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ENVIRONMENTAL MANAGEMENT PROGRAMME

FOR THE

ALLEGED UNLAWFUL COMMENCEMENT OF CONSTRUCTION OF BULK FUEL STORAGE STRUCTURES ON PTN 64 OF FARM NO 22, KLEIN DASSENBERG, PHILADELPHIA, CITY OF CAPE TOWN METROPOLITAN MUNICIPALITY.

APPLICANT:	MR. A. SEDICK
ENVIRONMENTAL CONSULTANT:	SHARPLES ENVIRONMENTAL SERVICES CC AUTHOR: MISS AMEESHA SANKER (EAPASA: 4372) CONTRIBUTING AUTHOR: JOHN GEARY
FILE REFERENCE NUMBER (ENFORCEMENT)	14/1/1/E1/5/6/3/0715/21 24G Consultation: 14/2/4/1/A5/87/0023/22
SES REFERENCE NUMBER:	CT19/S24G/DEMPR/04/23
DATE:	APRIL 2023

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APPENDIX 4 OF THE EIA REGULATIONS 2014 (AS AMENDED 2017)

This Environmental Management Programme has been drafted in accordance with Appendix 4 of the Environmental Impact Assessment Regulations 2014 (as amended 2017). The table below shows how the requirements of Appendix 4 have been included within this Environmental Management Programme.

(1) An EMPr must comply with section 24N of the Act and include— (a)details of– (i)the EAP who prepared the EMPr and (ii)the expertise of that EAP to prepare an EMPr, including a curriculum vitae;	• APPENDIX A- EAP CV's • Section 4
(b)a detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description;	• Section 6 • Appendix D
(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 should be avoided, including buffers;	Not applicable, as proven by the specialists the site holds a low significance in terms of biodiversity and there are no environmental sensitivities.
(d)a description of the impact management outcomes, 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;	Section 7 - 11
(f)a description of proposed impact management actions, identifying the manner in which the impact management outcomes contemplated in paragraph (d) 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 provision for rehabilitation, where applicable;	

(g)the method of monitoring the implementation of the impact management actions contemplated in paragraph (f);	
(h)the frequency of monitoring the implementation of the impact management actions contemplated in paragraph (f);	
(i)an indication of the persons who will be responsible for the implementation of the impact management actions;	
(j)the time periods within which the impact management actions contemplated in paragraph (f) must be implemented;	
(k)the mechanism for monitoring compliance with the impact management actions contemplated in paragraph (f);	• Section 12 • APPENDIX *F*
(l)a program for reporting on compliance, taking into account the requirements as prescribed by the Regulations;	
(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	• Section 15 • APPENDIX J
(n)any specific information that may be required by the competent authority.	

1. DOCUMENT DETAILS

Project Ref. No:	**CT19**
Conditions of Use:	This report is the property of the sponsor, *Sharples Environmental Services cc* (*SES*), who may make allowance to publish it, in whole provided that: a. Approval for copy is obtained from *SES*. b. *SES* is acknowledged in the publication. c. *SES* is indemnified against and claim for damages that may result from publication of specifications, recommendations or statements that is not administered or controlled by *SES*. d. That approval is obtained from *SES* if this report is to be used for the purposes of sale, publicity or advertisement. *SES* accepts no responsibility for failure to follow the recommended program.
Disclaimer	**This Environmental Management Programme has been compiled in line with Appendix 4 of Environmental Impact Assessment (EIA) Regulations of 2014, as amended (GNR 326 of 2017). The EIA process in terms of the EIA Regulations of 2014, as amended, has not been undertaken as yet. However, upon authorisation of the proposed development by the Department of Environmental Affairs and Development Planning (DEA&DP), this EMPr will be replaced as the working document to be implemented on-site.* **All technical developmental information contained in this EMPr was provided by The Proponent and SES does not take any responsibility regarding the accuracy of the information.* **This EMPr and the preliminary impacts identified is based on the expected sensitivity of the receiving environment based on the observations made by the appointed Environmental Assessment Practitioner (EAP).*

2. ABOUT THIS EMPR

This document is intended to serve as a guideline to be used by *the Proponent* during the pre-construction, construction, post-construction phases of the proposed development. This document provides measures that must be implemented to ensure that any environmental degradation that may be associated with the development is avoided, or where such impacts cannot be avoided entirely, are minimised and mitigated appropriately.

This EMPr has been prepared in accordance with the Appendix 4 of the Environmental Impact Assessment Regulations of 2014, as amended (Government Notice Regulation [GNR] 326 of 2017), which stipulates the requirements of an EMPr and with reference to the "Guidelines for Environmental Management Programmes" published by the Department of Environmental Affairs and Development Planning (DEA&DP) (2005).

In line with the mitigation hierarchy (see Figure 1), the overarching goal of this EMPr is to anticipate and provide measures that must be implemented to ensure that any environmental impact that may be associated with the development is avoided, or where such impacts cannot be avoided entirely, are minimised and mitigated appropriately. The mitigation hierarchy will be considered during the EIA planning process, to appropriately manage environmental impacts. Figure 1 contains the legislative requirements of the project.

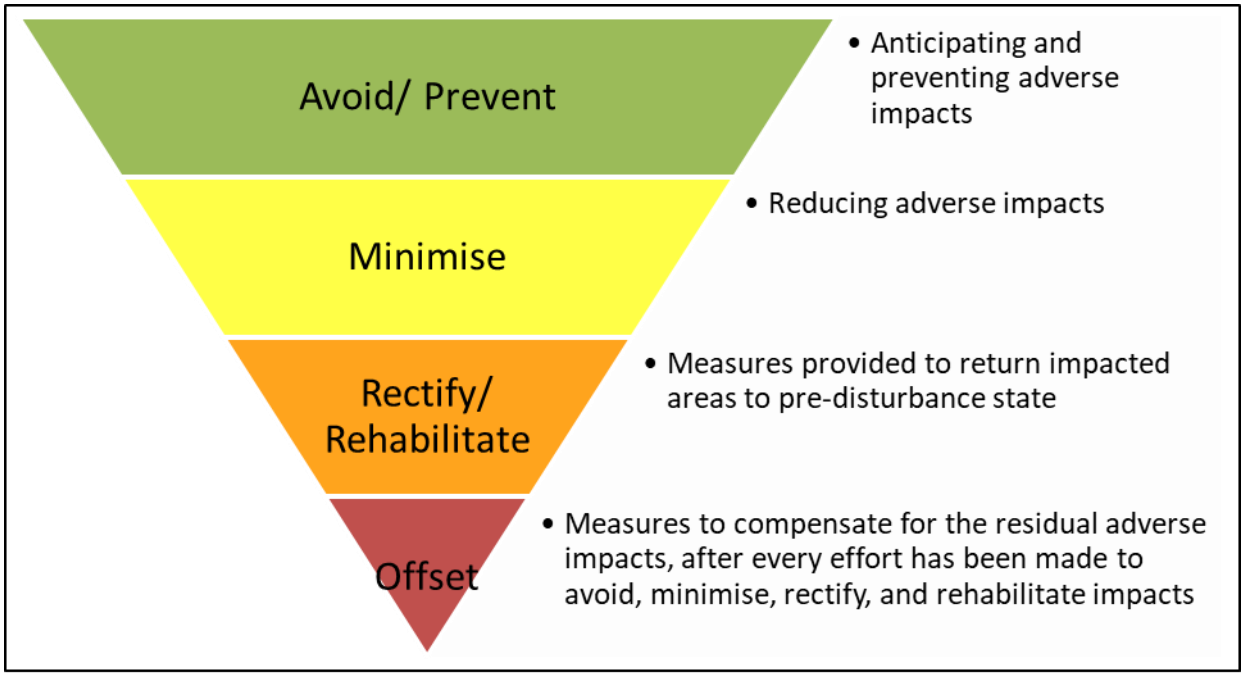


Figure 1. Mitigation hierarchy

It is important to note that not only is the EMPr designed to manage the physical establishment of the development *per se*, but also as a tool which can be used to manage the environmental *impacts* of the development during operations.

The rehabilitation, mitigation, management and monitoring measures prescribed in this EMPr must be seen as binding to *the Proponent* and any person acting on its behalf, including but not limited to agents, contractors, employees, associates, guests or any person rendering a service to the development site.

2.1. Important caveat to the report

In the past, some developments have had a devastating impact on the environment even though they have had Environmental Management Programmes in place, while other developments have had a low impact even though no management plans have been compiled.

The Implementing Agent and the attitude of the construction team play an integral role in determining the impact that the development will have on the environment. The Environmental Control Officer (ECO) needs to ensure that all role-players are aware of the constraints that the EMPr places on the development and construction team and are prepared to be actively involved in implementing these constraints. The end result relies on co-operation, mutual respect and understanding of all parties involved.

3. HOW TO USE THIS DOCUMENT

It is essential that this EMPr be carefully studied, understood, implemented and adhered to as far as reasonably possible, throughout all phases of the proposed development. *The Proponent* must retain a copy of this EMPr and an additional copy must be kept on site at all times during the pre-construction, construction and post-construction phases.

This EMPr must be included in all contracts compiled for contractors and subcontractors employed by *the Proponent*, as this EMPr identifies and specifies the procedures to be followed by engineers and contractors to ensure that the adverse impacts of construction and maintenance activities are either avoided or reduced. Appointed contractors must make adequate financial provision to implement the environmental management measures specified in this document.

This EMPr must be seen as a working document, which may be amended as and when needed, in order to accommodate changing circumstances on site or in the surrounding environment, or in order to accommodate requests/ conditions issued by the Competent Authority, the Department of Environmental Affairs & Development Planning (DEADP).

4. DETAILS OF THE EAP & TECHNICAL/SPECIALIST INPUT

This EMPr was undertaken by Sharples Environmental Services cc. Sharples Environmental Services was established in 1998 and has been actively engaged in the fields of environmental planning, assessment and management. SES advises on private, corporate and public enterprises on a variety of differing land use applications ranging from large-scale residential estates and resorts to golf courses, municipal service infrastructure installations and the planning of major arterials. Our consultants have over 20+ years of combined experience and we operate in the Southern, Eastern and Western Cape regions.

A brief description of the EAP's (Environmental Assessment Practitioners) have been included below, as per Table 1, and a detailed Curriculum Vitae has been included in APPENDIX A.

Table 1: EAP Details.

Role:	Name:	E-Mail Address:	Qualifications:	Registration/ Memberships	YEARS OF EXPERIENCE
Author:	Ms. Ameesha Sanker	ameesha@sescc.net	• B.Sc. Hons. (Environmental Management) (UNISA) • B.Sc. Geological Science	• IAIA (SA) • EAPASA (Reg. Nr. : 4372)	• 9+ years.
Contributing Author	Mr John Geary	jgeary@sescc.net	•		•
Reviewer:	Mrs. Betsy Ditcham	betsy@sescc.net	• B.Sc. Honours (Wildlife Management) (UP) • B.Sc (Zoology and Ecology (UCT)	• IAIA (SA) • EAPASA (Reg Nr.: 1480)	• 14+ years

5. LEGISLATION & POLICIES

The Applicant is responsible for ensuring that all contractors, employees and any other appointed person/entity acting on the Applicant's behalf, remain compliant with the conditions of the received Environmental Authorisation as well as the provisions of all other applicable legislation and guidelines. This includes, but is not limited to:

- National Environmental Management Act (NEMA), Act No. 107 of 1998), and the Environmental Impact Assessment Regulations of 2014, as amended (GNR 326 of 2017)

GN No. R. 327 Activity No(s): **(Listing Notice 1 of 2014)**	Describe the relevant listed activity(ies) in writing as per GN No. R.327 of 2014

	("NEMA 2014 Basic Assessment listed activity/ies")
14	The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres
GN No. R. 324 Activity No(s): **(Listing Notice 3 of 2014)**	Describe the relevant listed activity(ies) in writing as per GN No. R.324 of 2014
10	**The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres.** **i. Western Cape** ii. Areas zoned for use as public open space or equivalent zoning; **iii. All areas outside urban areas;** or iv. Inside urban areas: (aa) Areas seawards of the development setback line or within 200 metres from the high-water mark of the sea if no such development setback line is determined; (bb) Areas on the watercourse side of the development setback line or within 100 metres from the edge of a watercourse where no such setback line has been determined; or Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined.

- National Environmental Management: Waste Act (NEM:WA) (Act No 59 of 2008)
- National Water Act (NWA) (Act No. 36 of 1998)
- National Heritage Resources Act (NHRA) (Act No. 25 of 1999)
- The Constitution of South Africa (Act No. 108 of 1996).
- Conservation of Agricultural Resources Act (Act 43 of 1983).
- National Environmental Management Waste Act (Act No 59 of 2008.
- Occupational Health and Safety Act (Act 85 of 1993).
- Hazardous Substances Act No. 15 of 1973.
- National Veld and Forest Fire Act (Act 101 of 1998).

The following pertinent legislation, policies and guidelines, have been reviewed to guide this EMPr:

- Spatial Planning Land Use Management Act 16 Of 2013.
- South African National Standards 10131:2004 (Above -Ground Storage Tanks for Petroleum Products).
- City Of Cape Town Community Fire Safety By-Law, 2002 (As Amended).
- National Environmental Health Norms and Standards For Premises, 2015
- Hazardous Substances Act 15 Of 1973 (Amended 1999).
- City Of Cape Town Wastewater and Industrial Effluent By-Law, 2013
- City Of Cape Town Integrated Waste Management By-Law 2009 (As Amended 2016)

6. DESCRIPTION OF THE ACTIVITY

The proposed development is an initiative of *the Proponent*, situated on Ptn. 64 of Farm No. 22, Klein Dassenberg, City of Cape Town, approximately 50km's north of Cape Town and approximately 10km's

east of Atlantis. The applicant proposed to establish bunded areas for the above-ground storage of fuel, mobile tankers, with a combined capacity of up to 500m^3.

The applicant commenced with a listed activity related to the construction of infrastructure for bulk fuel storage, in terms of the EIA Regulations, 2014 (as amended), without the necessary environmental authorisation and is now applying for *ex post facto* approval.

The scope of works will include:

- 1 x bunded structures approximate dimensions (6.8m x 26m) with a 1m high bund wall (partially established).

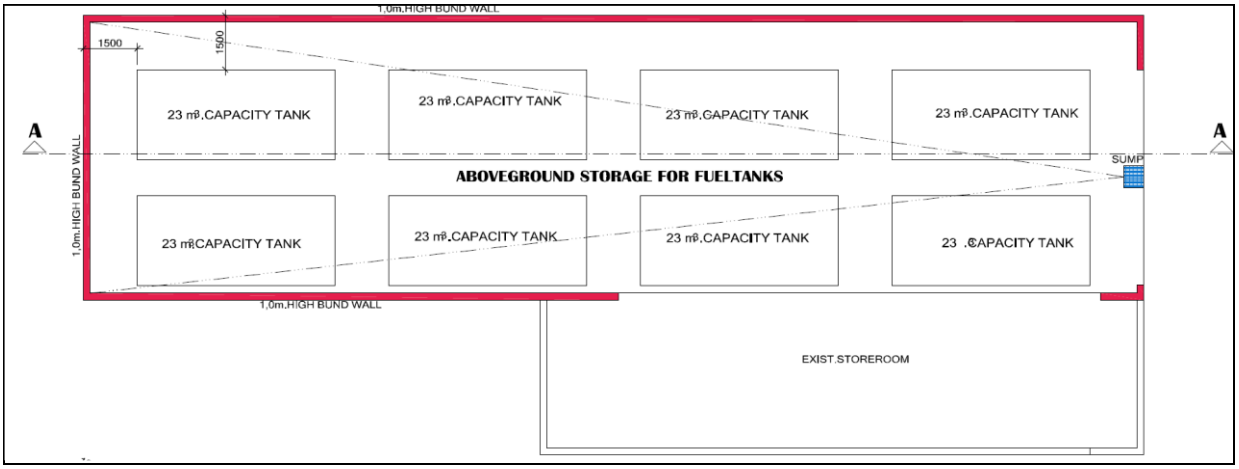


Figure 2: Proposed above-ground storage tank, partially commenced with intended to store approximately 184m^3.

- 1 x bunded structures to contain approximately 313m^3, with a 1m high bund wall.

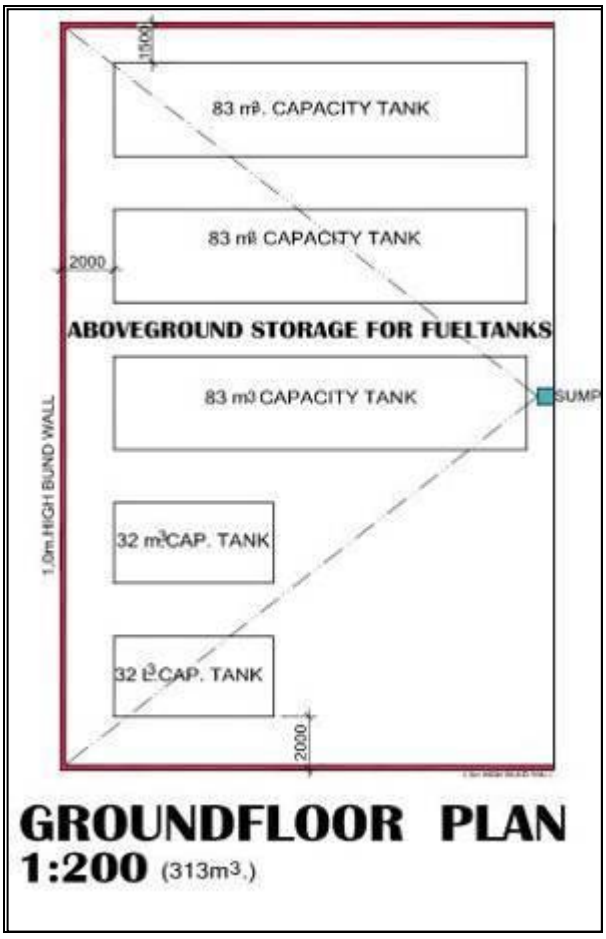


Figure 3: Proposed bund structure (9m x 25m), not constructed.

- 1 x garage (for personal use) structure approximate dimensions (6.810m x 16.5m).

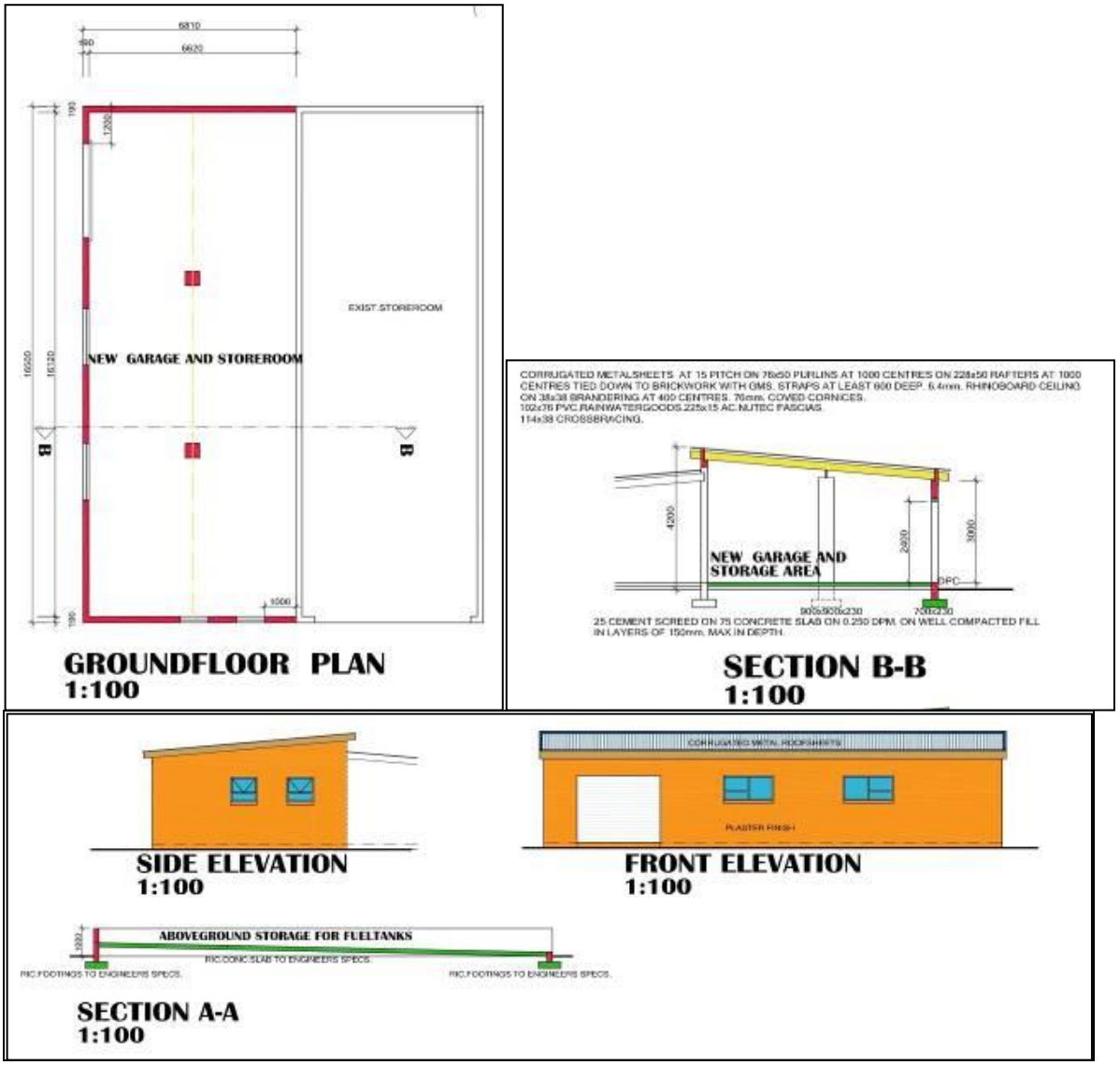


Figure 4: Proposed garage infrastructure (personal use)

- Gravelled turning area for vehicles (approximately 2841m^2), will also accommodate the proposed bunded structures (partially established).
- Access road for vehicles (existing).
- The MHI Specialist has recommended that the loading area should be located to the west of tank farm 1. The slab will be sloped towards to a catchment drain. The drain will be connected and the water/ oil mixture from spills and rainwater will be fed through an oil/ water separator before going into a soakaway system.

7. GENERAL ENVIRONMENTAL MANAGEMENT

The following general management measures are intended to protect environmental resources from pollution and degradation during all phases of the project life cycle. These measures must be implemented as and where applicable, reasonable and practicable during the pre-construction, construction and post-construction rehabilitation/landscaping and operational (maintenance) phases of the proposed development.

Code of Conduct

The purpose of the Code of Conduct (CoC) is to minimise the impact of the activities associated with the construction phase on the environment. The rules and regulations prescribed in this CoC are intended to ensure that the impacts on the environment are not prejudiced by the construction activities. Failure to adhere to or any breach of this CoC will result in a fine being levied against the offending or defaulting party / individual.

This EMPr forms an integral part of the activities during the construction phase and as such, is legally enforceable. In addition to the restrictions and controls provided for in this EMPr, the environmental controls comprise of the following:

- **Contractors and sub-contractors**
  - Unless otherwise determined, only appropriately registered contractors must be appointed.
  - It shall be the responsibility of the holder / developer / engineer to ensure that the contractors abide by and comply with the rules and regulations of the Code of Conduct.
  - Contractors shall at all times be responsible for their sub-contractors and employees whilst they are on the development property.

Works must be quality checked/approved by a health and safety specialist/engineer.

Rules and Regulations

It is of vital importance that engineers, and contractors understand and acknowledge that they are working on a site which are subject to environmental approvals and, if authorized, will require compliance with all relevant permits/licenses and this EMPr. The role players should agree to conform to all environmental controls specified in this EMPr and any additional environmental permits/licenses as well as any additional input by the ECO.

In addition to the EMPr, the environmental controls comprise of the following:

- **Building Plan Controls**
  - A copy of the approved and signed building plans must be available on site during the construction phase of the development. These plans must be included as part of the environmental site file. Any changes (which required amendments to the environmental authorisation) of these plans must also be contained in the beforementioned site file.
  - Variations of the building plans must be approved by the engineer / holder / developer prior to being implemented.
  - All buildings and associated infrastructure is to comply with the relevant SANS.

- **Site Tidiness**
  - The contractor must keep the appearance of the site neat and tidy at all times. Building rubble must be removed from site at regular intervals, and litter must be removed from the site on a daily basis (if not in appropriate receptacles). Refuse drums must be available on site which waste can be placed in. The drums must be emptied on a regular basis and the waste taken to a licenced local waste disposal facility.
- **Safety**
  - The contractor must comply with the Occupational Health and Safety Act (Act No. 85 of 1993), as amended (OSHA), together with such regulations promulgated thereunder.

7.1. Site Access and Traffic Management

- All construction vehicles need to adhere to traffic laws and regulations, drivers must be sensitised to the fact that they are working in an area with a potentially high volume of foot and vehicle traffic.
- The speed of construction vehicles and other heavy vehicles must be strictly controlled to avoid dangerous conditions for other road users.
- As far as possible, care must be taken to ensure that the local traffic flow pattern is not significantly disrupted, and vehicle operators therefore need to be educated in terms of "best-practice" operation in order to minimise unnecessary traffic congestion or dangers. These practices include, but are not limited to:
    - not unnecessarily obstructing the access point or traffic lanes used to access the site;
    - considering the load carrying capacity of road surfaces and adhering to all other prescriptive regulations regarding the use of public roads by construction vehicles.
- Adequate signage that is both informative and cautionary to passing traffic must be erected to warn other road users (motorists and pedestrians) about the presence of construction vehicles, particularly at the point where construction vehicles enter/ exit the site from Mkuzi Road warning them of the construction. Signage would need to be clearly visible and include, amongst others, the following:
    - Identifying working area as a construction site.
    - Cautioning against relevant construction activities.
    - Prohibiting access to construction site.
    - Clearly specifying possible detour routes and / or delay periods.
    - Possible indications of time frames attached to the construction activities.
    - Listings of which contractors are working on the site.

- Other mitigation measures include:
    - No construction to take place over or during the construction closure period in December – January without prior permission from the relevant authorities.
    - Construction vehicles must adhere to the load carrying capacity of road surfaces and adhere to all other prescriptive regulations regarding the use of public roads by construction vehicles.
    - Where possible, construction traffic that may obstruct traffic flow on the surrounding roads must be scheduled for outside of peak traffic times.
    - Ensure appropriate behaviour of operators of construction vehicles.
    - If needed, appropriate traffic management measures and/ or points men (traffic marshals) must be utilized to assist vehicles entering/ exiting the site, particularly where vehicles must cross the path of oncoming traffic.

7.2. Site Demarcation

- Prior to the commencement of any additional land-clearing or construction activities, the outer boundary of the construction working area must be pegged.
- This demarcation boundary is to ensure that land clearing and construction activities are restricted to only that area strictly required for the proposed development, and to prevent unnecessary disturbance of soil surfaces and vegetation outside of the development footprint.

- **Construction Working Area**

- Access must be controlled.

- The temporary fencing should be retained and maintained for the duration of the construction period until the planned permanent fencing is established
- If changes to the construction working areas are required, such changes can only be applied once the approval by the appointed ECO and Site Engineer has been acquired.

- **No-Go Areas**
- All areas beyond the approved working areas must be considered "no-go" areas.
- The areas outside of the approved development area must be off-limits to all construction workers, vehicles and machinery during all phases of the development.
- No vegetation may be cleared from within the no-go areas (unless in accordance with an approved alien invasive management plan and under the supervision of the ECO, and no dumping of any material (waste, topsoil, subsoil etc.) may occur in these areas.
- Construction workers must be informed of the no-go areas, and if necessary appropriate signage can be used to re-enforce the demarcation.
- Any interaction with No-Go Areas should be consulted between the Contractor and ECO prior to any actions.

In accordance with this proposal, the No-Go Area should be considered any area beyond the proposed development footprint.

7.3. Storage Area and Associated Facilities

- An Environmental File must be maintained on site, consisting of the following, where applicable:
  - A copy of the Environmental Authorisation (once obtained).
  - A copy of any other relative permits.
  - A copy of the approved EMPr.
  - Updated waste slips.
  - Disposal slips or cleaning slips (ablution cleaning).
  - All EMR's (Environmental Monitoring Reports) and ECO instructions.
  - Copies of Environmental induction register/s.
  - The Protocol for Chance Palaeontological Findings.
  - A Complaints Register.
  - Updated method statements (if applicable).
  - Any and all emergency procedure/s applicable to site activities (if applicable).
  - An Incident Register.

- The following general management measures pertaining to the set-up, operation and closure of a site camp must be applied where appropriate, reasonable and practicable.

- **Fencing & Security**
- The storage area site camp area must be secured to prevent any unauthorised individuals from entering without permission and possibly getting injured or posing a safety and/or security risk.
- Adequate signage must be displayed.
- A site register is recommended to record any daily visitors and activities, for record keeping purposes.

- **Fire Fighting Equipment**
- No less than 2 fire extinguishers must be present in the working area/storage area.
- The extinguishers must be in a working condition and within their service period.

- A fire extinguisher must always be present wherever any "hot works" (e.g. welding, grinding etc.) are taking place.
- It is recommended that all construction workers receive basic training in fire prevention and basic fire-fighting techniques and are informed of the emergency procedure to follow in the event of accidental fires.
- Open fires and smoking should be prohibited within the working corridor/storage area.
- In the case of accidental fires, the contractor must (if required/significant) alert the Local Authority's Fire Department as soon as a fire starts prior to the fire becoming uncontrollable.

- **Waste Storage Area**

An integrated waste management approach should be adopted throughout all phases of the development. Emphasis must be put on waste minimisation such as reduction, recycling and re-use, where possible. The contractors environmental representative and the appointed ECO on site must regularly inspect the waste storage and removal facilities to ensure that the waste levels are acceptable and that adequate waste management is ensuing.

The following waste management measures must be adhered to:

- ✓ Sufficient bins/skips should be provided in a demarcated area within the site for the temporary storage of remediated soil. Bins/skips may also be located within the development working area, if required.
- ✓ Bins shall be watertight, wind-proof and scavenger-proof and be clearly marked for the purpose of waste disposal.
- ✓ Separate bins should be utilized for general waste and hazardous waste.
- ✓ All bins should have secure, fitting lids.
- ✓ A dedicated area is required for the storage of hazardous waste.
- ✓ The hazardous waste storage area must have impermeable and chemical resistant floors.
- ✓ Hazardous waste must be stored in leak proof containers with lids.
- ✓ If hazardous waste is stored outside, hazardous waste must be stored in an area that has a drainage and containment system (eg. a bunded area) capable of collecting and storing all runoff rainwater that may come in contact with the hazardous waste.
- ✓ Hazardous waste must therefore be stored either inside the warehouse in a dedicated area or alternatively in the area where the chemicals store is located OR a new storage area that meets the requirements above will be constructed. When bins become full, the waste must be removed from the site and disposed of at an appropriate, licensed waste disposal facility or recycling facility.
- ✓ Waste may not be burned or buried on site.
- ✓ Any waste which could be reused on site (e.g. rubble, cement, soil or bricks) should be stockpiled in an area agreed upon with the ECO until it can be re-used.
- ✓ Waybills for the disposal of waste at a licensed disposal facility must be provided to the ECO, upon request. This is particularly relevant for the disposal of hazardous waste.

- **Hazardous Substances Storage Area**

If hazardous substances and fuels such as thinners, degreasing agents, paints, diesel, oil, lubricant, detergents etc. are to be stored on site, a designated area must be set aside for this within the site boundary.

- ✓ The area selected for storage of hazardous fuels should be located on a level area, well outside of any water courses, water bodies, surface drainage channels or storm-water channels.
- ✓ All hazardous substances must be stored in the designated area within the site.
- ✓ The designated area must be clearly demarcated and secured.
- ✓ Access to the hazardous material storage area must be restricted to authorised personnel only.
- ✓ Appropriate hazard signage indicating the nature of the stored materials shall be prominently displayed at the storage area.
- ✓ Those persons tasked with handling any hazardous substances must be equipped with the knowledge, equipment and safety gear necessary to handle the substance/s safely.
- ✓ Material Safety Data Sheets (MSDSs) should be available on site for all chemicals and hazardous substances to be used on site. Where possible and available, MSDSs should additionally include information on ecological impacts and measures to minimise negative environmental impacts during accidental releases or escapes.
- ✓ Storage vessels of hazardous substances should be situated in a bunded area large enough to accommodate at least 110% of the capacity of the tank in question.
- ✓ Fuel tanks should ideally be elevated so that leaks can easily be detected.
- ✓ A dedicated area is required for the storage of hazardous waste.
- ✓ The hazardous waste storage area must have impermeable and chemical resistant floors.
- ✓ Hazardous waste must be stored in leak proof containers with lids.
- ✓ If hazardous waste is stored outside, hazardous waste must be stored in an area that has a drainage and containment system (eg. a bunded area) capable of collecting and storing all runoff rainwater that may come in contact with the hazardous waste.
- ✓ Hazardous waste must therefore be stored either inside the warehouse in a dedicated area or alternatively in the area where the chemicals store is located OR a new storage area that meets the requirements above will be constructed. No smoking may be permitted at or surrounding the area where fuels and hazardous substances are stored.
- ✓ Firefighting equipment should be located in close proximity to the storage area.
- ✓ Any accidental release of a hazardous substance during the construction and operational phase of the proposed development, must be reported to the relevant authorities, including the Department of Environmental Affairs and Development Planning Directorate: Pollution and Chemicals Management, in terms of Section 30(3) of the National Environmental Management Act of 1998, as amended (Act 107 of 1998).

- **Vehicle & Equipment Maintenance Yard**
- All vehicles must be regularly inspected for leaks. Re-fuelling must take place on a sealed surface area (impermeable surface or underlain by a drip tray) to prevent ingress of hydrocarbons into the soil).

- Where possible, construction vehicles and equipment that require repair must be removed from site and taken to a workshop for servicing.
- If emergency repairs and/or basic maintenance of construction vehicles or equipment are necessary on site, such repair work must be undertaken within the designated maintenance yard area.
- Repairs must be conducted on an impermeable surface, and/or a tarpaulin and/or drip trays must be laid down prior to emergency repairs taking place, in order to prevent any fuel, oil, lubricant or other spillages from contaminating the surrounding environment.
- All spills must be immediately cleaned up and treated accordingly.

- **House-Keeping**
- The site/storage areas must be kept neat and orderly at all times, in order to prevent potential safety risks and to reduce the visual impact of the site during construction.

- **Cement & Concrete Batching**
- Cement and concrete batching is permitted on site, but may only take place on designated impermeable, bunded surfaces, as agreed with the appointed ECO.
- Cement/ concrete may not be mixed on bare ground.
- The impermeable/ bunded area should be established in such a way that cement slurry, run-off and cement water will be contained and will not flow into the surrounding environment or contaminate the soil.
- Cement run-off and excess cement slurry should be collected in the designated impermeable area, allowed to dry and then disposed of at an appropriate facility. Alternately, the contaminated water can be collected in sealed tanks and transported to an appropriate disposal site for disposal.
- Empty cement bags must be disposed of in the hazardous waste bins on site.

7.4. Protection of Fauna

- Construction workers are to be sensitised to the fact that they may encounter fauna (both domestic and wild) during the construction period.
- This must be included in the environmental awareness training completed with all site personnel before any construction commences (see Section 15 for Environmental Awareness Plan and APPENDIX for Environmental Awareness Training Booklet).
- No person/s may harm, kill, capture or keep any fauna.
- Where possible, avoid interactions, particularly with fauna that can inflict harm, if such fauna is identified on site contact local SPCA other animal protection and removal services.
- Maintain good housekeeping, so that fauna cannot hide amongst waste and material.
- If any fauna is encountered by construction workers, the ECO is to be notified. If the ECO is not on site, the site manager is to be informed.
- Rescued fauna must be released into a nearby area of similar habitat away from any construction.
- Contact details for animal rescue services and/or snake wrangler, from the local area, should be available on site, in case of an emergency.

7.5. Alien Invasive Species Control

Due to the cleared nature of the development site, the site has been left vulnerable to the colonisation of exotic invasive and other weed species. Infestations and any spread of these species pose a significant negative risk to the environment by causing direct habitat destruction, increasing the risk and intensity of wildfires, and reducing surface and sub-surface water. Alien Invasive Plants require

removal according to the Conservation of Agricultural Resources Act 43 of 1983 (CARA) and the National Environmental Management: Biodiversity Act (10 of 2004; NEMBA): Alien and Invasive Species Lists (GN R598 and GN R599 of 2014).

Removal of species should take place throughout the construction, operational, and maintenance phases.

7.6. Topsoil and Subsoil Management

- Excavated topsoil and subsoil must be stockpiled for the duration of the active construction period and utilised for the final landscaping of disturbed areas on site.
- Excavated subsoil must be stockpiled separately from topsoil.
- Topsoil stockpiles must not exceed 1.5 m in height and must not be compacted.
- If soil stockpiles will be stored for an extended period of time, the stockpiles must be kept clear of weeds and alien vegetation growth by regular weeding, (or application of herbicides if agreed with the ECO). Alien and weed control must be done in accordance with the Alien invasive management plan as provided in APPENDIX .
- Soil material that will not be re-utilised on site may be removed from site and taken to an appropriate site for re-use or disposal and should not be retained on site for more than 90-days.

7.7. Excavations and Earthworks

- Any major earthworks with bulldozers and heavy machinery must be conducted under constant supervision and operators are to be aware of all the environmental obligations, as there is always the potential to inflict damage to the sensitive areas.
- Any unnecessary or excessive heavy machinery movement must be kept to a minimum i.e. only what is absolutely necessary.
- Areas to be excavated must be clearly demarcated.
- Areas, which have already been excavated and entail fairly significant earthworks, must be similarly demarcated to avoid the spreading of construction activities into more sensitive areas.

7.8. Visual Impact.

- To minimise the potential visual impact, all working areas, storage facilities, stockpiles, waste bins, elevated tanks and the site camp should be located in such a way that they will present as little visual impact to surrounding industry and road users as possible.
- If possible, 'site demarcation waste' must be managed according to this EMPr.
- Good housekeeping practices on site must be maintained to ensure the site is kept neat and tidy.
- The site camp may require visual screening via shade cloth or other suitable material.
- The use of reflective materials and excessive lighting must be avoided, and construction vehicles must enter and leave the site during working hours (07:30-17:30).

7.9. Noise Management.

- All excavations and earth-moving activities must be restricted to normal construction working hours (7:30 – 17:30) as far as possible.
- Work on site must be well-planned and should proceed efficiently so as to limit the duration of the disturbance.

- This is to be done by ensuring that all equipment is in good working condition and fitted with mufflers/exhaust silencers in necessary. Noise levels must comply with the relevant health & safety regulations and SANS codes and should be monitored by the Health & Safety Officer as necessary and appropriate, and all affected parties must be informed of the excessive noise factors.

7.10. Dust Management.

- Exposed surfaces, such as stockpiles and cleared areas should be provided with a suitable cover as soon as possible or wetted down.
- Construction vehicles should maintain low speeds of 20-40km/h and must ensure that tarpaulins are used to cover any loads transported.
- Dust levels specified in the National Dust Control Regulations (GN 827 of November 2013) may not be exceeded. i.e. dust fall in residential areas may not exceed 600mg/m^2/day, and dust fall rates in non-residential areas may not exceed 1200mg/m^2/day, measured using reference method ASTM D1739.

7.11. Heritage Resources

- In the unlikely event that any heritages resources, including evidence of graves, human remains, archaeological material and paleontological material, are uncovered during construction activities, these must be immediately reported to Heritage Western Cape.
    - Burials must not be disturbed or removed until inspected by a professional archaeologist.
    - In case of the unexpected uncovering of fossil bones in the surficial cover-sands and soil, or buried archaeological material, or unmarked graves, the Protocol for Chance Fossil Find (PCFF) included as APPENDIX of this EMPr must be followed.

8. ENVIRONMENTAL IMPACT MANAGEMENT: PLANNING AND DESIGN PHASE

Planning and design activities must take into account the environmental constraints and opportunities identified during the environmental assessment process, in order to avoid or minimise the potential future impacts of the development. Proper planning is also essential to ensure that adequate provision is made to implement the environmental requirements of this EMPr, and to ensure that the development is compliant with additional conditions which may be included in the Environmental Authorisation.

The environmental management objectives (goals) during this phase are to:

- Appoint an Independent Environmental Control Officer and Environmental Auditor.
- Obtain all relevant permits/licenses/approvals for construction and operation.

These environmental management objectives, as well as the management actions that must be implemented in order to achieve the desired objective and avoid/minimise potential impacts are discussed in more detail below.

8.1. Objective 1: Appointment of an Environmental Control Officer and an Environmental Auditor

***Impact Management Objective:* To appoint a suitably qualified and experienced environmental control officer and an environmental audito,r and**			
Potential impact to avoid	• Failure to appoint an ECO and Environmental Auditor will result in non-compliance with the requirements of the EMPr. • Non-compliance and site closure due to the site not undergoing the necessary assessments and approval processes.		
Impact Management Outcome	The requirements of the EMPr are implemented and monitored during all phases of the development, which will promote sound environmental management on site.		
IMPACT MANAGEMENT ACTIONS			
Mitigation measure		Responsible party	Time period
Environmental Auditor & Control Officer • A suitably qualified and experienced Environmental Auditor must be appointed before any activities commence on site. • A suitably qualified and experienced Environmental Control Officer (ECO) must be appointed before any activities commence on site. • The appointed ECO must adhere to the requirements stated in Section 12 of this EMPr. • The appointed ECO must be advised of the construction start date, at least two weeks in advance, prior to the commencement of any construction activities on site, so that the ECO can perform a pre-commencement inspection, ensure any pre-construction conditions of the environmental authorization are completed, and plan for environmental awareness training of construction workers (see Section 15 for Environmental Awareness Plan and APPENDIX for Environmental Awareness Training Booklet). • Establish an Environmental File which will contain all relevant information as detailed in the EMPr. Ensure this file is always available on site, and is updated with the relevant information, as detailed in the EMPr.		The Proponent	During design phase
Performance Indicator	• A qualified ECO and Environmental Auditor is appointed prior to the commencement of any construction activities (including pre-construction set-up activities) on site.		

8.2. Objective 2: Legislative Compliance

Impact Management Objective: ***Legislative compliance***		
Potential impact to avoid	Commencement of activities without all relevant permits/permissions/licences/approvals including registered servitudes, permits to remove specific vegetation, etc. as well as commencing without implementation of specialist recommendations, including search and rescue, and compliance with EMPr pre-construction activities, can result in penalties, time delays and excessive costs. All stemming from poor planning.	
Impact Management Outcome	All permits, permissions, licences, approvals, and specialist input are acquired, and the proposed development is compliant with the respective conditions.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
<u>General</u> • Ensure programme of works is planned accordingly and includes recommended measures where necessary. • Ensure financial allowances are made for the recommended measures. • Ensure all relevant permits/licenses/approvals are in place and are valid prior to commencing with works. These include: o Environmental Authorisation. o Relevant permits from the municipality. o Comply with MHI recommendations. o Any other appropriate permit/license/authorization, in line with any relevant legislation/policy. o An Environmental Control Officer must be appointed to monitor the compliance and implementation of the Environmental Management Programme, mitigation measures and the Environmental Authorization conditions. o The proponent is to ensure that all relevant applications are made for compliance purposes related to the operation of the facility and storage of hazardous goods, this should include as a minimum, and **only where applicable**:	The Proponent	During design phase

➢ The premises of must be registered under the Occupational Health and Safety Act (Act No. 85 of 1993) and kept orderly and clean in terms of the OHS Act. ➢ The proponent is to comply with the SANS 10131:2004 where relevant. ➢ The proponent is to ensure that all relevant building plans are approved by the City of Cape Town, prior to development, where applicable. ➢ The proponent must comply with the City of Cape Town Community Fire Safety By-Law, 2022, including, but not limited to: ➢ Chapter 8, section 37 (1), the applicant is to submit a building plan to the municipality in accordance with the National Building Regulations and Building Standards Act 1977 (amended 2008). Building plans have been included in this application form. ➢ 37(6), the owner or person in charge of the premises will need to apply for a flammable substance certificate from the controlling authority. ➢ Upon termination of the storage and use of the bulk fuel storage, the applicant is to ensure the correct procedures are followed in line with the CoCT Community Fire Safety By-law, 2022, Section 47 . ➢ In terms of the National Environmental Health Norms and Standards for Premises, 2015, the applicant is to ensure compliance with the South African Bureau of Standards (SABS) national standards on the identification and classification of dangerous goods and correct labelling. The proponent is to ensure that an appropriate Environmental Health Practitioner is appointed to undertake the relevant inspections and assessments. ➢ The general requirements for the storage of hazardous substances in terms of the Hazardous Substances Act 1973 (amended 1999) are to be adhered to, where necessary. ➢ Comply with the City of Cape Town Wastewater and Industrial Effluent By-Law, 2013, where necessary ➢ Comply with the City of Cape Town Integrated Waste Management By-Law 2009 (As Amended 2016), where necessary. ➢ All relevant permits from the municipality or in line with any relevant legislation/policy/by-laws, will need to be obtained prior to re-commencement of construction activities on site.		

➢ An installation/facility licence is required in terms of the requirements as imposed by the Department of Mineral Resources and Energy in terms of the National Petroleum Products Act (Act No. 120 of 1977). o Engage with the relevant public community group to create an open line of communication with the community, allowing them access to public documentation (this does not include financial records, or any records that are considered proprietary). This may be done by sharing the relevant documentation online, or via written request from I&AP's. This may include, but not be limited to: ➢ Sharing ECO reports. ➢ Sharing certificates/approvals in terms of occupational health and safety and approved EA/EMPr. ➢ A platform for I&AP's to raise concerns with the proponent or share information. • Ensure that the Contractor understands the requirements of the approved EMPr and Environmental Authorization (and any other relevant permits/licenses, etc), and makes time and cost allowances to accommodate relevant measures. • Ensure that the Contractor provides method statements for activities intended to be undertaken, and these are checked and approved by the ECO as well as the Engineer. • Inform ECO of planned works ahead, so as to ensure inductions are undertaken timeously. • If a site camp is required, it must be established within the turning circle, or the existing buildings be utilized. • Ensure that the process for obtaining the necessary permits for operational phase, is also commenced with if not already obtained. • All development must be in line with the approved plans for development and no additional construction works may be undertaken without appropriate approval, including creation of additional new access roads, etc. • Ensure that all recommendations from the Final Major Hazard Installation study are included in the planned works, layouts updated, and measures are complied with. <u>MHI Recommendations:</u> • The following is recommended to reduce the risks associated with the installations:		

○ Good housekeeping must always be observed on site. ○ All work must be done by qualified companies. ○ Council to approve drawings for proposed installations. ○ Fire department to issue a flammable substance certificate. ○ This MHI report must be distributed to Local, Provincial and National Government as per MHI Regulations. ○ Installations must be maintained as per applicable SANS Codes and Local Bylaws • Emergency Plan - It is recommended that an Emergency Plan be compiled, and the following adhered to: ○ Must comply with SANS:1514 Codes. ○ Must comply with MHI Regulations. ○ Must be accepted and signed by management and the Local Authority. <u>Unplanned/Planned Shutdown:</u> Should site need to be closed, ensure the following is undertaken: • Contact the ECO to undertake an inspection and advise on any appropriate measures that need to be undertaken. • It is important to note that the Environmental Authorization (once obtained), all licences, and the EMPr (once approved) are considered legal and binding documents, therefore regardless of reason for shutdown compliance with these conditions must be met, or the Competent Authority must be informed of the reason and estimated duration of shutdown.		
Performance Indicator	The project does not incur delays, excessive costs and penalties due to unobtained permits and non-compliance with required permits, permissions, licences, and approvals.	

9. ENVIRONMENTAL IMPACT MANAGEMENT: PRE-CONSTRUCTION PHASE

Proper set-up during the pre-construction phase can set the foundation for good environmental management during the active construction phase to follow and can avoid potential impacts from arising at a later date.

The Impact Management Objectives for this phase of the project relate to:

- Pre-construction ECO visit.

9.1. Objective 1: Pre-Construction ECO Inspection and Due Diligence

It is essential that the appointed ECO be advised of the intended construction start date before construction activities commence on site, in order for the ECO to conduct an initial site inspection to assess the pre-commencement condition of the site. The ECO can also advise on the appropriate siting and demarcation of the site facilities, and the identification and demarcation of the no-go areas. The ECO may also conduct the first round of environmental awareness training at this stage, if any construction workers/sub-contractors are present on site.

Impact Management Objective: ***Environmental Control Officer to conduct an inspection prior to the commencement of construction activities on site.***		
Potential impact to avoid	• Failure to appoint ECO or to notify ECO of commencement prior to commencement may result in non-compliance with the EA. • If a pre-commencement ECO inspection is not performed, the Construction Contractor may be held liable for environmental degradation that took place prior to the Contractor commencing work on site.	
Impact Management Outcome	• Good environmental management is promoted and enforced by the ECO during the full pre-construction and construction phases. • Site facilities are appropriately located on site. • Construction workers receive environmental awareness training before commencing work on site.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
• The appointed ECO must be advised of the construction start date, before any activities commence on site so that the ECO can perform a pre-commencement inspection and plan for environmental awareness training (see Section 15 and APPENDIX), of construction workers. • The ECO must ensure all relevant items are in place in terms of Section 7 and 9 of this EMPr where necessary, and all relevant pre-construction requirements have been complied with in terms of the EA. • Ensure the project timeframe has taken the relevant requirements of the EA and EMPr, into account. • The ECO is to take photographs of the site prior to the establishment of ALL facilities (including the site camp), for record purposes. • The ECO is to ensure that the Environmental File is in place on site, with all the relevant content, and emergency numbers for the relevant authorities are available. • The ECO is to consult with the Contractor regarding relevant dates for environmental inductions (with regard to new labour).	Contractor	Start of construction phase

Performance Indicator	A pre-commencement site inspection is conducted by the appointed ECO before construction activities commence on site.

10. ENVIRONMENTAL IMPACT MANAGEMENT: CONSTRUCTION PHASE

A number of potential environmental impacts may arise during the construction phase of the development. These impacts have been identified and assessed during the Environmental Impact Assessment process. Environmental Management objectives and actions that will prevent the identified potential impacts from arising – or where avoidance is not possible, that will minimise and mitigate the impacts – are provided in this section.

The environmental management actions and mitigation measures prescribed in this section must be implemented throughout the construction phase and must be implemented in conjunction with the general management measures specified in Section 7 of this EMPr, as well as any other conditions which may be stated in the Environmental Authorisation. The Environmental Control Officer must monitor and enforce the implementation of the relevant environmental management measures and may provide guidance on the implementation of these environmental management measures as and when required.

The environmental management objectives (goals) for the Construction phase are:

- Erosion, Earthworks and Land clearance.
- Loss of vegetation and disruption to ecological processes: Fynbos & Forest vegetation.
- Disturbance and displacement of faunal habitat and faunal species of conservation concern.
- Aquatic Impacts.
- Visual Impacts.
- Maintain sense of place (Reduce the visual impact).
- Creation of multiple job opportunities & capital expenditure.
- Maintain traffic access and safety.
- Prevent vandalism and maintain safety.
- Waste Production & Management

The environmental management actions that must be implemented in order to achieve the desired objectives and avoid/minimise potential impacts are discussed in more detail in the sections below.

10.1. Objective 1: Erosion, Earthworks and Land Clearance

Impact Management Objective: ***To prevent soil loss on site and prevent increased sediment load exiting the site caused by earthworks.***		
Potential impact(s) to avoid	Susceptibility of some areas to erosion because of construction related disturbances due to of vegetation cover and soil disturbance may result in some areas being susceptible to soil erosion, during heavy rainfall events, after completion of the activity. Stockpiled soils and materials can be displaced in heavy rainfall and windy conditions, resulting in sediment dispersal.	
Impact Management Outcome	Stormwater systems are not impacted significantly.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
General: • Ensure appropriate planning is undertaken to consider the following, during construction: - Security. - Site access and movement of vehicles. - Parking areas and maintenance of equipment or vehicles. - Stockpiling and storage areas. - Designate waste areas. • Site establishment may only be undertaken in areas of transformation/disturbance. The ECO must be included in deciding on a location for site establishment. • Utilize barrier netting and signage, to designate working corridor and prohibit access to no-go areas. Contain disturbance to the demarcated construction area. • Already disturbed/transformed areas should be used for the accommodation of construction plant, construction material, offices, etc. during the construction phase. • Ensure permits/licenses applicable, are obtained prior to commencement of construction works on site. • Close off access to the working area to prohibit access when not in use. • Ensure working hours remain within reasonable timeframes so as to not disturb neighbours or other residents on the property.	Contractor	Construction phase

• Allow safe movement of other residents (within the existing dwellings) onto and off site. • Ensure construction works are undertaken with sufficient lighting. • Ensure lighting does not disturb neighbouring dwellings. Security: • Ensure security is available on site when stockpiling material and fuels or other hydrocarbons for use, overnight. • Ensure access onto site is controlled. Site Access and Vehicle Movement: • Ensure deliveries/collections during construction are well planned and avoids construction areas. Ensure safety measures are considered. • Avoid peak hours. • Ensure construction programme is planned prior to commencement of activities on site. • Ensure all vehicles entering the site are familiar with the appropriate access roads, and rules of utilizing these access roads. • No speeding should be permitted. Traffic: • A signboard indicating construction activities must be positioned at the intersection between Klein Dassenberg Road and Rondeberg Road, and at the entrance to the Farm Portion. • Signage should not obstruct the view of motorists entering and exiting Rondeberg Road. • Signage should be implemented at the entrance of site indicating speed limits to be observed on site. • Vehicles should not be parked outside of the site and may not obstruct traffic onto Rondeberg Road for extended periods of time. Parking Areas and Maintenance of Equipment or Vehicles: • Designate an appropriate area for these activities. • Ensure maintenance is undertaken on transformed surfaces and wastewater cannot contaminate natural ground.		

• Implement bunding where necessary. Stockpiling and Storage Areas: • Designate appropriate storage areas, for various materials. • Ensure hazardous material is managed as mentioned previously. • Ensure stockpiles are not excessively high, which may create a risk in windy conditions. • Ensure that stockpiles are not situated on site for more than 90 consecutive days. • Be mindful that animals such as rats and snakes may take refuge within stockpiled undisturbed material, therefore, workers must be careful when handling stockpiled materials by hand, and should not allow any debris to be stockpiled on site for long periods of time. Designate waste areas. • Implement waste management measures as per EMPr. Emergency Plans • Ensure all emergency procedures are clearly planned and readily available. Ensure all labour is briefed on emergency procedures and no-go areas, as well as prohibited activities including smoking or establishing fires on site. No-Go Areas: • Ensure that that all areas to the west and south of the existing dwelling infrastructure be considered no-go areas for construction activities, labour and vehicles. Even for temporary activities.		
Performance Indicator	The terrestrial and aquatic environment is not significantly impacted as a result of soil erosion.	

10.2. Objective 2: Loss of vegetation and disruption to ecological processes: Fynbos vegetation

It should be noted that at the time of the compilation of this EMPr,

Impact Management Objective: ***Reduce the impacts caused by land disturbance and impacts on surrounding indigenous vegetation.***	
Potential impact(s) to avoid	• Permanent loss of indigenous vegetation cover due to construction activities.

	• Increased susceptibility to erosion caused by construction activities.
Impact Management Outcome	The disturbance of indigenous vegetation and faunal species is minimised.

IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
General: • Ensure site plans are available on site, and labour is familiar with the working area. Tree Species Removal and Management • If there are tree species within the working area (such as the gum trees along the access road to the north), that will remain, ensure that labour is briefed on this, and place markers (ie: danger tape around the trees) to indicate that the trees should not be removed/damaged. • Appoint a local contractor with experience in tree removal. • The individual trees should be removed as follows: *Gum Tree and Palm Tree(if necessary)* Via Mechanical Control (single species) ➢ Use a 'Tree Popper'. Alternatively, cut off the top growth and then remove the stem and roots from the soil. It is vital that the root ball and any taproots are totally removed to prevent regrowth, as invasive plants often have roots capable of regeneration. ➢ The leaves should be stripped and the wood given to the local labour for firewood purposes, off-site. ➢ Stripped leaves should be immediately managed as green waste. Alternatively the leaves should be burnt in a receptacle where it can be contained and controlled, thereafter the waste can be . • Ensure green waste is stockpiled in an appropriate bin/waste receptacle and then disposed of at a green waste drop-off facility. A disposal slip should be obtained for this. Stockpiles • The topsoil must be stored separately and should not be contaminated, if it is to be donated.	Contractor	Construction phase

• All topsoil stockpiles must be less than 1.5m in height and have adequate signage to illustrate which are topsoil and subsoil. • Topsoil not to be utilized should be removed from site, and disposed of at an appropriate facility, with a disposal slip to record this activity. Vegetation • No surrounding natural vegetation must be disturbed unnecessarily. • If any vegetation is intended for removal that has not been covered in this assessment, it must be brought to the attention of the responsible ECO to address. • Utilize existing infrastructure, or already disturbed/transformed area for the accommodation of construction plant, construction material, offices, etc. during the construction phase. • No disturbance or spoiling may occur outside this working area. • Uncontrolled fires are prohibited on site. • Clear all waste within the working area, while clearance takes place, and dispose of it appropriately. • Remove all alien invasive species (under the guidance of the ECO). *Alien Invasive Clearance:* General: • Ensure site plans are available on site, and labour is familiar with the working area. • Ensure that the MHI Specialists recommendations have been taken into consideration. - If removal of tree species is required, within the working area (such as the mature gum trees), appoint an appropriate tree felling company to remove trees. - If they are to remain, ensure that labour is briefed on this, and place markers (e: danger tape around the trees) to indicate that the trees should not be removed/damaged. • Ensure green waste is stockpiled in an appropriate bin/waste receptacle and then disposed off at a green waste drop-off facility. A disposal slip should be obtained for this. Stormwater Control: • Ensure stormwater management has been taken into consideration.		

• All stormwater runoff within the development area must be managed in a manner so as to minimise or prevent erosion. Areas susceptible to erosion must be protected by installing the necessary temporary structures. Stockpiles • Designated areas for stockpiling of raw materials must be identified before material is brought onto site. • Ensure stockpiles are bunded, especially if positioned along fence line. • Erosion control measures including silt fences, low soil berms and/or shutter boards must be put in place around the stockpiles to limit sediment runoff from stockpiles. • Stockpiles of topsoil & spoil material must be protected from wind & water erosion. • Stockpiles of earth material may not be located within any storm-water drainage pathways. • The topsoil must be stored separately and should not be contaminated, if it is to be donated. • All topsoil stockpiles must be less than 1.5m in height and have adequate signage to illustrate which are topsoil and subsoil. • Topsoil not to be utilized should be removed from site, and disposed of at an appropriate facility, with a disposal slip to record this activity. Vegetation • No surrounding natural vegetation must be disturbed unnecessarily. • If any vegetation is intended for removal that has not been covered in this assessment, it must be brought to the attention of the responsible ECO to address. • Utilize existing infrastructure, or already disturbed/transformed area for the accommodation of construction plant, construction material, offices, etc. during the construction phase. • No disturbance or spoiling may occur outside this working area. • Uncontrolled fires are prohibited on site. Clear all waste within the working area, while clearance takes place, and dispose of it appropriately. Remove all alien invasive species (under the guidance of the ECO).		
Performance Indicator	Construction team limit disturbance to the surrounding vegetation.	

10.3. Objective 3: Disturbance and displacement of Faunal habitat and faunal species of conservation concern

Impact Management Objective: ***Reduce the impacts caused by land disturbance and impacts on the faunal habitat and faunal species of conservation concern***		
Potential impact(s) to avoid	• Permanent loss of faunal habitat cover due to construction activities. • Increased susceptibility to erosion caused by construction activities. • Disturbance and displacement of faunal species, their processes.	
Impact Management Outcome	The disturbance of faunal habitat and faunal species is minimised.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
General: • Ensure contact numbers for emergency assistance is available. • Small mammals within the habitat around the affected area are generally mobile and likely to be transient to the area. They will most likely vacate the area once construction commences. As with all construction sites there is a latent risk that there will be some accidental mortalities. Specific measures are made to reduce this risk. • Limit access onto site using fencing to stop animals from entering the construction area. Use shade cloth over existing fence line (boundary of working area), to stop animals from wandering onto site. • Don't leave excavations open, unattended or overnight, where possible. • Time and allowances should be made prior to the commencement of construction activity to allow for all relevant safety mitigation to take place. • If fauna is found, it should be gently and safely relocated outside of the working footprint, if harmless. • Ensure contact details for animal removal services are available on site, such as SPCA, or snake catchers. • Ensure infographics are available on site indicating common snakes, and how to identify them.	Contractor	Construction phase

• Environmental inductions must include this management measure. The ECO is to advise labour on future conduct in terms of faunal management throughout construction phase, during inductions, including but not limited to: • No person/s may harm, kill, capture or keep any fauna. • Appropriate access control must be put in place to reduce the risk of animal species gaining access to the development area. • Where possible, avoid interactions, particularly with fauna that can inflict harm, if such fauna is identified on site contact local SPCA or other animal protection and removal services. • Maintain good housekeeping, so that fauna cannot hide amongst waste and material. • Reptiles such as lizards are less mobile compared to mammals, and some mortalities could arise. - Should vegetation regrowth be significant prior to the commencement of the construction phase of the proposed development, it is recommended that a faunal search and rescue be conducted before construction commences, although experience has shown that there could still be some mortalities as these species are mobile and may thus move onto site once construction is underway. - A reptile handler should be on call for such circumstances. • Workers are NOT allowed to snare any faunal species. • Trees and shrubs that are directly affected by the operations may be felled or cleared but only by the expressed written permission of the ECO.		
Performance Indicator	Construction team limit disturbance to the surrounding vegetation.	

10.4. Objective 5: Visual Impacts

Impact Management Objective: ***To prevent the site from presenting an unnecessary visual impact to the surrounding public.***	
Potential impact(s) to avoid	Temporary loss of the visual aesthetics (sense of place) due to construction disturbance, poor housekeeping practices, negligent stockpiling, as well as failure to pursue landscaping timeously.
Impact Management Outcome	The impact on the sense of place caused by the construction of the proposed development is significantly reduced and no notable impacts occur.

IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
General: • It is highly recommended that the proposed wall along the northern boundary of the site be constructed first, before continuing with other construction activities. • Special attention should be given to the screening of highly reflective material. • Work on site must be well-planned and well-managed so that work proceeds quickly and efficiently, thus minimizing the disturbance time. • Use of lighting (if required) should take into account surrounding residents and land users and should present little or no nuisance.	Contractor	Construction phase
Performance Indicator	• Good "housekeeping" is evident on site. • The site does not pose a visual impact to surrounding community.	

10.5. Objective 6: Creation of Multiple Job opportunities and Capital Expenditure

Impact Management Objective: ***To create employment opportunities with potential for skills transfer, for members of the local community.***		
Potential impact(s) to be promoted.	• A number of temporary job opportunities for skilled and unskilled labour will be created during the construction phase of the development. • Potential transfer of skills from more experienced workers to less experienced workers. • Increase in business for local businesses within the construction industry.	
Impact Management Outcome	Social benefits from the employment opportunities created during the construction phase.	
IMPACT MANAGEMENT ACTIONS		
Promotion measure	Responsible party	Time period

Positive impact therefore can be enhanced as follows: General • It is highly recommended that all labour be sourced from the local community. • Where possible, people from previously disadvantaged backgrounds, must be given an opportunity to work. Source materials and contractors from the local community.	The Proponent	Construction phase
Performance Indicator	A substantial proportion of the construction team is from the local community, with preference given to historically disadvantaged individuals and, where appropriate, unskilled labourers. Skills transfer from experienced to less experienced workers is actively encouraged on site.	

10.6. Objective 7: Traffic and Access

***Impact Management Objective:* To ensure continued functioning of road network and road safety during construction.**		
Potential impact(s) to avoid	• Some congestion may occur when delivery vehicles enter and exit site with materials. • Accidents may occur due to impatient or negligent drivers. • Congestion and delays may be caused.	
Impact Management Outcome	The functioning of the surrounding road network remains efficient, and the state of the infrastructure is not hampered.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
General: • All construction vehicles need to adhere to traffic laws. The speed of construction vehicles and other heavy vehicles must be strictly controlled to avoid dangerous conditions for other road users. As far as possible care should be taken to ensure that the local traffic flow pattern is not significantly disrupted. • All vehicle operators need to be educated in terms of "best-practice" operations to minimise unnecessary traffic congestion or dangers. Construction vehicles should therefore, not unnecessarily obstruct the access point or traffic lanes used to access the site. Construction	Contractor	Construction phase

vehicles also need to consider the load carrying capacity of road surfaces and adhere to all other prescriptive regulations regarding the use of public roads by construction vehicles.
• Adequate signage, that is both informative and cautionary to passing traffic (motorists and pedestrians), warning them of the construction activities must be suitably located:
  o Identifying working area as a construction site;
  o Cautioning against relevant construction activities;
  o Prohibiting access to construction site;
  o Clearly specifying possible detour routes and/or delay periods;
  o Possible indications of time frames attached to the construction activities, and;
  o Details of responsible contractors and engineers are working on the site.
  o Signage should be positioned at the corner of Klein Dassenberg Road and Rondeberg Road, as well as at the fork on Rondeberg Road, so that it is visible in both directions.
• If needed, appropriate traffic management measures and/ or points men (traffic marshals) should be utilized to assist vehicles entering/ exiting the site, particularly where vehicles must cross the path of oncoming traffic.
• Speed of construction vehicles and other heavy vehicles must be strictly controlled to avoid dangerous conditions for other road users.
• The Contractor must ensure that any large or abnormal loads (including hazardous materials), that must be transported to/ from the site are routed appropriately, and that appropriate safety precautions are taken.
• Truck drivers, transporting construction material or vehicles must be briefed on the appropriate route, and speed limits etc. The driver should be experienced at transporting large loads.
• Ensure any damage done by vehicle movement is identified and reinstated as soon as possible.
• Consideration needs to be given to notifying adjacent affected landowner, in case a significantly large delivery is planned, that will result in some obstruction on Rondeberg Road.
 	
Landowners;
 	
• Notify landowners of the construction programme to ensure that they are aware that construction activity may bring about delays/obstructions as well as ensuring that they are aware of any risks.
• Ensure clear signage is erected on the access road.		

• Where access roads to private property is obstructed, notice must be given to affected landowners and/or occupiers, and such obstruction must endure for the minimum duration possible.		
Performance Indicator	• The surrounding road networks infrastructure remains in its current state. • Limited congestion and traffic.	

10.7. Objective 8: Construction Noises and labour be inconsiderate of neighbours

<u>Impact Management Objective:</u> To prevent the site from presenting an unnecessary visual impact to the surrounding public.		
Potential impact(s) to avoid	• Complaints from neighbouring properties and occupiers of the site. • Disturbance to surroundings,	
Impact Management Outcome	Minimal impacts on the adjacent landowners and occupiers.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
Noise • A complaints register must be available on site. • Strict operating hours for heavy vehicles and construction activities must be implemented so as to avoid times of day when noise impacts are more likely to affect adjacent landowners, i.e.: construction activities, including the movement of vehicle must be limited to between 07h30 and 17h30. • Work on site must be well-planned and must proceed efficiently so as to limit the duration of the disturbance. • Vehicles and equipment must be kept in good working condition. If deemed necessary, machinery and equipment must be fitted with mufflers/ exhaust silencers. No unnecessary disturbances must be allowed to emanate from the construction site.	Contractor	Construction phase

• Workers must be educated on how to control noise-generating activities that have the potential to become disturbances, particularly over an extended period of time. • Noise levels must comply with the relevant health & safety regulations and SANS codes and must be monitored by the Health & Safety Officer as necessary and appropriate. • Affected parties must be informed of the excessive noise factors. Dust • Land clearing and earthmoving activities must not be undertaken during strong winds, where possible. • Cleared areas must be provided with a suitable cover as soon as possible, and not left exposed for extended periods of time. • Stockpiles of topsoil, spoil material and other material that may generate dust must be protected from wind erosion. • The location of stockpiles must take into account the prevailing wind direction and must be situated so as to have the least possible dust impact to surrounding residents, road-users and other land-users. • Speed limits must be enforced in all areas to limit the levels of dust pollution. • The general speed limits must be adhered to in public areas. • Dust must be suppressed on access roads and the construction site during dry periods by the regular application of water or a biodegradable soil stabilisation agent. Water used for this purpose must be used in quantities that will not result in the generation of excessive run off. • Dust suppression measures such as the wetting down of sand heaps as well as exposed areas around the site must be implemented especially on windy days. • The use of straw worked into the sandy areas may also help and the ECO must advise when this is necessary. • If dust appears to be a continuous problem the option of using shade cloth to cover open areas may be necessary or the erecting of shade netting above the fenced off areas may need to be explored. • All vehicles transporting sand (if any), need to have tarpaulins covering their loads which will assist in any windblown sand occurring off the trucks. • Work on site must be well-planned and must proceed efficiently so as to minimise the handling of dust generating material.		

• Material loads must be properly covered during transportation. • Wetting of soils must be considered, if dust dispersal is excessive. • Dust levels specified in the National Dust Control Regulations (GN 827 of November 2013) may not be exceeded. A Complaints Register must be available at the site for inspection by the ECO, in relation to any dust complaints that may have been received.		

Performance Indicator	• No complaints from surrounding business owners and occupants. • The site does not pose a health and safety impact to surrounding community.

10.8. Objective 9: Waste Production and Management

Impact Management Objective: ***To prevent the pollution and contamination***		
Potential impact(s) to avoid	• Pollution into natural/sensitive areas. • Distribution of waste leading to littering/contamination.	
Impact Management Outcome	No pollution/contamination.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
General • Practice good house-keeping and plan set-up and programme of works ahead of time. • Be mindful of weather patterns, that may interrupt work as well as shelter waste areas so as to not be dispersed in bad weather. • Ensure storage of material is done in an orderly fashion. • Contain disturbance to the transformed areas within the farm. • No storm water runoff containing waste, or water containing waste emanating from construction activities may be discharged into the environment.	Contractor	Construction phase

• Any accidental release of a hazardous substance during the construction phase of the proposed development, must be reported to the relevant authorities, including the Department of Environmental Affairs and Development Planning's Directorate: Pollution and Chemicals Management, in terms of Section 30 of the NEMA. • Waste generated on site must be classified and managed in accordance with the National Environmental Management: Waste Act – Waste Classification and Management Regulations (GN No. R. 634 of August 2013). • Disposal of waste to landfill must be undertaken in accordance with the National Environmental Management: Waste Act – National Norms and Standard for the Assessment of Waste for Landfill Disposal (GN No. R. 635 of August 2013). • All waste, hazardous as well as general, resulting from the proposed activities must be disposed of appropriately at a licensed Waste Disposal Facility (WDF). • Ensure a spill kit is available on site, and emptied as soon as possible, at an appropriately registered disposal site or by an appropriately registered waste disposal company, eg: Spilltech). • No waste may be stored on site for more than 90-days. • No waste may be burned, buried or disposed of into the natural environment. Waste Receptacles: • Dedicated waste bins or skips must be provided on site and kept in a demarcated area on an impermeable surface. • Separate waste bins/skips must be provided for recyclable waste, general waste and hazardous waste. They must be appropriately labelled so as to ensure that all labour understands the requirements of each receptacle. • Skips/ bins must be provided with secure lids or covering that will prevent scavenging and prevent wind from displacing the waste or creating dust. • Littering is not permitted. • Waste bins/skips must be regularly emptied and must not be allowed to overflow. - Ensure that waste receptacles are weighted down, or have weighted covers, are labelled appropriately, and/or are cleaned by a reputable waste disposal company. - Obtain a disposal/cleaning slip for this waste, to file in the Environmental File. Educating Labour		

• Workers appointed for construction must be instructed not to litter and to place all waste in the appropriate waste bins provided on site. • The Contractor must ensure that all workers on site are familiar with the correct waste disposal procedures to be followed. • Utilize infographics where necessary. • Ensure labour is inducted appropriately. Pollution Management -Hydrocarbons (oil, fuel etc.) • Polluted stormwater must be contained on the site and disposed of appropriately. • Vehicles and machinery must be in good working order and must be regularly inspected for leaks. • If a vehicle or machinery is leaking pollutants it must, as soon as possible, be taken to an appropriate location for repair. The ECO has the authority to request that any vehicle or piece of equipment that is contaminating the environment be removed from the site until it has been satisfactorily repaired. • Repairs to vehicles/ machinery may take place on site, within a designated maintenance area where contamination cannot access the stormwater network, or impact on the natural ground. • Drip trays must be utilized when: - Refuelling. - During decanting of hazardous substances and when refilling chemical fuel storage tanks. - Generators are being utilized on site where there is risk of leakage/spillage. • If fuel is to be utilized, fuel tanks must be elevated so that leaks are easily detected. • A spill kit to neutralise/treat spills of fuel/ oil/ lubricants must be available on site, and workers must be educated on how to utilise the spill kit. • Soil contaminated by hazardous substances must be excavated and disposed of as hazardous waste. Pollution Management – Ablution facilities • Utilize existing ablution facilities on site. • If this is not possible, provide the necessary chemical toilets on a levelled surface and ensure toilets are secured from blowing over. - Toilets must be located well outside of any storm water drainage lines and may not be linked to the storm water drainage system in any way.		

- Chemical toilets must be regularly emptied, by an appropriate service provider. Care must be taken to prevent spillages when moving or servicing chemical toilets. - Toilet facilities must be supplied by the Contractor for the workers at a ratio of at least 1 toilet per 30 workers in areas approved by the ECO. - Separate toilets must be supplied as per gender. - Temporary/ portable toilets must be secured to the ground to prevent them toppling due to wind or any other cause, to the satisfaction of the ECO. - The Contractor must ensure that no spillage occurs when the toilets are cleaned or emptied and that the contents are removed from the site, disposal/cleaning slips must be filed in the Environmental File, to ensure that these are available for review. - Toilets should be emptied before the Contractors' holidays or any other temporary site closure. • No labour may be permitted to utilize any natural or disturbed area of the site for ablution purposes. Pollution Management – Hazardous Substances • Any hazardous substances (materials, fuels, other chemicals etc.) that may be required on site must be stored according to the manufacturers' product-storage requirements, which may include a covered, waterproof bunded housing structure. • Material Safety Data Sheets (MSDSs) should be readily available on site for all chemicals and hazardous substances to be used on site. Where possible and available, MSDSs must additionally include information on ecological impacts and measures to minimise negative environmental impacts during accidental releases. • Utilize existing bunded areas on site for hazardous storage and refuelling areas. If none of the existing areas can be utilized, ensure that no spills are able to contaminate the stormwater network. Cement Batching • Cement batching and wastewater from such activities must not be permitted to wash into the stormwater network, bunding must be applied where necessary. • No natural area may be used for cement mixing.		

• Unused cement bags must be stored in such a way that they will be protected from rain. Empty cement bags must be disposed of in an appropriate waste bin, for other hazardous waste materials. • <u>All excess cement must be removed from site</u> and disposed of at an appropriately registered licensed disposal facility. Fire safety • <u>Avoid stockpiling waste material on site for excessive timeframes.</u> • <u>No uncontrolled or unpermitted burning of waste is permitted.</u> • If utilized, ensure that any flammable substances are stored according to industry standards. • Ensure that fire safety measures are available on site, including fire extinguishers, in case of an emergency. • Erect fire safety signage, and warning signage to alert people that flammable items are stored in a certain area, etc. and to indicate where fire safety equipment (e.g. fire extinguishers) are located. • Ensure emergency contact details are available on site, with access to a working telephone.		
Performance Indicator	• No complaints from surrounding business owners and occupants. • The site does not pose a health and safety impact to surrounding community.	

11. ENVIRONMENTAL IMPACT MANAGEMENT: POST CONSTRUCTION LANDSCAPING PHASE & OPERATIONAL PHASE

After all construction activities have ceased, the sites must be cleared of all construction related equipment, materials, facilities and waste. In addition, all disturbed surfaces – including disturbed areas around the structures and all areas utilised for site facilities – must be stabilised, rehabilitated and provided with a suitable cover. All temporary access roads constructed must be rehabilitated and access must be restricted from the public.

The environmental management objectives (goals) for this phase are:

11.1. Objective 1: Dust Impacts

***Impact Management Objective:* Avoid dust impacts and disturbance on neighbouring properties**		
Potential impact(s) to be avoided.	• Dispersion of dust resulting in lack of visibility. • Nuisances to adjacent site.	
Impact Management Outcome	• No neighbouring complaints as a result of dust.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
Dust • Speed limits must be enforced in all areas to limit the levels of dust pollution. • The general speed limits must be adhered to in public areas.	Developer / The Proponent	Operational phase
Performance Indicator	• No complaints received pertaining to dust.	

11.2. Objective 2: Permanent Employment Opportunities and Local Economy Support

***Impact Management Objective:* Boosting local revenue and local economy**		
Potential impact(s) to be promoted.	Positive impacts Local economic growth.	
Impact Management Outcome	Employment and local economic support.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period

No mitigation proposed. Positive impact therefore can be enhanced as follows: • It is highly recommended that all labour be sourced from the local community. • Where possible, people from previously disadvantaged backgrounds, must be given an opportunity to work. • Source materials and contractors from the local community. Support of businesses and livelihoods can lead to: • Employees are able to earn a living to improve the lives, health and safety of their family members and households. • Employees are able to afford to educate their children. • Employees are able to provide food and shelter for themselves and their families. • Employment created with the development will have a positive influence on members in the community previously unemployed. Employees will source goods from the local community, contributing to the local economy.	Developer / The Proponent	Operational phase
Performance Indicator	Support of clients and sectors that are reliant on the business services.	

11.3. Objective 3: Waste Management

Impact Management Objective: ***Waste and pollution control***		
Potential impact(s) to be avoid.	• Should proper monitoring of the installed infrastructure not be implemented on site, there is a risk of the proposed development to pollute the underground water resource in the event of infrastructure failure. • Contamination and Pollution of natural environment.	
Impact Management Outcome	• No underground water resource contamination.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
General • Practice good house-keeping. • Adopt a waste management plan in line with the City of Cape Town Integrated Waste Management By-Law 2009 (As Amended 2016). • Be mindful of weather patterns, that may affect waste storage area (based on placement). • Ensure storage of waste is done in an orderly fashion.	Developer / The Proponent	Operational phase

• Polluted stormwater must be contained on site. • Dedicated waste bins or skips must be provided on site and kept in a demarcated area on an impermeable surface (may be permitted within, if non-hazardous, if hazardous utilize spill kits on site. • Separate waste bins/skips must be provided for recyclable waste, general waste and hazardous waste. Green waste (if any) may be stockpiled in separate bin until removal. • Be mindful of weather patterns, that may interrupt work as well as shelter waste areas so as to not be dispersed in bad weather. • Ensure storage of material is done in an orderly fashion. • Contain disturbance to the transformed areas within the farm. • No storm water runoff containing waste, or water containing waste emanating from construction activities may be discharged into the environment. • Any accidental release of a hazardous substance during the construction phase of the proposed development, must be reported to the relevant authorities, including the Department of Environmental Affairs and Development Planning's Directorate: Pollution and Chemicals Management, in terms of Section 30 of the NEMA. • Waste generated on site must be classified and managed in accordance with the National Environmental Management: Waste Act – Waste Classification and Management Regulations (GN No. R. 634 of August 2013). • Disposal of waste to landfill must be undertaken in accordance with the National Environmental Management: Waste Act – National Norms and Standard for the Assessment of Waste for Landfill Disposal (GN No. R. 635 of August 2013). • All waste, hazardous as well as general, resulting from the proposed activities must be disposed of appropriately at a licensed Waste Disposal Facility (WDF). • Ensure a spill kit is available on site, and emptied as soon as possible, at an appropriately registered disposal site or by an appropriately registered waste disposal company, eg: Spilltech). • No waste may be stored on site for more than 90-days. • No waste may be burned, buried or disposed of into the natural environment. Waste Receptacles: • Waste must be placed in the appropriate waste bins/skips/ stockpiles.		

• Skips/ bins must be provided with secure lids or covering that will prevent scavenging and windblown (if exposed) waste or dust. • Waste bins/skips must be regularly emptied and must not be allowed to overflow. • Always dispose waste at a registered waste disposal site, unless there is a chance that the waste can be re-used etc. in which case utilize an appropriate facility. • Minimize office waste. • Remain as a paperless as possible. • Ensure that, if necessary, any OH&S monitoring is undertaken as required by any permit/license etc. • Receptacles should be inaccessible to animals. Educating Labour • Workers appointed for operational works are to be educated on the the requirements in terms of waste management, and the waste management plan. • The Contractor must ensure that all workers on site are familiar with the correct waste disposal procedures to be followed. • Utilize infographics where necessary. • Ensure labour is inducted appropriately. Stormwater • The loading area must be located to the west of tank farm 1. The slab will be sloped towards to a catchment drain. The drain will be connected and the water/ oil mixture from spills and rainwater will be fed through an oil/ water separator before going into a soakaway system. • The oil must be treated as hazardous waste. Pollution Management -Hydrocarbons (oil, fuel etc.) • Any hazardous substances (materials, fuels, other chemicals etc.) that may be required on site must be stored according to the manufacturers' product-storage requirements, which may include a covered, waterproof bunded housing structure. • Material Safety Data Sheets (MSDSs) shall be readily available on site for all chemicals and hazardous substances to be used on site.		

• Where possible and available, MSDSs must additionally include information on ecological impacts and measures to minimise negative environmental impacts during accidental releases. • Utilize existing bunded areas on site for hazardous storage, in spill kits (if storage is necessary). Fire Safety • Avoid stockpiling waste material on site for excessive timeframes. • No waste may be stored on site for more than 90-days. • No uncontrolled or unpermitted burning of waste is permitted. • Ensure that gas or any flammable substances are stored according to industry standards. • Ensure that appropriate signage is established. • Maintain fire hoses and extinguishers (if applicable). • Erect fire safety signage, and warning signage to alert people that flammable items are stored in a certain area, etc. and to indicate where fire safety equipment (e.g. fire extinguishers) are located. Ensure emergency contact details are available on site, with access to a working telephone.		
Performance Indicator	• No spills and leakages of hazardous substances within the site boundary, which resulted as a direct result of the operational activties and associated infrastructure.	

11.4. Objective 4: Storage and Handling of Dangerous Goods

***Impact Management Objective:* Waste and pollution control**		
Potential impact(s) to be avoid.	• Should proper monitoring of the installed infrastructure not be implemented on site, there is a risk of the proposed development to pollute the underground water resource in the event of infrastructure failure.	
Impact Management Outcome	• No underground water resource contamination.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
General • Ensure all relevant permits/licenses required for storage and handling of dangerous goods are obtained. • Ensure designated storage area is secure, well-ventilated and free of any fire risks. • Ensure storage tanks and connections are checked on a daily basis.	Developer / The Proponent	Operational phase

• Ensure that safety and emergency plans are drafted and available to all employees. • Ensure designated areas are acceptable as per all relevant legislative requirements. • Manage storage in line with SANS 10123: 2004. Educating Labour • Ensure the relevant personnel are fully aware and trained on the following: ➢ Offloading/loading, management, and storage of hazardous goods. All farm or business personnel who pump fuel should be trained on good ➢ fueling procedures. They should know how to use all spill kit items, how ➢ to prevent overfills, and how to react if an emergency occurs. Hands-on ➢ training usually is better received and remembered than training from ➢ written materials. ➢ Spill prevention is the single most important thing, and periodic refresher ➢ training should be provided. Employees need to be reminded of routine ➢ filling procedures such as turning pumps on and off, locking tanks, ➢ inspecting hoses and fittings, and completing the use log; and they must ➢ always be reminded to stay present at the tank when fueling. ➢ Emergency plans, including fire safety. ➢ Conditions required to comply with relevant permits/licenses required for storage and handling of dangerous goods. ➢ Evidence of incidents/contamination. ➢ Ensure employees are aware of appropriate PPE (if recommended by Health and Safety Specialist). ➢ Ensure employees are fully aware of the standard reporting procedure should any incidents/complaints arise. Waste Management • Situate spill kits at delivery/loading points. • Ensure relevant emergency/safety plans are in place and all permanent personnel are fully aware of these plans. • The emergency preparedness and response plan must be made known to all relevant personnel in the event that any vehicle accidentally spills hazardous goods.		

• Any transport accidents that may result in leaks or spills of hazardous waste from the vehicles will require:
  ➢ Emergency action to contain the spill material; and
  ➢ Immediate steps must be taken to clear any materials that could drain toward the drainage areas on site or that are causing traffic congestion and delays.
• A designated waste storage area must be allocated. This area must have the following characteristics:
  ➢ Be enclosed and shielded from wind/rain.
  ➢ Must be located on an impermeable surface located away from any drainage areas.
  ➢ Must have a spill kit in close proximity of this storage area.
  ➢ The storage area must have a combined volume that amounts to 110% of the volume of the storage tanks within the storage area.
  ➢ All skips/bins must be labelled appropriately, eg: skips/bins containing hazardous waste must be labelled "hazardous waste".
  ➢ All storage areas must be equipped with a fire hydrant in the event of emergencies, or any other precautionary equipment.
• Dispose of the various waste types at appropriately registered licensed waste disposal sites.
 	
Fire Safety
• Establish a 5m firebreak around the bunded areas, particularly to the north of the bunds (the existing road to the south, can be utilized for this purpose).
  o Ensure that this is maintained in line with relevant fire safety requirements.
  o Ensure that no leaf litter builds up in the bunded areas.
 	
• Ensure fire-fighting equipment is readily accessible, functioning, and in close proximity to storage areas.
• Establish signage and indicate that the storage areas, beyond the southern proposed solid wall, will have a strict zero-tolerance for smoking. Establish similar signage at the entrance to indicate that no drivers accessing this portion to the property will be permitted to smoke.
• Ensure emergency numbers are visible, with a working landline/phone to utilize.
• Ensure all infrastructure is operating as per manufacturer specifications.
• Landowner/occupier **must register with the local Fire Protection Association.**		

• Establish firebreaks around the storage area and ensure that these are maintained. • Comply with by-law requirements – Fire Safety By-law. Storage Tanks: • Ensure storage tanks are maintained as per manufacturers and Health and Safety specifications. • Ensure that all monitoring required to be undertaken, is undertaken timeously and in compliance with the relevant permit/license. • Staff must ensure that the correct fuel is placed in the tank and the correct amount of fuel is dispensed (calculate beforehand to prevent overfill). MHI Recommendations: • Ensure that all recommendations from the Final Major Hazard Installation study are included in the planned works, layouts updated, and measures are complied with. Including: - Good housekeeping must always be observed on site. - Emergency Plan must be implemented to address the risks identified in the MHI report. - Emergency Plan must comply with: ➢ the MHI Regulations and SANS:1514 Codes. ➢ Must be accepted and signed by management and the Local Authority. - Incident Register must be kept to detail all near misses. - Maintenance on equipment to be done as per manufacturer requirements. - Fuel installations must comply with relevant SANS Codes and Municipal Bylaws. - All work must be done by qualified companies. - Council to approve drawings. - Fire department to issue a flammable substance certificate. - Area around the depot must be kept clean and clear of ignition sources and combustible materials. - This MHI report must be distributed to Local, Provincial and National Government as per MHI Regulations. • Review of Risk Assessment (Appendix N) : The Risk Assessment is valid for the duration of 5 years from the above date unless: - Changes have been made to the plant that can alter the risks on the facility.		

- The Emergency Plan was invoked or there was a near miss. - The changing neighbourhood could result in offsite risks. - There is reason to suspect that the current Assessment is no longer valid. • Risk Reduction Programmes : Risk reduction programmes should continually be investigated to reduce the impact from accidental fires and explosions on surrounding communities. • Surrounding Land Development o The development of land surrounding the site should be done with caution as not to pose unnecessary risks onto the surrounding communities. This caution is aimed at ensuring the adjacent developments are suitable for the risk imposed.		
Performance Indicator	• No incidents as a result of inappropriate storage and handling of hazardous goods.	

11.5. Objective 5: Community Concerns – Future Development

***Impact Management Objective:* For the community to understand the intended purpose of the development, and for the development to not detract from the aesthetic of this area.**		
Potential impact(s) to be avoided.	• Change in sense of place. • Miscommunications.	
Impact Management Outcome	• Development remains fire wise. • Community does not feel threatened by development.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
General • Engage with the public on a community forum, and allow the public to view compliance approvals, ECO Reports, etc. (information that is not proprietary). o Written requests must be made from the public for this information. o A database must be managed, by the applicant, profiling requests from the public and details of individuals who made requests. • Obtain and comply with all relevant permits/licenses.	Developer / The Proponent	Operational phase

• Ensure that the construction plan is implemented, as approved, and no deviations are permitted. • Restrict access to the site, to only the applicant's business vehicles. • Daily monitoring must be undertaken by a technician or person responsible for monitoring safety compliance and noting any signs of emergency on site. Nuisances Mitigation • Ensure that the few employees (drivers, managers/technicians, etc). on site are restricted by a Code of Conduct, and are warned of noise restrictions. • Ensure that machinery and vehicles are well maintained, to limit noise, and where necessary utilize mufflers. • Restrict access to the site, to only the applicant's business vehicles.		
Performance Indicator	Open communication and community cohesion.	

11.6. Objective 6: Traffic and Access

***Impact Management Objective:* Avoid incidents of traffic or accidents.**		
Potential impact(s) to be avoided.	• Traffic, congestion or accidents.	
Impact Management Outcome	• Movement of vehicles are free-flowing and wee-planned.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
General • Ensure employees are fully licensed to operate the relevant vehicles. • Ensure signage is erected to indicate: o The entrance to the site. o Safety for vehicles carrying fuel. o Speed limits. • Plan trips ahead of schedule and notify neighbours if there are concerns. • Neighbours are to communicate concerns or schedules, ahead of time, if necessary. The applicant is to ensure that the employees are fully aware of all concerns raised by the public/neighbours, and must ensure that their schedule does not create disruptions.	Developer / The Proponent	Operational phase

Performance Indicator	• No complaints from neighbours regarding incidents/accidents.

11.7. Objective 7: Theft & Vandalism

***Impact Management Objective:* Ensure all safety measures are undertaken.**		
Potential impact(s) to be avoided.	• Avoid negligence and security issues.	
Impact Management Outcome	Security is efficient and monitoring is on-going.	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
General • Ensure that appropriate security measures are put in place. • Ensure access is controlled. • Ensure trips are pre-planned, and schedules are altered from time to time, to ensure that vehicles cannot be targeted. • Employ full-time security. Engage with local law enforcement, and have emergency numbers available on site.	Proponent	Operational phase
Performance Indicator	No incidents of theft/vandalism.	

11.8. Objective 8: Climate change impacts

Impact Management Objective: ***Ensure all adaption and mitigation measures are integrated and are in good order.***		
Potential impact(s) to be avoided.	• Strain on services, as temperatures increase. • Strain on water resources. • The need to capture and store rainwater during periods of rainfall, will become a priority. • Will impact negatively on groundwater capacity and availability. • Fires can be started by negligent labour activity. Which in turn can affect private properties, homes, and livelihoods (farms), etc. • Based on the variety of vegetation intended to be traversed by this proposal, drier periods may see fire hazards occurring beyond the control of the contractor or farmers, which can put lives and infrastructure at risk. • Potential for the storm event to damage infrastructure, at water crossings, and at extraction points, as well as at exposed infrastructure (ie. reservoirs and pump stations). • Potential for storm events to impact on electricity supply, which will strain the functioning of pumps and other electrical devices, designed to ensure that the treatment and supply of water is undertaken correctly.	
Impact Management Outcome	Low climate impact as a result of the construction activities	
IMPACT MANAGEMENT ACTIONS		
Mitigation measure	Responsible party	Time period
General • Adopt renewable energy initiatives for future planning, and power needs, such as solar panels, for security lighting etc. • Adopt water conservation initiatives, such as rain-water capturing, etc. for any requirements on site (not drinking water). • Pre-plan routes and avoid unnecessary delays or trips. • Ensure drivers travelling long-distances are accompanied, for safety reasons, thereby avoiding delays. • It is noted that the applicant is attempting to reduce their carbon footprint, by centralizing their storage area, to meet the needs of their clients within the surrounding area. In future, if a feasible,	Proponent	Operational phase

carbon offset initiative is established, regulated, and adopted locally, the applicant is recommended to consider contributing to this offset, in relation to the rest of their business activities. • As much as possible, ensure trips are always undertaken with full loads.		
Performance Indicator	Local climate remains unchanged as a result of development – no occurrence of field fires, no additional strain on water resources.	

12. MONITORING COMPLIANCE

This EMPr, once approved by the competent authority (DEA&DP), must be seen as binding to the Holder, and any person acting on the Holder's behalf, including but not limited to agents, employees, associates, contractors and service providers.

The Holder and all other persons who may be directly involved in the development are also bound by their general Duty of Care, as stated in Section 28 of the National Environmental Management Act, 1998:

> ***Duty of Care:***
> *"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 cannot reasonably be avoided or stopped, to minimize and rectify such pollution or degradation of the environment"*

12.1. Environmental Authorization (EA) Holder / Proponent

It is the EA Holders responsibility to ensure that all agents/contractors/subconsultants appointed to provide services to establish the proposed development, are fully aware of the EMPr, Environmental Authorization and any other relevant licenses/permits, which must be considered prior to actioning any activity on site. The EA Holder may choose to hold the Contractor responsible for any fines incurred as a result of non-compliant activities during implementation, however this must be done through the agent and by legal procedure. The EA Holder must ensure that:

- Financial allowances are incorporated into the Bill of Quantities, to accommodate for the requirements of the licenses and EMPr.
- An appropriately experienced/qualified Environmental Control Officer (ECO) is appointed to monitor compliance, prior to commencement of site establishment activities.
- An appropriately experienced/qualified Environmental Auditor is appointed to audit compliance, prior to commencement of site establishment activities.

12.2. Contractor

It is the Contractors responsibility to be aware of the requirements of the EMPr, Environmental Authorization and any other relevant permits/licences and ensure that all labour, appointed sub-contractors/consultants are also made aware of these documents. The Contractor is required to ensure that as per EMPr, EA conditions, and other permits or licences:

- Time allowances/considerations are given to accommodate all relevant activities, when compiling the project programme of works.
- Financial allowances are made to meet all relevant requirements.
- All activities are implemented in an environmentally conscience manner, in line with the EMPr.
- Produce method statements for approval by the ECO and Site Engineer, prior to implementing activities.

- **Construction Phase Record Keeping**

A copy of the approved EMPr, the Environmental Authorisation and any relevant construction method statements must be kept on site at all times during pre-construction, construction and landscaping activities. The ECO Reports must be retained by the Holder for a period of at least 5 years, and must be provided to the Competent Authority upon request.

The set up and organisation of the site camp is paramount to ensuring compliance. An environmental file is to be created by the contractor and be situated within the site camp throughout the construction phase and with the applicant thereafter. The environmental file is to include the following;

- A copy of the Environmental Authorisation.
- A copy of any other relative permits/licenses/authorizations/approvals.
- A copy of the approved EMPr.
- Updated Waste slips.
- Disposal slips or cleaning slips (ablution cleaning).
- All EMR's (Environmental Monitoring Reports) and ECO instructions.
- Copies of Environmental induction register/s.
- The Protocol for chance Palaeontological Findings.
- A complaints register.
- Updated method statements.
- Any and all emergency procedure/s applicable to site activities.
- An Incident Register.

- **Method Statements**

The Competent Authority and/or the ECO may require the Holder / Developer or Construction Contractor to submit Method Statements for one or more construction-related activity, or any aspect of the management of the site, before the activity is undertaken or during the performance of the activity, if the activity is causing or may cause significant environmental damage, or pose a health and safety risk.

Method Statements need not be complex and lengthy, but must clearly state **how**, **when** and **where** the activity concerned will be undertaken, and must specify **who** will be responsible for undertaking each component of that activity. Method Statements must be prepared by the Construction Contractor and submitted to the ECO for approval before undertaking the activity concerned.

The ECO and / or Competent Authority have the authority to request method statements for activities, including but not limited to:

- Establishment of site camp and stockpile area.
- Cement/ concrete batching, disposal and emergency contingencies.
- Topsoil and sub-soil storage/ stockpiling.
- Storage of fuels and hazardous chemicals and emergency contingencies.
- Waste management system.
- Storm water management and control.
- Alien invasive plant species management.
- Fire Control & Fire Emergency Plan.
- Emergency preparedness plan / emergency response procedure (see Chapter 14).
- Post-construction landscaping.

The ECO has the authority to prevent activities from being undertaken until such time as a satisfactory Method Statement has been submitted to the ECO and approved by the ECO.

12.3. ECO Monitoring

The appointed ECO is responsible for undertaking regular site visits to monitor and report on the implementation of the EMPr and adherence to the conditions of the Environmental Authorisation during

the pre-construction, construction and post-construction landscaping phases. The ECO is not required to monitor the site during the operational (maintenance) phase of the development.

- **Frequency of ECO visits**

- The ECO must conduct site visits every **two weeks** during the construction phase, in addition to the start-up and closure inspections.
- The ECO must conduct a site visit 3 months after practical completion of the construction period.
- The ECO has the discretion to undertake additional visits if he / she feels this is justified due to the actions of the contractors, and to make *ad hoc* visits in order to ensure compliance.

- **Monitoring Reports**

- Must be produced **monthly (based on the two site visits conducted during the month)** and submitted to the Competent Authority, Engineer, Proponent, Environmental Auditor and Contractor.

- **ECO Inspections**

- ECO inspections must consist of photographic records to monitor the changes to the environment, and evidence of non-compliances, where possible.
- ECO inspections must be be followed by written records, as detailed in Appendix G of this EMPr.

12.4. Auditing by Environmental Auditor

An environmental auditor is to be appointed by the applicant. As per Section 34 of the EIA Regulations (GN R326 of 2017), the duty of an Environmental Auditor is to be in dependent and is responsible for:

- Ensuring compliance with the conditions of the environmental authorisation and the EMPr.
- Submit an environmental audit report to the relevant competent authority, which provides verifiable findings, in a structured and systematic manner, as per Appendix 7 of GN R326.
- Any amendments to the EMPr, which must be recorded in.

The Environmental auditor must undertake an audit as per Appendix 7 of GN R326 at the following stages;

- During Construction:
  - Prior to the commencement of the construction activities.
  - Depending on construction timeframe, at 50% completion (if within 1 year), or annually (if more than a year).
  - At practical completion of the construction period.
- Post-Construction:
  - Annually, for as long as the EA is valid for.

13. PENALTIES, CLAIMS AND DAMAGES

The contractor will be responsible for all costs incurred in the rehabilitation/corrective measures required on site, as a result of non-compliances, during construction. If third parties are called to the site to perform clean up and rehabilitation procedures, as a result of non-compliances as a result of the contractors performance/actions, the contractor will be responsible for all costs. The Competent Authority may impose penalties on the Holder or any of the contractors if conditions contained in this EMPr are contravened.

Penalties could be imposed in terms of Chapter 11 of the Western Cape Bill on Planning and Development as published in the Extraordinary Provincial Gazette No 5183, 3 October 1997, and would be applicable for any action which leads to damage to the natural environment. Please note that the

payment of any fines in terms of the contract shall not absolve the offender from being liable from prosecution in terms of any law.

In cases where severe environmental damage occurs, the competent authorities law enforcement division may take legal action against the responsible parties. The reasons for this could include, among others:

- Not implementing the conditions of the EMPr.
- Spillage that result in environmental damage.
- Incorrect handling and storage of construction materials and chemicals.
- Sensitive areas that are not clearly demarcated/are encroached upon.
- Performing ablutions in areas other than facilities provided for such actions.
- Occurrence of unattended and out of control fire.

The Contractor shall comply with the environmental specifications and requirements on an ongoing basis and any failure on his part to do so will entitle the ECO to issue the contractor with penalty / fine as described in the following section.

The following offences, level of severity and value of the financial fines have been drafted according to the sensitivities on the proposed site, the mitigation measures proposed, and the construction methods proposed. It must be noted that the level of severity is at the discretion of the ECO and any offences or fines will be recorded in the ECO's monitoring report. The fineable offences are not limited to the table below, additional offences may be applied by the ECO with prior agreement with the EA holder.

The following fine structure shall apply:

Table 2: Fines and offences

Finable Transgression	**Min Fine**	**Max Fine**
Failure to notify the ECO of the commencement of construction or pre-construction activities, prior to the commencement of such activities.	R1 000	R2 000
Failure to provide secured ablution facilities on site.	R500	R15 000
Failure to comply with the provisions relating to the clearance of vegetation on site.	R2 000	R5 000
Clearance of indigenous vegetation (regardless of the density of alien vegetation present) outside of the demarcated boundaries of the working area and site camp.	R2 500	R15 000
Failure to adhere to designated access routes.	R1 000	R5 000
Movement of vehicles and/or construction workers in no-go areas;	R1 000	R10 000
Parking or storage of vehicles, machinery, tools and other materials or equipment related to the Contractors operations, within designated "no-go" areas.	R1 000	R10 000
Failure to comply with the provisions relating to the management of topsoil and subsoil.	R1 000	R5 000
Excessive excavation of material in areas not depicted for such purpose / activity on the approved design plans.	R2 500	R10 000

Failure to comply with the provisions relating to waste management on site i.e. recycling of wastes.	R500	R5 000
Failure to comply with the provisions relating to the storage, use and management of hazardous substances and fuels on site and/or the spillage of hydrocarbons or hazardous substances on site leading to environmental damage.	R1 000	R10 000
Mixing cement or concrete on bare ground and/or failure to comply with any other provision regarding cement/ concrete batching.	R1 000	R5 000
Failure to provide adequate fire-fighting equipment (in working order) on site at all times and/or failure to comply with the provisions relating to fire prevention and/or the occurrence of unattended or out of control fires.	R500	R5 000
Refuelling of vehicles, machinery or equipment outside of the designated refuelling area.	R500	R2 000
Maintenance of vehicles, machinery or equipment outside of the designated maintenance yard, except in emergencies.	R500	R2 000
Failure to undertake refuelling or repairs over a drip tray or other impermeable bunded surface to collect spilled hydrocarbons (fuels, lubricants, oils etc.) and other hazardous substances; failure to provide drip trays under fuel burning equipment (including pumps and generators) where there is a risk of hydrocarbon leakage.	R500	R2 000
Failure to produce a required method statement/s to the engineer's and ECO's satisfaction prior to undertaking the activity concerned and/or failure to adhere to an approved method statement.	R1 000	R5 000

The above does not absolve the transgressor from being prosecuted in terms of the ***National Environmental Management Act (Act 107 of 1998)*** which may result in further penalties and other actions by State Departments.

14. EMERGENCY PREPAREDNESS

14.1. Emergency response procedures

The potential environmental risks that may arise as a result of construction activities, or during the maintenance of the structures must be identified, and appropriate emergency response procedures must be compiled for each emergency scenario. Potential environmental emergencies that require an emergency response include, but are not limited to, unplanned fires, sewage spills, spills of hazardous chemicals, snake bites etc.

- The construction contractor & applicant is responsible for identifying potential significant environmental risks that may arise as a result of pre-construction, construction and landscaping/rehabilitation (in the form of alien invasive species control measures) activities, and the contractor must formulate emergency response procedures for these potential incidents.
- The ECO, the contractor and the EA Holder are responsible for ensuring that all construction workers are aware of the emergency procedures and are properly trained on how to identify and respond to an emergency incident during construction.

- An emergency procedure must clearly indicate who will take charge during an emergency, and the roles and responsibilities of workers and authorities during an emergency.
  The construction contractor is responsible for ensuring that the requirements of the Occupational Health & Safety Act (Act 85 of 1993) (OHSA) are adhered to during the construction phase. The Holder is responsible for ensuring compliance with the OHSA during the undertaking of operational and maintenance activities.
  An Emergency Plan must be compiled in line with the recommendations of the MHI Specialist.

14.2. Emergency preparedness

The following measures must be implemented, as appropriate, to ensure effective responses to emergencies:

- All workers on site during the construction and operational phase must be properly educated about possible emergency incidents that may arise, how to avoid such incidents and how to respond in the event of an incident. "Refresher" training sessions on emergency procedures must be held if needed.
- All workers must ideally be given basic fire-awareness training, as well as be advised on basic firefighting and safety techniques. Fire-fighting equipment must be available on-site during construction and maintenance activities (see section 7.3).
- All workers must be trained on how to respond in the event of a spill of a hazardous substance (fuel, chemicals etc.), if hazardous substances are to be used on site.
- A spill kit for containing and/or neutralising spills of hazardous substances (e.g. hydrocarbons) must be available on site at all times, when hazardous substances are present.
- Any incidents of pollution or spillage of hazardous materials during construction must be reported to the ECO as soon as possible. The ECO must then (depending on the nature of the spill) notify the relevant authorities, if needed. During the operational phase of the development, the Holder is responsible for notifying the relevant authorities of any pollution incidents that arise as a result of maintenance activities.
- A first aid kit must be available on site at all times.
- Emergency contact numbers (including the fire department, police and ambulance) must be prominently displayed on site at all times and regularly updated.
- All emergency incidents must be recorded in a site incident log. The cause of the incident, the measures taken in response to the incident and the efficacy of those measures must also be recorded. This information must be used to inform future emergency preparedness planning, and to avoid prevent similar incidents from arising again.

15. ENVIRONMENTAL AWARENESS PLAN

Environmental Awareness Training (see APPENDIX I), must be conducted prior to the commencement of construction activities. It is the Holder's responsibility to familiarise himself/herself with the content and requirements of this EMPr. The Holder is also responsible to ensure that the contractor and all labourers working on site during the construction phase are familiar with the content of this EMPr.

The following actions must be taken to ensure that all relevant parties are aware of their environmental role and duties:

1. This EMPr must be kept on site at all times.
2. The provisions of this EMPr and the conditions of the Environmental Authorisation must be explained in detail to all staff during Awareness Training.

3. The ECO is to conduct frequent site visits.
4. Monthly monitoring reports to be compiled by the ECO. These reports will be circulated to all parties involved (including the Holder, contractor and the competent authority, where required).

Other items relating to sound environmental management which must be discussed and explained during the environmental awareness training sessions include:

- The demarcated "No-Go" areas.
- General do's and don'ts of the site.
- Making of fires.
- Waste management, use of waste receptacles and littering.
- Use of the toilets provided.
- Use and control of construction materials and equipment etc..
- Control, maintenance and refuelling of vehicles.
- Methods for cleaning up any spillage.
- Access and road safety.
- Emergency procedures (e.g. in case of fire, spillage etc.).
- General "best practice" principles, with regards to the protection of environmental resources.

Environmental awareness training and education must be ongoing throughout the construction phase and must be undertaken regularly if deemed necessary (especially if it becomes apparent that there are repeat contraventions of the conditions of the EMPr, or as new workers come to site. Translators must be utilised where needed.

APPENDIX A – CURRICULUM VITAES OF EAPS

CURRICULUM VITAE

AMEESHA SANKER

PERSONAL

Profession: Environmental Assessment Practitioner, Sharples Environmental Services cc, Cape Town.

Nationality: South African

Date of Birth: 27 December 1990

Languages: English (read, write and speak) - Fluent

Marital Status: Single

Drivers' License: Code B

Health: Excellent

WORK EXPERIENCE

March 2020 – Present: Sharples Environmental Services cc, Cape Town, WC
Environmental Assessment Practitioner

- Basic Assessments Reports
- Amendment Applications
- Administration.

July 2014 – March 2020: Dartingo Consulting Engineers (Pty) Ltd, Durban, KZN
Part-time GIS Technician

- Management and compilation of GIS database.
- Layout/map creation.

June 2013– March 2020: EnAq Consulting.cc
Environmental Assessment Practitioner

- Basic Assessment Applications
- Water Use License Applications
- Environmental Monitoring/Auditing
- Stakeholder Engagement
- Reporting
- Environmental Management Plans
- Public /Contractor Awareness Training
- Biodiversity Offsets
- Rehabilitation and Protected Areas
- Project Management
- GIS management
- Administration

TERTIARY EDUCATION

2019: UNISA

- Bachelor of Science Honours Degree specialising in Environmental Management.

2014: University of Kwa-Zulu Natal

- Bachelor of Science Degree specialising in Geological Science (Engineering and Environmental).

PROJECTS

Sharples Environmental Services.cc

2020-George Groenkloof Ontwikkelings (Pty) Ltd

- Partial completion of the Amendment for the Proposed Development of a Retirement Village and Associated Infrastructure on Portion 3 of the Farm Kraaibosch 195, George, Western Cape.

2020-Wittedrift The Home Market NPC

- Completion of the Basic Assessment Report for the Proposed Retirement Village and Service Infrastructure on Erf 103, 104 and a Portion of Rotterdam Street. Wittedrift, Bitou Municipal Area, Western Cape.

2020-Mossel Bay Mossel Bay Local Municipality

- Basic Assessment Report for the Proposed Construction of Walvis Street, Western Cape.

2020-Beaufort West Beaufort West Local Municipality

- Basic Assessment Report for the Expansion of the Existing "Goue Akker" Cemetery in Beaufort West, Beaufort Local Municipality, Western Cape.

2020-Melkhoutfontein Hessequa Local Municipality

- Basic Assessment Report for the Expansion of the Existing Melkhoutfontein Cemetery on ERF 566 and portion 141/480, Hessequa Local Municipality, Western Cape.

2020-Umzimkhulu Leratong Victim Empowerment Co-operative Ltd.

- Basic Assessment Report for the Construction of a Roof Sheeting Factory, Umzimkhulu Local Municipality, KwaZulu-Natal.

Previous Employment (2013 – 2020)

Margate Ugu District Municipality

- BAR, WULA, GIS and ECO for the Proposed Southern Mains Bulk Water Upgrade: Gamalakhe to Margate, Ugu District Municipality, KZN.

Port Shepstone Ray Nkonyeni Local Municipality

- Project screening, assistance with BAR preparation, public participation, GIS and ECO for the proposed Acacia Road Storm Water Network Update, Ray Nkonyeni Local Municipality, KZN.

Ixopo Harry Gwala District Municipality

- Project screening, assistance with BAR preparation, and GIS for the Upgrade of Ixopo Sewer Network, Harry Gwala District Municipality, KZN.

KwaDukuza KwaDukuza Local Municipality

- Project screening, EMPr preparation and ECO for the KwaDukuza Beach Upgrades: Life- Guard and Ablution Facilities, KwaDukuza Local Municipality, KZN.

KwaDukuza KwaDukuza Local Municipality

- Project screening, EMPr preparation and ECO for the A/C Mains Replacements, KwaDukuza Local Municipality, KZN.

Mzumbe Mzumbe Local Municipality

- Project screening, BID and Public Participation for the Proposed Mzumbe Access Road Upgrades, Mzumbe Local Muncipality, KZN.

uMtumvuna Ray Nkonyeni Local Municipality

- Project screening, Public Participation and BID for the Proposed uMtamvuna Water Treatment Works Upgrade, Ray Nkonyeni Local Municipality, KZN.

Mkholombe Ray Nkonyeni Local Municipality

- Project screening for the Proposed Upgrade of Mkholombe Sewer Network Upgrade, Ray Nkonyeni Local Municipality, KZN.

Phoenix Ethekwini Municipality

- Project screening, Assistance with the initiation of the Section 24G for the Viewhaven Housing Development, Ethekwini Municipality, KZN.

Margate Ugu District Municipality

- Project screening, and application for Amendment to the Margate Sewer Pipeline Replacement: Upgrade of Pump Station 3A and the Augmentation of Margate Effluent Main, Part 1 & 2, Ugu District Municipality, KZN.

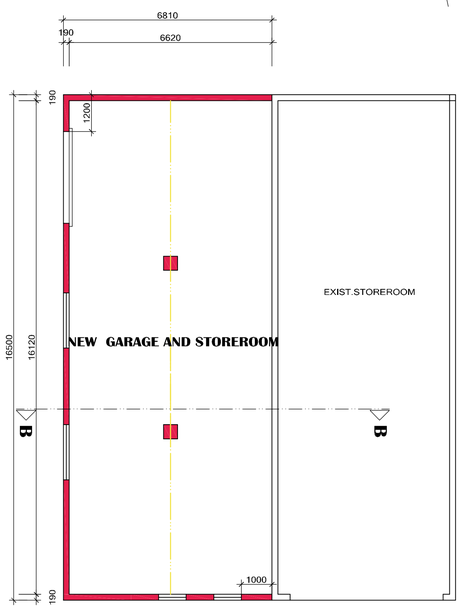
Ballito Siza Water

- Project screening, initiation of BID and WULA for the Ballito Hills Water and Sanitation, KwaDukuza Local Municipality, KZN.

Mzumbe Umzumbe Local Municipality

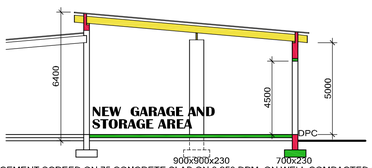
- Project screening for the Proposed Constrcution of Ward 20 Community Hall, Umzumbe Local Municipality, KZN.
- Project screening for the Proposed Construction of R102 Bus Shelters, Umzumbe Local Municipality, KZN.
- Project screening for the Proposed Construction of Dweshula Community Hall, Umzumbe Local Municipality, KZN.

APPENDIX B – LAYOUT PLAN



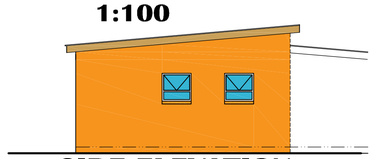
GROUNDFLOOR PLAN
1:100

CORRUGATED METALSHEETS AT 15 PITCH ON 76x50 PURLINS AT 1000 CENTRES ON 228x50 RAFTERS AT 1000 CENTRES TIED DOWN TO BRICKWORK WITH GMS. STRAPS AT LEAST 600 DEEP. 6.4mm. RHINOBOARD CEILING ON 38x38 BRANDERING AT 400 CENTRES. 75mm. COVED CORNICES.
102x76 PVC.RAINWATERGOODS.225x15 AC.NUTEC FASCIAS.
114x38 CROSSBRACING.

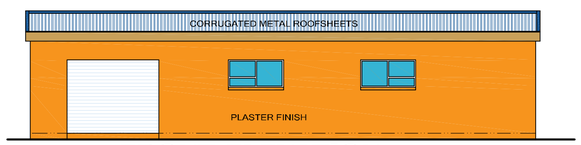


25 CEMENT SCREED ON 75 CONCRETE SLAB ON 0.250 DPM. ON WELL COMPACTED FILL IN LAYERS OF 150mm. MAX.IN DEPTH.

SECTION B-B
1:100

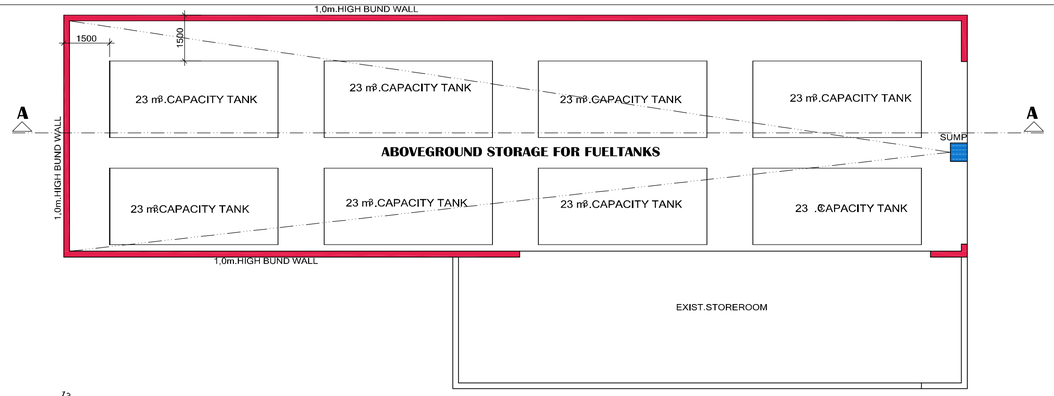


SIDE ELEVATION
1:100

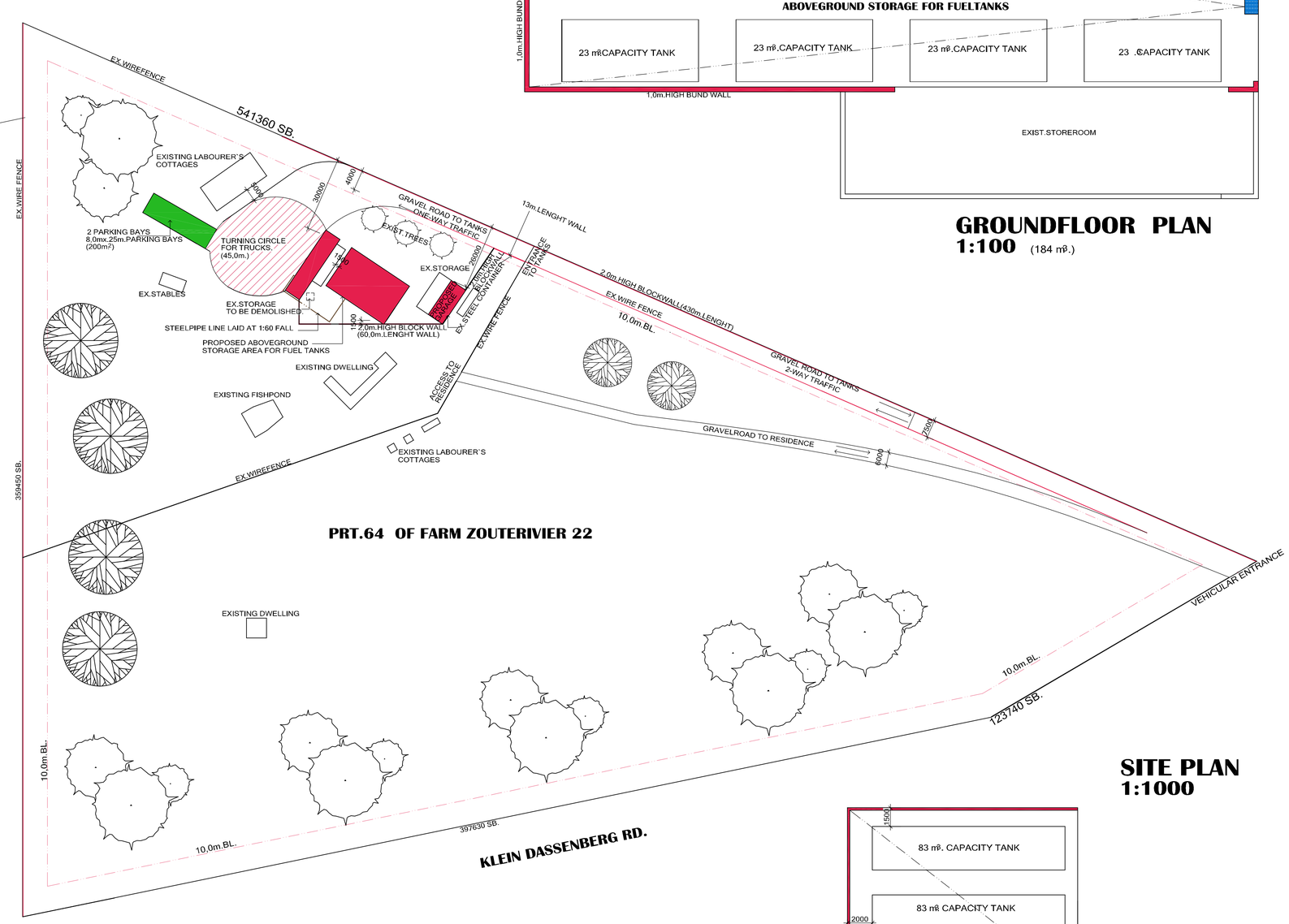


FRONT ELEVATION
1:100

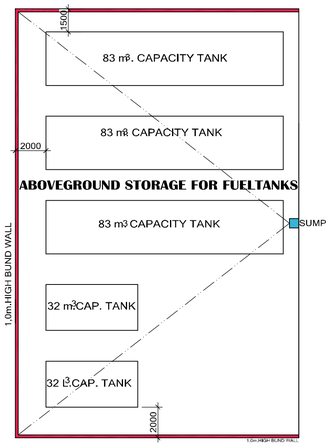
SECTION A-A
1:100



GROUNDFLOOR PLAN
1:100 (184 m³.)



SITE PLAN
1:1000



GROUNDFLOOR PLAN
1:200 (313m3.)

NOTES AND SPECIFICATIONS

A: GENERAL.

1.ALL LEVELS AND DIMENSIONS TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF ANY WORK.
2.ONLY WRITTEN DIMENSIONS TO BE USED.
3.WINDOWS AS PER WINSTERS-CATALOGUE.
4.GLAZING IN EXCESS OF 1,0sq/m. OR LESS THAN 500mm. AFFL.TO SAFETY GLAZED.
5.BRICKWORK TO BE HIGH QUALITY ROKS AND MAXIS AS PER OWNER
6.ALL CONCRETE USED TO HAVE MIN.10MPa.COMPRESSIV STRENGHT AFTER 28 DAYS.
7.NO CAVITIES IN CONSTRUCTION OF EXTERNAL WALLS. ALL WALLS TO BE PLASTERED AND PAINTED.
8.LINTOLS TO BE LAID TO MANUFACTURERS SPECS.
9.DPC. TO BE LAID MIN.150mm.ABOVE NGL.
10.NO FOUNDATIONS TO BE PROJECTED BEYOUND ANY BOUNDARY.
11.FINISHED FLOOR LEVEL OF DWELLING TO BE MIN.230mm.ABOVE BACK OF FOOTWAY LEVEL AT SEWER CONNECTION.
12.FINISHED FLOOR LEVEL OF GARAGE TO BE MIN. 150mm.ABOVE BACK OF FOOTWAY LEVEL AT DRIVEWAY ENTRANCE.
13.TIMBER BUILT INTO WALLS TO BE CREOSOTED OR WRAPPED INTO DPC.
14 STEPS/STAIRS:
a)MIN.TREADS- 250mm.
b)MAX.RISERS- 200mm.

COVERAGE CALCULATIONS

SITE AREA=10.0006m²(10 HECTARES)

DANFOUR DESIGNS
ADDRESS:
6 RUITERBOS COURT
ATLANTIS INDUSTRIAL PARK
ATLANTIS
CELL 083 4291 272

PROJECT: PROPOSED ADDITIONS FOR: TANGO INVESTMENT PROPERTIES KLEIN DASSENBERG PRT.64 OF FARM ZOUTERIV.22 PHILADELPHIA	
DESIGNER:	
OWNER:	
SCALE	DATE 04/05/2022
DWG.NO. A.S/22/04-28	SACAP.REG.NO. T 0535

APPENDIX C – MAP OF ENVIRONMENTAL SENSITIVITIES

- Not applicable

APPENDIX D – BACKGROUND & LOCATION

BACKGROUND

The Department of Environmental Affairs and Development Planning (DEA&DP): Directorate: Environmental Law Enforcement, undertook an investigation into allegations of the commencement of a listed activity in contravention of section 24F of the National Environmental Management Act, 1998 ("NEMA"). Following a site inspection held on Portion 64 of farm, Zoute Rivier no 22, Philadelphia by an Environmental Management Inspector from the Department's Directorate: Environmental Law Enforcement on 28 April 2021, it was confirmed that the Applicant (Mr A Sedick), had commenced with the alleged illegal development for a proposed diesel drop-off facility without obtain the prerequisite environmental authorisation. A Pre-Compliance Notice was issued on the 02nd July 2021, by the DEA&DP: Directorate: Environmental Law Enforcement, to the Applicant, Mr A Sedick Lessee of Portion 64 of Farm No 22, Klein Dassenberg.

Sharples Environmental Services was appointed by Norcross Group (Pty) Ltd, as the independent environmental assessment practitioner, on the 23rd of August 2021, to address the pre-compliance notice issued by this directorate on the 02nd of July 2021, (DEADP Enforcement Ref: 14/1/1/E1/5/6/3/0715/21). After consultation with the DEA&DP: Directorate: Environmental Law Enforcement, the EAP issued a letter on 30th November 2021, advising the DEA&DP that the Applicant intends to apply for ex post facto approval in terms of Section 24(G) of the National Environmental Management Act (Act 107 of 1998) (NEMA) to the Department of Environmental Affairs and Developmental Planning (DEA&DP), for the alleged unlawful commencement of the construction of bulk fuel storage structures, on site, in mid-2021, in line with a Project Schedule agreed to. DEA&DP responded with a Compliance Notice (REFERENCE: 14/1/1/E1/5/6/3/0715/21), dated 28th March 2022, in terms of Section 31L of the National Environmental Management Act, 1998, accepting the way forward and Project Schedule.

The Applicant will be liable for a fine, as determined by the DEA&DP, and thereafter the DEA&DP will make a decision on the Environmental Authorization, required to continue with the proposed development.

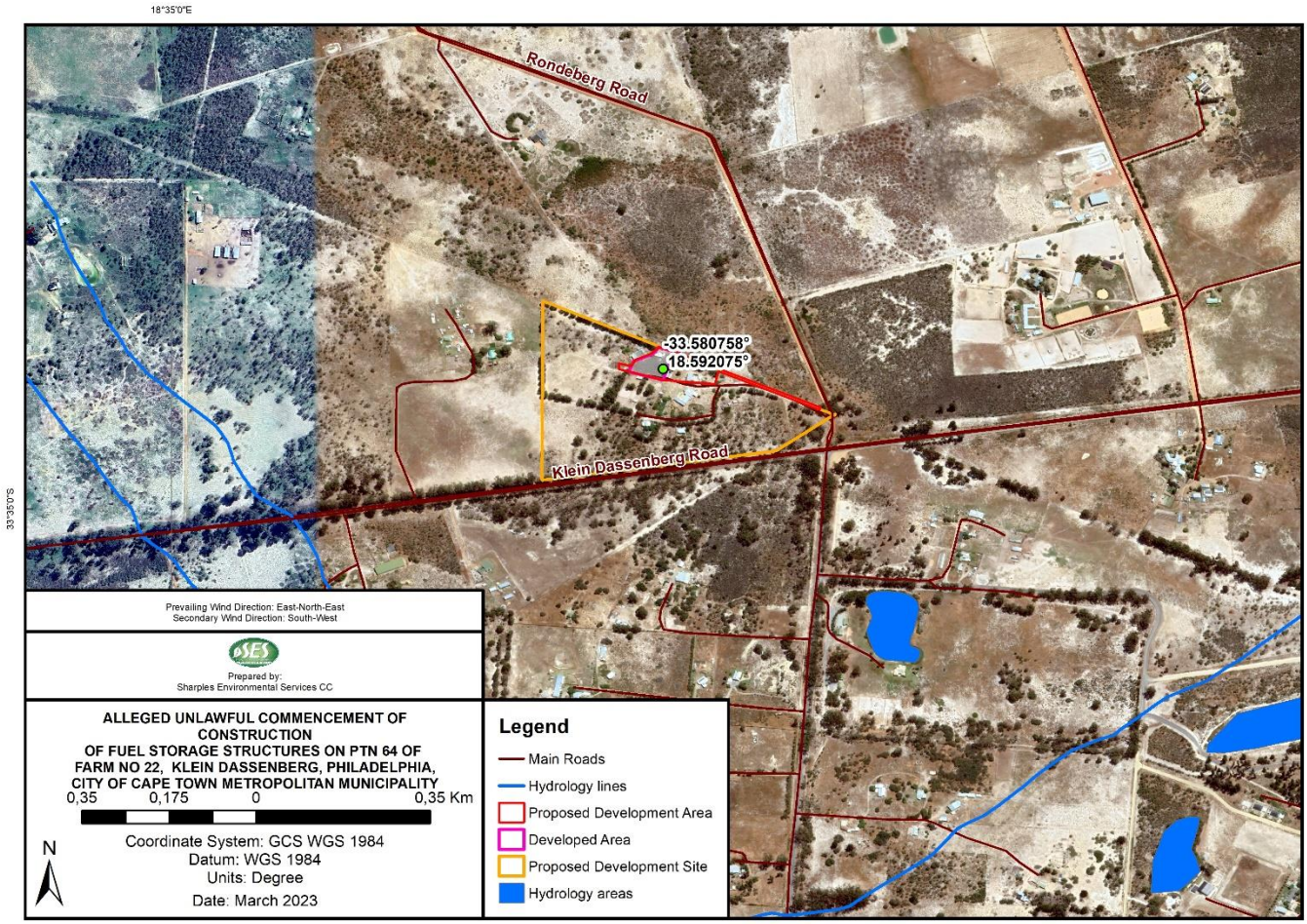


Figure 5: Locality map of the proposed site with development footprint on Ptn 64 of Farm no. 22 Klein Dassenberg (SES, 2023)

It is evident that the Applicant proceeded with the construction, not knowing that there would be applicable activities, however, once this was identified, the Applicant proceeded to follow the relevant process and appointed an appropriately registered and qualified EAP, to provide assistance on the way forward. Since the alleged commencement, there has been no construction works on the property, despite this having a negative impact on the Applicants business.

APPENDIX E - SCREENING TOOL

SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED DEVELOPMENT FOOTPRINT ENVIRONMENTAL SENSITIVITY

EIA Reference number: 14/1/1/E1/5/6/3/0715/21

Project name: ALLEGED UNLAWFUL COMMENCEMENT OF CONSTRUCTION OF FUEL STORAGE STRUCTURES ON PTN 64 OF FARM NO 22, KLEIN DASSENBERG, PHILADELPHIA, CITY OF CAPE TOWN METROPOLITAN MUNICIPALITY

Project title: ALLEGED UNLAWFUL COMMENCEMENT OF CONSTRUCTION OF FUEL STORAGE STRUCTURES ON PTN 64 OF FARM NO 22, KLEIN DASSENBERG, PHILADELPHIA, CITY OF CAPE TOWN METROPOLITAN MUNICIPALITY

Date screening report generated: 23/03/2023 12:01:22

Applicant: A. Sedick

Compiler: SES_AS

Compiler signature:

.....

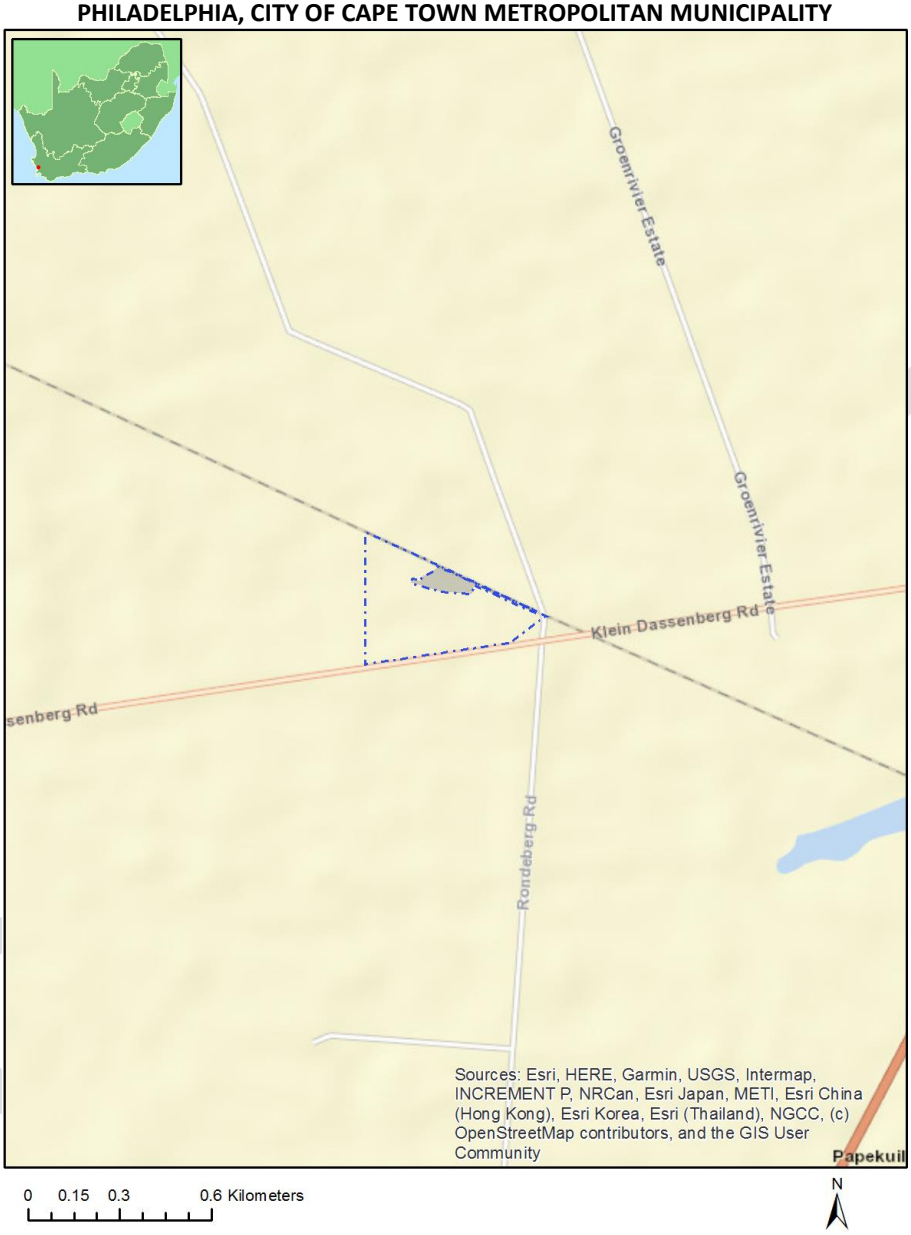
Application Category: Infrastructure|Localised infrastructure|Storage|Dangerous Goods|Hydrocarbon|Petroleum

Table of Contents

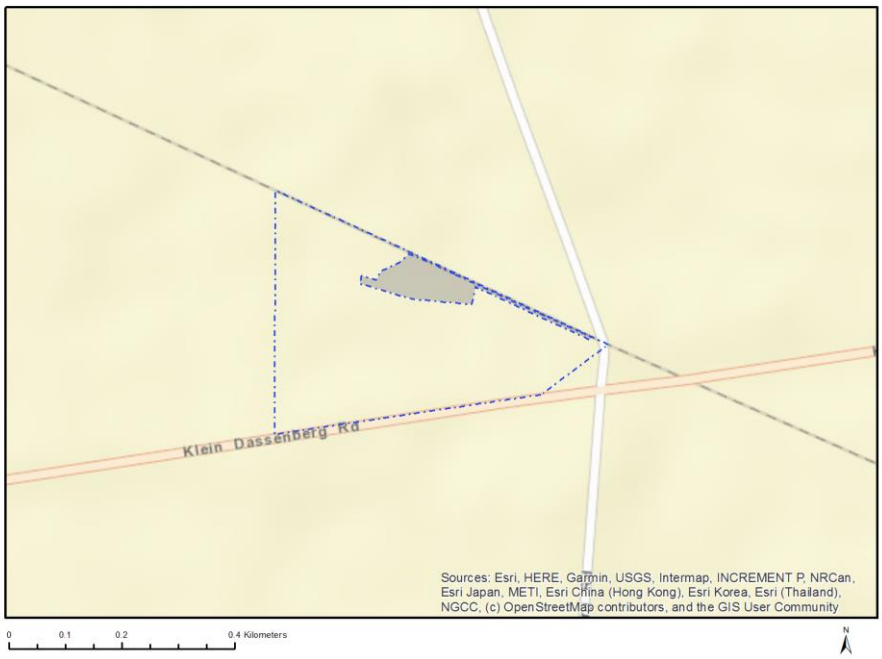
Proposed Project Location

Orientation map 1: General location

General Orientation: ALLEGED UNLAWFUL COMMENCEMENT OF CONSTRUCTION OF FUEL STORAGE STRUCTURES ON PTN 64 OF FARM NO 22, KLEIN DASSENBERG, PHILADELPHIA, CITY OF CAPE TOWN METROPOLITAN MUNICIPALITY



Map of proposed site and relevant area(s)



Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	ZOUTERIVIER	22	0	33°36'29.37S	18°34'10.71E	Farm
2	ZOUTERIVIER	22	64	33°34'53.17S	18°35'31.09E	Farm Portion

Development footprint[1] vertices:

Footprint	Latitude	Longitude
1	33°34'51.62S	18°35'32E
1	33°34'50.88S	18°35'28.99E
1	33°34'50.74S	18°35'29.03E
1	33°34'50.7S	18°35'29.05E
1	33°34'50.6S	18°35'29.06E
1	33°34'50.51S	18°35'29.1E
1	33°34'50.71S	18°35'29.91E
1	33°34'50.27S	18°35'30.23E
1	33°34'49.9S	18°35'31.24E
1	33°34'49.46S	18°35'31.77E
1	33°34'49.61S	18°35'32.23E
1	33°34'50.01S	18°35'33.26E
1	33°34'50.46S	18°35'34.46E
1	33°34'51.98S	18°35'38.37E

[1] "development footprint", means the area within the site on which the development will take place and incudes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

1	33°34'53.46S	18°35'42.26E
1	33°34'53.58S	18°35'42.18E
1	33°34'51.04S	18°35'35.63E
1	33°34'51.87S	18°35'35.4E
1	33°34'51.62S	18°35'32E

Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	12/12/20/2109	Solar PV	Approved	1.8
2	12/12/20/2384	Solar PV	Approved	11.7
3	12/12/20/2393	Solar PV	Approved	29.2

Environmental Management Frameworks relevant to the application

No intersections with EMF areas found.

Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development footprint as well as the most environmental sensitive features on the footprint based on the footprint sensitivity screening results for the application classification that was selected. The application classification selected for this report is:
Infrastructure|Localised infrastructure|Storage|Dangerous Goods|Hydrocarbon|Petroleum.

Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this footprint are indicated below.

Incentive, restriction or prohibition	Implication
Strategic Transmission Corridor-Central corridor	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_EGI.pdf
Strategic Gas Pipeline Corridors-Phase 1a & 1b: Saldanha to Ankerlig and Saldanha to Mossel Bay	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_GAS.pdf
South African Conservation Areas	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SACAD_OR_2022_Q3_Metadata.pdf

Proposed Development Area Environmental Sensitivity

The following summary of the development footprint environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme			X	
Animal Species Theme		X		
Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme		X		
Defence Theme				X
Paleontology Theme				X
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

Specialist assessments identified

Based on the selected classification, and the known impacts associated with the proposed development, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the footprint situation.

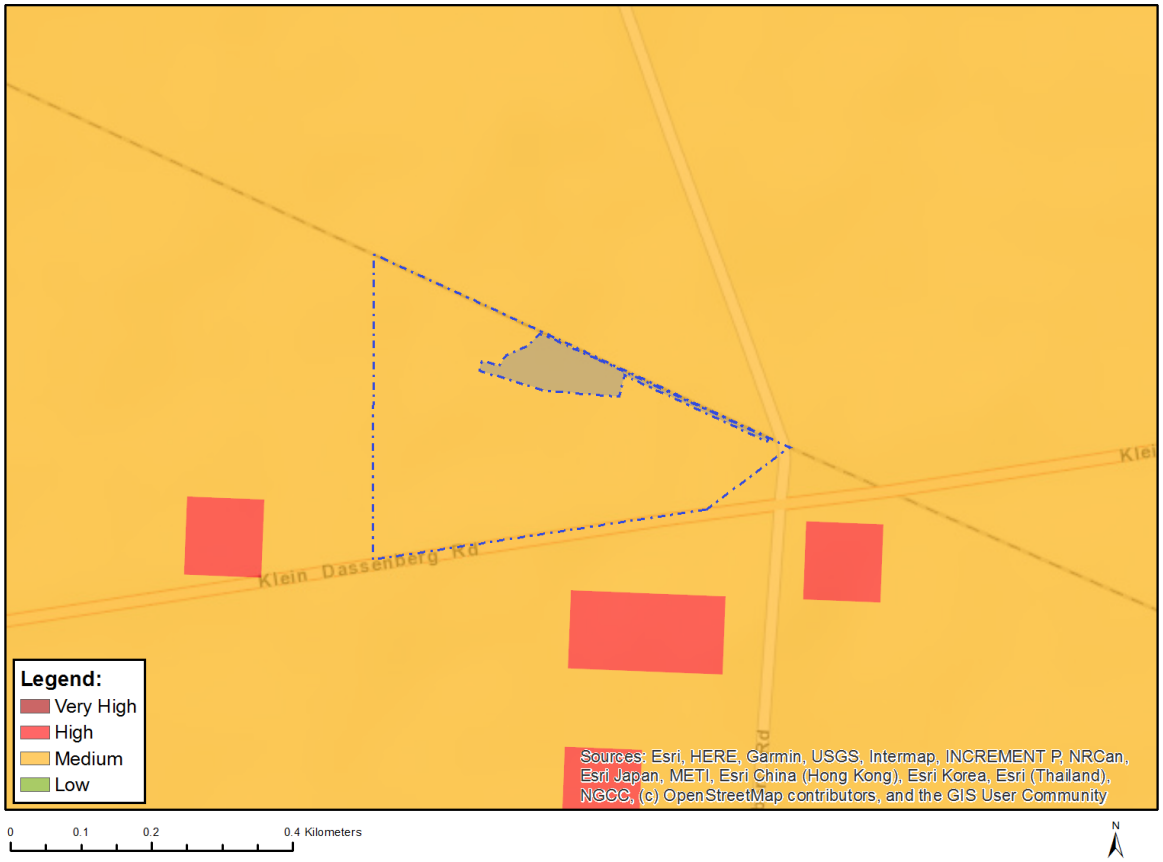
No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
3	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
4	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf
5	Aquatic Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf
6	Hydrology Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
7	Noise Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Noise_Impacts_Assessment_Protocol.pdf
8	Traffic Impact	https://screening.environment.gov.za/ScreeningDownloads/Asse

	Assessment	ssmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
9	Geotechnical Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
10	Socio-Economic Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
11	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf
12	Animal Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf

Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed footprint for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

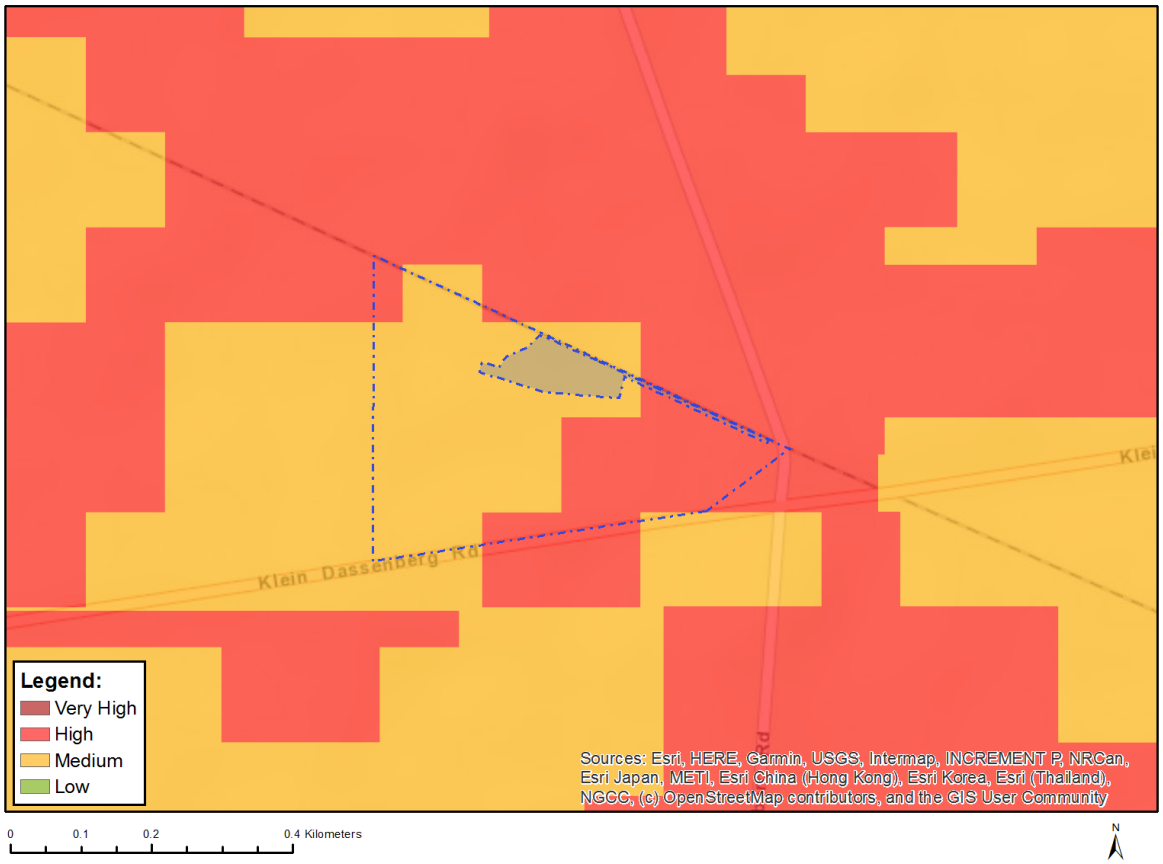


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



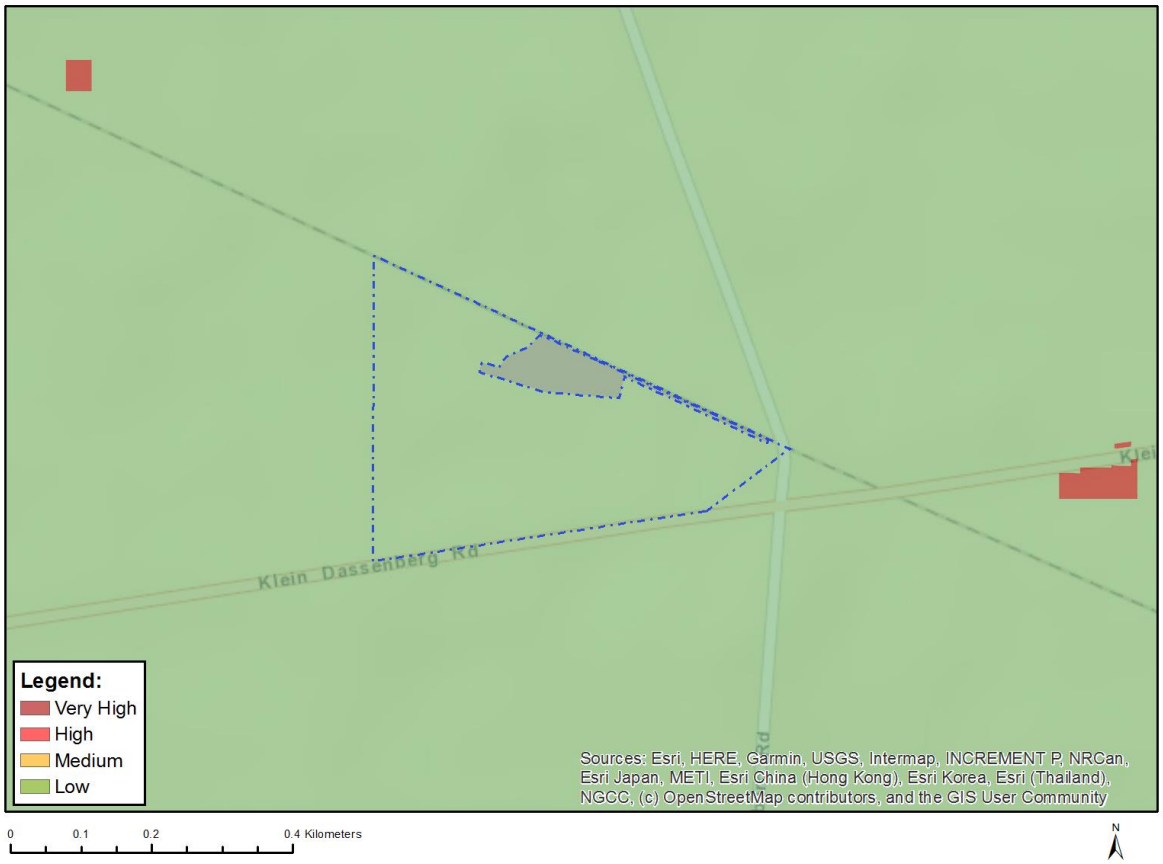
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Aves-Circus ranivorus
High	Aves-Circus maurus
Medium	Aves-Afrotis afra
Medium	Insecta-Aloeides egerides
Medium	Invertebrate-Pachysoma aesculapius

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

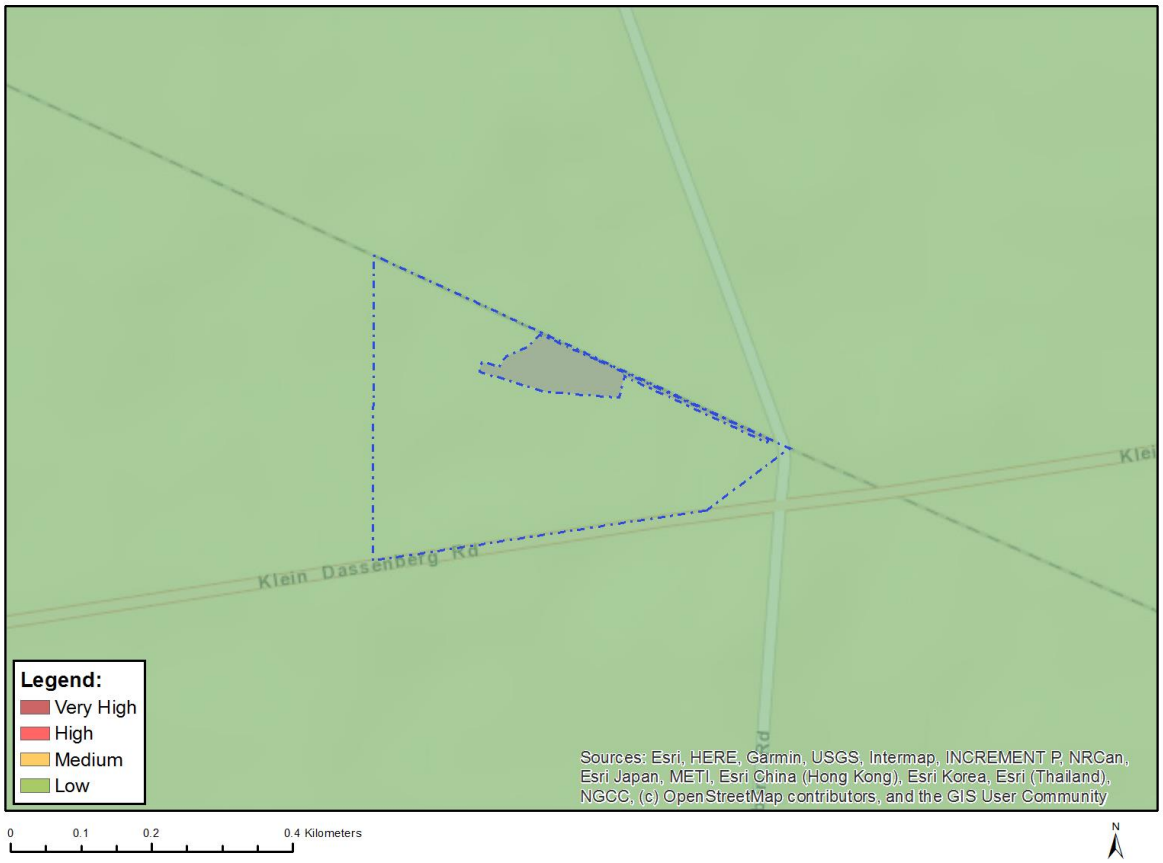


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

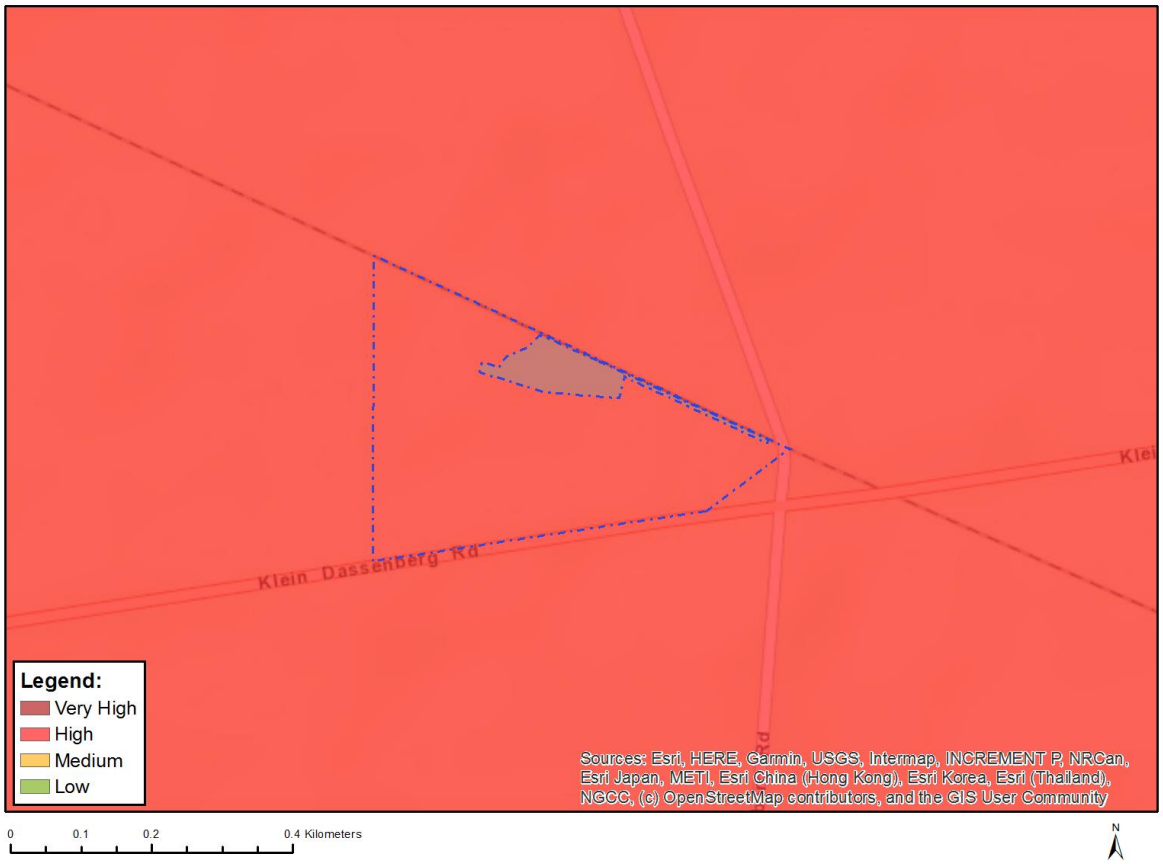


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

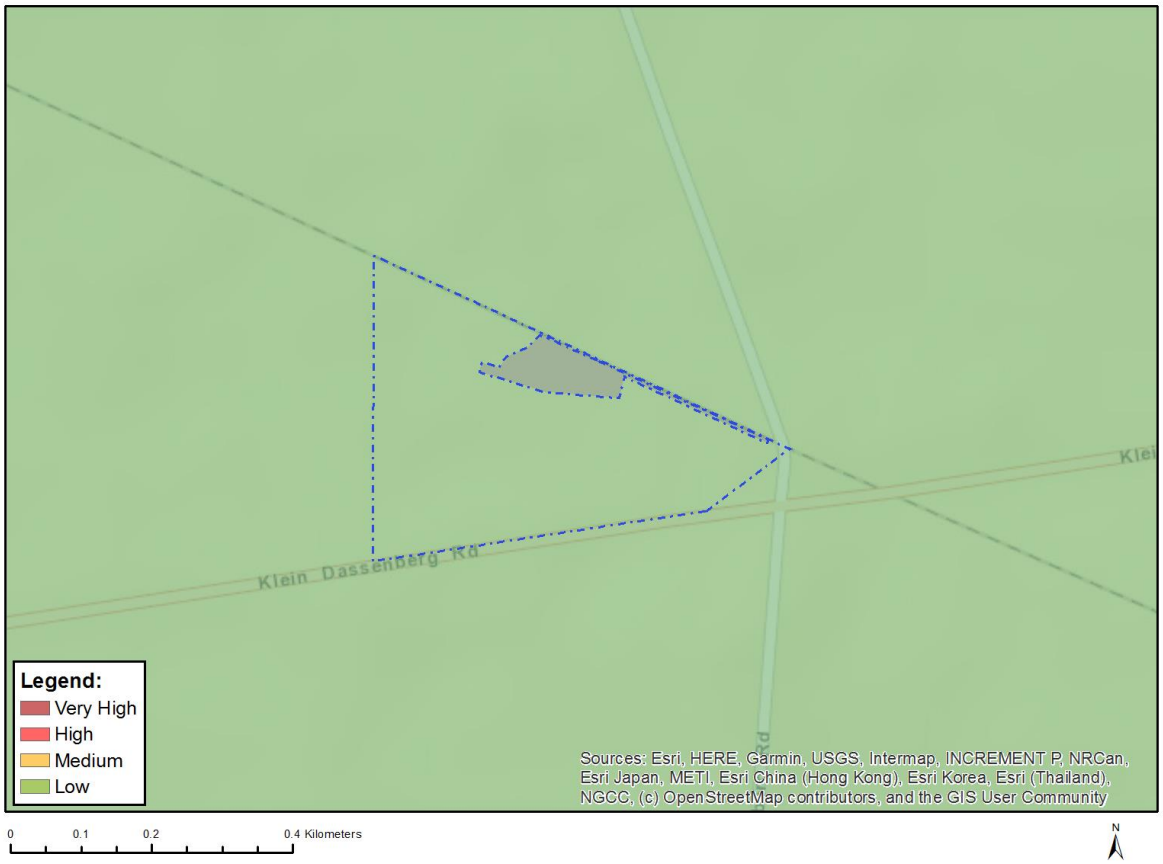


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Dangerous and restricted airspace as demarcated
Medium	Between 8 and 15 km of other civil aviation aerodrome

MAP OF RELATIVE DEFENCE THEME SENSITIVITY

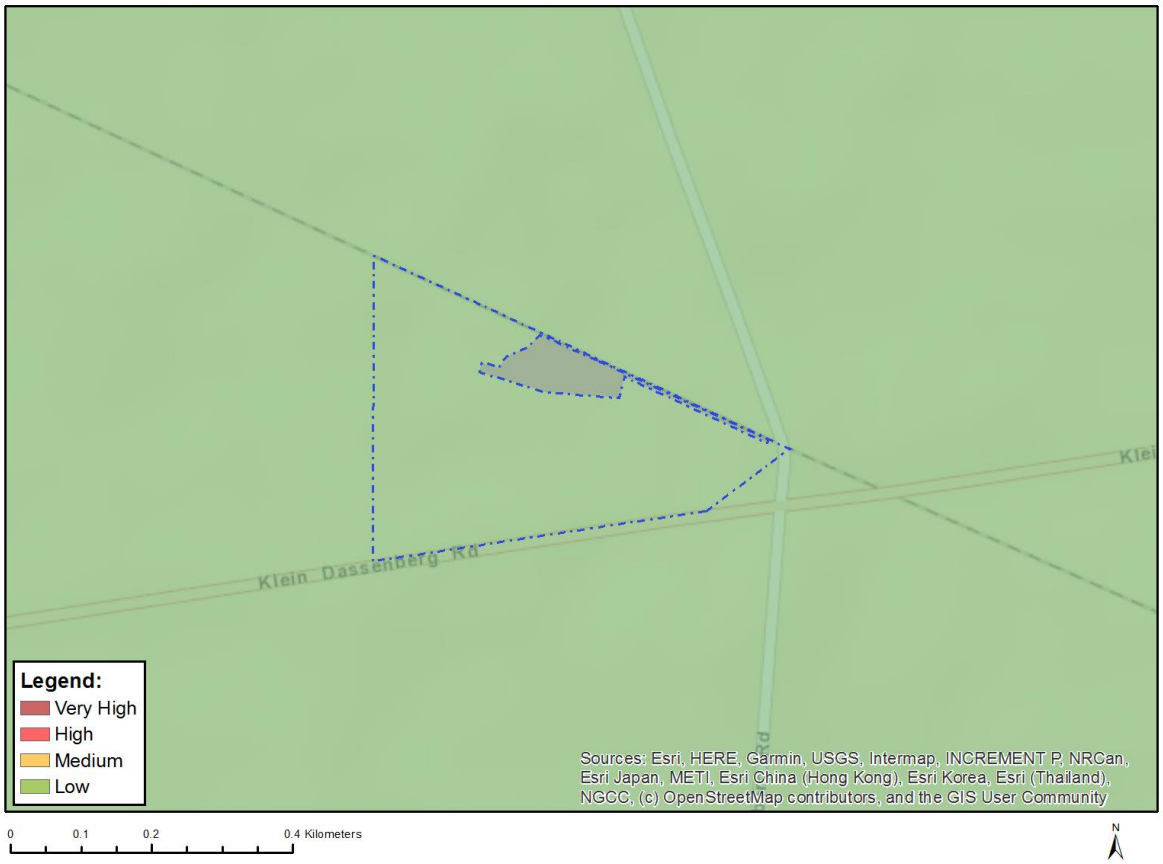


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

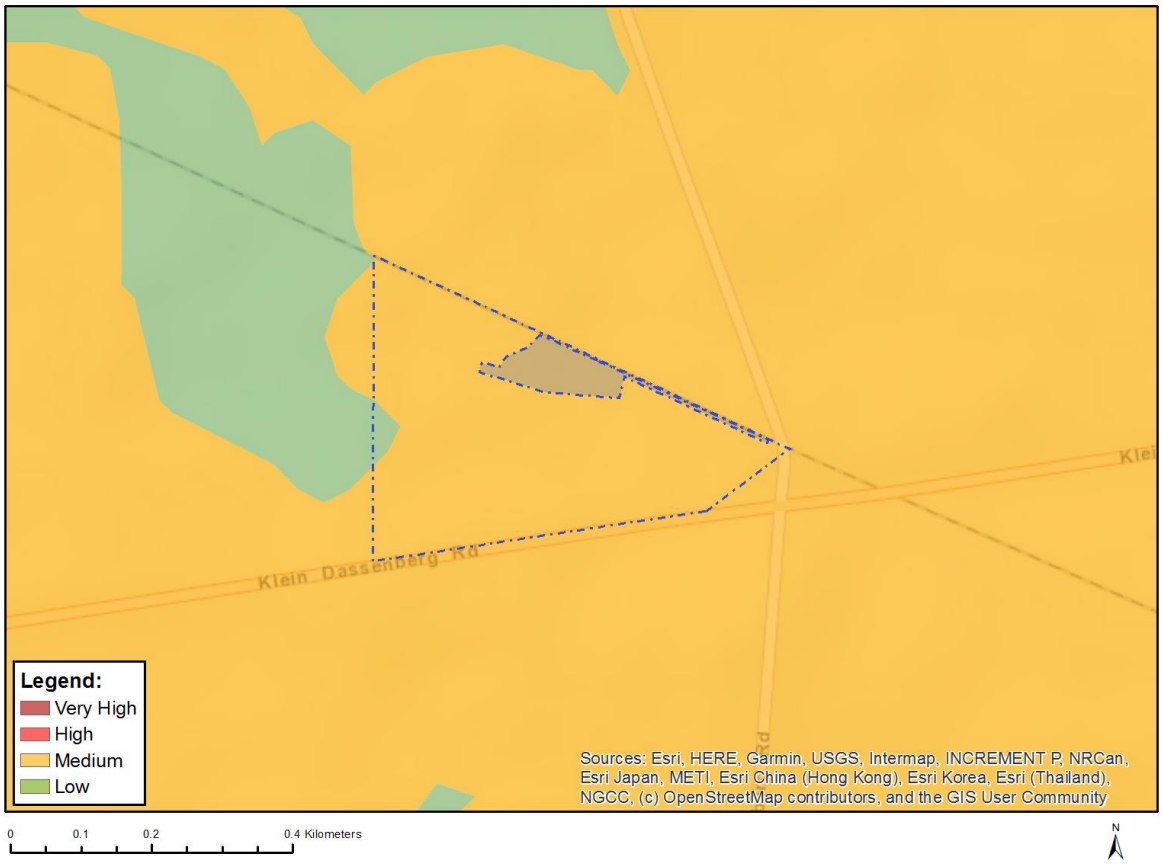


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Features with a Low paleontological sensitivity

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

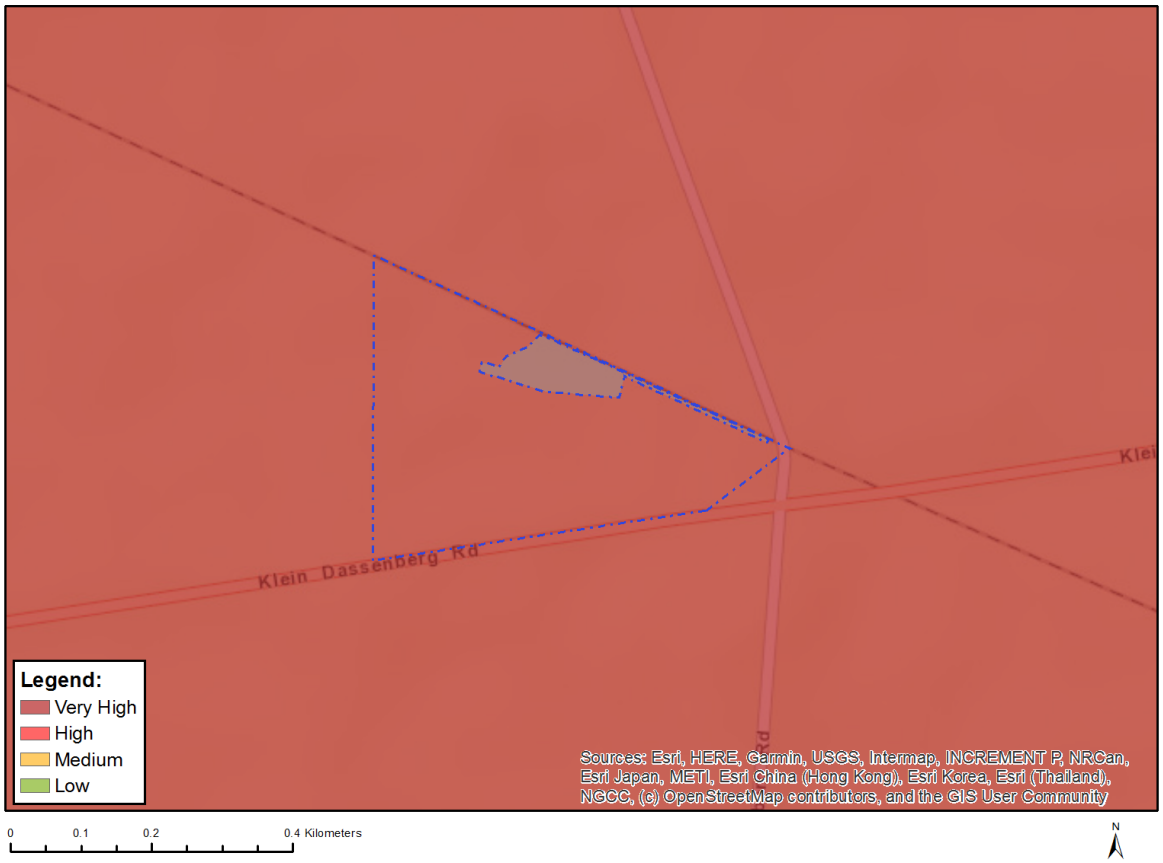
Sensitivity	Feature(s)
Medium	Skiatophytum flaccidifolium
Medium	Lampranthus amoenus
Medium	Lampranthus aureus
Medium	Lampranthus filicaulis
Medium	Lampranthus leptaleon
Medium	Lampranthus peacockiae
Medium	Lampranthus spiniformis
Medium	Lampranthus stenopetalus
Medium	Lampranthus stenus
Medium	Sensitive species 244
Medium	Antimima aristulata
Medium	Cleretum clavatum
Medium	Ruschia geminiflora

Medium	Ruschia tecta
Medium	Drosanthemum hispifolium
Medium	Amphithalea ericifolia subsp. erecta
Medium	Aspalathus horizontalis
Medium	Aspalathus lotoides subsp. lotoides
Medium	Aspalathus muraltioides
Medium	Aspalathus retroflexa subsp. bicolor
Medium	Lebeckia plukenetiana
Medium	Podalyria sericea
Medium	Thesium litoreum
Medium	Leucadendron cinereum
Medium	Leucadendron corymbosum
Medium	Leucadendron lanigerum var. lanigerum
Medium	Leucadendron levisanus
Medium	Leucadendron stellare
Medium	Leucadendron thymifolium
Medium	Leucospermum hypophyllocarpodendron subsp. canaliculatum
Medium	Leucospermum hypophyllocarpodendron subsp. hypophyllocarpodendron
Medium	Leucospermum parile
Medium	Leucospermum tomentosum
Medium	Protea burchellii
Medium	Diastella proteoides
Medium	Serruria brownii
Medium	Serruria linearis
Medium	Serruria roxburghii
Medium	Serruria trilopha
Medium	Roella arenaria
Medium	Phyllopodium mimetes
Medium	Microdon capitatus
Medium	Manulea corymbosa
Medium	Selago psammophila
Medium	Pentameris bachmannii
Medium	Pentameris pholiuroides
Medium	Anthospermum ericifolium
Medium	Echiostachys incanus
Medium	Echiostachys spicatus
Medium	Aristea zeyheri
Medium	Sensitive species 267
Medium	Sensitive species 703
Medium	Sensitive species 533
Medium	Sensitive species 878
Medium	Geissorhiza eurystigma
Medium	Geissorhiza humilis
Medium	Geissorhiza monanthos
Medium	Geissorhiza purpurascens
Medium	Geissorhiza radians
Medium	Geissorhiza setacea
Medium	Ixia curta
Medium	Ixia tenuifolia
Medium	Sensitive species 881
Medium	Sensitive species 683
Medium	Romulea eximia
Medium	Sensitive species 830
Medium	Sensitive species 863
Medium	Pauridia alba
Medium	Pauridia canaliculata
Medium	Pauridia linearis
Medium	Pauridia pygmaea
Medium	Oxalis pallens
Medium	Erica malmesburiensis

Medium	Stylapterus fruticulosus
Medium	Hermannia procumbens subsp. procumbens
Medium	Sensitive species 222
Medium	Sebaea rara
Medium	Adenogramma rigida
Medium	Hessea cinnamomea
Medium	Sensitive species 133
Medium	Isolepis inconspicua
Medium	Isolepis leucoloma
Medium	Cannomois arenicola
Medium	Elegia prominens
Medium	Elegia acockii
Medium	Restio duthieae
Medium	Restio micans
Medium	Restio impolitus
Medium	Restio papillosus
Medium	Sensitive species 985
Medium	Sensitive species 120
Medium	Pterygodium microglossum
Medium	Gnidia spicata
Medium	Lachnaea uniflora
Medium	Metalasia capitata
Medium	Metalasia octoflora
Medium	Marasmodes fasciculata
Medium	Steirodiscus speciosus
Medium	Steirodiscus tagetes
Medium	Senecio foeniculoides
Medium	Cotula duckittiae
Medium	Cotula eckloniana
Medium	Athanasia adenantha
Medium	Athanasia rugulosa
Medium	Arctotis angustifolia
Medium	Sensitive species 1042
Medium	Sensitive species 786
Medium	Chrysocoma esterhuyseniae
Medium	Stoebe gomphrenoides
Medium	Arctotheca forbesiana
Medium	Heterorhachis aculeata
Medium	Relhania rotundifolia
Medium	Diosma dichotoma
Medium	Agathosma corymbosa
Medium	Agathosma glabrata
Medium	Agathosma glandulosa
Medium	Agathosma latipetala
Medium	Adenandra villosa subsp. biseriata
Medium	Macrostylis cassiopoides subsp. dregeana
Medium	Macrostylis villosa subsp. villosa
Medium	Cliffortia ericifolia
Medium	Cliffortia hirta
Medium	Limonium purpuratum
Medium	Muraltia brevicornu
Medium	Muraltia decipiens
Medium	Muraltia macropetala
Medium	Sensitive species 158
Medium	Wurmbea capensis
Medium	Wurmbea inusta
Medium	Phylica harveyi
Medium	Phylica plumosa var. squarrosa
Medium	Phylica strigulosa
Medium	Phylica thunbergiana

Medium	Codonorhiza azurea
Medium	Lampranthus glaucus
Medium	Argyrolobium velutinum
Medium	Xiphotheca reflexa
Medium	Aspalathus lebeckioides
Medium	Aspalathus recurva
Medium	Aspalathus tylodes
Medium	Leucospermum rodolentum
Medium	Protea scolymocephala
Medium	Sensitive species 593
Medium	Sensitive species 599
Medium	Elegia verreauxii
Medium	Restio paludosus
Medium	Restio rigoratus
Medium	Sensitive species 500
Medium	Sensitive species 654
Medium	Heliophila elata
Medium	Lachnaea capitata
Medium	Lachnaea grandiflora
Medium	Cotula pusilla
Medium	Sensitive species 1225
Medium	Caesia sabulosa

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Vulnerable ecosystem

APPENDIX F - ROLES & RESPONSIBILITIES

ROLES & RESPONSIBILITIES

Duties and Responsibilities of the Holder

The Holder is ultimately responsible for ensuring that the environmental management measures specified in this EMPr, as well as any other conditions specified by the competent authority, are implemented and adhered to during the construction and operational phase (maintenance activities) of the proposed development.

The Holder or delegated party is responsible for monitoring and maintenance during the operational phase. The Holder must ensure that all appointed service providers, contractors and maintenance workers are capable of complying with all statutory requirements of this EMPr and the conditions of the Environmental Authorisation. The Holder is responsible for ensuring that this EMPr and the conditions of the Environmental Authorisation are implemented and adhered to during construction.

The Holder or appointed consultant is responsible for identifying emergency situations that may arise during operational and maintenance activities and must formulate appropriate emergency response procedures for these emergency scenarios.

Duties and Responsibilities of the Contractor

The "Construction Contractor" is the entity responsible for undertaking the physical construction of the residential development. The construction contractor is responsible for ensuring that all environmental management measures specified in this EMPr and in the EA are implemented during the pre-construction, construction and post-construction rehabilitation phases, unless agreed otherwise with the Holder. The contractor will be responsible for all costs incurred, in relation to any non-compliances which may occur during implementation of construction activities/rehabilitation activities. The contractor must therefore make adequate financial provision for the implementation of all prescribed measures, in accordance with the Bill of Quantities and the EMPr.

In addition to the above, the Construction Contractor is responsible for the following:

- Identify emergency situations that may arise as a result of construction activities and formulate appropriate emergency response procedures.
- Ensure that all construction workers, including sub-consultants and service providers, undergo environmental awareness training prior to commencing work on site, or as soon as possible thereafter.
- Compile the required method statements, which must be to the satisfaction of the ECO, before commencing with the activity to be governed by the method statement.
- Respond to concerns or issues identified by the ECO, as relates to environmental management, and implement the appropriate management or remediation measures, at the Contractor's own expense (unless agreed otherwise).
- Any damage to the surrounding environment (site camp location and outskirts of working corridor) must be noted by the contractor with photo evidence. Any damage identified throughout the operational phase of the proposed extension will be the contractor's responsibility to repair.
- Should third parties be called to the site to perform clean up and rehabilitation procedures, the Construction Contractor will be responsible for all associated costs.

Note that failure to comply with the requirements and conditions of this EMPr and the Environmental Authorisation may result in fines or other penalties being levied against the Construction Contractor by the Competent Authority.

Duties And Responsibilities of the ECO

The appointed ECO is responsible for undertaking regular site visits to monitor and report on the implementation of the EMPr and adherence to the conditions of the Environmental Authorisation during the pre-construction, construction and post-construction rehabilitation phases. The ECO is not required to monitor the site during the operational (maintenance) phase of the development.

- Competency of the ECO

The ECO must be independent of the Environmental Auditor, Holder, Engineer, Construction Contractor and their service providers. The appointed ECO must be suitably qualified and experienced and must be able to demonstrate that he / she is of sufficient competency to undertake the required task. The ECO must preferably be a resident in close proximity to the development area to ensure quick response if required. The ECO must work in close co-operation with the Construction Contractor, resident engineer or EO (where applicable) and all contractors in order to identify potential problems before they occur, and provide suitable guidance as to how the identified problems (environmental impacts) can be avoided.

- Duties of the ECO

The duties of the ECO include, but are not limited to:

- Conduct a pre-construction site inspection to ascertain the pre-commencement condition of the site (i.e. the status quo);
- Conduct environmental awareness training, which must include;
  - A brief description of the surrounding environment
  - Importance of the EMPr
  - Roles and responsibilities
  - Identified environmental risks
  - Mitigation measures to be implemented
  - No-go areas
  - Emergency procedures (Hydrocarbon spill)
- Undertake regular site visits to monitor compliance with all mitigation, monitoring and management measures contained in the EMPr and the Environmental Authorisation, during the pre-construction, construction and operational phases of the development;
- Evaluate the achievement of the performance indicators associated with each impact management objective specified in this EMPr;
- Liaise with site contractors, engineers and other members of the development team with regard to the requirements of the EMPr;
- Provide guidance as and when required regarding the implementation of the environmental management measures contained in the EMPr and EA, so as to assist the Holder and contractor in remaining compliant with these measures;
- Ensure that proper waste management & pollution prevention strategies are practised on site;
- Examine method statements, where required;
- Recommend additional environmental protection measures, should this be necessary;
- Furnish contractors with verbal warnings in case of contravention of the EMPr;

- Recommend that the competent authority furnish errant contractors with predetermined fines, when verbal and / or written warnings are ignored;
- Ensure satisfactory rehabilitation of disturbed areas on site, after construction is complete;
- Keep detailed records of all site activities that may pertain to the environment, and produce compliance-monitoring reports (ECO Reports) for submission to the Holder, and the Competent Authority at regular intervals during the construction phase;
- Submit a final post-construction inspection report, within 3 months of completion of the construction phase.
- All ECO Reports and Inspection Reports must be submitted to the Holder and Competent Authority.

- Frequency of ECO visits
- The ECO must conduct site visits every **two weeks** during the construction phase, in addition to the start-up and closure inspections.
- The ECO must conduct a site visit 3 months after practical completion of the construction period.
- The ECO has the discretion to undertake additional visits if he / she feels this is justified due to the actions of the contractors, and to make *ad hoc* visits in order to ensure compliance.

- Authority of the ECO

The ECO has the authority to recommend to the decision-making authorities that they suspend all works (or part thereof) occurring on site, should any action being undertaken on site not comply with the environmental requirements, and where such actions pose a serious threat to any element of the surrounding environment.

The ECO has the authority to issue instructions to the Construction Contractor and/or Holder, regarding measures that must be implemented on site in order to ensure compliance with the EMPr and Environmental Authorisation, and/or to prevent environmental degradation or pollution from occurring.

The ECO has the authority to issue verbal and written warnings to contractors. Should verbal and written instructions and/or warnings be ignored, the ECO has the authority to request the Competent Authority to issue pre-determined fines or other penalties.

The ECO has the authority to report incidents of non-compliance to the Competent Authority at any time.

- Monitoring Reports
- Must be produced **monthly (based on the two site visits conducted during the month)** and submitted to the Competent Authority, Engineer, Proponent, Environmental Auditor and Contractor.

- ECO Inspections
- ECO inspections must consist of photographic records to monitor the changes to the environment, and evidence of non-compliances, where possible.
- ECO inspections must be followed by written records, as detailed in below.

- Photographic Records

The condition of the surrounding natural environment must be monitored regularly in order to ensure that construction and management activities are not impacting negatively on the condition of the landscape and any sensitive ecosystems. The most effective way to achieve this is by means of a detailed photographic record. In this way, a record of any shift in ecosystem condition can be maintained and potential impacts be detected at an early stage. It is thus recommended that fixed-point photo-monitoring sites could be set up, and photographs must be taken at these sites during each

ECO inspection. Where necessary, the entire working area must be well documented and photographed.

- ECO Inspections - Written Records

The following record-keeping during the pre-construction, construction and landscaping phases of the development is recommended:

- The ECO must complete an ECO Checklist after each ECO site visit.
- The ECO must compile an ECO monitoring report and submit this to the Holder, the Contractor and the Competent Authority (the latter only if required by the Competent Authority). The monthly reports must be a summary of the ECO inspections from the preceding month, and must highlight the key concerns/ issues on site, instances of non-compliance with the EA, other licences and / or approvals & the EMPr, all instructions issued to the contractor, actions taken and aspects that still require attention.
- All ECO reports and ECO instructions must be retained on file at least for the duration of the construction period (retaining reports for a period of at least 5 years is recommended, in the event that the Competent Authority must request information).
- A record (minutes) of construction site meetings, liaison site meetings between the ECO and resident engineer or contractor, monitoring reports, ECO instructions and ECO observations must be clearly documented and filed on a master file off-site for safe keeping.
- It is recommended that a site register (incident register) be kept on site at the site office for the recording of any environmental incidents (e.g. fires, spills etc.), observations which are contrary to the stipulations within the EMPr and any other contravention deemed necessary for the attention of the resident engineer. Actions taken to remedy the incidents must also be recorded.
- A complaints register must be kept on site in which complaints by any member of the public must be logged.
- The ECO must compile a final post-construction audit report, within 6 months of completion of each construction phase. The audit report must detail the landscaping measures undertaken, describe all major incidents or issues of non-compliance and any issues or aspects that require attention or follow-up.

Duties and Responsibilities of the Environmental Auditor

In accordance with the requirements of the Environmental Impact Assessment Regulations, 2014 (as amended), the Holder of the Environmental Authorisation must, for the period that the Environmental Authorisation is valid, appoint a suitably qualified independent person to conduct an environmental audit to audit compliance with the conditions of the Environmental Authorisation and the EMPr.

The Holder is responsible for appointing, managing and remunerating the appointed auditor. The auditor may **not** be the appointed ECO.

The appointed auditor is to be provided with the completed EMR's and Checklists, as well as any other crucial information that may be relevant or requested (incident report, waybills etc) in order to effectively report on the level of compliance with the conditions of the environmental authorisation and the EMPr. The Environmental auditor must undertake an audit as per Appendix 7 of GN R326 at the following stages;

- During Construction:
  - Prior to the commencement of the construction activities.

  - Depending on construction timeframe, at 50% completion (if within 1 year), or annually (if more than a year).
  - At practical completion of the construction period.
- Post-Construction:
  - Annually, for as long as the EA is valid for.

Following each audit, the environmental auditor must submit an audit report to the Competent Authority (in this instance the DEA&DP).

Environmental auditing and environmental audit reports must adhere to the requirements of the amended 2014 Environmental Impact Assessment Regulations, in particular Section 34 (*Auditing of Compliance with Environmental Authorisation, Environmental Management Programme*) and Appendix 7 (*Objective and Content of Environmental Audit Report*)

The audit report must provide verifiable findings on the level of compliance with the provisions/ conditions of the Environmental Authorisation and the EMPr and must also comment on the ability of the measures contained in this EMPr to sufficiently avoid, manage and mitigate environmental impacts.

Where the findings of the audit report indicate that the impact management measures stated in the EMPr are insufficient to adequately address environmental impacts, recommendations as to how the EMPr must be amended so as to address the identified shortcomings must be made and submitted to the competent authority together with the audit report.

APPENDIX G - PROTOCOL FOR CHANCE FOSSIL FINDS

PROTOCOL FOR CHANCE FOSSIL FINDS

<table>
<tr><td>Province & region:</td><td colspan="2">Klein Dassenberg, Philidelphia, City of Cape Town, Western Cape</td></tr>
<tr><td>Responsible Heritage Resources Agency</td><td colspan="2">HERITAGE WESTERN CAPE (Contact details: Protea Assurance Building, Green Market Square, Cape Town 8000. Private Bag X9067, Cape Town 8001. Tel: 086-142 142. Fax: 021-483 9842. Email: hwc@pgwc.gov.za)</td></tr>
<tr><td>ECO protocol</td><td colspan="2">1. Once alerted to fossil occurrence(s): alert site foreman, stop work in area immediately (N.B. safety first!), safeguard site with security tape / fence / sand bags if necessary.</td></tr>
<tr><td colspan="3">2. Record key data while fossil remains are still in situ:
Accurate geographic location – describe and mark on site map / 1: 50 000 map / satellite image / aerial photo
Context – describe position of fossils within stratigraphy (rock layering), depth below surface
Photograph fossil(s) in situ with scale, from different angles, including images showing context (e.g. rock layering)</td></tr>
<tr><td>3. If feasible to leave fossils in situ:
Alert Heritage Resources Agency and project palaeontologist (if any) who will advise on any necessary mitigation
Ensure fossil site remains safeguarded until clearance is given by the Heritage Resources Agency for work to resume</td><td colspan="2">3. If not feasible to leave fossils in situ (emergency procedure only):
Carefully remove fossils, as far as possible still enclosed within the original sedimentary matrix (e.g. entire block of fossiliferous rock)
Photograph fossils against a plain, level background, with scale
Carefully wrap fossils in several layers of newspaper / tissue paper / plastic bags
Safeguard fossils together with locality and collection data (including collector and date) in a box in a safe place for examination by a palaeontologist
Alert Heritage Resources Agency and project palaeontologist (if any) who will advise on any necessary mitigation</td></tr>
<tr><td colspan="3">4. If required by Heritage Resources Agency, ensure that a suitably-qualified specialist palaeontologist is appointed as soon as possible by the developer.</td></tr>
</table>

APPENDIX H - EMPR REVIEW AND AMENDMENT REGISTER

EMPR REVIEW AND AMENDMENT REGISTER

Review Date	Description of Review and/or Amendment	Signature

APPENDIX I – MAJOR HAZARD INSTALLATION STUDY

APPENDIX J - ENVIRONMENTAL AWARENESS PLAN BOOKLET

GEORGE
TEL: +27 (0) 44 873 4923 **FAX:** +27 (0) 44 874 5953
EMAIL: info@sescc.net **WEBSITE:** www.sescc.net
ADDRESS: 102 Merriman Street, George 6530
PO BOX: 9087, George , 6530

CAPE TOWN
TEL: +27 (0) 21 554 5195 **FAX:** +27 (0) 86 575 2869
EMAIL: betsy@sescc.net **WEBSITE:** www.sescc.net
ADDRESS: Tableview, Cape Town, 7441
PO BOX: 443, Milnerton, 7435

ENVIRONMENTAL AWARENESS TRAINING BOOKLET

Environmental Monitor's Forward

SES is here to ensure that everyone complies with the conditions of "Duty to Care". If these conditions are not complied with the project can be stopped and fines can be issued.

We hope that with your co-operation the project won't be stopped and fines won't be issued, and a successful project can be finished on time.

Notes:

- Workers working on this project must undergo environmental training.

- The information contained in this document should be used during day-to-day activities.

HOW IS THIS PROJECT IMPLEMENTING ENVIRONMENTAL MANAGEMENT?

This project is implementing Environmental Management on an ongoing basis throughout the duration of the project. The following aspects would be implemented to achieve the above stated:

- A dedicated Environmental Manager or Environmental Control Officer appointment to the project to implement and monitor Environmental Management.
- Regular environmental inspection on the site.
- Regular environmental training for workers
- Environmental audits on a regular basis.

WASTE TREATMENT

Refuse:

- Refuse waste includes: waste food, food containers, packaging materials, cans, bottles, newspapers and magazines.
- Day to day household waste should always be disposed of in the containers provided on site by the company.
- No dumping of waste anywhere other than in the bins provided.
- No burning of refuse.
- If there are not enough refuse containers on site, the ECO or supervisor needs to be informed.

Construction Waste:

- Construction waste includes: concrete, steel, cement, rock, pre-coated chips, wood, plastic, empty bags and rubble.
- Construction waste must be discarded in skips located in strategic areas for removal.
- Construction waste must not be discarded in holes or burned on site.

- Small amounts of construction waste should be collected and not discarded into vegetation or down fill slopes.
- Material should only be spoiled if a rehabilitation plan has been designed for the area.

Liquid waste:

- Liquid waste includes: concrete, paint, thinners, diesel, hydraulic fluids, cooking oil, chemicals, other fuel and sewage.
- Use facilities provided for waste.
- The liquid waste should be recycled as far as possible.
- Use chemical toilets and ablution facilities.

INFORM THE ENVIRONMENTAL CONTROL OFFICER (ECO) IMMEDIATELY OF ANY IMMEDIATE OR POTENTIAL ENVIRONMENTAL INCIDENT.

SPECIFIC ENVIRONMENTAL ISSUES

SPESIFIEKE OMGEWINGSKWESSIES
IMIBA ETHILE YEZOBUME BEMEKO YENDALO

The basic Do's and Don'ts towards environmental awareness are as follows:

Die basiese Moets en Moenies van omgewingsbesinning is as volg:

Oondoqo bo mawukwenze no mawungakwenzi kwilinge lezobume be meko yendalo bume ngoluhlobo:

Toilet Facilities:
Toilet Fasiliteite:
Izindlu Zangasese:

DO:

USE THE TOILET FACILITIES PROVIDED - REPORT FULL FACILITIES
MOET:
GEBRUIK MAAK VAN TOILET FASILITEITE WAT VOORSIEN WORD – RAPPORTEER AS FASILITEITE VOL IS
OMAWUKWENZE: SEBENZISA IZINDLU ZANGASESE EZIBONELELWEYO- NIKA INGXELO NGAMALUNGISELELO AGCWELEYO.

DO NOT:
USE THE BUSH
MOENIE:
DIE BOS GEBRUIK NIE
OMAWUNGAKWENZI: UKUSEBENZISA ITYHOLO.

Vehicles operation and maintenance:
Voertuig werking en onderhoud:
Ulawulo nophatho lezithuthi:

DO:
ENSURE THAT VEHICLES AND MACHINERY DO NOT LEAK FUEL OR OILS. REFUELLING, MAINTENANCE, SERVICING OR WASHING MUST BE DONE WITHIN THE DESIGNATED AREA IN THE CONSTRUCTION CAMP AREA ONLY.
MOET:
VERSEKER DAT VOERTUIE EN MASJINERIE NIE OLIES OF BRANDSTOF LEK NIE. VOLMAAK, ONDERHOUD, DIENS OF SKOONMAAK VAN VOERTUIE MOET SLEGS IN AANGEWYSTE AREAS IN DIE KONSTRUKSIE KAMP GESKIED.
OMAWUKWENZE: QINISEKISA IZITHUTHI NOMATSHINI ABAVUZI MAFUTHA OKANYE I OYILE, UKUGALELA, UKUPHATHA, UKULUNGISA OKANYE UKUHLAMBA KUFUNEKA KWENZIWE KUMMANDLA OTYUNJIWEYO KWINKAMPI YOLWAKHIWO KUPHELA NGOKUKHAWULEZILEYO.

DO:
REPORT ALL FUEL OR OIL SPILLS IMMEDIATELY & STOP THE SPILL CONTINUING.
MOET:
RAPPORTEER ENIGE BRANDSTOF OF OLIE STORTE & VERHOED DAT DIE STORT AANHOU.
OMAWUKWENZE: NIKA INGXELO NGE OLI NAMAFUTHA ACHITHEKILEYO, UZE UNQANDE UCHITHEKO LUNGAQHUBEKI.

DO:
PREVENT CONTAMINATION OR POLLUTION OF STREAMS AND WATER CHANNELS.
MOET:
VERHOED DIE KONTAMINASIE EN BESOEDELING VAN STROME & WATERKANALE.
OMAWUKWENZE : NQANDA USULELEKO OKANYE UNGCOLISEKO LWEMILAMBO NEMISELE YAMANZI.

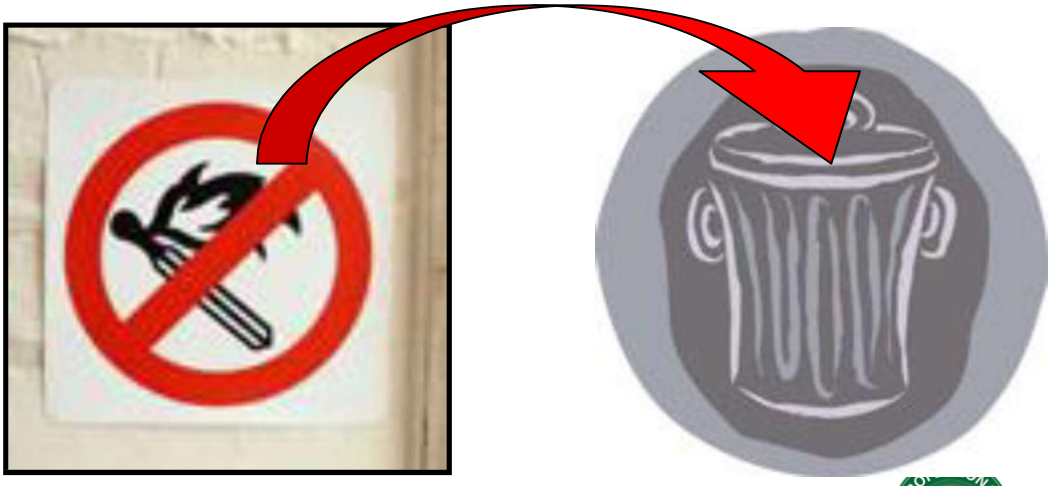
DO NOT:
ALLOW WASTE, LITTER, OILS OR FOREIGN MATERIALS INTO THE STREAM
MOENIE:
TOELAAT DAT AFVALPRODUKTE, GEMORS, OLIES OF VREEMDE MATERIALE IN STROME BELAND NIE.
OMAWUNGAKWENZI: MUSA UKUVUMELA INCITHO, ULAHLO, IOYILE OKANYE EZINYE IZINTO EMILANJENI.

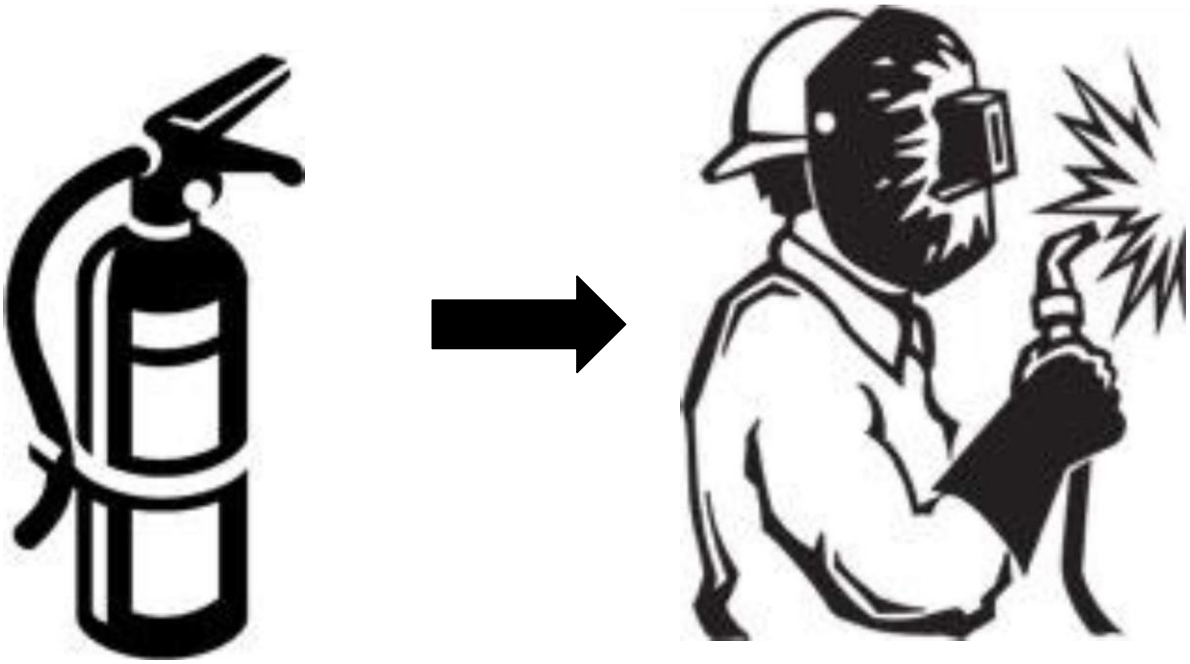
Fire Control:
Vuur Beheer:
Ulawulo Lemililo:

DO:
DISPOSE OF CIGARETTES AND MATCHES CAREFULLY. (Littering is an offence.)
MOET:
GOOI SIGARETTE & VUURHOUTJIES OP GEPASTE MANIER WEG WEG (rommelstrooi is 'n oortreding)
OMAWUKWENZE: LAHLA ISIGARETE NOOMATSHISI NGONONOPHELO (ukulahla lityala).

DO:
ENSURE A WORKING FIRE EXTINGUISHER IS IMMEDIATELY AT HAND IF ANY "HOT WORK" IS UNDERTAKEN e.g. welding, grinding, gas cutting etc.
MOET:
VERSEKER DAT 'N WERKENDE BRANDBLUSSER BYDERHAND IS INDIEN "WARM WERK" GEDOEN WORD bv. Sweiswerk.
OMAWUKWENZE: QINISEKISA ISICIMA-MLILO ESISEBENZAYO SISESANDLENI UKUBA KUKHO UMSEBENZI "OTSHISAYO" OWENZIWAYO, umz. ukuwelda, ugubo, ukuqhawula ugesi, njl.

DO NOT:
MAKE ANY FIRES
MOENIE:
ENIGE VURE MAAK OF ENIGEIETS VERBRAND NIE
OMAWUNGAKWENZI: UKWENZA IMILILO OKANYE UTSHISE NOKUBA YINTONI.





Fencing and Restricted Areas:
Omheining en Beperkte Areas:
Ubiyelo Nemimanndla Engavumelekanga:

DO:

CONFINE WORK AND STORAGE OF EQUIPMENT TO WITHIN THE IMMEDIATE WORK AREA.
MOET:
BEPERK ALLE WERK EN STOOR VAN GEREEDSKAP TOT IN DIE GEGEWE WERKAREA.
OMAWUKWENZE:GCINA UMSEBENZI NEZIXHOBO ZOKUSEBENZA NGAKUMMANDLA OKUSETYENZELWA KUWO.

DO NOT:
ENTER ANY FENCED OFF OR MARKED AREA. SUCH AREAS HAVE BEEN MARKED WITH "NO-GO AREA" SIGNS AND SHOULD BE ADHERED TO.
MOENIE:
ENIGE OMHEINDE OF GEMERKTE AREAS BINNEGAAN NIE. SULKE AREAS IS MET "NO-GO AREA" TEKENS GEMERK EN MOET GEHOORSAAM WORD.
OMAWUNGAKWENZI: MUSA UKUNGENA KWI NDAWO EBIYIWEYO OKANYE EPHAWULWEYO. IMIMANDLA ENJALO IPHAWULWE NGAMAGAMA ATHI "**NO-GO AREA** "

NO-GO AREA

Safety:
Veiligheid:
Ukhuseleko:

DO:
USE ALL SAFETY EQUIPMENT AND COMPLY WITH ALL SAFETY PROCEDURES.
MOET:
GEBRUIK ALLE VEILIGHEIDSGEREEDSKAP EN VOLDOEN AAN ALLE VEILIGHEIDS PROSEDURES.
OMAWUKWENZE: SEBENZISA ZONKE IZIXHOBO ZOKHUSELEKO, UZE UTHOBELE YONKE IMIGAQO YOKHUSELO.

Driving and Dust:
Bestuur en Stof:
Uqhubo Nothuli:

DO:
DRIVE ON DESIGNATED ROUTES ONLY.
MOET:
NET OP AANGEWYSTE ROETES BESTUUR.
OMAWUKWENZE: QHUBA KWIMIMANDLA EPHAWULWEYO KUPHELA.

DO NOT:
SPEED OR DRIVE RECKLESSLY
MOENIE:
JAAG OF ROEKELOOS BESTUUR NIE.
OMAWUNGAKWENZI: SUKUQHUBA NGESANTYA ESIPHEZULU OKANYE NGOKUNGAKHATHALI.

DO NOT:
ALLOW CEMENT TO BLOW AROUND.
MOENIE;
TOELAAT DAT SEMENT WEGWAAI NIE.
OMAWUNGAKWENZI: MUSUKUVUMELA ISAMENTE ISASAZWE.

DO NOT:
CAUSE EXCESSIVE DUST
MOENIE:
OORDREWE STOF VEROORSAAK NIE.


SLOW


PPC

Vegetation protection:
Plantegroei Beskerming:
Ukhuselo Lwezityalo:

DO NOT:
DAMAGE OR REMOVE ANY VEGETATION WITHOUT DIRECT INSTRUCTION.
MOENIE:
ENIGE PLANTEGROEI SONDER DIREKTE INSTRUKSIE BESKADIG OF VERWYDER NIE.
OMAWUNGAKWENZI: MUSA UKUTSHABALALISA OKANYE USUSE NASIPHINA ISITYALO NGAPHANDLE KOMYALELO.

Animals:
Diere:
Izilwanyana:

DO NOT:
INJURE, CAPTURE/SNARE, FEED OR CHASE ANIMALS – this includes birds, frogs, snakes, lizards, tortoises, etc.
MOENIE:
ENIGE DIERE BESEER, VANG, VOER OF JAAG NIE – dit sluit in: voëls, paddas, slange akkedisse, skilpaaie ens.
OMAWUNGAKWENZI: MUSA UKWENZAKALISA, UKUBAMBA, UKONDLA OKANYE UKULEQA IZILWANYANA- okuquka iintaka, amasele, iinyoka, amacilikishe, izikolopati.

DO:
REPORT ANY INJURY OF AN ANIMAL.
MOET:
DIE BESERING VAN 'N DIER RAPPORTEER.
OMAWUKWENZE: XELA NASIPHI ISENZAKALO SESILWANYANA.

Preventing Pollution:
Voorkoming van Besoedeling:
Ukhuselo Longcoliseko:

DO:
CLEAR YOUR WORK AREAS OF LITTER AND BUILDING RUBBLE AT THE END OF EACH DAY – use the waste bins provided and ensure that litter will not blow away.
MOET:
RUIM NA ELKE DAG DIE WERK AREA OP EN GOOI ENIGE ROMMEL WEG IN DIE GEGEWE HOUERS – maak seker dat rommel nie kan wegwaai nie.
OMAWUKWENZE: COCA INDAWO OSEBENZA KUYO, IZINTO EZILAHLIWEYO NENKUNKUMA YOKWAKHA QHO EKUPHELENI KWEMINI-sebenzisa imigqomo yenkunkuma uze uqiniseke ukuba inkunkuma ayivuthuzwa ngumoya.

DO NOT:
ALLOW WASTE BINS TO OVERFLOW OR WASTE TO BLOWAROUND.
MOENIE:
TOELAAT DAT ROMMELHOUERS OORVLOEI OF DAT ROMMEL ROND WAAI NIE.
OMAWUNGAKWENZI: MUSA UKUVUMELA IMIGQOMO YENKUNKUMA IGCWALE KAKHULU OKANYE INKUNKUMA ISASAZEKE.

DO NOT:
LITTER OR LEAVE FOOD LAYING AROUND
MOENIE:
ROMMEL OF KOS LAAT RONDLÊ NIE.
OMAWUNGAKWENZI: MUSA UKUNGCOLISA OKANYE USHIYE UKUTYA KULELE INDAWO YONKE.

DO NOT:
BURY ANY LITTER OR WASTE IN THE GROUND.
MOENIE:
ENIGE ROMMEL OF GEMORS IN DIE GROND BEGRAWE NIE.
OMAWUNGAKWENZI: MUSA UKUNGCWABA INKUNKUMA EMHLABENI.


GLASS
CARDBOARD
PAPER