TONKMETER RESOURCE FACILITY

Tonkmeter Resource Facility

DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME FOR COMMENT

2026

INCORPORATING THE PROPOSED AREA E HEIGHT EXTENSION

(Increase in permitted landfill height from 1 m to 25 m above natural ground level)

REF NUMBER:

Gaut: 006/24-25/W0001

EcoPartners

DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME FOR COMMENT

Prepared in accordance with Appendix 4 of the Environmental Impact Assessment Regulations, 2014 (GNR 982), as amended, and section 24N of the National Environmental Management Act, 1998 (Act No. 107 of 1998)

Prepared for

TONKMETER RESOURCE FACILITY

2 November 2026

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Prepared by

EcoPartners

REPORT NR: 2607ECPTMR03

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CONTENT OF ENVIRONMENTAL MANAGEMENT PROGRAMME

#	Content of Environmental Management Programme (EMPr)	Report reference
(a)	EAP details	Part A: Section 4 and Table 1 (curriculum vitae in Annexure 4)
	(i) the EAP who prepared the report; and	
	(ii) the expertise of the EAP, including a curriculum vitae;	
(b)	a detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description;	Part A: Sections 1 and 3
(c)	a map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, including buffers;	Annexure 5
(d)	a description of the impact management objectives, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including- (i) planning and design; (ii) pre-construction activities; (iii) construction activities; (iv) rehabilitation of the environment after construction and where applicable post closure; and (v) where relevant, operation activities;	Part B: phase and impact management outcome rows of Sections 1 to 22 (including 14A and 14B); Part C: Section 3
(e)	a description and identification of impact management outcomes required for the aspects contemplated in paragraph (d);	Part B: impact management outcome rows of Sections 1 to 22 (including 14A and 14B); Part C: Section 3
(f)	a description of proposed impact management actions, identifying the manner in which the impact management objectives and outcomes contemplated in paragraphs (d) and (e) will be achieved, and must, where applicable, include actions to - (i) avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; (ii) comply with any prescribed environmental management standards or practices; (iii) comply with any applicable provisions of the Act regarding closure, where applicable; and (iv) comply with any provisions of the Act regarding financial provisions for rehabilitation, where applicable;	Part B: Impact Management Actions rows of Sections 1 to 22 (including 14A and 14B); Part C: Section 3. Closure: Part B, Sections 21 and 22. Financial provision under NEMA (item (iv)): not applicable, as section 24P of NEMA applies to prospecting and mining
(g)	the method of monitoring the implementation of the impact management actions contemplated in paragraph (f);	Part A: Section 8; Part B: Monitoring and Evidence of Compliance rows of each section
(h)	the frequency of monitoring the implementation of the impact management actions contemplated in paragraph (f);	Part B: Monitoring: Frequency rows of each section
(i)	an indication of the persons who will be responsible for the implementation of the impact management actions;	Part A: Section 7; Part B: Responsible Person rows of each section
(j)	the time periods within which the impact management actions contemplated in paragraph (f) must be implemented;	Part B: Timeframe rows of each section
(k)	the mechanism for monitoring compliance with the impact management actions contemplated in paragraph (f);	Part A: Sections 8.1 to 8.10; Part B: Evidence of Compliance rows of each section
(l)	a program for reporting on compliance, taking into account the requirements as prescribed by the Regulations;	Part A: Sections 8.1 to 8.4, 8.9 and 8.10
(m)	an environmental awareness plan describing the manner in which- (i) the applicant intends to inform his or her employees of any environmental risk which may result from their work; and (ii) risks must be dealt with in order to avoid pollution or the degradation of the environment; and	Part B: Section 1
(n)	any specific information that may be required by the competent authority.	None specified by the competent authority at the time of writing

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PART A: GENERAL INFORMATION

1. Introduction and Background

The Tonkmeter Resource Facility ("the Facility" or "TRF"), located on the corner of Tonk Meter Road and Coaton Avenue, Rietfontein, Springs, Gauteng, is a Class GLB+ (Class B) landfill and resource recovery facility. The Facility is authorised in terms of an Integrated Environmental Authorisation (IEA) for landfilling, recovery, sorting, cleaning, baling, chipping/composting and building-rubble crushing. Landfilling commenced in January 2025 and the materials recovery facility (MRF) pilot programme in July 2026; composting and crushing have not yet been established (Tonkmeter pers. comm., 2026).

This Environmental Management Programme (EMPr) has been compiled in accordance with Appendix 4 of the Environmental Impact Assessment Regulations, 2014, promulgated under Government Notice R982 in Government Gazette 38282 of 4 December 2014, as amended by GN 326 of 7 April 2017, GN 706 of 13 July 2018, GN 599 of 29 May 2020 and GN 517 of 11 June 2021 ("the EIA Regulations" or "GNR 982"), and in compliance with section 24N of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA").

This EMPr specifically incorporates the proposed extension of the Facility comprising an increase in the permitted height of landfill cells within Area E from 1 m above natural ground level to 25 m above natural ground level, together with associated infrastructure ("the Area E height extension"). Area E comprises 47.3 hectares and was previously subject to clay quarrying (by Corobrik and, thereafter, Vereeniging Refractories (Pty) Ltd) with portions of the mined area subsequently backfilled (IntraSolutions, 2026). This EMPr also incorporates the clearing of vegetation for the proposed expansion of the Materials Recovery Facility (MRF) ("the proposed MRF expansion site") on a portion of the Facility outside Area E, east of the pollution control dam and west of the solar PV installation (Venter, 2026).

The application also amends the general waste streams that may be accepted for disposal and a number of the conditions of the IEA, as set out in the Basic Assessment Report. Once approved, this EMPr replaces the EMPr approved under condition 4.1(d) of the IEA (AECOM, 2016; GDARD, 2017) and applies to the Facility as a whole.

2. Purpose and Objective of this EMPr

The purpose of this EMPr is to set out the impact management outcomes and impact management actions required to avoid, manage, mitigate and, where relevant, remedy the environmental impacts and risks associated with the construction, operation, and eventual closure and rehabilitation of the Facility, including the Area E height extension, in a manner that gives effect to the mitigation hierarchy (avoid, minimise, rehabilitate, offset) and the objectives of section 2 of NEMA.

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In accordance with regulation 19(4) and regulation 23(4) of the EIA Regulations, this EMPr contains the information required by Appendix 4 to the EIA Regulations. The objective is to prescribe impact management outcomes and associated, verifiable impact management actions for the aspects relevant to the Facility, together with defined responsible persons, methods, timeframes, monitoring frequencies and evidence of compliance for each action, so that performance against this EMPr is auditable in terms of regulation 34 of the EIA Regulations.

3. Scope

This EMPr applies to all listed and specified activities associated with the development, operation, and closure of the Facility as a whole, and specifically includes the following activities associated with the Area E height extension:

- Increase of the permitted final landfill height within Area E from 1 m to 25 m above natural ground level;
- Extension of the operating life of Area E, within its existing authorised footprint, from about 39 to 77 years at 7 500 tonnes/month, or from about 19 to 39 years at 15 000 tonnes/month (Mafusire, 2026, Table 1-1);
- Placement of waste in lifts above the currently authorised 1 m height within Cells 1 to 8 of Area E, which are constructed under the existing authorisation with the approved lining and leachate management system;
- Continued operation of the MRF (receipt, sorting, baling and storage of recyclables), and of composting or builder's-rubble crushing once registered under the applicable norms and standards (Part B, Section 14B); these activities are not materially altered by the height extension;
- Clearing of vegetation on the proposed MRF expansion site, and construction and operation of the MRF (Venter, 2026);
- Landfill gas (LFG) management associated with the increased waste body, including future extraction, flaring and, where feasible, LFG-to-energy infrastructure;
- Dolomite risk management specific to Area E, in light of its Inherent Hazard Class 1/2//1 classification, Design Hazard Class 2, and Dolomite Area Designation D3 (IntraSolutions, 2026);
- Acceptance of additional general waste streams that may be disposed of on a Class B landfill in terms of GN R634, GN R635 and GN R636 of 2013 (IEA conditions 4.1(c) and 4.7.5(a) as proposed for amendment) (DEA, 2013a; 2013b; 2013c);
- Amendment of IEA conditions 4.1(b), 4.1(c), 4.1(d), 4.2(l), 4.4(a), 4.7.1(a), 4.7.4(a) and (g), 4.7.5(a), 4.8(b), (f) and (g), 4.9(a) and (c), 4.10.1(f), 4.12.2(c), 4.13(c) and 4.15(d); the management requirements of the amended conditions are carried into Part B of this EMPr; and
- Eventual closure, rehabilitation and post-closure aftercare of the raised landform.

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The proposed height extension increases the available airspace of Area E and extends its operating life; it does not seek any change to the rate at which waste is received. The specialist assessments supporting this application assumed waste receipt of up to 15 000 tonnes per month. Should the monthly waste receipt materially exceed 15 000 tonnes, the Holder shall review the air quality, traffic and landfill gas management measures in this EMPr and notify the Competent Authority.

4. Details of the Environmental Assessment Practitioner

This EMPr was prepared by San Oosthuizen (Pr.Sci.Nat.) of EcoPartners (Pty) Ltd (email: san@ecopartners.co.za) and reviewed by Charlaine Baartjes (Pr.Sci.Nat.), the EAP team that prepared the Basic Assessment Report to which this EMPr is attached as Appendix H. Curriculum vitae attached in Appendix 4.

Table 1: EAP Details

First name & Surname:	Charlaine Baartjes Pr. Sci. Nat.	San Oosthuizen Pr. Sci. Nat.
Company name:	EcoPartners Pty Ltd	EcoPartners Pty Ltd
Company Registration	2005/028736/07	2005/028736/07
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Qualifications and Experience:	DBL, MBA; MSc. (Geol)., BSc (Ed)IV; Cert. Tax; Cert. Mineral Law Qualified with a doctoral degree and two masters level degrees for business (MBA) and Science (MSc), which allows for effective communication of strategy, speaking with authority and conviction. Professional sustainability practitioner, with specialist knowledge in the circular economy and environmental systems implementation (including waste management, waste prevention, and ISO14001 systems). Managing Director of EcoPartners, a company she started in 2005, having led a team of scientists to complete more than 1000 projects, including numerous external environmental audits and performance assessments Charlaine has the ability to break down complex systems, strategies or goals into implementable portions and for negotiating innovative solutions. Accredited with SACNASP (Reg 003319) and registered as an EAP (Reg No. XXX) with EAPASA EcoPartners is an Organisational Member of IWMSA (Reg no. 13317165)	M.Sc. Zoology, BSc (Hons) in Zoology, BSc in Zoology and Botany Senior Environmental Consultant at EcoPartners, since 2009. More than 30 years' experience in the environmental field across the mining, petrochemical, waste, energy, land development and engineering sectors. Current work includes Basic Assessments, Scoping and Environmental Impact Assessment, Waste Management Licence (WML) applications, external environmental audits, EMPr performance assessments, legal compliance audits & advice and project management. San regularly attends environmental legal update courses to keep up to date with current legislation. Registered as a Professional Natural Scientist in Environmental Science with SACNASP (Reg. No. 115820) and as an Environmental Assessment Practitioner with EAPASA (Reg. No. 2021/4053).

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5. Definitions

Term	Meaning
Aftercare	The measures required to maintain the environmental integrity of the Facility after closure, including but not limited to leachate management, landfill gas management, monitoring, and maintenance of the final cover and stormwater systems.
Cell	An engineered, lined compartment of the landfill designed to contain waste and prevent contact between waste or leachate and the surrounding environment.
Competent Authority (CA)	The organ of state responsible for deciding the application for environmental authorisation and administering compliance with the environmental authorisation, this EMPr and any closure plan.
Contractor	Any person or entity appointed by the Licence Holder to undertake construction-related work at the Facility, as defined in Part A, Section 7.1, or other work for which it is specifically appointed.
Daily Cover	Soil or an approved alternative daily cover material used to enclose a body of compacted waste at the end of each operating day.
Dolomite Land	Land underlain by dolomite or limestone residuum or bedrock within the Malmani Subgroup or Campbell Rand Subgroup at depths of no more than 60 m (where groundwater levels are monitored and controlled) or 100 m (where they are not), as defined in SANS 1936-1:2012.
Environmental Control Officer (ECO)	An independent, suitably qualified person appointed to monitor and audit compliance with this EMPr and the conditions of the environmental authorisation.
Impact Management Action	A specific, verifiable action required to achieve an impact management outcome.
Impact Management Outcome	The environmental performance standard or result that this EMPr requires to be achieved in respect of a particular environmental aspect.
Leachate	Liquid that has percolated through or drained from waste, typically highly contaminated, requiring containment and management separately from clean stormwater.
Licence Holder	Tonkmeter (Pty) Ltd, the holder of the Integrated Environmental Authorisation for the Facility, as amended, and of any authorisation or waste management licence that replaces it.
Materials Recovery Facility (MRF)	The facility at the TRF where recyclable materials are received, sorted, baled and stored before removal for recycling, registered under the National Norms and Standards for the Storage of Waste and for the Sorting, Shredding, Grinding, Crushing, Screening or Baling of General Waste (GDARDE, 2024).
Method Statement	A written submission by the Contractor describing the equipment, materials, labour, and methods proposed for a specific activity, in sufficient detail to allow assessment of compliance with this EMPr.
Non-Conformance / Non-Compliance	Any deviation from the impact management outcomes or impact management actions set out in this EMPr, or from the conditions of the environmental authorisation.

6. Acronyms and Abbreviations

Acronym	Meaning
BAR	**Basic Assessment Report**
CA	Competent Authority
cEO	Contractor's Environmental Officer
DWS	Department of Water and Sanitation

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Acronym	Meaning
BAR	**Basic Assessment Report**
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EAR	Environmental Audit Report
ECO	Environmental Control Officer
EMPr	Environmental Management Programme
GLB+	General Waste, Class B, plus leachate management (landfill classification)
GNR 982	Government Notice R982 (EIA Regulations, 2014, as amended)
GWIS	Gauteng Waste Information System
IEA	Integrated Environmental Authorisation
LFG	Landfill Gas
MRF	Materials Recovery Facility
NCR	Non-Conformance Report
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:AQA	National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
SANS	South African National Standard
TRF	Tonkmeter Resource Facility

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7. Roles and Responsibilities for EMPr Implementation

The effective implementation of this EMPr depends on clearly established roles, responsibilities and reporting lines. A critical distinction is drawn throughout this EMPr between the Contractor, whose presence and duties are episodic and confined to periods of construction, and the Landfill Operator, whose presence and duties are continuous for the operational life of the Facility. Where a specific role (e.g. ECO) is not separately appointed for a given phase, the holder of the environmental authorisation remains responsible for ensuring that the duties assigned to that role in this EMPr are carried out.

7.1 Definition and Scope of “Contractor”

For the purposes of this EMPr, “Contractor” means any person or entity appointed to undertake construction-related work at the Facility, and “construction-related work” is limited to the following discrete, non-continuous activities:

- Preparation and construction of a new landfill cell or lift, including earthworks, liner installation, and leachate collection system installation;
- Construction or modification of stormwater infrastructure, access roads, fencing, or the site office/yard;
- Installation of landfill gas extraction, flaring, or LFG-to-energy infrastructure;
- Construction associated with progressive rehabilitation of a completed cell or lift; and
- Any other physical construction activity that is not part of the routine, continuous operation of the Facility (i.e. is not waste deposition, compaction, or daily covering).

The Contractor's role at the Facility is therefore intermittent: it is engaged for the duration of a specific construction activity (typically 4–6 months per new cell, with new cells built as airspace is used up, indicatively every five to ten years, as calculated from the operating life of Area E (Mafusire, 2026, Table 1-1)) and is not present, and has no ongoing duties under this EMPr, outside of an active construction period. All requirements in this EMPr directed at the "Contractor" apply only while the Contractor is engaged on an active construction activity, and fall away once that activity is complete and handed over. Routine day-to-day operation of the Facility (waste deposition, compaction and daily covering) is not construction and is not a Contractor duty — it is the responsibility of the Landfill Operator, defined below.

7.2 Definition and Scope of "Landfill Operator"

"Landfill Operator" means the person or entity responsible for the continuous, day-to-day operation of the Facility once a cell has been constructed and handed over for landfilling, including waste acceptance, weighbridge control, waste deposition, compaction, daily and intermediate covering, leachate and stormwater management, recovery/recycling operations, and site security. Unlike the Contractor, the Landfill Operator's duties under this EMPr are continuous for the operational life of the Facility and do not depend on any specific construction activity being underway.

7.3 Roles Table

Role	Responsibilities
Licence Holder (Tonkmeter (Pty) Ltd)	Accountable for ensuring compliance with this EMPr and the conditions of the environmental authorisation; appoints the ECO; ensures periodic environmental audits are undertaken and submitted to the CA in accordance with regulation 34; ensures financial and other resources are allocated for implementation of this EMPr; remains responsible for implementation even where specific duties are delegated to a Contractor or Landfill Operator.
Environmental Control Officer (ECO)	Independent monitoring agent responsible for auditing compliance with this EMPr and the environmental authorisation. Applies the construction-phase audit regime (Section 8.1) only while a Contractor is actively engaged on site, and the operational-phase audit regime (Section 8.2) for the continuous duration of landfilling operations. Maintains the Non-Conformance and Communications Registers; compiles audit reports; liaises with the CA as required by the environmental authorisation.
Contractor (construction periods only – see Section 7.1)	Overall responsibility for ensuring that construction work performed under its contract is undertaken in accordance with this EMPr and its approved Method Statement(s); appoints a Contractor's Environmental Officer (cEO) for the duration of the contract; bears the cost of

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Role	Responsibilities
	remedying any environmental damage caused by its non-compliance. Duties and reporting obligations apply only for the duration of the specific construction activity — see Section 8.1.
Contractor's Environmental Officer (cEO) (construction periods only)	On-site implementation of this EMPr for the duration of the relevant construction contract only; completes the Weekly Construction Environmental Checklist (Section 8.1); undertakes corrective actions within stipulated timeframes; hands over a close-out record to the ECO on completion of the construction activity.
Landfill Operator (continuous, operational periods – see Section 7.2)	Day-to-day responsibility for operating the Facility once cells are handed over for landfilling: waste acceptance and weighbridge control, deposition, compaction, daily/intermediate cover, leachate and stormwater management, and site security. Completes the Daily Operations Log and the Monthly Operational Environmental Report (Section 8.2). Reports any deviation to the ECO without delay.
Site / Landfill Manager	Overall day-to-day management of the Facility across both construction and operational activities occurring concurrently; oversees the Landfill Operator and any Contractor(s) on site; issues instructions for corrective action; ensures Method Statements are approved prior to commencement of any construction activity; ratifies the applicable Environmental Report(s).

8. Environmental Documentation, Reporting and Compliance

Because the Facility's construction activity (episodic, Contractor-driven) and operational activity (continuous, Landfill Operator-driven) are fundamentally different in character, this EMPr applies two distinct documentation and reporting regimes rather than a single uniform one. Section 8.1 applies only during periods when a Contractor is actively constructing a new cell or item of infrastructure. Section 8.2 applies continuously for the operational life of each handed-over cell, and does not require construction-type reporting (such as weekly checklists) where no construction is taking place. Section 8.3 applies to rehabilitation and closure activity, and Section 8.4 to post-closure aftercare. Sections 8.5 to 8.9 set out documentation and processes that are common to all phases.

8.1 Construction-Phase Documentation and Reporting (Contractor-driven, active construction periods only)

This section applies only for the duration that a Contractor is actively engaged in constructing a new cell or item of infrastructure (see Section 7.1). It does not apply, and no construction-phase documentation is required, during periods when the Facility is operating but no construction is underway.

Required construction-phase documentation:

- Method Statement(s) for the specific construction activity, approved by the ECO prior to commencement (Section 8.6);
- Weekly Construction Environmental Checklist, completed by the cEO for each week that construction is active, signed and filed, and provided to the ECO;

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- Construction Environmental Site Meetings, held weekly to fortnightly while construction is active (frequency confirmed with the ECO at the start of each construction activity), with minutes and an attendance register;
- A Construction Close-Out Report, compiled by the cEO and verified by the ECO on completion of each construction activity, confirming: compliance with the approved Method Statement(s); any non-conformances raised during construction and their close-out status; and photographic record of the completed works prior to hand-over to the Landfill Operator;
- Engineer's construction sign-off for the completed cell, confirming that the liner, subsoil drainage and leachate collection systems meet the approved design (see Part B, Section 14).

The ECO shall conduct site inspections and internal audits at least weekly while construction is active. On completion of construction and hand-over of the cell to the Landfill Operator, the construction-phase reporting regime ceases and the operational-phase regime (Section 8.2) applies to that cell from the date of hand-over.

8.2 Operational-Phase Documentation and Reporting (Landfill Operator-driven, continuous)

This section applies continuously from the date each cell is handed over for landfilling, for the operational life of the Facility, whether or not construction of a further cell is concurrently taking place elsewhere on site. It reflects the fact that day-to-day operation of a handed-over cell consists principally of two repetitive activities — waste deposition and daily/intermediate covering — together with routine leachate, stormwater, dust and access-control management, and does not require the same reporting intensity as an active construction period.

Required operational-phase documentation:

- Daily Operations Log, completed by the Landfill Operator, recording: tonnage and waste type accepted; confirmation that the active working face was compacted and covered by the end of the operating day (or, where not achieved, the reason and remedial action); any refused loads and the reason for refusal; and any environmental incident, spill, or complaint received that day;
- Weekly dust suppression record (Part B, Section 5) and weekly visual inspection of leachate and stormwater infrastructure (Part B, Sections 8 and 9);
- Litter register, recording each inspection of the perimeter fences, the access road and the vegetation around the working face (at least twice a week, and on any day on which litter is seen blowing beyond the working face), the areas inspected and the litter removed (Part B, Section 14A; IEA condition 4.8(b) as proposed for amendment);
- Stormwater register, recording each release of clean stormwater pumped from the site (date, source area, estimated volume and pre-release sample results) and each month in which no release took place, together with the laboratory results for each discharge from the contaminated water pond (Part B, Section 8; IEA condition 4.10.1(f) as proposed for amendment);

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- Inspection records for berms, diversion drains, chutes and temporary storage facilities after each significant storm (Part B, Section 8);
- Waste acceptance records: weighbridge records, classification and assessment records for every general waste stream other than municipal waste, and the rejected-load log (Part B, Section 14A);
- MRF records: tonnages received, recovered, removed off site for recycling and returned to the landfill as residue, and the quarterly GWIS submissions (Part B, Section 14B);
- Monthly Operational Environmental Report, compiled by the Landfill Operator and verified by the ECO, summarising: the Daily Operations Logs for the month; monitoring results due that month (dustfall, dolomite visual inspection – see Part B, Section 10); any non-conformances raised and their status; and complaints received and their resolution status;
- Quarterly monitoring reports falling due in that quarter (groundwater, dolomite groundwater level, settlement survey – see Part B, Sections 10, 14A, 15 and 20), compiled by the relevant specialist and reviewed by the ECO;
- Operational Environmental Site Meetings, held quarterly during steady-state operation (as opposed to the weekly-to-fortnightly cadence that applies only during active construction – Section 8.1).
- Annual facility-level greenhouse gas inventory and the annual submission under the National Greenhouse Gas Emission Reporting Regulations, with landfill gas monitoring and flare performance records once collection is operational (Part B, Section 6) (Brugman, 2026, pp. 49–50).

No weekly checklist, in the construction-phase sense, is required during operation: the Daily Operations Log, together with the weekly dust and leachate/stormwater checks listed above, is the operational equivalent and is proportionate to what is actually happening on site on a given operating day (principally, waste deposition and covering).

8.3 Rehabilitation and Closure-Phase Documentation and Reporting

This section applies once a cell or lift ceases to receive waste and progressive rehabilitation commences, and to final closure of the Facility (see Part B, Section 21).

- A Method Statement for rehabilitation works, approved by the ECO prior to commencement, where rehabilitation involves construction-type activity (final cover placement, re-grading, hydro-seeding);
- Monthly rehabilitation inspection and vegetation-cover survey records during active rehabilitation, reducing to quarterly once the vegetation-cover targets in Part B, Section 21 are achieved and sustained for two consecutive monitoring cycles;
- An approved Closure Plan, complying with Appendix 5 of the EIA Regulations, kept current and updated to reflect the as-built final landform (including the Area E height extension);
- A Final Environmental Audit Report, complying with Appendix 7 of the EIA Regulations, prepared on completion of final closure (Section 8.10).

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8.4 Post-Closure Aftercare Documentation and Reporting

This section applies for the post-closure aftercare period specified in the approved Closure Plan (see Part B, Section 22), and requires quarterly post-closure monitoring reports (leachate, LFG, groundwater, dolomite stability, final cover condition) for Years 1–5 post-closure, and thereafter at the frequency specified in the approved Closure Plan, together with an annual final-cover inspection record.

8.5 Documentation to be Available (All Phases)

The following documentation shall be available at the site office at all times, covering whichever phase(s) are current:

- A full copy of the signed environmental authorisation and this approved EMPr, including any amendments;
- All Contractor method statements (Annexure 1, Part A), and the plans and procedures listed in Annexure 1, Part B;
- Construction-phase records (Section 8.1), where construction is or has recently been active;
- Operational-phase records (Section 8.2), for the continuous duration of landfilling operations;
- Rehabilitation/closure and post-closure records (Sections 8.3–8.4), as applicable;
- The Environmental Incident Log, Non-Conformance Reports and Corrective Action Reports (Section 8.7);
- The Communications Register (Section 8.8);
- Waste manifests and safe disposal certificates for all waste generated and/or disposed of; and
- Environmental Audit Reports (Sections 8.9–8.10).

8.6 Method Statements (All Phases)

Unless otherwise agreed with the ECO, a Method Statement shall be submitted no less than 14 days prior to commencement of any construction, rehabilitation, or closure-related activity listed in Annexure 1, Part A, for review and approval by the ECO. A Method Statement copying generic content from this EMPr without site- and task-specific detail shall not be accepted. Method Statements are not required for routine operational activities (waste deposition, compaction, daily cover) that are governed instead by the Part B impact management actions and Section 8.2 operational reporting.

8.7 Environmental Incident Log, Non-Conformance and Corrective Action (All Phases)

The ECO shall maintain a single Environmental Incident Log for all phases, recording the date and time, a description, the phase (construction, operation, rehabilitation/closure, or post-closure), the responsible party, a significant/minor classification, and corrective action taken. A Non-Conformance Report (NCR) shall be issued in writing for any deviation from the impact management outcomes or actions in this EMPr, recording

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the required corrective action and the date by which it must be completed; the responsible party shall act immediately on receipt. On completion, a Corrective Action Report shall be issued and signed off by the ECO before the corrective action is considered closed. Persistent or unaddressed non-compliance, in any phase, shall be reported by the ECO to the CA.

8.8 Photographic Record, Communications and Claims (All Phases)

A dated digital photographic record shall be kept throughout all phases, from pre-construction through to post-closure, including all significant non-conformances and corresponding corrective actions. The ECO shall maintain a Communications Register (complainant details, date, nature of complaint, response and corrective action; complaints handled within the timeframes in Part B, Section 19) and a record of any claims for damages, evaluated by the holder of the environmental authorisation and resolved or the reasons for non-acceptance communicated in writing, in each case regardless of which phase is current when the complaint or claim arises.

8.9 Environmental Audits

In accordance with regulation 34 of the EIA Regulations, compliance with this EMPr and the environmental authorisation shall be independently audited and an Environmental Audit Report (EAR) submitted to the CA at the frequency specified in the environmental authorisation (currently annually, under IEA condition 4.12.2(a)), which frequency shall not exceed intervals of 5 years. Internal audits shall be conducted twice a year, in the wet and dry seasons (GDARD, 2017, condition 4.12.1). This external audit obligation is separate from, and additional to, the internal ECO oversight described in Sections 8.1–8.4, which differs in intensity by phase (at least weekly during active construction; monthly/quarterly during operation; monthly reducing to quarterly during rehabilitation; quarterly during post-closure).

8.10 Final Environmental Audit

On completion of rehabilitation of any phase or cell, and on final closure of the Facility, a Final Environmental Audit Report shall be prepared in accordance with Appendix 7 of the EIA Regulations and submitted to the CA.

EMPr for comment

PART B: IMPACT MANAGEMENT OUTCOMES AND IMPACT MANAGEMENT ACTIONS

This Part sets out, for each environmental aspect relevant to the Facility, the impact management outcome to be achieved and the associated impact management actions, together with the responsible person, method and timeframe for implementation, and the responsible person, frequency and evidence of compliance for monitoring, as required by Appendix 4 of the EIA Regulations. Each aspect table states the phase(s) of the Facility's lifecycle to which it applies (construction, operation, rehabilitation/closure, or post-closure – see Part A, Sections 7 and 8). Aspect 14 applies to cell construction; Aspect 15 and, where the footprint overlaps identified backfill areas, the site-specific requirements in Part C, apply to the Area E height extension; Aspect 14A applies to routine daily operation of handed-over cells; and Aspect 14B applies to the MRF. All other aspects apply for the phase(s) indicated in each table, including to Area E.

Where a table applies during construction (see the phase tag), it must be completed (signed and dated) by the Contractor and countersigned by the holder of the environmental authorisation prior to commencement of the relevant construction activity. Where a table applies during operation, rehabilitation/closure, or post-closure, the equivalent responsible party identified in the table (Landfill Operator, or other party as stated) is bound by it for the duration of that phase; no Contractor signature is required or applicable, since no Contractor is engaged during those phases (see Part A, Section 7.1).

Each table lists the impacts it manages by the impact ID used in the impact assessment tables of the Basic Assessment Report (Tables 17 to 19) and in the Impact Assessment Register (revision R9). An impact may be managed by more than one table.

1 Environmental Awareness Training

Applicable phase(s): All phases (construction, operation, rehabilitation/closure)	
Impact management outcome: All onsite personnel are aware of, and understand, their individual responsibilities in terms of this EMPr. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEN-C-04, GEN-O-06.*	
Impact Management Actions	1. All staff (including Contractors and casual labour) must receive environmental awareness training prior to commencing work on site; 2. Training must cover: significant environmental impacts of the Facility; mitigation measures relevant to each role; emergency preparedness and spill response; waste segregation; dust, noise and LFG management; dolomite risk awareness (ground cracking / ponding reporting); and disease/HIV-AIDS awareness; 3. Refresher training shall be provided annually and to all new employees prior to commencing work; 4. Weekly toolbox talks shall be held on site; 5. Information posters (safety, no littering, no open fires) shall be erected and maintained at key locations; 6. All employees on site shall be provided with a full set of personal protective equipment, and medical check-ups shall be conducted annually (GDARD, 2017, condition 4.9(e)); safety

for comment

Applicable phase(s): All phases (construction, operation, rehabilitation/closure)	
	data sheets shall be available on site for all chemicals and hazardous substances (condition 4.9(f)).
Responsible Person	ECO, cEO
Method of Implementation	Induction training; toolbox talks; posters
Timeframe	Prior to commencement; ongoing (weekly toolbox talks; annual refresher)
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Monthly
Evidence of Compliance	Signed induction and toolbox-talk registers

2 Site Establishment and Development Footprint

Applicable phase(s): Construction only	
Impact management outcome: Impacts on the environment are minimised during site establishment, and all activities are confined to the demarcated development footprint, including the Area E cell-raising footprint. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEN-C-02, GEN-C-04.*	
Impact Management Actions	1. A Method Statement, including a layout plan, must be provided prior to any site establishment activity; 2. All construction camps, laydown areas and access routes must be located within the GDARD/CA-approved footprint; 3. Sites must be located on previously disturbed areas where possible; 4. No development-related activity may occur outside the demarcated footprint without prior written approval of the ECO; 5. On completion of construction, all temporary infrastructure must be removed and the area rehabilitated in accordance with Section 21 (Rehabilitation and Closure); 6. Open excavations, the quarry edge and ponded water shall be barricaded and signed, unauthorised access to the construction area shall be prevented, and all personnel shall wear PPE and follow safe working procedures under the Occupational Health and Safety Act, 1993 and the Construction Regulations, 2014 (GDARD, 2017, conditions 4.3(d) and (e)).
Responsible Person	Contractor, Licence Holder
Method of Implementation	Method Statement; survey pegging; ECO sign-off
Timeframe	Prior to construction of each new cell/lift
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Weekly during construction
Evidence of Compliance	Signed Method Statement; site inspection records; photographic record

Prior for comment

3 Access Roads and Access Control

Applicable phase(s): All phases	
Impact management outcome: Access to the Facility is controlled and safe, and impact upon surrounding roads and properties is minimised. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEN-O-01, GEN-O-04, GEN-O-05.*	
Impact Management Actions	1. Access to the Facility shall be restricted to the authorised entrance and controlled via the weighbridge/access control point; 2. Competent, trained personnel shall be provided to manage access control during operating hours; 3. Vehicles delivering waste shall be inspected and classified prior to disposal; 4. The Facility entrance and access road shall be kept clean, with mud and windblown litter removed daily; 5. A wheel-wash facility shall be operated during wet conditions to prevent mud being tracked onto paved public roads; 6. Vehicle speeds on site shall be limited to 25 km/h (site roads) and 40 km/h (unpaved haul roads), reduced to 20 km/h on unconsolidated/non-vegetated surfaces; 7. Weatherproof, durable and legible notices in at least three official languages used in the area shall be placed at the entrance, prohibiting unauthorised entry and stating the hours of operation and the name and contact details of the holder and the person responsible for the landfill (GDARD, 2017, condition 4.7.4(b)); 8. Security personnel, weighbridge controllers and waste spotters shall be on duty; a register shall be kept of all vehicles entering the site; no waste vehicle shall enter the operational area without passing over the weighbridge; unexpected vehicles shall wait in a waiting area, and a log book shall be kept of vehicles turned away (GDARD, 2017, conditions 4.7.4(e), (f) and (h)); 9. No visitors shall enter the operational areas unless accompanied by an authorised company employee; entrance gates shall be manned during operating hours and locked outside them (GDARD, 2017, conditions 4.7.4(g) as proposed for amendment and 4.7.4(i)); 10. Roads shall be maintained and kept free of waste; the area outside the site shall be kept clear of waste and litter and inspected twice-weekly (Section 14A) (GDARD, 2017, conditions 4.7.4(d) and 4.8(g) as proposed for amendment); 11. The existing entrance road shall be used (GDARD, 2017, condition 4.7.4(a) as proposed for amendment); if throughput approaches 15 000 tonnes/month, traffic effects on Tonk Meter Road shall be reviewed with the City of Ekurhuleni; 12. Uncontaminated runoff from the access road (Catchment A6) drains along channel CH1 to the property boundary (DMV Consultants, 2026, p. 20); the road and channel CH1 shall be kept free of waste, spilled loads and sediment.
Responsible Person	Licence Holder, Landfill Operator, Contractor
Method of Implementation	Access control procedure; speed limit signage; wheel-wash operation
Timeframe	Ongoing throughout operation
Monitoring: Responsible Person	ECO, Site Manager
Monitoring: Frequency	Daily (access log); monthly (audit)
Evidence of Compliance	Weighbridge/access records; wheel-wash log; Communications register; vehicle register; rejected-load log

4 Fencing, Gates and Security

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Applicable phase(s): All phases	
Impact management outcome: Unauthorised access to the Facility, active cells and hazardous storage areas is prevented. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): VIA-O-02, GEN-C-04, GEN-O-08.*	
Impact Management Actions	1. The Facility perimeter shall be fenced and gates kept locked outside operating hours; 2. The perimeter fence and gates at all entrances shall be at least 1.8 m high (GDARD, 2017, condition 4.7.4(c)); 3. Security personnel shall be provided after hours; 4. All perimeter and internal fencing and gates shall be kept intact and in good condition for the operational life of the Facility, so that unauthorised access is prevented, stray animals are kept out of the site, and the controls on waste picking in Section 14A can be enforced; 5. Site and security lights shall be shielded so that no light spills into the night sky, and the main beam of any light directed towards a potential observer shall be at an angle of less than 70°; higher mountings with lower beam angles shall be used where practicable to reduce glare (van Zyl, 2026, pp. 28–29); 6. Hazardous substance storage areas, batching areas and the LFG flaring/extraction plant shall be separately fenced, with warning signage restricting entry to authorised personnel only; 7. On closure, fencing shall be removed or made permanent, as required by the approved Closure Plan.
Responsible Person	Contractor, Licence Holder
Method of Implementation	Fence and gate installation and maintenance schedule
Timeframe	Prior to commencement of the relevant activity; ongoing
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Monthly
Evidence of Compliance	Site inspection; photographic record; lighting inspection records

5 Air Quality – Dust Management

Applicable phase(s): All phases (dust generated by both construction traffic and operational vehicles)	
Impact management outcome: Dustfall generated by Facility activities remains within the limits prescribed by the National Dust Control Regulations (GNR 827 of 2013) at all receptor points, and nuisance to surrounding land users is prevented. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): AQ-C-01, AQ-O-01, CC-O-03, GEN-CL-02.*	
Impact Management Actions	1. Daily dust suppression of active haul roads, the working face and exposed surfaces shall be undertaken using a water cart, using recycled/rainwater in preference to potable water where feasible; 2. Dustfall shall be monitored in accordance with GNR 827 of 2013 (Table: residential areas D < 600 mg/m²/day 30-day average; non-residential 600 < D < 1200 mg/m²/day 30-day average), with no more than two non-sequential monthly exceedances per year; 3. Where an exceedance is recorded, a dust management plan (or update thereto) shall be developed and submitted for approval within 3 months, and implemented within 1 month of approval; 4. Vehicle speed limits (Section 3) shall be enforced as a dust-control measure;

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Applicable phase(s): All phases (dust generated by both construction traffic and operational vehicles)	
	5. Stockpiles shall be watered, covered, or otherwise stabilised against wind erosion; 6. Dust-related complaints shall be recorded in the Communications Register (Section 19), with corrective action recorded against each; 7. A water scarcity management plan shall be developed covering water storage, reduced use and improved efficiency, alternative supply sources, drought forecasting and monitoring of water use during droughts, so that dust suppression and fire-fighting needs can still be met (Brugman, 2026, pp. 52, 56); 8. The unpaved disposal route shall be watered routinely to achieve at least the 50% dust control efficiency assumed in the air quality impact assessment; this is a binding commitment (Mafusire, 2026, p. 124); 9. Freshly disposed waste shall be spread, compacted and covered routinely, as the air quality impact assessment credits a 30% dust reduction at the workface (Mafusire, 2026, p. 124); 10. During construction of each cell, clearing shall be limited and staged, existing vegetation retained where possible, earthworks stopped in strong winds, areas to be disturbed pre-watered, and wind barriers at least 2 m high with a porosity of 50% or less installed where needed (Mafusire, 2026, pp. 123–124).
Responsible Person	Contractor, Landfill Operator
Method of Implementation	Water cart; dustfall bucket monitoring network; Communications register
Timeframe	Daily (suppression); monthly (dustfall monitoring, 30-day rolling average)
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Monthly reporting; continuous suppression
Evidence of Compliance	Dustfall monitoring reports; water cart logs; Communications register; water scarcity management plan; road watering records

6 Air Quality – Landfill Gas (LFG) Management

Applicable phase(s): Operation and post-closure (LFG generation begins once waste is deposited and continues post-closure)	
Impact management outcome: Gaseous emissions from active and closed landfill cells (odour and health-impacting substances) are controlled to prevent nuisance and health impacts, and LFG infrastructure is designed, constructed and operated safely. Greenhouse gas emissions from the Facility are quantified annually and reduced through landfill gas collection and flaring (Brugman, 2026). *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): CC-O-01, CC-PC-01, AQ-O-02, AQ-O-03, AQ-O-04, AQ-O-05, ENG-O-04, ENG-O-05.*	
Impact Management Actions	**Daily cover and waste composition** 1. Putrescible waste shall be covered immediately after deposition, and the daily cover thickness (Section 14A) shall be increased where odour is a problem. 2. Waste shall be compacted to limit methane generation and fugitive emissions. Suitable organic waste shall be diverted from landfill where practicable, for example through chipping or composting (Brugman, 2026, pp. v, 49). Where feasible, highly putrescible or high-organic wastes shall be limited, and dry recycling shall take place inside an enclosed building (Mafusire, 2026, p. 125). **3.** New waste streams shall be assessed for their effect on landfill gas, odour and air quality before acceptance, as required by Section 14A (Mafusire, 2026, p. 125). **Gas wells, collection and flaring**

for comment

Applicable phase(s): Operation and post-closure (LFG generation begins once waste is deposited and continues post-closure)	
	4. Gas wells shall be installed as waste is placed: horizontal wells in the first layers, connected to a ring main, then pin-well nests once the waste surface is about 10 m above the liner. Wells shall be designed to avoid damage to the liner system and to minimise leachate ingress. Capping shall allow passive venting to the gas extraction vents (Peter Legg Consulting, 2026, pp. 39–40). 5. Landfill gas collection and flaring infrastructure shall be installed once monitoring shows that gas volumes are sufficient, which the CCIA expects by about 2030. It shall be operated to optimise collection efficiency; the CCIA assumes 75% methane collection (Brugman, 2026, pp. 22, 49). If collection and flaring cannot be implemented by 2030, the holder shall inform the competent authority in writing, with the monitoring data, the reasons and a revised programme. This is EAP-proposed, because the mitigated climate change rating in the BAR relies on collection and flaring from about 2030. 6. The flare shall be an enclosed flare designed to destroy at least 98% of the methane passed through it (Mafusire, 2026, p. 82). It shall be fenced, fitted with a flame arrester, a flame detector and gas-cleaning or conditioning equipment, and operated in accordance with the manufacturer's specifications for combustion temperature and residence time. 7. Where a landfill gas-to-energy system is installed, generators shall be acoustically enclosed and fitted with silencers. **Monitoring and corrective action** 8. Landfill gas monitoring shall be undertaken to determine gas generation rates and methane concentrations (Brugman, 2026, p. 49), and gas concentrations shall be monitored at working areas (Peter Legg Consulting, 2026, p. 40). Once gas generation is established, odour and hydrogen sulphide monitoring shall also be carried out, to verify the air quality impact assessment and identify any need for corrective action (Mafusire, 2026, p. 125). Once extraction infrastructure is operational, gas composition and extraction volumes shall be monitored with an on-site gas analyser. 9. A formal landfill gas management plan shall be implemented if monitoring shows that gas extraction or flaring is ineffective, or if elevated methane, persistent odour complaints or off-site gas migration are identified (Mafusire, 2026, p. 125). 10. Landfill gas monitoring, collection and flaring shall continue after closure for as long as monitoring shows that gas is being generated and shall be provided for in the closure and post-closure plan (Brugman, 2026, pp. 38, 49). **Greenhouse gas reporting and energy** 11. A facility-level greenhouse gas inventory shall be calculated every year from actual data: waste quantities and composition, calculated landfill methane, methane recovered or flared, diesel use and purchased grid electricity. Once gas collection operates, the records shall also include gas flow rates, methane concentrations, methane recovered, flare operating hours and system downtime. The inventory shall be reviewed when waste throughput or composition, landfill management, fuel or electricity use, or gas recovery performance changes materially. The Facility shall remain registered and shall report its annual emissions under the National Greenhouse Gas Emission Reporting Regulations, IPCC Code 4A1, managed waste disposal sites (Brugman, 2026, pp. 10, 46–50). 12. Diesel efficiency, reduced generator use, increased solar PV and energy-efficient lighting and cooling shall be implemented where practicable. Credible carbon offsets shall be considered for residual emissions that cannot reasonably be avoided (Brugman, 2026, p. 49)
Responsible Person	Licence Holder, Landfill Operator, appointed LFG specialist
Method of Implementation	Daily cover procedure; LFG extraction/flaring design per manufacturer specification; gas monitoring
Timeframe	Daily cover: ongoing from commencement of operations. LFG extraction/flaring: phased in as gas volumes become economically extractable
Monitoring: Responsible Person	ECO, Landfill Operator

For comment

Applicable phase(s): Operation and post-closure (LFG generation begins once waste is deposited and continues post-closure)	
Monitoring: Frequency	Daily (cover); monthly (LFG monitoring once installed); annual (greenhouse gas inventory)
Evidence of Compliance	Daily cover records; LFG monitoring reports; Communications register; manufacturer commissioning certificate; annual greenhouse gas inventory and proof of submission under the GHG Reporting Regulations; gas monitoring and flare records; odour and H2S monitoring records

7 Noise Management

Applicable phase(s): All phases	
Impact management outcome: Noise generated by Facility construction and operational activities does not cause a nuisance to surrounding receptors and complies with applicable regulatory limits. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEN-C-01, GEN-O-03, GEN-CL-02.*	
Impact Management Actions	1. All vehicles and machinery shall be maintained in good working order and fitted with appropriate silencing equipment; 2. Noise-generating activities shall not increase ambient noise levels at the nearest noise-sensitive receptor by more than 7dB; 3. Operating hours shall be restricted in accordance with the environmental authorisation; where not otherwise defined, activities generating significant noise shall be limited to 07:00–19:00 daily; 4. Any noise complaint received shall be recorded, investigated, and corrective action implemented and documented; 5. If noise complaints relating to reverse alarms are received, tonal alarms on site plant shall be replaced with broadband alarms, where this is consistent with safety requirements.
Responsible Person	Contractor, Landfill Operator
Method of Implementation	Vehicle/plant maintenance programme; operating-hours restriction
Timeframe	Ongoing
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Monthly; ad hoc on receipt of complaint
Evidence of Compliance	Communications register; maintenance records

8 Surface Water and Stormwater Management

Applicable phase(s): All phases	
Impact management outcome: Clean, uncontaminated stormwater is diverted away from waste and contaminated areas, and no unauthorised discharge of contaminated water or leachate to the receiving environment occurs. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): SW-O-01, SW-O-03, SW-O-04, SW-O-05, CC-O-04, VEG-C-04, VEG-O-02.*	
Impact Management Actions	**Separating clean water from contaminated water** 1. The stormwater management plan (DMV Consultants, 2026) shall be implemented for each cell phase, so that all uncontaminated stormwater is kept away from the waste body. This includes separation berms between cells, cut-off drains, temporary earth channels (1:3 side

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Applicable phase(s): All phases	
	slopes with a downstream freeboard berm) and temporary clean-water storage facilities, as shown on the plan's phase layouts (DMV Consultants, 2026, pp. 11–20). 2. Uncontaminated stormwater collects in the undeveloped quarry areas of Area E, kept apart from the operating cells by separation berms. The quarry has no natural outflow, so this water shall be pumped to the clean stormwater system. The temporary storage facilities shall keep enough free capacity for the 1:100-year 24-hour storm (DMV Consultants, 2026, pp. 12–14, 20–21). 3. The base of each active cell shall be graded to direct water away from deposited waste. Water that has been in contact with waste shall be contained, kept separate from clean runoff and directed to the contaminated water pond. After a storm, contaminated water in an active cell shall be pumped out within 72 hours. Before each new cell is commissioned, pumping capacity shall be increased to the drawdown rate in the stormwater plan: 15 l/s for Cell 1, rising to 74 l/s for Cells 7 and 8 (DMV Consultants, 2026, pp. 23–24). 4. Standby pumping capacity shall be kept on site, and pumps shall be inspected and maintained so that clean and contaminated water can be removed after any storm (EAP-proposed, because the quarry has no natural outflow – DMV Consultants, 2026, p. 12). **Drainage design and maintenance** 5. Chutes, collector drains and toe drains shall have flexible, erosion-protected linings that can tolerate settlement of the waste body. Contour drains with lined down-chutes shall be installed at intervals of no more than 100 m on capped slopes, a compacted berm about 1 m high shall be kept at the edge of the top plateau, and temporary road crossings over Canals 2 to 5 shall use 600 mm pipe culverts (DMV Consultants, 2026, pp. 7–8, 21–22). Site layout and new infrastructure shall take account of the more intense rainfall projected under climate change (Brugman, 2026, pp. 34, 57). 6. Berms, canals, drains, chutes and storage facilities shall be kept free of blockages, with silt removed at regular intervals. They shall be inspected after every significant storm, and any erosion or damage shall be repaired promptly. 7. A rain gauge shall be maintained on site. During the rainy season (October to April) it shall be read daily. Outside the rainy season it shall be read on any day on which rain falls. Readings shall be recorded in the Daily Operations Log (Part A, Section 8.2). **Discharge and sampling** 8. Water in the contaminated water pond shall be sampled before each discharge and analysed by a SANAS-accredited laboratory. It may be discharged to the municipal sewer only if it meets the limits of the municipal by-laws. It may be discharged to the environment only if it meets the limits of the applicable General Authorisation under the National Water Act, 1998, and any required water use authorisation is in place (GDARD, 2017, condition 4.10.1(f)(i) as proposed for amendment). Water that does not meet these limits shall be used for dust control on the lined landfill or removed by tanker to a licensed facility (Peter Legg Consulting, 2026, p. 36). 9. Clean stormwater pumped from the site shall be sampled before each release to the stormwater drains (GDARD, 2017, condition 4.10.1(f)(ii) as proposed for amendment). The samples shall be analysed for indicators of leachate contact specified by a water specialist (EAP-proposed). If the results show contact with waste or leachate, the release shall stop, the water shall be managed as contaminated water, and the separation berms and drains shall be inspected and repaired before release resumes. Each release, its sample results and each month in which no release took place shall be recorded in the stormwater register (Part A, Section 8.2).
Responsible Person	Licence Holder, Landfill Operator, Water Specialist
Method of Implementation	Stormwater management plan; drainage infrastructure; cell grading design
Timeframe	Ongoing; drainage adapted as each new cell/lift is developed
Monitoring: Responsible Person	ECO

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Applicable phase(s): All phases	
Monitoring: Frequency	Weekly (visual); and after each significant storm, defined as 10 mm or more of rain in 24 hours at the site rain gauge (Dyson, 2009); before each release of pumped clean stormwater and each discharge from the contaminated water pond (sampling)
Evidence of Compliance	Stormwater inspection records; photographic record; any water use authorisation; stormwater plan phase layouts; pump capacity records; post-storm inspection records; stormwater register with pre-release sample results; laboratory certificates for each contaminated water pond discharge

9 Leachate Management

Applicable phase(s): Operation and post-closure (leachate is generated once waste is deposited)	
Impact management outcome: Leachate generated by the waste body is contained, collected and managed so as to prevent any impact on soil, surface water or groundwater, including the underlying dolomite aquifer. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): SW-O-02, ENG-O-02, ENG-O-03.*	
Impact Management Actions	1. Leachate levels and quality shall be monitored and recorded; 2. All leachate shall be collected via the cell leachate collection system and directed to the leachate sump and, thereafter, pumped to the leachate pond / tank for management; 3. The cell base liner system shall comply with SANS 1936-3:2012, Section 9.2.1 (leakage must be readily detectable and remediable); 4. Leachate pumps shall be kept operating so that the leachate pipes work at atmospheric pressure and the leachate head on the liner stays low; the design leakage estimate assumes a leachate depth of about 200 mm (Peter Legg Consulting, 2026, pp. 25, 27); 5. The 238 000-litre leachate tank shall stand in its lined, bunded area draining to the contaminated water pond, and the pond shall be kept with enough free capacity for the 1:50-year 24-hour storm runoff from two consecutive cells (5 530 m³, with Cell 2 as buffer) (Peter Legg Consulting, 2026, pp. 29–30); 6. Leachate storage infrastructure (pond/tank) shall be inspected for signs of leakage, and any detected leakage rectified immediately in accordance with the Council for Geoscience conditions (2013) applicable to the Facility; 7. As part of the design of each new cell, the leachate and contaminated-water pumping and storage requirements shall be recalculated against the stormwater management plan, and the infrastructure upgraded where necessary before the cell receives waste (DMV Consultants, 2026, pp. 23–24). 8. Each section of the landfill shall be capped as soon as it reaches final height, to reduce infiltration and leachate generation (DMV Consultants, 2026, pp. 6, 16); 9. Water from the subsoil drainage (leakage detection) system shall be released to the environment only if sampling shows that it is free of leachate; water containing leachate shall be pumped to the leachate tank (Peter Legg Consulting, 2026, pp. 21, 25, 37).
Responsible Person	Licence Holder, Landfill Operator, registered professional Engineer, Stormwater Consultant
Method of Implementation	Engineered liner and leachate collection/sump/pond system; visual inspection
Timeframe	Ongoing from commissioning of each cell
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Weekly (visual inspection of leachate infrastructure); monthly (leachate quality sampling)
Evidence of Compliance	Leachate inspection log; leachate quality monitoring reports; sewer permit and monthly discharge volumes; pond level records

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10 Dolomite Risk Management (Facility-Wide, with Area E Specific Requirements)

Applicable phase(s): All phases – permanent, given the underlying dolomite hazard	
Impact management outcome: The risk of sinkhole or subsidence formation associated with the underlying dolomite is managed in accordance with SANS 1936 (2012) and the conditions set by the Council for Geoscience, including the site-specific requirements applicable to Area E (see Part C). *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEO-O-01, GEO-O-02.*	
Impact Management Actions	1. A Dolomite Risk Management Plan shall be compiled, implemented and kept current for the Facility, in accordance with the 2013 Council for Geoscience conditions of support; 2. Concentrated ingress of water into the ground shall be prevented through the stormwater and leachate management measures set out in Sections 8 and 9; 3. The site shall be visually inspected for ground cracking or anomalous ponding not draining into the stormwater system, with the results of each inspection captured in a report recording date, time, inspector and photographs, whether or not any anomaly is identified; 4. In the event that any ground crack or anomalous subsidence is observed, work in the affected area shall cease immediately, the area shall be demarcated, and a Competence Level 4 geo-professional shall be engaged to assess the finding before work resumes; 5. Site-specific dolomite groundwater level monitoring shall be established and maintained given the discrepancy noted between regional monitoring data and Facility borehole data (IntraSolutions, 2026); 6. Stormwater management shall be reassessed after the first rains of each rainy season as part of dolomite risk management (IntraSolutions, 2026, p. 27); 7. Liquid-retaining structures shall be designed so that any leakage can be readily detected or remedied, as provided by the lined contaminated water pond with its leak-detection manhole and the enclosed leachate tank in a lined, bunded area draining to the pond (Peter Legg Consulting, 2026, pp. 29–31). 8. Any new area used for storing water for landfill operations shall meet SANS 1936-2 and may need a footprint-specific dolomite stability assessment (IntraSolutions, 2026, p. 30); 9. A competent dolomite specialist shall be invited to inspect open excavations on site to confirm the findings of the dolomite stability review (IntraSolutions, 2026, p. 30); 10. Before any cell is approved over the backfilled area of Area E, the footprint-specific dolomite stability assessment shall also confirm that leakage from the cell could not affect dolomite stability (IntraSolutions, 2026, p. 30).
Responsible Person	Licence Holder, appointed Competence Level 4 geo-professional
Method of Implementation	Dolomite Risk Management Plan; visual inspection protocol; groundwater monitoring
Timeframe	Dolomite Risk Management Plan in place prior to commencement of Area E cell raising; inspections ongoing thereafter
Monitoring: Responsible Person	ECO, geo-professional
Monitoring: Frequency	Monthly visual inspection; quarterly groundwater level monitoring
Evidence of Compliance	Dolomite Risk Management Plan; inspection reports; groundwater monitoring records; post-rains stormwater reassessment; specialist inspection records

11 Solid and Hazardous Waste Management (Site-Generated Waste)

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Applicable phase(s): All phases	
Impact management outcome: Waste generated by Facility construction and operational activities (as distinct from waste received for disposal) is minimised, segregated, and disposed of or recycled appropriately. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEN-C-02, GEN-O-07.*	
Impact Management Actions	1. General waste generated on site, by the Contractor during construction and by staff during operation, shall be collected in weatherproof, vermin-proof bins and disposed of at the active working face, or taken to the MRF where it can be recovered. 2. Recyclable site-generated waste, such as scrap metal, timber, paper and packaging, shall be taken to the MRF. 3. Waste that may not be disposed of at this Class B landfill shall be kept separate, stored in a bunded, covered area with an impermeable floor and removed by a registered waste transporter to a licensed facility, with safe disposal or recycling certificates kept on file (GDARD, 2017, Annexure III; DEA, 2013c, s. 5). This includes: a. used oil, oily rags and filters, hydrocarbon-contaminated soil, used batteries, fluorescent tubes and empty chemical or hazardous-substance containers; and b. waste tyres, which are restricted from landfill disposal and shall go to a tyre recycler or permitted waste tyre facility. 4. No waste shall be burnt on site, and no site-generated waste shall be disposed of anywhere other than the active working face or the MRF.
Responsible Person	Contractor, Landfill Operator
Method of Implementation	Waste segregation and storage procedure
Timeframe	Ongoing
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Weekly
Evidence of Compliance	Waste disposal/recycling certificates; site inspection

12 Hazardous Substances Storage and Handling

Applicable phase(s): All phases	
Impact management outcome: Hazardous substances (fuels, oils, chemicals) are stored, handled and, where necessary, contained in a manner that prevents any release to the environment. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEN-C-02, GEN-O-07, VEG-C-06.*	
Impact Management Actions	1. Diesel and other liquid fuels shall be stored in tanks/bowsers on an impermeable surface within a bund of 110% (statutory minimum) to 130% capacity; 2. All hazardous substance storage areas shall have an impermeable floor and be bunded, fenced and signed “no smoking”, with adequate fire-fighting equipment available. A Material Safety Data Sheet shall be kept on site for every hazardous substance used; 3. An appropriately sized spill kit shall be available at every location where hazardous substances are used or stored, and responsible personnel trained in its use; 4. Any spill shall be contained and cleaned up immediately, with contaminated soil collected and disposed of in accordance with the National Environmental Management: Waste Act, 2008.
Responsible Person	Contractor, Landfill Operator

For comment

Method of Implementation	Bunded storage; MSDS register; spill kit deployment and training
Timeframe	Ongoing
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Weekly
Evidence of Compliance	Hazardous substance storage register; MSDS file; spill kit inspection log; incident log (for any spill)

13 Fire Prevention and Emergency Response

Applicable phase(s): All phases

Impact management outcome: The risk of fire is minimised, and effective emergency response procedures are in place for fire, spillage and other environmental emergencies.

Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): CC-O-02, CC-O-05, GEN-O-06.

Impact Management Actions

Emergency planning

1. An Emergency Response Action Plan shall be in place before operations start, and shall be reviewed annually and after each emergency or major incident. It shall include:
2. procedures for wildfire, landfill fire, vehicle or machinery fire and malfunction, flooding and other natural disasters, earthquakes and industrial action;
3. evacuation and assembly points; and
4. current contact details for the police, ambulance, the municipal fire services and the nearest emergency centre (GDARD, 2017, condition 4.7.3; Brugman, 2026, pp. 56–57).
5. The municipal fire services and the local Fire Protection Association shall be notified of Facility operations and given the emergency contact details. All staff shall receive emergency response training as part of environmental awareness training (Section 1).
6. After a flood or a felt seismic event, buildings, roads, slopes, stormwater and containment systems shall be inspected before normal operations resume (Brugman, 2026, p. 57).

Fire prevention

7. Open fires and burning of waste are prohibited on site. Waste shall be compacted and covered daily to limit the risk of fire (Section 14A).
8. Fire-fighting equipment shall be kept on all site vehicles and at hazardous storage areas, and serviced regularly. Enough water for fire-fighting shall be kept available, including during water-scarcity periods (Brugman, 2026, pp. 52, 56).
9. Areas vulnerable to fire shall be identified. Firebreaks and vegetation management shall be maintained to stop veld fires spreading onto the site (Brugman, 2026, p. 56).

Climate resilience

10. Backup power shall be maintained, where practicable, for the weighbridge, offices and leachate aeration (Brugman, 2026, pp. 51, 56–57).
11. Heat-stress procedures shall be applied for staff working at the open face. These include hydration, shade and, where practicable, avoiding work during the hottest part of the day (Brugman, 2026, p. 57).

Incident reporting

12. Incidents shall be reported as follows:
    a. The Department shall be notified within 48 hours of any sporadic leachate generated by unusual circumstances (GDARD, 2017, condition 4.9(i)).
    b. The Department shall be notified within 24 hours of any incident that has caused, or could cause, water pollution. Within 14 days, an action plan with a time schedule

For comment

Applicable phase(s): All phases	
	shall be submitted to correct the impact, prevent further impact and prevent a recurrence (GDARD, 2017, conditions 4.9(j), 4.14(b) and (c)). c. The Department shall be notified without delay of any equipment failure, accident or fugitive emission that has caused, or could cause, significant pollution (GDARD, 2017, condition 4.14(f)). d. An emergency incident that pollutes, or could pollute, a water resource shall also be reported, as soon as reasonably practicable, to the Department of Water and Sanitation, to the South African Police Service or the fire services, and to the catchment management agency (National Water Act 36 of 1998, s 20(3)). e. Any other environmental emergency incident shall be reported in terms of section 30 of NEMA, including a written report within 14 days. f. Every incident shall be recorded in the Environmental Incident Log (Part A, Section 8.7).
Responsible Person	Licence Holder, Landfill Operator
Method of Implementation	Emergency Response Action Plan; fire-fighting equipment provision, incident reporting
Timeframe	Emergency Response Action Plan in place prior to commencement of operations; reviewed annually
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Monthly (equipment check); annual (plan review)
Evidence of Compliance	Emergency Response Action Plan; fire-fighting equipment service records; zero-fires target tracked in Environmental Audit Report; firebreak and fire-equipment inspection records; heat-stress procedure

14 Landfill Cell Construction (Liner and Leachate Collection System)

Applicable phase(s): Construction only (per new cell, prior to hand-over to the Landfill Operator)	
Impact management outcome: Each new landfill cell, including cells within the Area E height extension footprint, is constructed in accordance with the approved engineering design and SANS 1936-3:2012, before being handed over to the Landfill Operator for waste deposition. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): ENG-O-01, ENG-O-02, ENG-O-03.*	
Impact Management Actions	1. Before each new cell is constructed, the slope stability analysis shall be reviewed by a professional engineer, using laboratory interface shear test results for the geosynthetics actually used. It shall show factors of safety of at least 1.3 for operating slopes, 1.5 for final slopes and 1.1 under seismic loading (Peter Legg Consulting, 2026, p. 36). The review shall be submitted to the competent authority for approval with the request to construct the cell. The same submission shall include: a. the assessment of the clay liner substitute's compatibility with the waste; b. the leachate and contaminated-water pumping and storage requirements, sized to the stormwater management plan (Section 9); c. the construction quality assurance plan for the cell, covering material specifications, testing requirements and frequencies, defects and repairs, and reporting; and d. the groundwater monitoring boreholes for the cell (Section 20) (Peter Legg Consulting, 2026, pp. 27, 36, 38–39; DMV Consultants, 2026, pp. 23–24). 2. From Cell 2 onwards, the compacted clay liner may be replaced by a reinforced geosynthetic clay liner (GCL) to GRI-GCL3, but only once the competent authority has approved the

Not for comment

Applicable phase(s): Construction only (per new cell, prior to hand-over to the Landfill Operator)	
	design. The GCL shall be laid on 150 mm of clayey soil compacted to 95% Proctor density (Peter Legg Consulting, 2026, pp. 23, 26–27). 3. Each cell, including its liner, subsoil drainage (leakage detection) layer and leachate collection system, shall be built under the supervision of a registered professional engineer, in accordance with the approved design, the construction quality assurance plan and SANS 1936-3:2012, Section 9.2.1. 4. On completion, the engineer shall issue a construction sign-off confirming that the liner, subsoil drainage and leachate collection systems meet the approved design. No waste may be placed in the cell until this sign-off has been issued and the cell handed over to the Landfill Operator. 5. Construction of each cell falls under the construction-phase documentation and reporting regime in Part A, Section 8.1, for the duration of that construction only.
Responsible Person	Contractor, registered professional engineer
Method of Implementation	Approved cell design and construction specification; Method Statement
Timeframe	For the duration of construction of each new cell only (see Part A, Section 7.1)
Monitoring: Responsible Person	ECO, registered professional engineer
Monitoring: Frequency	At least weekly while construction of the cell is active (Part A, Section 8.1); once-off engineer sign-off prior to hand-over
Evidence of Compliance	Engineer's construction sign-off record; construction close-out report; regulator approval of GCL design; CQA plan and records per cell; stability review per cell; subsoil water quality records; competent authority approval of each new cell submission

14A Daily Waste Deposition, Compaction and Cover

Applicable phase(s): Operation only (continuous, from hand-over of each cell)	
Impact management outcome: Waste is deposited, compacted and covered daily in accordance with accepted landfilling practice, so as to minimise environmental impact and maintain the structural integrity of the waste body, for the full operational life of each handed-over cell. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEN-O-01, GEN-O-02, GEN-O-05, GEN-O-08, AQ-O-01, AQ-O-03, ENG-O-03, ENG-O-04, ENG-O-05.*	
Impact Management Actions	**Deposition and cover** 1. Waste shall be deposited and spread in layers not exceeding 500 mm (uncompacted), and compacted against a working-face slope no steeper than 1 in 4. End tipping shall be limited to the pioneering waste layer, to protect the cell liner. 2. The working face shall be no larger than 30 m by 30 m (Mafusire, 2026, Table 6-6; Tonkmeter pers. comm., 2026). Putrescible (food) waste shall be disposed of in a special cell or at the base of the working face and covered immediately (GDARD, 2017, condition 4.8(c)). 3. Daily cover of at least 100 mm (150 mm until amended condition 4.8(f) is granted (GDARD, 2017)) shall be applied at the end of each operating day. A one-week stockpile of cover material shall be kept for emergencies. 4. A wet-weather cell with a stable access surface shall be maintained for use during periods of heavy rainfall. 5. Differential settlement of the waste body shall be monitored by periodic survey, given the increased waste height in Area E.

for comment

	Litter, pests and animals 6. Windblown waste shall be controlled by daily cover, the limited working face and hand collection. The perimeter fences, the access road and the vegetation around the working face shall be inspected at least twice a week, and on any day on which litter is seen blowing beyond the working face. Windblown litter found during each inspection shall be removed and recorded in the litter register (GDARD, 2017, conditions 4.8(b) and 4.9(c) as proposed for amendment). Until those amendments are granted, removable litter fences and daily litter picking apply. a. Where litter is seen to escape the working face, additional measures shall be applied immediately to contain it. These may include reducing the size of the working face, moving tipping to a more sheltered part of the face, covering exposed waste earlier, or suspending tipping in strong wind. Additional litter picking shall continue until the escaping litter is under control. The measures taken shall be recorded in the litter register. ● A pest and vector control programme covering flies, rodents and other pests shall be implemented by a registered pest control operator, with records kept of each treatment. Stray animals shall be kept out of the site. **Waste pickers** 8. Only registered and inducted waste pickers wearing PPE may recover recyclables at the working face, within a demarcated picking zone kept apart from tipping trucks and compaction plant. No picking shall take place during tipping or compaction, on unstable slopes or outside operating hours, and no minors shall be allowed on site. Picking shall be moved progressively to the MRF, in line with the Waste Picker Integration Guideline (DEFF and DSI, 2020; Tonkmeter pers. comm., 2026). **Waste acceptance** 9. A waste acceptance procedure shall be applied to every load: a. the load, its source and the waste type shall be recorded at the weighbridge and checked against the waste manifest or declaration; b. a general waste stream other than municipal waste shall be accepted only once it has been classified and assessed in terms of GN R634 and GN R635, and confirmed as permissible for disposal on a Class B landfill in terms of GN R636; c. waste spotters shall inspect each load at the working face; and d. loads that do not comply, including any waste listed in Annexure III of the IEA or prohibited or restricted under section 5 of GN R636, as amended, shall be refused and recorded, with the reason, in the rejected-load log (GDARD, 2017, conditions 4.7.4(e) and 4.7.5 as proposed for amendment; DEA, 2013a; 2013b; 2013c). 10. Before any additional waste stream is accepted, it shall also be assessed for: a. its compatibility with decomposing municipal waste, with Industrial Type 2 wastes in particular checked to prevent unacceptable odours (Peter Legg Consulting, 2026, p. 6); b. its compatibility with the geosynthetic clay liner. Wastes containing significant concentrations of calcium or magnesium shall not be accepted on cells lined with a geosynthetic clay liner (Peter Legg Consulting, 2026, p. 27); and c. its effect on odour and air quality. Additional controls shall be made mandatory where the stream could materially change landfill gas, hazardous air pollutant or odour emissions (Mafusire, 2026, p. 125). ○
Responsible Person	Landfill Operator; registered pest control operator.
Method of Implementation	Daily deposition, compaction and cover procedure
Timeframe	Continuous, for the operational life of each handed-over cell
Monitoring: Responsible Person	ECO, Landfill Operator

For Comment

Monitoring: Frequency	Daily (Daily Operations Log, Part A, Section 8.2); at least twice weekly (litter inspections); quarterly (settlement survey).
Evidence of Compliance	Daily Operations Log; litter register; pest control treatment records; waste picker register and induction records; weighbridge records; rejected-load log; waste classification and assessment records; settlement survey reports.

14B Materials Recovery Facility (MRF) Operation

Applicable phase(s): Construction (MRF expansion) and operation

Impact management outcome: Recyclable materials are received, sorted, baled and stored at the MRF in compliance with the applicable norms and standards, without litter, dust, noise, odour, fire, pollution of soil or water, or harm to workers and waste pickers, and residues are disposed of at the landfill.

Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEN-O-01, GEN-O-03, GEN-O-06, GEN-O-08, GEN-O-09, VEG-O-01, VEG-O-02.

Impact Management Actions

Registration and records

6. The MRF shall be operated in accordance with the National Norms and Standards for the Storage of Waste (GN 926 of 2013) and the National Norms and Standards for the Sorting, Shredding, Grinding, Crushing, Screening or Baling of General Waste (GN 1093 of 2017), under which the Facility is registered (GDARDE, 2024; DEA, 2013e; 2017b).
7. Builder's-rubble crushing, which is not included in the current registration, shall not start until the registration has been extended to include it (GDARDE, 2024).
8. Composting of garden waste shall not start until the Facility has been registered under the National Norms and Standards for Organic Waste Composting (GN 561 of 2021) (DFFE, 2021).
9. The MRF shall be registered on the Gauteng Waste Information System as a waste recovery facility (sorting area) and a waste transfer station (storage area) (GDARDE, 2024). The volume and nature of waste received, recovered, removed off site for recycling and returned to the landfill as residue shall be recorded and reported (GDARD, 2017, conditions 4.13(b) and 4.14(a)).

Receipt, sorting and storage

10. All loads delivered to the MRF, including baled material from collection businesses and material recovered by waste pickers, shall be recorded at the weighbridge (source, waste type and mass).
11. Dry recyclables shall be sorted and baled inside an enclosed building where feasible (Mafusire, 2026, p. 125). Non-recyclable residues shall be taken to the working face at least daily. Hazardous items found during sorting shall be separated and managed under Section 11.
12. Recyclables and bales shall be stored only in the designated storage area, on a hard surface, stacked stably and covered or contained so that material cannot be blown away, and removed regularly so that the stored volume stays within the registered capacity (GDARDE, 2024).
13. Waste tyres shall be stored in a separate designated area away from ignition sources and removed regularly to a tyre recycler or permitted waste tyre facility (EAP-proposed).

Nuisance, fire and safety

14. The MRF area and its fences shall be included in the litter inspections and the pest and vector control programme (Section 14A), and in the dust and noise controls (Sections 5 and 7). Putrescible material shall be removed from the sorting area daily (EAP-proposed).
15. Combustible stockpiles and bales shall be separated by fire breaks, smoking shall be prohibited in the MRF, and fire-fighting equipment and water shall be available there. The MRF shall be covered by the Emergency Response Action Plan (Section 13).
16. Workers and registered waste pickers at the MRF shall be inducted, wear PPE and follow safe working procedures for balers, conveyors and loading equipment. Waste picker

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Applicable phase(s): Construction (MRF expansion) and operation	
	activities shall follow the Waste Picker Integration Guideline (DEFF and DSI, 2020) and Section 14A. **Site and stormwater** 17. The MRF expansion shall be built only within the demarcated footprint (Section 17), under the construction requirements of Section 2 and a Contractor method statement (Annexure 1, Part A). 18. Runoff from hardened MRF surfaces shall be directed so that it does not erode adjacent unpaved areas. The site shall be monitored for erosion, erosion features rehabilitated as soon as possible, and vegetation cover maintained outside the infrastructure footprint (Venter, 2026, p. 23).
Responsible Person	Licence Holder; MRF supervisor / Landfill Operator
Method of Implementation	Registration under the norms and standards; MRF operating procedure; GWIS reporting
Timeframe	Ongoing from the start of MRF operations; registration updated before any expansion or new activity
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Monthly (inspection); quarterly (GWIS reporting); annually (review against the registration)
Evidence of Compliance	Registration letter and any updates; GWIS submissions; MRF tonnage and residue records; tyre removal records; fire-equipment and inspection records

15 Area E Height Extension – Construction Specific Requirements

Applicable phase(s): Construction and operation (throughout the raising of Area E above 1 m)	
Impact management outcome: The increase in permitted landfill height within Area E from 1 m to 25 m above natural ground level is achieved without compromising the stability of the underlying dolomite, the integrity of the existing (and any additional) liner and leachate systems, or the geotechnical stability of the waste body. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): ENG-O-01, GEO-O-02, SW-O-02.*	
Impact Management Actions	1. The final height of Area E shall not exceed 25 m above natural ground level. The landform shall be built and capped in accordance with the detail design and Drawings P077E-300 to P077E-304, with final side slopes no steeper than 1 vertical to 3 horizontal (Peter Legg Consulting, 2026). Side-slope stability, final cover and stormwater management shall be designed for the full 25 m height, including the higher hydraulic head on the liner and leachate system. 2. The per-cell slope stability review in Section 14 shall cover the waste body of that cell up to its final height above 1 m, using the same method and factors of safety. If the waste body is to be raised beyond what the approved review covered, or the design changes, an updated geotechnical and structural stability assessment shall be obtained and implemented before raising continues. 3. Each successive lift shall be placed only once the underlying lift has achieved the compaction and settlement criteria in the approved engineering design. 4. The waste body shall be surveyed progressively to confirm airspace use and the landform against the approved final landform design.
Responsible Person	Licence Holder, registered professional engineer, geo-professional
Method of Implementation	Per-cell slope stability review covering final height (Section 14); progressive survey

For comment

Timeframe	Before each cell is raised above 1 m; ongoing survey throughout the height extension
Monitoring: Responsible Person	ECO, registered professional engineer
Monitoring: Frequency	Per-cell review; quarterly progressive survey
Evidence of Compliance	Approved slope stability review per cell; survey records; as-built survey of the final landform against Drawings P077E-300 to P077E-304

16 Heritage Resources

Applicable phase(s): Construction and rehabilitation (any excavation)	
Impact management outcome: Impact to heritage resources, including chance finds, is avoided or, where unavoidable, appropriately managed and reported. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEN-C-03.*	
Impact Management Actions	1. Should any archaeological, palaeontological, or heritage material (including human remains) be exposed during construction, all work in the affected area must cease immediately; 2. The find must be reported to the nearest museum, a qualified archaeologist/palaeontologist, or the South African Police Service, as applicable; 3. Sufficient time shall be allowed for a professional assessment and, if required, recovery, before work resumes in the affected area.
Responsible Person	Contractor, Licence Holder
Method of Implementation	Chance-finds procedure; heritage specialist on call
Timeframe	Throughout all excavation and construction activities
Monitoring: Responsible Person	ECO
Monitoring: Frequency	As required (event-driven)
Evidence of Compliance	Chance-finds register; specialist assessment reports where applicable

17 Flora and Fauna

Applicable phase(s): All phases	
Impact management outcome: Impact on surrounding flora and fauna, and the risk of alien invasive species establishment, is minimised. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): VEG-C-01, VEG-C-02, VEG-C-03, VEG-C-04, VEG-C-05, VEG-C-06, VEG-C-07, VEG-O-01, GEN-C-05.*	
Impact Management Actions	**Footprint and no-go areas** 1. Before the proposed MRF expansion site is cleared, its footprint shall be surveyed and demarcated on site. No vegetation shall be cleared outside the demarcated footprint (Venter, 2026). Areas outside it shall be maintained as no-go areas, including the land to the north-east of the site mapped as Zone 2 (High Control Zone) of the Gauteng Provincial Environmental Management Framework, where no clearing, stockpiling, vehicle access or storage shall take place (GDARD, 2022).

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Applicable phase(s): All phases	
	2. Good vegetation cover shall be maintained in all areas not used for infrastructure (Venter, 2026). **Alien and invasive species** 3. An alien and invasive species control and monitoring plan shall be compiled before clearing of the proposed MRF expansion site starts, and implemented for the life of the Facility. It shall cover the listed species recorded on the site: Eucalyptus camaldulensis, Cestrum aurantiacum, Cirsium vulgare, Solanum pseudocapsicum and Verbena bonariensis (Category 1b), and Acacia decurrens (Category 2) (Venter, 2026). Under the plan: 4. alien invasive vegetation shall be removed at least monthly; 5. coppicing Eucalyptus camaldulensis stumps shall be treated to prevent regrowth, using a registered herbicide applied by a trained person in line with the product label (EAP-proposed; the specialist notes that the trees coppice after cutting, Venter, 2026); and 6. Category 2 species such as Acacia decurrens may remain on site only if a permit has been obtained for them (Venter, 2026, p. 23). 7. Removed alien plant material shall be disposed of at the working face. Seed-bearing material shall not be chipped for compost or mulch (EAP-proposed). 8. The spread of invasive and weedy species from the site shall be prevented, and seed shall be cleared from vehicle tyre treads and grills before vehicles leave the site (Venter, 2026). **Flora and fauna during clearing** 9. Before the proposed MRF expansion site is cleared, a competent person shall walk through it to move or relocate any animals, and clearing shall proceed in one direction so that animals can move away (EAP-proposed; fauna were not assessed by the specialist). Trapping, poisoning, killing or unauthorised removal of animals is prohibited, and the ECO shall be informed of any animal found on site so that it can be safely captured and relocated (AECOM, 2016, s. 5). 10. If any protected or threatened plant is found during clearing, work in that area shall stop until specialist advice and any required permit have been obtained (EAP-proposed precaution). **Erosion and pollution in the clearing area** 11. Erosion and sediment control shall be applied while the proposed MRF expansion site is cleared and built. Sediment fences shall be installed around erosion-prone areas, the site shall be monitored for erosion, and erosion features shall be rehabilitated as soon as possible (Venter, 2026). a. Within the clearing area: b. there shall be no refuelling, vehicle maintenance or hydrocarbon storage; c. vehicles shall be free of leaks; d. spill kits shall be available, and any spill reported immediately and cleaned up; e. sufficient clearly marked bins shall be provided, and no littering is permitted; and f. workers shall not use natural areas as ablution facilities (Venter, 2026).
Responsible Person	Licence Holder, Landfill Operator (alien species control during operation), Contractor
Method of Implementation	Vegetation management plan; no-go area demarcation; alien and invasive species control and monitoring plan; erosion and sediment control
Timeframe	Ongoing; MRF footprint demarcated and control plan in place before clearing starts
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Frequencies stipulated in the Alien and invasive species control and monitoring plan
Evidence of Compliance	Alien vegetation removal records; site inspection; approved control and monitoring plan; survey of MRF footprint; erosion inspection records; record of the pre-clearing fauna walk-through

Pr for comment

18 Traffic Management

Applicable phase(s): Operation (delivery vehicle movements) and Construction (construction traffic)	
Impact management outcome: Impact of Facility-related traffic on surrounding roads, pedestrians and other road users is minimised. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEN-O-04, GEN-C-01, GEN-CL-02.*	
Impact Management Actions	1. Signage warning of heavy vehicle movement shall be erected at the Facility entrance and along the approach route; 2. Vehicle movements shall, where possible, be scheduled to avoid peak pedestrian periods (e.g. school times); 3. Any road damage attributable to Facility traffic shall be repaired at the Licence Holder's cost.
Responsible Person	Contractor, Landfill Operator
Method of Implementation	Traffic management plan; signage
Timeframe	Ongoing
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Monthly
Evidence of Compliance	Communications register; road condition inspection records

19 Socio-Economic Interaction and Communications Management

Applicable phase(s): All phases	
Impact management outcome: Open, transparent and timely engagement is maintained with landowners, communities and other affected parties, and complaints are resolved within defined timeframes. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEN-O-08, GEN-O-09, GEN-O-10, AQ-O-03.*	
Impact Management Actions	**Complaints and communication** 1. A Communications Register shall be maintained, recording all interactions with interested and affected parties, including queries and complaints and how they were resolved. For every complaint, including air quality and odour complaints, the register shall record the investigation, the corrective action and the outcome (Mafusire, 2026, p. 124). Complaints shall be handled within these timeframes (AECOM, 2016): a. the complaint recorded and the Site Manager notified immediately; b. a response to the complainant within 1 working day; c. rectification or mitigation within 3 working days; d. written close-out within 5 working days; and e. a detailed report to the Site Manager within 7 working days. 2. A monitoring committee of interested and affected parties, nearby communities and the holder shall be maintained for as long as the disposal facility exists and for at least two years after disposal stops (GDARD, 2017, condition 4.15, as proposed for amendment). The committee shall: a. have terms of reference and a code of conduct in line with the Minimum Requirements; b. meet at least twice a year;

For comment

Applicable phase(s): All phases	
	c. receive each external audit report at a committee meeting, with the report and the minutes of that meeting submitted to the Department within 60 days of the meeting (condition 4.12.2(c) as proposed for amendment); and d. circulate its minutes to members within 14 days. **Socio-economic benefits** 3. Local employment and procurement shall be maximised where practicable, consistent with the skills available in the surrounding community. Skills training shall be offered to locally employed staff where practicable, to enhance the employment benefit of the extended operating life. 4. Recyclables shall continue to be diverted through the MRF so that disposal airspace is used efficiently. The tonnages received, recovered and disposed of shall be reported quarterly on the Gauteng Waste Information System (GDARD, 2017, condition 4.14(a)).
Responsible Person	Licence Holder, Site Manager, ECO
Method of Implementation	Communications Register; complaints-handling procedure
Timeframe	Ongoing, per the timeframes specified above
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Continuous (as complaints arise); monthly reporting
Evidence of Compliance	Communications Register; close-out records for each complaint; monitoring committee minutes

20 Groundwater Monitoring

Applicable phase(s): All phases (baseline through post-closure)	
Impact management outcome: Groundwater quality and level in the vicinity of the Facility, including the dolomite aquifer underlying Area E, is monitored to detect any impact at the earliest opportunity. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GW-C-01, GW-O-01, GW-O-02, GW-O-03, GW-PC-01, ENG-O-02.*	
Impact Management Actions	**Monitoring network and programme** 1. A groundwater monitoring borehole network shall be maintained to the satisfaction of the Department. Boreholes shall be clearly marked, numbered and fitted with lockable caps. The monitoring system shall be able to tell different contamination sources apart; for this purpose, the City of Ekurhuleni's monitoring results for the Rietfontein landfill shall be obtained and reviewed annually (GDARD, 2017, conditions 4.10.1(a)–(c)). 2. Detection monitoring shall cover the IEA Annexure I variables quarterly and the Annexure II variables annually, or at such frequency as the Department determines. Background boreholes shall be sampled for the Annexure II variables on every monitoring occasion (GDARD, 2017, conditions 4.10.2 and 4.10.3). The subsoil drainage (leakage detection) system of each cell shall be sampled on every monitoring occasion, and its results reported with the groundwater results. 3. Sampling shall be carried out by a suitably qualified person in accordance with the Minimum Requirements for Water Monitoring at Waste Management Facilities (DWAF, 1998b). Analysis shall use SANS methods, or an equivalent method approved by the Department (GDARD, 2017, condition 4.11). **Investigation** 4. Where any detection variable shows an increasing trend:

For comment

Applicable phase(s): All phases (baseline through post-closure)	
	a. monthly investigative monitoring of the Annexure II variables shall be started and continued until the trend stops (GDARD, 2017, condition 4.10.4); b. the trend shall be reported to the ECO and the Department; c. where pollution has occurred or may occur, further investigation and remediation shall be undertaken to the satisfaction of the Department (GDARD, 2017, conditions 4.10.1(g) and 4.10.6); and d. any incident that has caused or may cause water pollution shall be reported as set out in Section 13. 5. Investigative monitoring at boreholes TM-3 and TM-4 shall continue until the cause of the recorded changes has been established. **Future cells and closure** 6. The existing TM network shall continue to monitor Cell 1 while it receives waste and after closure. Before construction of each new cell starts (future cells only, not Cell 1): 7. a groundwater specialist shall site, or confirm the positions of, additional background and detection borehole pairs for that cell; 8. the boreholes shall be drilled and constructed in accordance with DWAF (1998b), surveyed, numbered and locked before the liner of that cell is completed; and 9. at least one baseline round, preferably one wet-season and one dry-season round, shall be sampled before any waste is placed in that cell. In practice, this means drilling at least six months before first waste placement (GDARD, 2017, condition 4.10.1(c)). 10. Any monitoring borehole damaged or lost during quarrying or construction shall be replaced, at a position confirmed by the groundwater specialist, before the next monitoring round. 11. Groundwater monitoring shall continue for 30 years after closure, or such lesser period as the Department may determine (GDARD, 2017, condition 4.10.5).
Responsible Person	Licence Holder, appointed hydrogeologist
Method of Implementation	Groundwater Monitoring Protocol (Appendix to this EMPr)
Timeframe	Ongoing from commencement of operations
Monitoring: Responsible Person	ECO, hydrogeologist
Monitoring: Frequency	Quarterly (Annexure I variables); annually (Annexure II variables), or as the Department determines
Evidence of Compliance	Groundwater monitoring reports; borehole logs and survey for new boreholes; baseline results before waste placement in each new cell

21 Rehabilitation and Closure

Applicable phase(s): Operation (progressive rehabilitation), closure and rehabilitation	
Impact management outcome: Areas disturbed by Facility activities, and the final landform on closure (including the raised Area E landform), are rehabilitated to a stable, vegetated condition consistent with the approved final land use. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): GEN-CL-01, GEN-CL-02, VIA-O-01, SW-O-03, SW-O-05.*	
Impact Management Actions	**Progressive rehabilitation** 1. Each section of the landform shall be capped as soon as it reaches final height, and rehabilitation of each completed cell shall start as soon as practicable after landfilling there stops (DMV Consultants, 2026, pp. 6, 16). Capped areas and side slopes shall be grassed with indigenous grasses progressively as each section is capped, not left until final closure.

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Applicable phase(s): Operation (progressive rehabilitation), closure and rehabilitation	
	Indigenous shrubs may be planted for screening (Peter Legg Consulting, 2026, p. 41; van Zyl, 2026, p. 28). 2. Rehabilitated areas shall achieve at least 60% indigenous grass cover by the end of the first growing season after seeding, and 80% by the end of the maintenance period (EAP-proposed). Alien invasive species re-establishing on rehabilitated areas shall be removed under the alien and invasive species control plan (Section 17). **Final landform and cover** 3. The final landform shall not exceed 25 m above natural ground level. Its side slopes shall be no steeper than 1:3 and its top surfaces shall slope at no less than 1:50. The final cover shall control infiltration and gas migration (Peter Legg Consulting, 2026, p. 39). Where practicable within the approved design, the landform shall be shaped with curved rather than straight lines to reduce its visual impact (van Zyl, 2026, p. 28). Its end use shall be restricted open space unless another use is agreed with stakeholders (Peter Legg Consulting, 2026, p. 39). 4. A formal detailed closure design shall be submitted to the competent authority for approval before any portion of Area E is capped (Peter Legg Consulting, 2026, p. 42). **Closure planning** 5. A Closure Plan complying with Appendix 5 of the EIA Regulations shall be kept current for the 25 m landform. It shall cover final rehabilitation, aftercare and landfill gas management after closure, and shall be submitted with the application for authorisation of site closure. **Notifications** 6. The Department shall be notified at least one year before the intended closure of the site, and within 14 days if an urgent closure becomes necessary (GDARD, 2017, condition 4.17). 7. The IEA renewal process shall be started with the Department at least one year before the IEA expires (GDARD, 2017, condition 4.19(a)).
Responsible Person	Licence Holder, Landfill Operator
Method of Implementation	Progressive rehabilitation programme; approved Closure Plan
Timeframe	Progressive, commencing as each cell/lift is completed; final closure per approved Closure Plan
Monitoring: Responsible Person	ECO
Monitoring: Frequency	Monthly during active rehabilitation; quarterly thereafter
Evidence of Compliance	Rehabilitation inspection and vegetation-cover survey records; updated Closure Plan for the 25 m landform

22 Post-Closure Monitoring and Aftercare

Applicable phase(s): Post-closure only	
Impact management outcome: Environmental performance of the closed Facility (leachate, LFG, groundwater, dolomite stability, final cover integrity) continues to be monitored and maintained for the duration required by the Closure Plan and environmental authorisation. *Impacts managed (BAR Tables 17 to 19; Impact Assessment Register R9): CC-PC-01, GW-PC-01, SW-PC-01.*	
Impact Management Actions	1. Post-closure monitoring shall continue at the frequencies in the approved Closure Plan, and for at least these periods: a. landfill gas monitoring, collection and flaring, for as long as monitoring shows that gas is being generated (Section 6);

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Applicable phase(s): Post-closure only	
	b. groundwater monitoring, for 30 years after closure or such lesser period as the Department may determine (GDARD, 2017, condition 4.10.5), with the monitoring boreholes maintained throughout; and c. leachate and dolomite stability monitoring. 2. Leachate extraction shall continue for as long as leachate is generated. 3. The final cover, contour drains, lined down-chutes and toe drains shall be inspected at least quarterly and after every significant storm (Section 8). Erosion, cracking, differential settlement and blockages shall be repaired promptly.
Responsible Person	Licence Holder
Method of Implementation	Post-closure monitoring programme per approved Closure Plan
Timeframe	For the duration specified in the approved Closure Plan
Monitoring: Responsible Person	ECO / appointed post-closure monitoring specialist
Monitoring: Frequency	Quarterly (Year 1–5 post-closure); as specified thereafter in the Closure Plan
Evidence of Compliance	Post-closure monitoring reports; final cover inspection records

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PART C: SITE-SPECIFIC ENVIRONMENTAL ATTRIBUTES – AREA E DOLOMITE

This Part addresses the site-specific environmental attribute applicable to the Area E height extension that is not adequately addressed by the generic aspect tables in Part B, namely the dolomite hazard underlying Area E. This section must be read together with Section 10 (Dolomite Risk Management) and Section 15 (Area E Height Extension – Construction Specific Requirements) of Part B, and with the Dolomite Stability Review prepared by IntraSolutions (Report Reference IR2222, dated 10 July 2026).

1. Site-Specific Attribute: Dolomite Land

Area E (47.3 ha) is underlain by dolomite of the Malmani Subgroup at intermediate to great depth, blanketed by Karoo-age deposits. The southern portion of Area E was historically quarried for clay (by Corobrik and, subsequently, Vereeniging Refractories (Pty) Ltd) and has since been backfilled; the nature and compaction standard of this backfill material is not fully known (IntraSolutions, 2026).

Parameter	Finding (IntraSolutions, 2026)
Inherent Hazard Class	1/2//1 – low to medium susceptibility of sinkhole and subsidence formation with respect to ingress of water; low susceptibility of all-size events with respect to anthropogenic groundwater drawdown.
Design Hazard Class	2
Dolomite Area Designation (SANS 1936-1:2012)	D3 – precautionary measures in addition to those preventing concentrated ingress of water are required.
Permissible land use	Solid waste disposal facilities (IN5) are permissible on Design Hazard Class 2 areas subject to a D3 designation, per SANS 1936-1:2012, Table 3.
Groundwater	Shallow (perched) groundwater recorded in 2011/2013 boreholes; a deeper level (45 m, Borehole 7/24) may represent the dolomite aquifer. Regional dolomite aquifer monitoring (DWS station C2N1114) recorded 51 m depth in 2005 and 29 m currently — a discrepancy from Facility borehole data that warrants site-specific monitoring.

2. Council for Geoscience Conditions of Support (2013)

The Council for Geoscience supported development of the Facility as a waste treatment facility in comments dated 23 May 2013 (reference F3849-2 Rem Portion 81, Rietfontein 128-IR), subject to the following conditions, which remain applicable to the Area E height extension:

- A Dolomite Risk Management Plan must be compiled and implemented for the site, since it is underlain by dolomite;
- The professional team must carefully consider appropriate water precautionary measures and certify that these have been implemented;

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- The design of the waste disposal site must ensure that: no contaminated water or liquids leak into the underlying soils or rock; all stormwater is diverted away from the site to natural watercourses; all water precipitated from undeveloped parts of the site is diverted away from the waste body; the recommended standard lining system is installed; and any detected leakage is rectified;
- The precautionary measures stipulated in SANS 1936-3:2012 for waste disposal facilities must be implemented.

3. Site-Specific Impact Management Outcome and Actions – Area E Dolomite Stability

Impact management outcome: The stability of the dolomite underlying Area E is not compromised by the height extension of landfill cells from 1 m to 25 m above natural ground level, and any indication of instability is detected and addressed at the earliest opportunity.

Impact Management Action	Responsible Person	Method of Implementation	Timeframe	Monitoring: Responsible Person	Monitoring: Frequency	Evidence of Compliance
Cell base liner design	Registered professional engineer, geo-professional	Cell liner design certified compliant with SANS 1936-3:2012 § 9.2.1 (leakage readily detectable/remediable)	Prior to construction of each new cell within Area E	ECO	Once-off per cell, prior to waste deposition	Engineer's design certification
Footprint-specific dolomite assessment over identified backfill areas	Licence Holder, Competence Level 4 geo-professional	Site investigation and stability assessment specific to the footprint of any new cell overlapping the delineated backfill area (southern Area E)	Prior to approval of any cell footprint overlapping backfill areas	ECO, geo-professional	Once-off per affected footprint	Footprint-specific geotechnical report
Visual monitoring for ground cracking / anomalous ponding	ECO	Documented visual inspection walkover of Area E, recording date, time, inspector and photographs	Ongoing throughout construction, operation and post-closure aftercare	ECO	Monthly	Signed inspection report (even where no anomaly is found)
Site-specific dolomite groundwater level monitoring	Licence Holder, hydrogeologist	Dedicated dolomite aquifer monitoring point(s) established and monitored, reconciled against regional DWS monitoring data	Established prior to commencement of Area E height extension; ongoing thereafter	ECO, hydrogeologist	Quarterly	Groundwater level monitoring records
Response to detected ground movement	Licence Holder, Competence Level 4 geo-professional	Immediate cessation of work in the affected area; demarcation; engagement of a Competence Level 4 geo-professional to	Immediate upon detection	ECO	Event-driven	Incident log entry; geo-professional assessment report; sign-off prior to

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Impact Management Action	Responsible Person	Method of Implementation	Timeframe	Monitoring: Responsible Person	Monitoring: Frequency	Evidence of Compliance
		assess before work resumes				resumption of work

4. Limitations and Third-Party Review

The dolomite hazard findings summarised in this Part C are based on the interpretation of existing geological, geophysical and borehole data by IntraSolutions (2026). Dolomite hazard assessment is an empirical science, and poorer sub-areas may not be fully captured by the available investigation. A competent specialist should be engaged to inspect any open excavation within Area E to confirm the findings of the underlying report on an ongoing basis, and any third-party review of these findings should be considered on their technical merits before being relied upon.

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ANNEXURE 1: METHOD STATEMENTS, PLANS AND PROCEDURES

A. Contractor method statements

Unless otherwise agreed with the ECO, the Contractor shall submit a method statement for each of the following activities that forms part of its appointment, no less than 14 days before the activity starts. Each method statement must be specific to the site and the task; a generic reproduction of this EMPr will not be accepted (Part A, Section 8.6).

a. Site establishment (camps, laydown and storage areas, access routes);
b. Cell construction (earthworks, lining, subsoil drainage and leachate collection system);
c. Construction-phase stormwater, erosion and sediment control;
d. Construction-phase dust and noise control;
e. Workshop, plant and equipment maintenance and refuelling;
f. Handling, transport and storage of hazardous substances;
g. Management of construction waste (storage, segregation, removal);
h. Installation of landfill gas wells, collection and flaring infrastructure;
i. Batching plant operation, if applicable; and
j. Any other activity for which the Contractor is specifically appointed, such as vegetation clearing at the proposed MRF expansion site, capping or rehabilitation works.

B. Plans and procedures to be kept by the holder

The holder shall compile, implement and keep current the following plans and procedures. They shall be available on site (Part A, Section 8.5):

a. Dolomite Risk Management Plan (facility-wide), including the dolomite monitoring protocol for Area E (Section 10);
b. Emergency Response Action Plan (Section 13);
c. Water scarcity management plan (Section 5);
d. Stormwater and leachate operating procedures (Sections 8 and 9);
e. Waste acceptance procedure (Section 14A);
f. MRF operating procedure (Section 14B);
g. Landfill gas monitoring, and the operation of the gas collection and flaring system once installed (Section 6);
h. Annual facility-level greenhouse gas inventory (Section 6);
i. Alien and invasive species control and monitoring plan (Section 17);

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j. Heritage chance-finds procedure (Section 16);

k. Complaints and Communications Register procedure (Section 19); and

l. Closure Plan, including progressive rehabilitation and aftercare (Section 21).

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ANNEXURE 2: APPLICABLE LEGISLATION, STANDARDS AND GUIDELINES

Legislation / Standard	Relevance
National Environmental Management Act, 1998 (Act No. 107 of 1998)	Overarching environmental management framework; section 24N EMPr requirement.
Environmental Impact Assessment Regulations, 2014 (GNR 982, as amended)	Content requirements for this EMPr (Appendix 4); auditing and amendment procedure (regulations 34–37).
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)	Waste classification, licensing and management requirements applicable to landfilling and resource recovery activities.
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	Air quality management, including the National Dust Control Regulations (GNR 827 of 2013).
Climate Change Act, 2024 (Act No. 22 of 2024)	National climate change response, including mitigation and adaptation; context for the greenhouse gas measures in Section 6.
National Water Act, 1998 (Act No. 36 of 1998)	Water use authorisation and standards for any discharge; protection of water resources.
National Heritage Resources Act, 1999 (Act No. 25 of 1999)	Protection of heritage resources and chance-finds procedure.
Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)	Workplace health and safety, including emergency preparedness.
SANS 1936-1:2012, 1936-2:2012, 1936-3:2012, 1936-4:2012	Development of dolomite land – site investigation, geotechnical, precautionary and construction requirements applicable to Area E.
Minimum Requirements for Waste Disposal by Landfill (DWAF, 1998a)	Landfill operation and closure guidance, referred to in the IEA (condition 4.7.1(a)); containment design now governed by GN R636.
National Greenhouse Gas Emission Reporting Regulations (GN 275 of 2017, as amended)	Annual greenhouse gas reporting for managed waste disposal sites (Section 6).
Waste Classification and Management Regulations (GN R634 of 2013)	Classification of waste streams before acceptance (Section 14A).
National Norms and Standards for the Assessment of Waste for Landfill Disposal (GN R635 of 2013)	Assessment of waste streams before acceptance (Section 14A).
National Norms and Standards for Disposal of Waste to Landfill (GN R636 of 2013, as amended)	Class B containment requirements and disposal restrictions (Sections 11, 14 and 14A).
National Norms and Standards for the Storage of Waste (GN 926 of 2013)	Storage of recyclables and bales at the MRF; registration HWSD/24-25/0069 (Section 14B).
National Norms and Standards for the Sorting, Shredding, Grinding, Crushing, Screening or Baling of General Waste (GN 1093 of 2017)	Sorting and baling at the MRF; registration HWSD/24-25/0069 (Section 14B).

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Legislation / Standard	Relevance
National Norms and Standards for Organic Waste Composting (GN 561 of 2021)	Registration required before composting starts (Section 14B).
Gauteng Waste Information Regulations, 2004	Registration and reporting of the MRF and landfill on GWIS (Sections 14B and 19).
National Waste Information Regulations (GN R625 of 2012)	Reporting of waste quantities received, recovered and disposed of (Section 19).
Minimum Requirements for Water Monitoring at Waste Management Facilities (DWAF, 1998b)	Construction of monitoring boreholes and groundwater sampling (Section 20).
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004), and the Alien and Invasive Species Regulations and Lists, 2020	Control of listed alien and invasive species and permits for Category 2 species (Section 17).
National Veld and Forest Fire Act, 1998 (Act No. 101 of 1998)	Firebreaks and veld fire prevention (Section 13).
Construction Regulations, 2014 (GN R84)	Safe working at excavations, the quarry edge and ponded water (Section 2).
City of Ekurhuleni by-laws for water services and the discharge of trade effluent	Limits for discharging leachate and contaminated water to the municipal sewer (Sections 8 and 9).
Gauteng Provincial Environmental Management Framework, 2021	Zone 2 no-go area next to the proposed MRF expansion site (Section 17).
Waste Picker Integration Guideline for South Africa (DEFF and DSI, 2020)	Integration of waste pickers and the move of picking to the MRF (Section 14A).

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ANNEXURE 3: REFERENCES

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This EMPr should be read together with, and does not replace, the approved Facility engineering design, the Dolomite Risk Management Plan, the Groundwater and Air Quality Monitoring Protocols, and the Closure Plan.

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ANNEXURE 4: EAP CVs

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ANNEXURE 5: MAPS

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