

**ENVIRONMENTAL MANAGEMENT PLAN FOR THE PROPOSED
ESTABLISHMENT OF A CEMETERY IN BOPHELONG COMMUNITY
VANDERBJILPARK
EMFULENI MUNICIPALITY, GAUTENG
REF NUMBER GAUT 002/12-13/EO284**

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DEFINITIONS:

For the purpose of this Construction EMP the following definitions will apply:

Alien vegetation means all undesirable vegetation, defined as but not limited to, all declared category 1 and category 2 plants in terms of the Conservation of Agricultural Resources Act (43 of 1983) (CARA) amended regulations 15 and 16 as promulgated in March 2001.

Construction activity refers to any action taken by the Contractor, his subcontractors, suppliers or personnel in undertaking the construction work.

Construction area(s) refers to all areas used by the Contractor in order to carry out the required construction activities. This includes all offices, accommodation facilities, testing facilities/laboratories, batching areas, storage & stockpiling areas, workshops, spoiling areas, access roads, traffic accommodation (e.g. bypasses), etc.

Environment means the surroundings within which humans exist and that are made up of land, water and atmosphere; micro-organisms, plant and animal life; any part or combination of the above and the interrelationships among and between them; the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

Environmental Impact refers to any change to the environment, whether desirable or undesirable, that would result directly or indirectly from any construction activity.

Hazardous material/substances refer to any substance that contains an element of risk and could have a deleterious effect on the environment.

Vegetation rehabilitation refers to the re-establishment of locally indigenous vegetation with a similar species composition to that which naturally occurs in the area

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1 INTRODUCTION AND BACKGROUND

This Environmental Management Plan (EMP) has been compiled for the establishment of a cemetery in Bophelong Residential Area of Vanderbijlpark under Emfuleni Municipality in Gauteng province. The proposed project includes the establishment of a cemetery and associated structures. These include the following:

- A security wall enclosing the cemetery
- A chapel
- Security Offices
- Parking Area
- Ablution facilities

1.1 Listed Activity

On 20 June 2010, the National Department of Environmental Affairs (NDEA) promulgated the new EIA regulations that must be adhered to in terms of sections 24(2)(a) and 24(d) of the NEMA (1998). This proposed development triggers a listed activity (Activity 11(xi)) according to the EIA Regulations published in Government Notice R544. The listed activity is:

R543 of June 18, 2010 – Activity No. 21

The establishment of a cemetery covering 2500m² or more is a listed activity according to the Environmental Impact Assessment (EIA) Regulations, 2010 and it must be adhered to in terms of Sections 24(2)(a) and 24(d) of the National Environmental Management Act (NEMA), Act no. 107 of 1998. The proposed activity is listed in:

Listing Notice 1, R543 of June, 2010: Activity No 21: The establishment of cemeteries of 2500 square metres or more in size.

1.2 Objectives of the EMP

The Environmental Management Programme (EMP) will form the basic tool for reducing the magnitude of impacts and suggesting practical measures to attain this. It is also used to measure compliance by the applicant. It is this tool that gives guidance during monitoring, auditing and taking corrective actions during its implementation, thereby ensuring continuous monitoring of the environment. An EMP is developed after an environmental assessment, depending on the level of such assessment. It can also be drawn after the authorisation by the environmental authority, to incorporate the conditions of the authorisation to reach environmental and social sustainability during project implementation and operation.

Key sustainability principles emphasised include:

- Development must not irreversibly degrade the natural, built, socio-economic and governance resources on which it is based.
- Current actions should not cause irreversible damage to natural and other resources, as this potentially prevents the realisation of future sustainable options.
- Where there is uncertainty about the impact of activities on the environment, caution should be in favour of the environment.
- Land use and environmental planning need to be integrated.
- Immediate and long-term actions need to be identified and planned for, so that urgent needs can be met while still progressing towards longer-term sustainable solutions.

An EMP is implemented throughout the project life-cycle, i.e. during pre-construction, construction, operation and decommissioning, in order to minimize negative impacts and enhance positive ones. An effective EMP will be a practical working document that sets out the requirements and the goals required in mitigation. The main terms of the EMP will be detailed to achieve the following:

- To define measures to be taken during pre-construction, construction, and operation and decommissioning/closure;
- To define the actions needed to implement those measures;
- To describe how these will be achieved;
- To allocate responsibilities;
- To provide time frames.

1.3 Project Location

The site is located in Bophelong residential area in the Vanderbijlpark area. The site is accessed from Cilliers Street. Figure 2 shows the topographical map of the area and Figure 1 show the google earth map of the site.

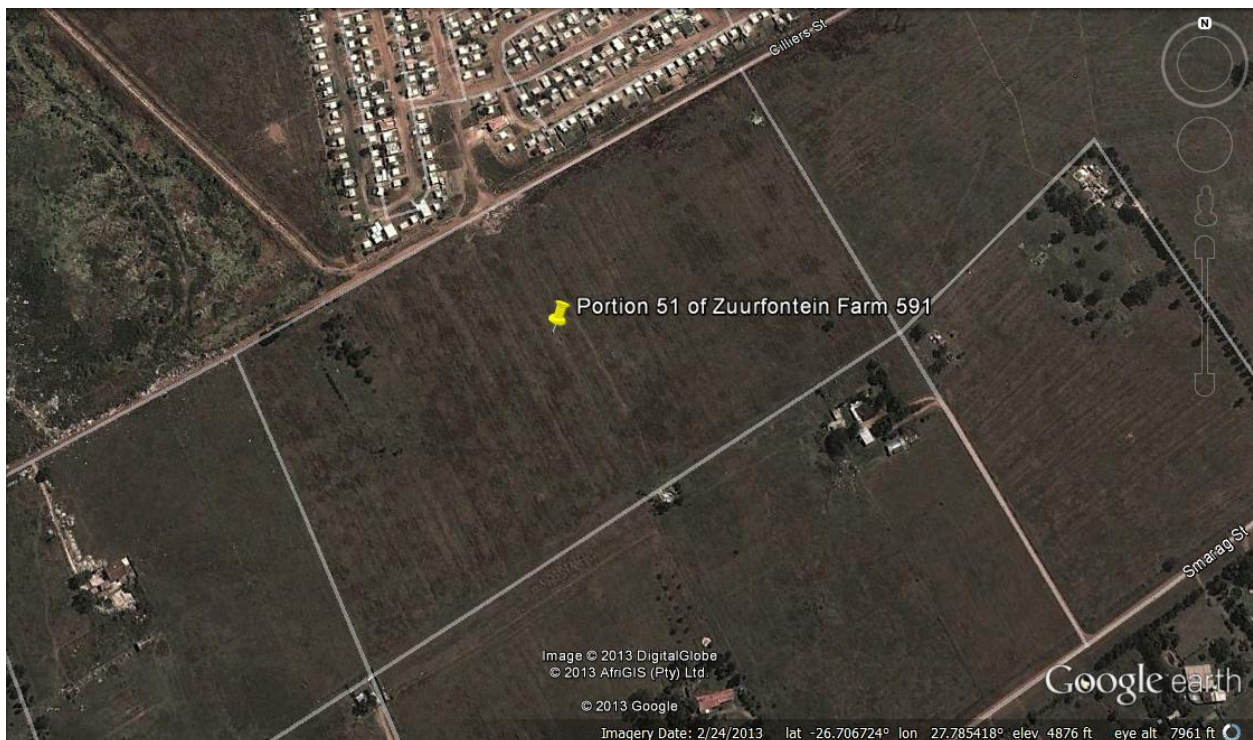
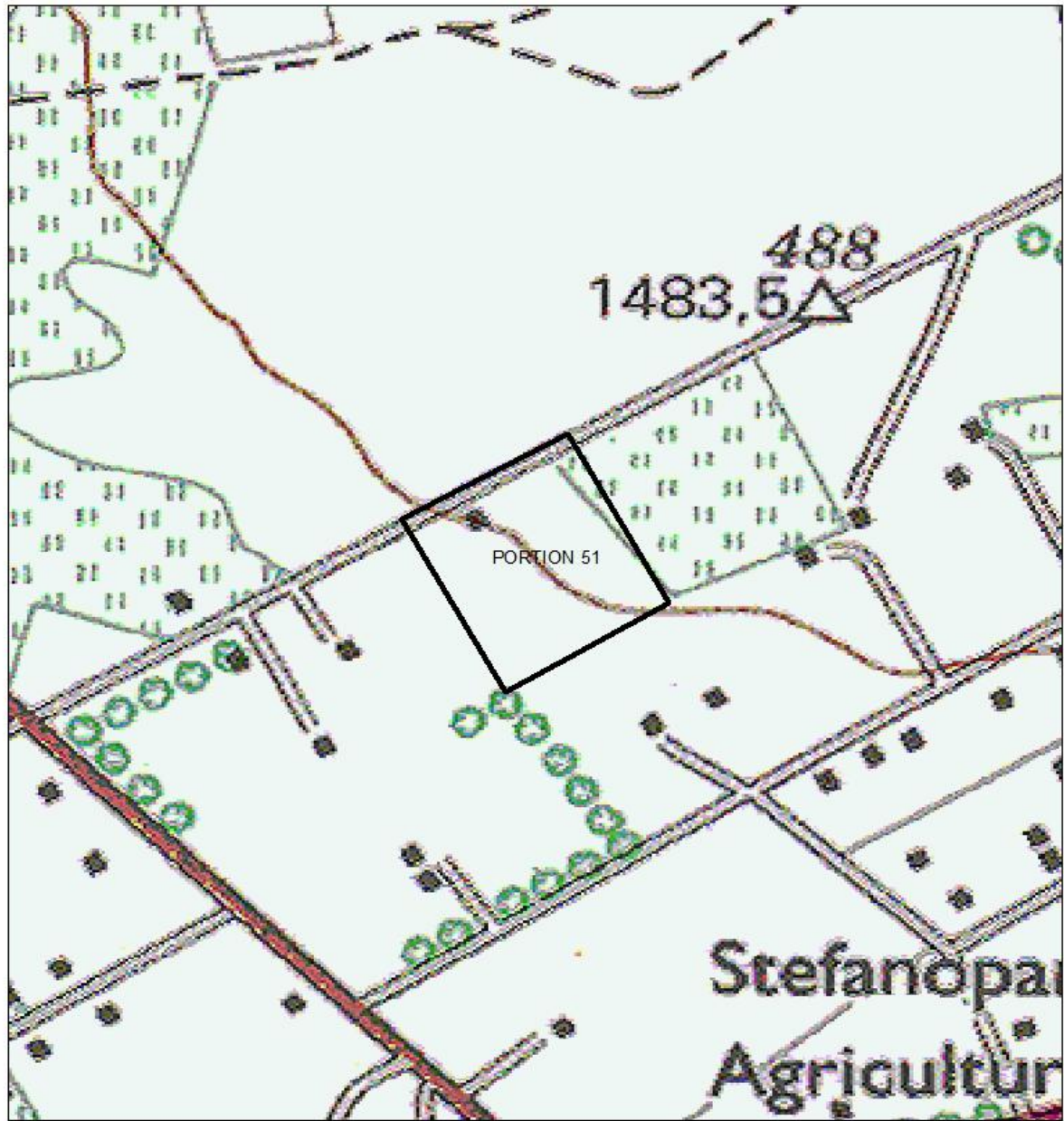



Figure 1: Site Location

PORTION 51 OF ZUURFONTEIN FARM 591



Legend

 Portion 51 of Zuurfontein Farm 591

0 0.05 0.1 0.2 0.3 0.4
Kilometers



Figure 2: Topographical Map of the Study Area

2 DESCRIPTION OF THE AFFECTED ENVIRONMENT

2.1 Socio-economic environment

The site is located in a small holding area which comprise mostly of residential areas. Housing type is mostly RDPs and some shacks which are located approximately 500m to the west of the site. To the north of the site there are some medium density houses.

The community of Bophelong was established to cater for the black community workers working in the industrial areas of Vanderbijlpark. The community has expanded to include recently developed Bophelong extension comprising of RDP houses.

The population in Bophelong is approximately 37,779 and the number of households is estimated to stand at 12,352. The average household size in Bophelong, calculated from Statistics SA data (2007), is three persons per household. The average household size for Emfuleni, as a whole, is 3.52 individuals. Bophelong is approximately 9 square kilometers in size. Its residents are mainly employed as domestic or industrial workers in the nearby town of Vanderbijlpark. Previous studies have found seemingly high poverty levels in the area, where 67% of the households were found to be poor in 2003 (Slabbert, 2003). A study by Sekhampu (2004) reported that 62% of the households were poor using income measures of poverty. A similar study by Slabbert (2009) revealed increasing levels of poverty where 69% of the sampled population in Bophelong was found to be poor.

2.2 Physical Environment

The study area is composed of an open grass veld in the middle of a residential area. It does not comprise of any surface water drainage or wetlands. There are no indigenous plants or

animals on site. Residents are currently using it as a dumpsite where they are illegally dumping their household solid waste as evidenced by the picture below.



Figure 3: Illegal dumping by residents on site

2.3 Implementation Responsibilities of the EMP

2.3.1 The Applicant

The applicant is responsible for ensuring that the activity is implemented according to the requirements of the EMP. The applicant must ensure that relevant professionals are appointed to perform functions as required by the authorities and legislation. The applicant will have the following responsibilities:

- To ensure that there is sufficient allocation of resources to the professional role players to perform their tasks in terms of the EMP;

- In event that the Environment is negatively affected, the applicant will be responsible for rehabilitation and restoring the affected areas to an acceptable level;
- The applicant must include the EMP with all tender and contractual documents in order to ensure that all parties involved are bound to the terms of the EMP;
- The applicant must provide the contractor with a copy of the EMP and any other relevant documentation or supporting documents.

2.3.2 The Contractor

The contractor is bound to the terms and conditions of the EMP by way of the contract with the applicant. The contractor must be familiar with the terms of the EMP before commencement of the activities on site and must request clarification on any issues that are unclear. The main responsibilities of the contractor are as follows:

- The contractor must comply with all the terms and conditions of the EMP and must ensure that all sub contractors are inducted with the EMP and comply with the terms of the EMP;
- The contractor must attend a site inspection and orientation session with the ECO to identify and be informed of the sensitive elements of the site and take cognizance of the boundaries of the construction area. The ECO must point out any particular site-specific elements of importance;
- The contractor must adhere to all verbal and written orders given by the Environmental Control Officer (ECO) or other responsible persons (project manager or site engineer) in terms of the EMP.

2.3.3 Services and Duties of the Environment Compliance Officer (ECO)

The Environmental Control Officer (ECO) is an independent person, appointed by the applicant, who must monitor compliance with the environmental management programme. The main responsibilities and duties of the ECO are as follows:

- The priority of the ECO is to ensure that the site environment is not negatively affected by the proposed activities and that minimal environmental damage is done during construction and adequate measures are employed to ensure that future operations and maintenance does not significantly impact on the environment;
- The ECO will oversee the environmental aspects of the development and ensure compliance with the EMP;
- The ECO shall liaise with relevant authorities and keep records of all correspondence with external interested and affected parties;
- To ensure that the proponent, construction team, the operational and maintenance workers are acquainted with their responsibilities;
- To ensure compliance with regulatory authorities requirements;
- To respond to changes in the project implementation not considered during the assessment phase, and respond to unforeseen events;
- To verify environmental performance through information on impacts as they occur;
- To establish proper communication channels and provide feedback for continual improvement.

a) Mandate and Reporting Duties of the ECO

One of the main responsibilities of the ECO is reporting to the competent authority which will be in form of monthly audit reports. These reports will consist of descriptions of the general state of

the site and will include specific reference to non-compliance and corrective measures to address non-compliance and significant impacts. Site inspections will therefore form the basis for the ECO to compile these reports. In order to perform these duties efficiently, the ECO has the right:

- To enter the site and undertake monitoring and auditing at all times;
- To appoint the necessary specialists in order to monitor- or take corrective measures to address significant impacts.

An Environmental Log sheet will be kept to keep record of any non-compliance, incidents and impacts that have significant impacts on the environment.

b) Liaising duties of the ECO

In order to fulfil his/her duties the ECO will have to participate at all levels of the project. An integral part of this will be liaising with the following institutions/persons:

- Competent and relevant authorities;
- The applicant and contractor;
- All external Interested and Affected Parties.

c) Appointment duties of the ECO

The EMP as compiled by the Environmental Consultant will be used by the ECO as basis for environmental monitoring and compliance auditing. These duties are termed as follows in the EMP:

- The ECO will identify sensitive habitats and individual plant species that must not be damaged during construction and clearly demarcate these plants and habitats with danger tape or fencing;

- The contractor must attend a site inspection with the ECO to be orientated with the sensitive aspects of the site and take cognizance of the boundaries of the construction area. The ECO must point out any site-specific aspects of importance on the site;
- The ECO must form part of the project management team and in decision making relevant to the environment;
- The ECO shall liaise with relevant authorities and keep record of all correspondence with external interested and affected parties;
- The ECO must monitor the emergence alien/invasive species and weeds on a monthly basis. If such species are recorded, the ECO must instruct the responsible person to remove or control these species according to the most effective methods as given in relevant literature;
- The ECO must arrange an environmental briefing and training session with the contractor and his crew prior to commencement of construction activities.

2.3.4 Legal Requirements

Legislation and guidelines that will be considered during the Environmental Monitoring process are as follows:

- Constitution of the Republic of South Africa (No. 108, 1996)
- National Environmental Management Act (No. 107, 1998)
- National Environmental Management: Biodiversity Act (No. 10, 2004)
- National Environmental Management: Protected Areas Act (No. 57, 2003) as amended by the National Environmental Management: Protected Areas Amendment Act (No 31 of 2004)
- National Environment Management: Waste Act, 2008 (No 59 of 2008)

- National Water Act (No. 36, 1998)
- National Heritage Resources Act (No. 25,1999)
- Occupational Health and Safety Act (No. 85, 1993)
- Conservation of Agricultural Resources Act (No. 43, 1983)
- National Environment Conservation Act (No 73, 1989)
- National Roads Act (No. 7. 1998)
- Advertising on Roads and Ribbon Development Act (No 21, 1940)
- Promotion of Access to Information Act (No 2, 2000)
- Electricity Regulation Act (No. 4, 2006)
- Local Government: Municipal Systems Act, 2000
- EIA regulations as listed in Government Notices R543 and R544 (20 June 2010)

3 ENVIRONMENTAL MANAGEMENT PLAN

SITE ESTABLISHMENT AND CONSTRUCTION

	Monitored By:	Monitoring Frequency
An ECO will be appointed prior to commencement of construction that will monitor the entire construction phase.		Prior to commencement
The ECO will monitor the EMP and		Prior to

ensure compliance. The ECO will need to inspect the site at least once a month during construction to ensure on-going compliance.		commencement
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Use, Distribution and Proposed Changes to the EMP

	Monitored By:	Monitoring Frequency
All contractors as well as all engineers and the ECO are to have a copy of the EMP prior to coming on to site.	Engineer; ECO	Prior to commencement
Contractors will be held responsible for ensuring that their sub-contractors are aware of the EMP and abide by its condition. Contractors will be held responsible for any damage caused by their sub-contractors	Engineer; ECO	Prior to commencement
A meeting will be held prior to construction to ensure that all relevant parties have understood the EMP and to discuss any questions arising.	Engineer; ECO	Prior to commencement
It must also be agreed that no ad hoc changes will be made to the EMP and that any requested changes must be	Engineer; ECO	Prior to Commencement

submitted in writing to the ECO who will obtain clearance for the changes from either the GDARD compliance officer auditing the site and / or the environmental consultant or an authority body, depending on the changes requested and depending on the status of the project.		
The ECO will have the authority to request removal of any contractors from the site who are not abiding by the strictures of the EMP.	Engineer; ECO	Prior to Commencement

Record Keeping

	Monitored By:	Monitoring Frequency
A complaints register must be maintained	ECO	On-going
A non-conformance with EMP record must be maintained	ECO	On-going
An emergency response plan must remain on site, this should be provided by the contractor and can be amended using information provided	ECO	On-going
An incident record must be maintained	ECO	On-going

A record of training must be maintained	ECO	On-going
Records proving source of materials must be kept.	ECO	On-going
A record of audits conducted on the site as well as findings must be kept.	ECO	On-going

Contractors and Construction Camp

	Monitored By:	Monitoring Frequency
All contractors coming onto site are to be registered with the ECO who will keep a list of all said contractors. Each contractor will maintain lists of their sub-contractors.	ECO; Engineer	Prior to commencement and during construction
Onsite accommodation will not be provided.	ECO; Engineer	Prior to commencement and during construction
Adequate parking must be made available for site staff and visitors. Parking for construction vehicles must also be allocated, again where minimal disruption of neighbours and the	Contractor	During set up

environmental areas will occur.		
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Ablutions

	Monitored By:	Monitoring Frequency
Portable toilets must be provided. These may not be placed within the environmental areas or buffer areas.	ECO; Contractor	During Site set up
None of the surrounding properties or the vacant portion of the site will be used as a toilet facility.	ECO	On-going
The construction of long drop toilets is forbidden.	ECO	On-going

Camp waste disposal

	Monitored By:	Monitoring Frequency
Bins and / or skips will be provided at convenient intervals for disposal of waste. No waste or rubble may be dumped or stored within the environmental areas or buffer areas.	ECO	During Site set up and On-going

Bins will be lined appropriately for the efficient control and safe disposal of waste.	ECO	On-going
Waste generated on site will be separated into appropriate waste streams and waste will be recycled where possible.	ECO	During site set up and on-going

Establishing Storage Areas; General Substances and Materials

	Monitored By:	Monitoring Frequency
Materials used during construction will be stored in containers provided by the builder. Substances will be stored on hard surface areas and where appropriate bunded to prevent spills leaking on to the soil. Storage of liquids and or hazardous materials may not occur within the environmental areas or buffer areas. Storage must be on a sealed surface or within a container and the area must be bunded to prevent spillage of liquid materials to the environment.	ECO; Contractor	During site set-up
Choice of location for storage areas will take into account prevailing winds, neighbouring industries and routes taken by vehicles within	ECO; Contractor	During site set up

the site.		
The storage areas will be demarcated appropriately and signage will be put up.	ECO; Contractor	During site set-up
Storage areas will be secured to minimize the risk of crime and prevent easy access by people or animals.	ECO; Contractor	During site set up
The container contents will be kept dry, preventing the materials from becoming wet and substances leaking into the Storm water or soil.	ECO; Contractor	During site set up
Fire fighting equipment will be kept on site, near stored material.	ECO; Contractor	During site set up
All staff will be aware of how to react in emergency situations such as fire.	ECO; Contractor	During staff induction, on-going if necessary
Diesel tanks must be store in a bunded area able to contain 110% of the volume of the tank. The bunded area must be appropriately sealed. The tank may not be placed near neighbouring sites or environmental areas and must be well outside the buffer areas of sensitive areas. Appropriate fire fighting equipment and signage must be available.	ECO; Contractor	During site set up

Hazardous Substances and Materials

	Monitored By:	Monitoring Frequency
Each contractor will provide a list to the ECO, including definitions of hazardous substances / materials that are potentially poisonous, flammable, carcinogenic or toxic. Hazardous substances / materials would include - diesel, petroleum, oil, bituminous products, cement, solvent based, paints, lubricants, explosives, drilling fluids, pesticides, herbicides, LPG.	Engineer	At site set-up
Material Safety Data Sheets (MSDS's) for all chemicals and hazardous substances to be used on site at the applicable construction camp and must be readily available.	ECO	At site set up
Hazardous storage areas must be bunded with an impermeable liner to protect groundwater quality. The Contractors shall submit method statements to Engineer for approval.	ECO; Engineer	During site set-up

Storage areas containing hazardous substances / materials will be clearly signed.	ECO	During site set up
Hazardous substances will not be stored in close proximity to neighbouring industries or where there is potential for fire where there is encroaching bush / grass on the site.	ECO; Engineer	During surveys and preliminary investigations.
Adjacent industries and office buildings / nearest neighbours must be notified of the hazardous storage areas.	ECO; Contractor	When moving onto site or as the relevant materials arrive on site.
Contractors will submit a method statement and plans for the storage of hazardous materials and emergency procedures.	ECO	Prior to commencement.
Staff dealing with these substances will be appropriately trained in their use and handling.	ECO	During staff induction, on-going if necessary
All cement will be mixed on an impermeable surface and care will be taken to ensure it does not enter the	ECO	During staff induction, on-going.

<p>storm water system, ground water or soil. Either cement mixing trays must be provided or cement mixing areas must be created which have an impermeable surface. Cement mixing may not take place on unsealed soil surfaces.</p>		
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Education of Site Staff on General and Environmental Conduct; Environmental Education and Awareness

	<p>Monitored By:</p>	<p>Monitoring Frequency</p>
<p>All construction staff will have basic environmental awareness training and must undergo induction training as applicable to available emergency procedures.</p>	<p>ECO</p>	<p>During staff induction, on-going if necessary.</p>
<p>The Contractor will ensure that the site foreman has received environmental training as it relates to the work he is doing and supervising i.e. cement mixing, protection of storm water; an emergency procedure etc. and has sufficient understanding to pass this information onto the construction staff.</p>	<p>ECO; Contractor</p>	<p>During staff induction, on-going.</p>

<p>Translators must be used where necessary.</p>		
<p>All construction staff will have basic environmental awareness training, which can be conducted at the same time as the required health, & safety training.</p> <p>Training should include (1) the definition of environment (people + air + soil + water +business); (2) reasons for conserving and protecting the environment; (3) how the following activities can impact the environment: - Not using assigned ablutions, hazardous materials, uncleaned spills, mixing of cement or paint on soil or grass surfaces, waste management i.e. use of waste receptacles and waste separation for recycling, vehicle washing polluting soil & groundwater; litter; (4) What to do to prevent the above impacting the environment i.e. assign impermeable mixing areas, no vehicle washing on site, use of waste receptacles and separation of waste to allow for recycling, how to respond in an emergency and deal with a</p>	<p>ECO; Contractor</p>	<p>Prior to commencement</p>

spill; (5) Consideration of neighbours.		
Construction workers will be made aware that they are not to make excessive noise (e.g. Shouting / hooting).	ECO	During staff induction, Followed by on-going monitoring.

Worker Conduct on Site

	Monitored By:	Monitoring Frequency
Workers will be warned about creating excessive noise.	ECO	During staff induction, followed by on-going monitoring
Workers will be warned against exhibiting unsocial behaviour.		
Trespassing on any surrounding properties is strictly forbidden		
No drugs or alcohol will be permitted on site and driving under the influence of alcohol will be prohibited		
No firearms will be permitted on site.		
No pets will be allowed on site.		
No workers will be permitted on site after hours.		

All staff will make use of facilities provided as opposed to ad-hoc alternatives (e.g. fires for cooking; the use of surrounding properties or environmental areas as toilet facilities are forbidden).		
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Dust / Air Pollution

	Monitored By:	Monitoring Frequency
Speed limits must be maintained along the relevant roads	ECO; Contractor	On-going.

Storm water

	Monitored By:	Monitoring Frequency
Existing storm water culverts and drains must be identified and it must be ensured that no illegal substances enter these systems including car washings, building materials, litter, etc. Nothing other than storm water is permitted to enter storm water drains	Engineer	During surveys and Preliminary investigations.
Any incidents involving storm water must	ECO	During site

be reported to the ECO for the purposes of maintaining the site's incident records.		set up
A drainage system must be established for the construction camp. The drainage system must be regularly checked to ensure an unobstructed water flow.	Engineer	During surveys and preliminary investigations

Unchanneled Flow

	Monitored By:	Monitoring Frequency
Unchanneled flow must be controlled during construction. Shoring must be used during construction	Engineer	During Site set up
Concentrated run off must be slowed, through the presence of hay or vegetation bundles. If construction must continue on the area then berms must be constructed, directing the water drainage into the detention ponds.	Engineer	During site set up

Water Quality

	Monitored By:	Monitoring

		Frequency
The presence of aggressive chemicals (hydrocarbons) in ground water must be brought to the attention of the ECO and Engineer	ECO	On-going
No vehicles will be washed on site unless at a designated wash bay with grease trap	ECO	On-going
No vehicles, which have transported concrete or other hazardous substances, will be washed on site unless at a designated wash bay with grease trap.	ECO	On-going
No vehicle servicing will be carried out on the site unless at a designated wash bay with a grease trap	Engineer	On-going

Set up of Waste Management Procedures

	Monitored By:	Monitoring Frequency
There will be no excavation and rubbish pits on site.	ECO	During site set-up and on-going.
There will be no burning of waste		On-going
		During site

A waste disposal area will be demarcated.		set-up.
Waste separation at source will be carried out and individual skips for each waste stream will be provided.		During site set-up and on-going.
Waste must be disposed at the appropriate landfill site by an approved contractor.		On-going.
Safe disposal certificates will be obtained and kept on site		Checked at each site meeting.
Hazardous waste will be disposed of in the approved manner and safe disposal certificates will be obtained and retained on site.		On-going
Concrete waste will be disposed of at an appropriate waste site.		On-going
Construction rubble will be disposed of at approved waste sites. Safe disposal certificates for this waste must be obtained.	ECO	On-going
All concrete and cement waste will be removed by an approved waste contractor, to an approved site. Hazardous waste must be stored separately and disposed of at an		

approved hazardous waste landfill. Safe disposal certificates must be obtained		
Refuse will be separated at source and disposed in the appropriate bins, which will be emptied regularly		
Littering is prohibited and the site will be cleaned daily.		
Recycling will be done where possible		
Hazardous materials to be stored separately and disposed of at appropriately permitted sites		
A separate drum should be available for storage of contaminated soil		

Social Impacts – Visual and Noise

	Monitored By:	Monitoring Frequency
The ECO is to be the point of communication with regards construction. Visits to site by I & AP's will be only be prearranged site visit. All visitors to be escorted to ensure safety of visitors while on site. The neighbouring sites to be notified of any disturbing activities i.e. blasting etc.	ECO	On-going

Noise Impacts

	Monitored By:	Monitoring Frequency
Construction will only be carried out during working hours (07h00 – 17h00) or as agreed with surrounding neighbours. Construction may only occur on weekends with the consent of neighbours	ECO; Contractor	On-going
Machinery and vehicles will be well maintained but no maintenance work will be carried out on site except in a designated bay allocated for such purposes to ensure that no contamination of soil or stormwater occurs through oil spills etc. Excessively noisy machinery will be removed from site.	ECO; Contractor	On-going
Neighbours will be notified of noisy activities and these activities must be restricted to the work times indicated by the development project.	ECO; Contractor	At least 24 hours prior to the activity taking place.

Safety and Security

	Monitored By:	Monitoring Frequency
The perimeter of the construction camp should be fenced for security reasons. All excavations should be fenced to ensure that surrounding stakeholders are aware of potential hazards.	ECO	During site set up
The access points should be manned controlling persons accessing the camp		
Hazardous areas (i.e. trenches) must be clearly marked.		
The site must be sufficiently lit, enabling security and policing.		

Risks Associated with Materials on Site

	Monitored By:	Monitoring Frequency
Material stockpiles and stacked materials must be stable, preventing injury from collapse.	ECO	On-going
Stockpiles and stacks must not become an obstruction to vehicular traffic.	ECO	On-going
The ECO must be notified of any potential	ECO	At least 24

risks originating from the construction site.		hours prior to the activity taking Place.
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Eating areas

	Monitored By:	Monitoring Frequency
Eating areas will be regularly serviced and cleaned to ensure the highest possible standards of hygiene and cleanliness.	ECO	Daily
All litter throughout the site will be picked up and placed in the bins provided.	ECO	Daily

Dust / Air Pollution

	Monitored By:	Monitoring Frequency
Cleared surfaces must be dampened to minimise the production of dust. If necessary allowance must be made for a water truck to be present to control dust	ECO; Contractor	On-going

Screens must be erected when the production of dust is unavoidable to protect neighbouring sites.	ECO; Contractor	As directed by the Engineer
No fires are allowed on the site	ECO; Contractor	On-going
Vehicles and machinery must be kept in good working order.	ECO; Contractor	On-going
Should excessive emissions from machinery be observed, the contractor will ensure that equipment is seen to as soon as possible.	ECO; Contractor	On-going
Stockpiles causing dust must be managed appropriately i.e. covered or suitably dampened.	ECO; Contractor	On-going

Flora and Fauna

	Monitored By:	Monitoring Frequency
Stripped areas will be immediately re-vegetated, whilst removing alien plants.	ECO	On-going

Stockpile Management

	Monitored By:	Monitoring

		Frequency
Stockpiles will not exceed 2 m in height	ECO	On-going
Stockpiles will be covered if exposed to heavy wind and rain or alternatively, low walls or berms will be constructed at the base.	ECO; Engineer	As this becomes necessary
Alien vegetation will not be permitted to grow on the stockpiles.	ECO	Monthly monitoring

Post Construction Activities

Construction Camp

	Monitored By:	Monitoring Frequency
All structures and imported materials within the construction camp will be removed.	ECO; Engineer	Project completion
All spillages will be cleaned and contaminated soil will be removed and disposed of appropriately.	ECO; Engineer	Project completion

Vegetation

	Monitored	Monitoring

	By:	Frequency
Alien vegetation growing in disturbed areas will be removed.	ECO	Project completion

Land Rehabilitation

	Monitored By:	Monitoring Frequency
Rubble will not be buried on site, but transported to the appropriate disposal site.	ECO; Engineer	Project Completion
Litter will be removed from the site.	ECO	Project Completion
No building rubble, spoil materials or waste materials will be dumped on any adjoining sites. Hardened surfaces will be ripped, top soiled and re-vegetated	ECO	Project completion

Materials and Infrastructure

	Monitored By:	Monitoring Frequency
Any fences, barriers or demarcations utilized for the construction phase will be removed.	ECO; Engineer	Project Completion

The remaining stockpile material will be removed to spoil or spread out on the site, as decided by Engineer.	ECO; Engineer	Project Completion
The remaining building materials will be removed from the site.	ECO; Engineer	Project completion
Any damage incurred on the neighbouring properties will be repaired (driveways, paving etc).	ECO; Engineer	Project completion