Petrol and oil spillages.	contamination.						
7	Emergency Management								
	Development and Implementation of an Emergency Management Plan	Failure to have a basic, site specific emergency management plan. Workers not trained in the Emergency Plan. Insufficient or no emergency equipment or personnel.	Injury or damage to property. Inability to respond to emergencies. Insufficient or no emergency equipment.	6	6	3	108		3
8	Community Risk Management								
	Managing community risk	Failure to adequately monitor and manage the multi-faced social issues.	Violent protests. Injury to employees and property damage.	6	6	3	108		3
9	Drainage/Storm water								
	Lay, bed and joint of pipes	Unsafe access to excavation Manual handling of pipes Possible pinch of fingers Engulfment of excavation	Personal injuries. Possible pinch Death/ body injury	6	6	3	108		3

10	Traffic Accommodation								
	Installation of temporally signs Traffic diverting/ Management	Knocked down by moving vehicles, poor demarcation/ displaying of signs. Poor traffic management plan. Incompetent traffic controllers	Personal injuries or death. Road Accident	6	6	3	108		3
11	Subcontractor Management								
	Managing subcontractors	Failure to adequately assess subcontractors S.H.E Management System before work commences and at regular intervals. Inadequate Supervision. Utilizing incompetent Subcontractors.	Injury and non-compliance to legislation. High level of employee unsafe behavior. Accidents and property damage.	6	6	3	108		3