

**ENVIRONMENTAL MANAGEMENT PLAN FOR THE PROPOSED INDUSTRIAL
TOWNSHIP ESTABLISHMENT ON THE REMAINDER OF THE FARM
PALMIETFONTEIN 3750, DANNHAUSER LOCAL MUNICIPALITY, KWAZULU-
NATAL PROVINCE.**

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PREPARED FOR:

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AUGUST 2021

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LOCAL MUNICIPALITY, KWAZULU-NATAL PROVINCE.**

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Environmental Assessment Practitioner Declaration

I **Phakwago M. Kabelo** in my capacity as an Environmental Assessment Practitioner, hereby declare that I-

- Act as an independent consultant;
 - Do not have any financial interest in the undertaking of the activity, other than remuneration for the work performed in terms of the National Environmental Management Act, 1998 (Act 107 of 1998);
 - As a registered member of the South African Council for Natural Scientific Professions, will undertake our profession in accordance with the Code of Conduct of the Council, as well as any other societies to which we are members; and
 - Based on information provided to us by the project proponent, and in addition to information obtained during this study, have presented the results and conclusion within the associated document to the best of our professional judgement
-

Appendices:

Appendix A – Environmental Code of Conduct

Appendix B – Environmental Complaints Registers

Appendix C – Environmental Incidents Registers

Appendix D – Environmental Training Register

Annexure E – EA / ROD

Appendix F – Details and Expertise of the EAP

Abbreviations

Department of Economic Development, Tourism and Environmental affairs	(EDTEA)
Department of Energy	(DE)
Environmental Management Programme/ Plan	(EMPR)
Independent Environmental Auditor	(IEA)
Environmental Control Officer	(ECO)
Environmental Consultant	(EC)
Environmental Assessment Practitioner	(EAP)

Definitions

Construction:

Construction means the building, erection or establishment of a facility, structure or infrastructure that is necessary for the undertaking of a listed or specified activity but excludes any modification, alteration or expansion of such a facility, structure or infrastructure and excluding the reconstruction of the same facility in the same location, with the same capacity and footprint.

Disturbance:

Any event or series of events that disrupts ecosystem, community, or population structure and changes resources, substrate availability, or the physical environment.

Earth Works:

This involves construction machinery, dampening and general preparation of the site for construction purposes.

Environmental Incident:

- Any action undertaken (or omitted) by the proponent or his duly appointed representatives (e.g. contractors) that results in overly/unnecessary disturbance or damage to the environment.
- Any action undertaken (or omitted) by the proponent or his duly appointed representatives (e.g. contractors) that could lead to (has potential for) overly/unnecessary disturbance or damage to the environment.
- Non-adherence to environmental legal requirements/laws (including the stipulations of authorisations issued in respect of a proposed activity e.g. those contained in a Record of Decision).

Environmental Management Plan:

A guideline document/directive outlining the Plan (EMP) for mitigation, monitoring and institutional measures to be taken during project implementation and operation to avoid or control adverse environmental impacts, as well as the actions needed to implement these measures (World Bank, 1999:1).

Environmental Officer:

Person/party appointed to monitor compliance with the Environmental Management Plan.

Interested & Affected party:

A person, group of people, an organisation (public or private), a business, or other party that has an interest or is affected in terms of their health, property rights, or economy by a proposed activity.

Impact:

A description of the potential effect or consequence of an aspect of the development on a specified component of the biophysical, social or economic environment within a defined time and space.

Mitigation Measures:

Mitigation measures encompass all actions taken to eliminate, offset or reduce potentially adverse environmental impacts to acceptable levels (World Bank, 1999:1).

1 Introduction

1.1. Project background

Mang Geo-Enviro Services has been appointed by Dannhauser Local Municipality as an independent Environmental Assessment Practitioner (EAP) to undertake a Basic Assessment Process for the proposed industrial Township establishment on the remainder of the farm palmietfontein 3750, under the jurisdiction of Dannhauser Local Municipality, Kwazulu-Natal Province.

1.2. Project Description and Locality

The site for the proposed development is approximately 19.53 hectares and the site is situated 2km north east of Dannhauser Local Municipality along Church Street. The proposed development site is currently undeveloped and from the environmental perspective, it is not sensitive; therefore, it is suitable for the proposed industrial township since the surrounding properties are being used as industrial stands. The coordinates of the site are 28°01'1.52"S 30°03'55.63"E.

As a result of scarcity of suitable settlement slopes, there has been an increase in significant encroachment onto relatively marginal land such as steep slopes and water resources which are highly susceptible to environmental degradation, particularly soil erosion.

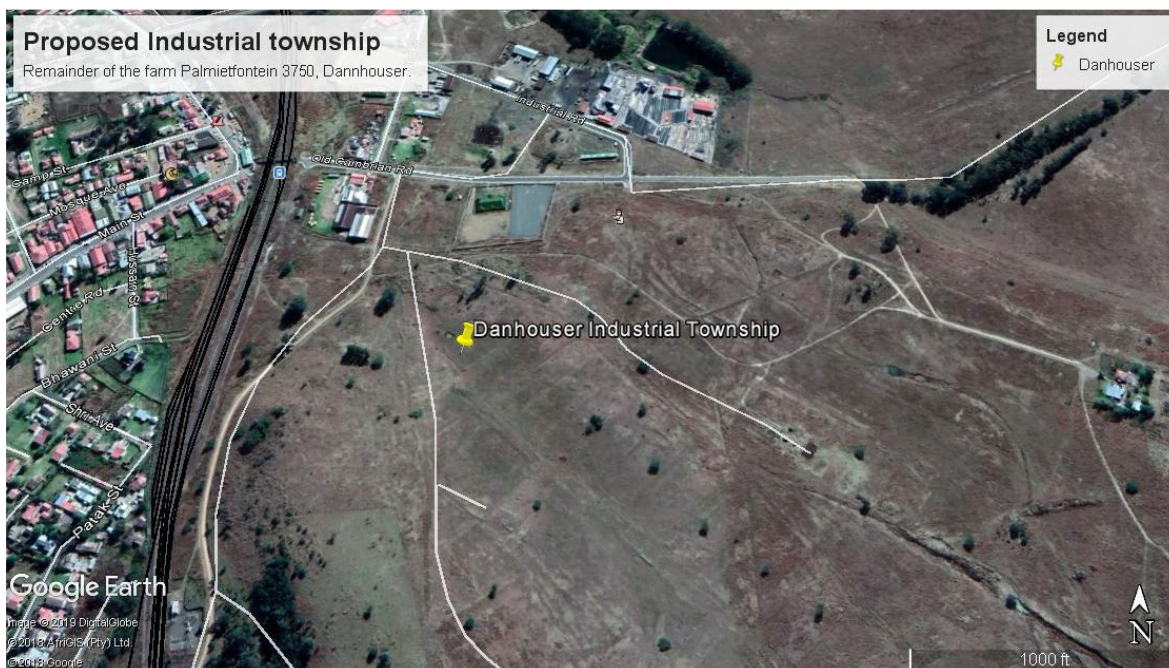


Figure 1: Locality map of the proposed development site.

1.3. The proposed establishment of industrial township incorporates the following:

- General industry
- P.O.S (Truck depot)
- Government- SASSA offices
- Roads

1.4. Aim of This Document

The purpose of this EMPr is to ensure that all environmental impacts from the various phases of development (i.e. planning, construction and operation) of the site are kept to a minimum. This includes detailing the roles and responsibilities of all parties with respect to environmental management during development, via the implementation and monitoring of this EMPr.

1.5. Status of The Document

The provisions of this EMPr are binding on the Contractor (and his subcontractors, where applicable) during the Construction Period and Defects Liability Period of the contract. This specification must therefore be read in conjunction with all the documents that comprise the contract documents for this contract. In the event that any conflict occurs between the terms of the EMPr and the Project Specification, the terms of the EMPr shall stand.

On appointment of the Contractor, the Acknowledgement Form attached to the back of this EMPr (Appendix A) is to be signed by the project Applicant, Employer's Representative (ER) and all Contractors and Subcontractors, including the Contractors Designated Environmental Officer (DEO). A copy of the signed form is to be kept by the Applicant and forwarded to the independent Environmental Control Officer (ECO).

Responsibility for environmental management on the site, as stipulated in the EMPr will be handed over from the Contractor to the Applicant upon issuing of a Completion Certificate at site handover.

2. Statutory and other legal requirements

2.1. Environmental Impact Assessment (EIA) Regulations (2014)

On review of the Environmental Impact Assessment (EIA) Regulations (2014), the proposed activity/ development triggers the following Listed Activities;

- (1) Listing Notice 1 (GN R 327):
- Activity 27

Based on the above, the Applicant has applied for Environmental Authorisation from the Competent Authority, Kwazulu-Natal Department of Economic Development, Tourism and Environmental Affairs (EDTEA) for the purpose of the commencement of the above-mentioned activity.

The Applicant, however, is reminded of Section 28 of the National Environmental Management Act (Act No. 107 of 1998) (NEMA), Duty of Care and Remediation of Environmental Damage, which states the following:

"(1) Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot be reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment. (2) the persons on whom subsection (1) imposes an obligation to take reasonable measures, including and owner or land, a person in control of land or premises, or a person who has a right to use the land or premises on which or in which – (a) any activity or process is or was performed or undertaken; or (b) any other situation exists, which causes or has caused or is likely to cause significant pollution or degradation of the environment. (3) The measures required in terms of subsection (1) may include measures to – (a) investigate, assess and evaluate the impact on the environment; (b) inform and educate Employees about the environmental risks of their work and the manner in which their tasks must be performed in order to avoid causing significant pollution or degradation of the environment; (c) cease, modify or control any act, activity or process causing pollution or degradation; (d) contain or prevent the movement of pollutants or the causing of degradation; (e) eliminate the source of the pollution or degradation; or (f) remedy the effects of the pollution or degradation..."

2.2. Other applicable legislations

Legislations/Act	Purpose/Application of the Act/Legislation
South African Constitution (No 108 of 1996)	Chapter 2 of the Constitution comprises the Bill of Rights which makes provision for Environmental Rights. This notes that everyone has the right: <ul style="list-style-type: none"> • To an environment that is not harmful to their health or well-being; and • To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:

	<ul style="list-style-type: none"> ✓ Prevent pollution and ecological degradation; ✓ Promote conservation; and ✓ Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.
National Water Act, 1998 (Act No. 36 of 1998) (NWA)	<p>The primary purpose of this Act is to manage and control South Africa's water resources by:</p> <ul style="list-style-type: none"> • Meeting the basic human needs of present and future generations; • Promoting the efficient, sustainable and beneficial use of water in the public interest; • Providing for growing demands for water use; • Protecting aquatic and associated ecosystems and their biological diversity; • Reducing and preventing pollution and degradation of water resources and meeting international obligations.
National Environmental Management: Air Quality Act, 2004 (Act No 39 of 2004) (NEMAQA)	This Act provides for the control of dust, noise and offensive odors.
Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) (OHSA)	This Act makes provision in its Regulations for the general duties of employers to their employees. The Regulations make provisions for general duties of employers and self-employed persons to persons other than their employees.
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEMWA)	This Act reformed the laws regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development; to provide for institutional arrangements and planning matters; by providing for national norms and standards for regulating the management of waste by all spheres of government; by providing for specific waste management measures; by providing for licensing and control of waste management activities; by providing for the remediation of contaminated land; by providing for the national waste information system; and by providing for compliance and enforcement and for matters connected therewith.

3. Implementation of the EMPr

3.1. The Applicant

Dannhauser Local Municipality
8 Church Street
Dannhauser
3080

Cell: 076 471 3393

Email: sibusison@dannhauser.gov.za

- 3.1.1. The overall responsibility for ensuring compliance lies with Dannhauser Local Municipality.
- 3.1.2. Dannhauser Local Municipality shall ensure that the contract all staff members, sub-contractors (if any) and suppliers understand and adhere to the EMPR.
- 3.1.3. Dannhauser Local Municipality shall ensure that all sub-contractors (if any) and suppliers are contractually bound to adhere to the EMPR and Environmental Code of Conduct.

3.2. Environmental Control Officer

- 3.2.1. The Applicant shall nominate a suitably qualified staff member or consultant as Environmental Control Officer (ECO) to supervise the implementation of the EMPR.
- 3.2.2. The ECO must be notified of this appointment and furnished with the contact details of the ECO.
- 3.2.3. The ECO shall be responsible for:
 - Day to day implementation of the EMPR and coordination of all environmental matters on site.
 - Ensuring that all staff members are adequately trained and aware of the EMPR and its Environmental Code of Conduct.
 - Liaison with the project manager, client and public.

4. GENERAL REQUIREMENTS OF EMPr

4.1. EMPr Administration.

i. Operational Phase

During the Operational Phase, a copy of this EMPr must be maintained. All senior operational and maintenance staff will be required to familiarise themselves with the contents of the document and will have to sign a register to the effect that they have read and understood the contents of the

document. If necessary, the ECO can conduct a training session with senior personnel regarding the implementation of the EMPr during the Operational Phase. Senior staff will be required to educate their operational staff as to the contents of this document and how to remain compliant.

ii. Decommissioning Phase

The same principles as noted in the Construction Phase will apply.

No decommission is envisaged for this development. Further, decommissioning is likely to trigger listed activities in terms of the National Environmental Management: Waste Act, 59 of 2008 which will require detailed assessment and authorization.

4.2. Roles and Responsibilities

i. EDTEA

EDTEA is the designated authority responsible for authorising the EMPr related to the development. EDTEA has overall responsibility for ensuring that the proposed township complies with the conditions of this EMPr.

Dannhauser Local Municipality under the South African environmental legislation is accountable for the potential impacts of the activities that are undertaken and is responsible for managing these impacts. The License/ authorization holder therefore has overall environmental responsibility to ensure that the implementation of this EMPr complies with the relevant legislation and the conditions of this EMPr. The Licence / Environmental Authorisation Holder will appoint a Contractor to undertake the construction and operation of the proposed development but will still ultimately be responsible for any environmental impacts.

ii. Employer's Representative (ER)

The appointed Civil and Consulting Engineers as the Employer's Representative (ER), would act as the Employer's on-site implementing agent, together with the appointed Contractors during the Construction and Operational Phases. The ER will have the responsibility to ensure that the Employer's responsibilities are executed in compliance with the relevant legislation and this EMPr.

In addition to general project management, the ER, together with the License/ Authorisation Holder, has the responsibility to appoint the Environmental Control Officer (ECO). Any on-site decisions regarding environmental management, however, are ultimately the responsibility of the ER.

iii. Operations Manager

During the Operational Phase, the Operations Manager will have the responsibility to ensure that the Licence Holder's responsibilities are executed in compliance with the relevant legislation and this EMPr. Any on-site decisions regarding environmental management are ultimately the responsibility of the Operational Manager.

The Operations Manager is to fully familiarise him / herself with the contents of this EMPr in terms of the Operational Phase. He / she will be required to sign the register confirming his / her familiarity with the document (see Appendix A). The Operations Manager must furthermore possess the necessary skills to action environmental management to all personnel under the employment of the Licence Holder and must ensure compliance with the requirements of the EMPr on a daily basis.

iii. Environmental Awareness Training

The Operations Manager shall ensure that adequate Environmental Awareness Training of senior site personnel takes place and that all Construction and Operational Phase workers receive an Induction Presentation on the importance and implications of the EMPr.

The presentation shall be conducted, as far as possible, in the employees' language of choice.

As a minimum, training shall include:

- Explanation of the importance of complying with the EMPr;
- Discussion of the potential environmental impacts of construction / operational activities;
- The benefits of improved personal performance;
- Employees' roles and responsibilities, including emergency preparedness;
- Explanation of the mitigation measures that must be implemented when carrying out their activities;
- Explanation of the specifics of this EMPr and its implementation; and
- Explanation of the management structure of individuals responsible for matters pertaining to the EMPr.
- The Operations Manager shall keep records of all Environmental Training Sessions, including names, dates and the information presented. These records will be presented to the ECO on request during his / her audits.

5. ENFORCING THE EMPr

The Applicant, or their designated representatives, has an overall responsibility to ensure that all those people involved / appointed to the project are aware of and familiar with its environmental requirements. The EMPr shall be part of the terms of reference for all contractors, sub-contractors and suppliers. All contractors, sub-contractors and suppliers have to give some assurance that they understand the EMPr and that they will undertake to comply with the conditions therein.

All senior and supervisory staff members shall familiarise themselves with the full contents of the EMPr. They shall know and understand the specifications of the EMPr and shall be able to assist other staff members in matters relating to the implementation of the EMPr.

All parties involved in the project must sign an acknowledgement that they are familiar with the requirements of the EMPr. These records must be kept on file by the Applicant.

6. PHASES OF THE PROJECT

The following abbreviations will be applicable in all phases of the project:

ER = Employer's Representative / Implementing Agent

DEO = Designated Environmental Officer

C = Contractor

OM = Operations Manager

6.1. Planning/ Designing Phase

Planning/ Designing Phase	Responsibility	Monitoring	Timeframe
Obtaining an environmental authorization from EDTEA prior to the demarcation of sites.	ER	Applicant	Once off
Signing of service agreement between the applicant and the relevant service providers	Applicant	Applicant	Once off
Appointment of the contractor	Applicant	Applicant	Once off

6.2. Construction Phase

Construction Phase	Responsibility	Monitoring	Timeframe
Layout			
The Contractor is to adhere to the following with regards to the Materials Storage Area and Contractors Camp: <ul style="list-style-type: none"> ✓ All servitudes and existing services must be verified prior to construction; ✓ The camp site must be fenced before construction commences; and ✓ Site establishment shall not take place on steep slopes, within 50m of wetland areas and watercourses (including drainage lines), or sites declared as no-go areas. 	C	ER & DEO	Before construction
Adequate parking must be provided for site staff and visitors. This must be demarcated so not as to encroach into the surrounding environment	C	ER & DEO	Duration of Construction Phase
Temporary Fencing			
Areas where construction activities (including temporary access tracks) are prohibited are referred to as no-go areas. Entry into these areas by any person, vehicle or equipment without the ER's written permission will result in a penalty.	C	ER & DEO	Duration of Construction Phase

The Contractor shall erect temporary fencing along the perimeter of the contractor's site camp and designated no-go areas.	C	ER & DEO	Duration of Construction Phase
The Contractor shall maintain in good order all demarcation fencing and barriers for the duration of construction activities, or as otherwise instructed.	C	ER & DEO	Duration of Construction Phase
Topsoil removal and stock piling			
The Contractor shall remove topsoil from all areas where topsoil will be impacted on by construction activities, including temporary activities such as storage and stockpiling areas.	C	ER & DEO	Ongoing
Stripped topsoil shall be stockpiled in areas agreed with by the ER for later use in rehabilitation and shall be adequately protected. Topsoil is considered to be the natural soil covering, including all the vegetation and organic matter. The depth of the soil may vary and due to this reason the top 300mm of soil must be removed and preserved as topsoil.	C	ER & DEO	Ongoing
Topsoil stockpiles shall be convex in shape and no more than 2m high. Stockpiles shall be shaped so that no surface water ponding can take place.	C	ER & DEO	Ongoing
Topsoil stockpiles shall be protected from erosion by wind and rain by providing suitable stormwater and cut-off drains (approved by the ER) and / or the establishment of temporary indigenous vegetation.	C	ER & DEO	Ongoing
Any topsoil contaminated by hazardous substances shall not be used but shall be disposed of at a registered landfill site. Proof of appropriate disposal must be filed in the Environmental File in the Contractor's Camp.	C	ER & DEO	Ongoing
The Contractor shall be held responsible for the replacement, at his expense, of any unnecessary loss of topsoil due to his failure to work according to the requirements of this EMPr.	C	ER & DEO	Ongoing
Workshop, Equipment Maintenance and Storage			
All vehicles and equipment shall be kept in good working order to maximize efficiency and minimise	C	ER & DEO	Ongoing

pollution.			
Stockpiling			
The Contractor shall plan his activities so that materials can be transported directly to and placed at the point where it is to be used.	C	ER & DEO	Ongoing
Should temporary stockpiling become necessary, the areas for the stockpiling of excavated / imported material shall be indicated and demarcated on the site plan submitted in writing to the ER for his approval, together with the Contractor's proposed measures for prevention, containment and rehabilitation against environmental damage?	C	ER & DEO	Ongoing
Should temporary stockpiling become necessary, the areas for the stockpiling of excavated / imported material shall be indicated and demarcated on the site plan submitted in writing to the ER for his approval, together with the Contractor's proposed measures for prevention, containment and rehabilitation against environmental damage?	C	ER & DEO	Ongoing
Stockpiles shall be positioned and sloped to create the least visual impact.	C	ER & DEO	Ongoing
Stormwater Control			
Temporary stormwater control measures must be installed as and when necessary, to prevent and minimise the erosion of exposed soils.	C	ER & DEO	Ongoing
If deemed necessary to prevent erosion and environmental degradation, cut-off drains must be installed to facilitate the control of surface water runoff velocities.	C	ER & DEO	Ongoing
Stormwater control barriers must be used to divert surface water runoff into vegetative buffers and not directly into the exposed workings or onto adjacent roads.	C	ER & DEO	Ongoing
Hazardous Substances			
Should any hazardous material/substances (e.g. petrochemicals, paints, etc.) need to be stored on the	C	ER & DEO	Ongoing

site, this shall be under controlled conditions. All hazardous materials/substances shall be stored in a secured, appointed area that is fenced and has restricted entry. All storage shall take place using suitable, sealable containers to the approval of the ER. These containers must be placed within a bunded area which has the capacity to contain 110% of the total volume it stores. The floor and wall of the bund area shall be impervious to prevent infiltration of any spilled / leaked material into the soil.			
Material Safety Data Sheets (MSDS's) must be readily available for all chemicals / hazardous substances to be used on site. Where possible and available, MSDS's should include additional information on ecological impacts and measures to minimise and mitigate against any negative environmental impacts in the result of an accidental spill.	C/E R	ER & DEO	Ongoing
Ensure that any hydrocarbon/chemical/hazardous substance spills are cleaned up as soon as possible.	C	ER & DEO	Ongoing
Noise Control			
It must be ensured that noise levels are kept to a minimum during the Construction Phase. All machinery and equipment to be utilised on the site should be fitted with mufflers and must be maintained in good working order to minimise noise levels. It is recommended further that the Contractor encourage construction workers to minimise shouting and hooting on the site. Construction work should be completed in as short a time frame as possible in order to limit the longevity of these impacts.	C	ER & DEO	Ongoing
The Contractor shall restrict all operations that result in undue noise disturbance to local communities and / or dwellings to daylight hours on workdays (Monday to Friday) or as otherwise agreed with the ER.	C	ER & DEO	Ongoing
The Contractor shall warn any local communities and / or residents that could be disturbed by noise	C	ER & DEO	Ongoing

generating activities well in advance and shall keep such activities to a minimum.			
The Contractor shall be responsible for compliance with the relevant legislation with the respect to noise.	C	ER & DEO	Ongoing
The entire Contractors' equipment shall be fitted with effective exhaust silencers and shall comply with the SANS recommended code of practice Code 0103:1983, for construction plant noise generation.	C	ER & DEO	Ongoing
Waste Management			
General construction waste: Must be removed from bins at enough intervals to prevent overflow. This waste must be stored in skips within a designated waste storage area in the Contractor's Camp. General waste must be transported to the local municipal General Waste Landfill Site by the Municipality, the Contractor or a private waste disposal Contractor. Service agreements in this regard must be obtained by the Applicant / Contractor prior to the commencement of construction activities. It is recommended that general wastes be separated on site and delivered to appropriate depots for recycling. This would be facilitated by the provision of separate and labelled bins / skips.	C	ER	Ongoing
The Contractor shall ensure that all site personnel are instructed in the proper disposal of all waste.	C	ER	Ongoing
Demarcated and fenced areas where waste can be safely contained and stored on a temporary basis within the Contractors Camp must be established. General waste storage areas must be separate from hazardous waste storage areas. When adequate volumes (not more than 1 month) have accumulated, waste is to be removed from site and disposed of at a licensed facility.	C	ER	Ongoing
Waste is not to be buried or burned on site.	C	ER	Ongoing
Ablution Facilities: approved temporary chemical toilets must be provided to all staff and must not be	C	ER	Ongoing

<p>closer than 50 m from any water course.</p> <p>One chemical toilet per 10 workers must be stationed on site within adequate accessible site. The provided toilets should be serviced at least once a week by a registered service provider. The contractor should ensure that the toilet paper is provided and the toilets are kept hygienically clean at all times.</p> <p>The chemical toilets need to be placed on an impermeable surface to prevent ground surface/ soil contamination. Care must be taken to avoid contamination of soil and water, pollution and nuisance to adjoining areas. Therefore, the contractor should ensure that long drop toilets are not used.</p>			
Dust Control			
Construction vehicles shall comply with speed limits and haul distances shall be minimised. Material loads shall be suitably covered and secured during transportation.	C	ER & DEO	Ongoing
Exposed soils and material stockpiles shall be protected against wind erosion. The location of stockpiles shall take into consideration the prevailing wind directions and locations of sensitive receptors.	C	ER & DEO	Ongoing
The Contractor shall implement dust suppression measures (e.g. Water spray vehicles, covering material stockpiles, etc.) if and when required.	C	ER & DEO	Ongoing
Environmentally friendly soil stabilisers may be used as additional measures to control dust on gravel roads and construction areas if complaints are received regarding dust generation. This is especially pertinent as excessive dust could disturb moving vehicles on adjacent roads, creating a potential traffic hazard.	C	ER & DEO	Ongoing
The Contractor shall ensure that the generation of dust is minimised and shall implement a dust control	C	ER & DEO	Ongoing

programme, as necessary, to maintain a safe working environment and minimise nuisance for surrounding residential areas/dwellings.			
Protection of Fauna and Flora			
The Contractor shall ensure his employees do not undertake any hunting, trapping, shooting, poisoning or other disturbance of any fauna on-site or in the areas surrounding the site.	C	ER & DEO	Ongoing
The feeding of any wild animals is prohibited.	C	ER & DEO	Ongoing
The use of pesticides is prohibited unless approved by the ER	C	ER & DEO	Ongoing
Fire Control			
The Contractor shall ensure that basic fire-fighting equipment is available at all construction activities on site.	C	ER & DEO	Ongoing
The Contractor shall appoint a Fire Officer who shall be responsible for ensuring immediate and appropriate action in the event of a fire.	C	ER & DEO	Ongoing
The Contractor shall ensure that all site personnel are aware of the procedure to be followed in the event of a fire.	C	ER & DEO	Ongoing
Protection of Heritage and Cultural Feature			
If any archaeological or paleontological artefacts or remains / graves are uncovered during earthmoving activities, work in the vicinity of the find shall cease immediately. The Contractor shall immediately notify the ER, who shall contact the relevant Competent Authority (SAHRA) who will take appropriate steps.	C	ER & DEO	Ongoing
The Contractor will be required to abide by the specifications as set out by the Competent Authority or the Heritage Specialist appointed to investigate the find.	C	ER & DEO	Ongoing
The Contractor may not, without a permit issued by the relevant heritage resources authority, destroy	C	ER & DEO	Ongoing

damage, excavate, alter, deface or otherwise disturb archaeological material.			
Environmental Education & Awareness			
It is the Contractors' responsibility to provide the site foreman with no less than 1 hour's environmental training and to ensure that the foreman has enough understanding to pass this information onto the construction staff.	C	ER & DEO	Ongoing
The Contractor / ECO must be on hand to explain any technical issues and to answer questions.	C/ ECO	ER & DEO	Ongoing

6.3. OPERATIONAL PHASE

Operational Phase	Responsibility	Occurrence	Method
Water Quality Management			
The Dannhauser Local Municipality must be contacted with regard to any discharge to sewer.	OM	Ongoing	Site inspection
Management of Contaminated Land			
Contaminated land investigations, including soils, groundwater and surface water monitoring and sampling to be implemented should impact is observed. This will take into account the source-pathway-receptor (S-P-R) linkages and should serve to determine the nature and extent of any impacts to the receiving environment as a result of site activities. These investigations are to be carried out with consideration of the relevant legal processes. Risk assessment to be undertaken if considered necessary.	OM to outsource as appropriate	Ongoing	Site investigation
Risk based corrective action (RBCA) to be implemented based on the findings of the site investigations. Remedial plans will be developed based on conceptual site model (CSM) and	OM to outsource as	Ongoing	Site remediation

should consider S-P-R linkages. Remedial actions may include physical, chemical and/or microbiological intervention.	appropriate		
Post-remediation monitoring plan to be implemented to determine effectiveness of remedial actions and serve as an early-warning system for potential re-occurrence.	OM to outsource as Appropriate	Ongoing	Ongoing monitoring
Drainage Systems			
Stormwater culverts and drains must be covered with metal grids to prevent blockages.	OM	Ongoing	Site inspection
Control of Littering			
Adequate waste disposal bins are to be provided around the township. These are to be regularly emptied and the contents thereof collected by an approved Waste Service Provider.	OM	Ongoing	Site inspection
The recycling of waste is encouraged. As such, the provision of separate recycling bins for the disposal of paper, tins and plastic should be erected and displayed in a suitable and visual location on site. A reputable Recycling Waste Company must be appointed to collect recyclable waste (if applicable).	OM	Ongoing	Site inspection
Waste Storage and Removal			
Burning of waste is not permitted, under any conditions.	OM	Ongoing	Site inspection
Ablution facilities serviced by septic tanks (if applicable) are to be sign posted informing the public not to deposit foreign substances or objects into the system.	OM	Ongoing	Site inspection
Health and Safety			
Ensure that all staff is trained in what to do in the case of an emergency such as an on-site fire.	OM	Ongoing	Site inspection
Staff personnel are to be trained in first aid.	OM	Ongoing	Site inspection

Fire Control			
Emergency numbers must be displayed with the correct details of the nearest firefighting station at all times.	OM	Ongoing	Site inspection
Ensure that relevant signage e.g. no smoking, is displayed in potentially dangerous areas and is abided by.	OM	Ongoing	Site inspection

6.4. DECOMMISSIONING PHASE

At this stage decommissioning is not foreseen in the near future. At the time it might become applicable, an Environmental Impact Assessment must be undertaken in terms of Listed Activity Nr 31 (i) of R326 of the National Environmental Management Act, 1998 (Act No 107 of 1998), as amended; or else compliance with the environmental legislation requirements applicable at that time must take place.

7. NON-COMPLIANCE

7.1. Procedures

The Contractor shall comply with the environmental specifications and requirements on an on-going basis and any failure on his / her part to do so will entitle the ER to impose a penalty.

In the event of non-compliance, the following recommended process can be followed:

- The ER shall issue a Notice of Non-compliance to the Contractor, stating the nature and magnitude of the contravention. A copy shall be provided to the ECO during his / her site audit;
- The Contractor shall act to correct the non-conformance within 24 hours of receipt of the notice, or within a period that may be specified within the notice;
- The Contractor shall provide the ER with a written statement describing the actions to be taken to discontinue the non-conformance, the actions taken to mitigate its effects and the expected results of the actions. A copy shall be provided to the ECO;
- In the case of the Contractor failing to remedy the situation within the predetermined timeframe, the ER shall impose a monetary penalty based on the conditions of contract;
- In the case of non-compliance giving rise to physical environmental damage or destruction, the ER shall be entitled to undertake or to cause to be undertaken such remedial works as may be required to make good such damage and to recover from the Contractor the full costs incurred in doing so; and
- In the event of a dispute or difference of opinion between any parties arising out of the interpretation of the conditions of the EMPr, or a disagreement regarding the implementation or method of implementation of conditions of the EMPr, any party shall be entitled to require that the issue be referred to specialists for arbitration.

The ER shall at all times have the right to stop work and/or certain activities on site in the case of noncompliance or failure to implement remediation measures.

7.2 Offences and Penalties

Any avoidable non-compliance with the conditions of the EMPr shall be considered sufficient ground for the imposition of a penalty. Possible offences, which must result in the issuing of a contractual penalty, include, but are not limited to:

- Unauthorised entrance into no-go areas;
- Unauthorised damage to natural vegetation;
- Unauthorised camp establishment (including stockpiling, storage etc.);
- Hydrocarbons/hazardous material: Negligent spills/leaks and insufficient storage;
- Ablution facilities: Non-use, insufficient facilities and insufficient maintenance;
- Late Method Statements or failure to submit Method Statements;
- Insufficient solid waste management (including clean-up of litter, unauthorised dumping and absence of weigh bills as proof of disposal at a DWS registered landfill site);
- Erosion due to negligence/non-performance;
- Excessive cement / concrete spillage / contamination;
- Insufficient fire control and unauthorised fires;
- Preventable damage to water courses or pollution of water bodies; and
- Non-induction of staff.

8. CONCLUSION

In terms of NEMA, everyone is required to take reasonable measures to ensure that they do not pollute the environment. Reasonable measures include informing and educating employees about the environmental risks of their work and training them to operate in an environmentally responsible manner. Furthermore, in terms of NEMA, the cost to repair any environmental damage shall be borne by the person responsible for the damage.

If the above-mentioned management recommendations are adopted, it is anticipated that most of the negative environmental impacts associated with the operation of the industrial township in Palmietfontein within the Dannhauser Local Municipality, in Kwazulu-Natal Province can be mitigated against. The appointed ECO will need to regularly monitor the site to ensure that the required environmental controls are in place and working effectively.

ANNEXURE A
Environmental Code of Conduct

The applicant is committed to ensuring that the operation of the development is done according to the highest environmental standards so that the ecological footprint of the development is minimised where possible.

The applicant requires that all personnel involved in the operation process accept their responsibilities towards the EMP and the environment. This includes all permanent, contract or temporary workers as well as any other person involved with the project or visiting the site. Ignorance, negligence, recklessness or a general lack of commitment will not be tolerated.

If you do not understand the rules you must seek assistance to ensure compliance. The following people can assist you in ensuring compliance with the EMP.

Your Supervisor:

Environmental Control Officer:

Project Manager:

ANNEXURE B

Environmental Complaints Register						
	Name of Complainant	Contact Details	Nature of Complaint	Responsible Person	Date Action Taken	Details of Action Taken

ANNEXURE C

Environmental Incidents Register					
Date	Incident	Action Required	Responsible Person	Action Implemented	Date Action Implemented

ANNEXURE D

Environmental Training Register					
	Company	Employee	Employee Signature	Supervisor	Supervisor Signature

ANNEXURE E
ENVIRONMENTAL AUTHORISATION / ROD

PALMIETFONTEIN INDUSTRIAL TOWNSHIP DEVELOPMENT

ANNEXURE F
EAP CV

ENVIRONMENTAL MANAGEMENT PLAN FOR THE PROPOSED INDUSTRIAL TOWNSHIP ESTABLISHMENT ON THE REMAINDER OF THE FARM PALMIETFONTEIN 3750, DANNHAUSER LOCAL MUNICIPALITY, KWAZULU-NATAL PROVINCE.

ENVIRONMENTAL MANAGEMENT PROGRAMME

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EAP Signature _____

Date _____