DRAFT BASIC ASSESSMENT REPORT (DBAR) FOR EMATHENDENI SPORTFIELD IN WARD 29 0F ALFRED DUMA MUNICIPALITY, UTHUKELA DISTRICT

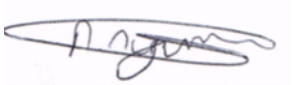
KZN EDTEA EIA REF: DC23/S24G/0002/2018

Date: January 2019

Prepared for:	Prepared by:
Alfred Duma Local Municipality LADYSMITH 3370 Tel: 036 637 2090 Fax: 086 5344 307	BB 188 King Senzangakhona Circle Umlazi, Durban, 4066 Email: info@fuzeenvironmental.co.za Cell: 084 261 3829 Fax: 086 519 0942

Report Status: Draft BAR

Document Details:

Name of Document	Basic Assessment Report: Emathendeni sportfield, Alfred Duma Municipality
Environmental Assessment Practitioner Details	
EAP Company Name	Fuze Environmental Services
Consultant managing the Application	Nokuthula Nyuswa
Contact Details	Email: info@fuzeenvironmental.co.za Cell: 084 261 3829
Qualifications and Experience	BSc Geological Science Nokuthula has been employed in the environmental management sector since 2010. Her 10 years of work experience extends to undertaking Environmental impact assessments, Basic assessments, compiling EMPs, water use licence applications, undertaking site visits and field work, permits applications, ECO work, environmental law, legal screenings, co-operative governance, public participation, rehabilitation project management, quality management, and financial management.
Signature	
Proponent Details	
Applicant name	Alfred Duma Municipality
Representative	Ms. S.S Ngiba Municipal Manager
Contact Details	Tel: (036) 637 2231 Fax: (036) 632 1400 Email: mm@alfredduma.gov.za

edtea
Department :
Economic Development, Tourism and Environmental Affairs
PROVINCE OF KWAZULU-NATAL

	(For official use only)
EIA File Reference Number:	DC/
NEAS Reference Number:	KZN/EIA/
Waste Management Licence Number: (if applicable)	
Date Received:	

BASIC ASSESSMENT REPORT

Submitted in terms of the Environmental Impact Assessment Regulations, 2010 promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998)

This template may be used for the following applications:

- **Environmental Authorization** subject to basic assessment for an activity that is listed in Listing Notices 1or 3, 2010 (Government Notices No. R 544 or No. R 546 dated 18 June 2010); or
- **Waste Management Licence** for an activity that is listed in terms of section 20(b) of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) for which a basic assessment process as stipulated in the EIA Regulations must be conducted as part of the application (refer to the schedule of waste management activities in Category A of Government Notice No. 718 dated 03 July 2009).

Kindly note that:

1. This **basic assessment report** meets the requirements of the EIA Regulations, 2010 and is meant to streamline applications. This report is the format prescribed by the KZN Department of Economic Development, Tourism & Environmental Affairs. Please make sure that this is the latest version.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with text.
3. Where required, place a cross in the box you select.
4. An incomplete report will be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it will result in the rejection of the application as provided for in the regulations.
6. No faxed or e-mailed reports will be accepted.
7. The report must be compiled by an independent environmental assessment practitioner ("EAP").
8. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
9. The KZN Department of Economic Development, Tourism & Environmental Affairs may require that for specified types of activities in defined situations only parts of this report need to be completed.
10. The EAP must submit this basic assessment report for comment to all relevant State departments that administer a law relating to a matter affecting the environment. This provision is in accordance with Section 24 O (2) of the National Environmental Management Act 1998 (Act 107 of 1998) and such comments must be submitted within 40 days of such a request.

11. **<u>Please note</u> that this report must be handed in or posted to the District Office of the KZN Department of Economic Development, Tourism & Environmental Affairs to which the application has been allocated (please refer to the details provided in the letter of acknowledgement for this application).**

DEPARTMENTAL REFERENCE NUMBER(S)

File reference number (EIA):	
File reference number (Waste Management Licence):	

SECTION A: DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER AND SPECIALISTS

1. NAME AND CONTACT DETAILS OF ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

Name and contact details of the EAP who prepared this report:

Business name of EAP:	**Fuze Environmental Services**		
Physical address:	**BB 188 King Senzangakhona Circle, Umlazi, Duarban**		
Postal address:	**BB 188 King Senzangakhona Circle, Umlazi, Duarban**		
Postal code:	**4066**	**Cell:**	**084 261 3829**
Telephone:		**Fax:**	**086 519 0942**
E-mail:	**info@fuzeenvironmental.co.za**		

2. NAMES AND EXPERTISE OF REPRESENTATIVES OF THE EAP

Names and details of the expertise of each representative of the EAP involved in the preparation of this report:

Name of representative of the EAP	Education qualifications	Professional affiliations	Experience at environmental assessments (yrs)
Nokuthula Nyuswa	**BSc Geological Sc**	**IAIA**	**10**

3. NAMES AND EXPERTISE OF SPECIALISTS

Names and details of the expertise of each specialist that has contributed to this report:

Name of specialist	Education qualifications	Field of expertise	Section/ s contributed to in this basic assessment report	Title of specialist report/ s as attached in Appendix D
S C Bundy	**MSc Ecological and Environmental**	**Ecological Specialist**	**C1,2,4,5**	**Ecological Review Report**
Jean Beater	**MA Heritage Studies**	**Heritage Specialist**	**C6**	**Heritage Impact Assessment Report**
Lindokuhle Maphumulo		**Engineering Geologist**	**C3**	**Geotechnical Report**

SECTION B: ACTIVITY INFORMATION

1. PROJECT TITLE

Describe the project title as provided on the application form for environmental authorization:

Emathendeni sportfield in Ward 29 of Alfred Duma Municipality, Uthukela District

2. PROJECT DESCRIPTION

Provide a detailed description of the project:

Description of Activity and Project

The site for the Emathendeni Sports Facility is located approximately 40km south east of the Ladysmith town within Alfred Duma Local Municipality in the northern KwaZuluNatal Province of South Africa. It is situated in a village locally known as Emathendeni. Access is through the main road connecting Ezakheni and Ladysmith and into the local gravel roads. The proposed area is located along the access gravel road making access easier.

It is understood that the proposed sports facility will comprise but not limited to:-

- Soccer / Rugby sportfield
- Combo Courts comprising Volley Ball
- Netball and Basket Ball sportfields
- Sportfield multi-purpose building with changing rooms and ablutions
- 2 Grand Stands
- Clear View fencing and Security / Guard House.

A Locality and a Site Plan are attached

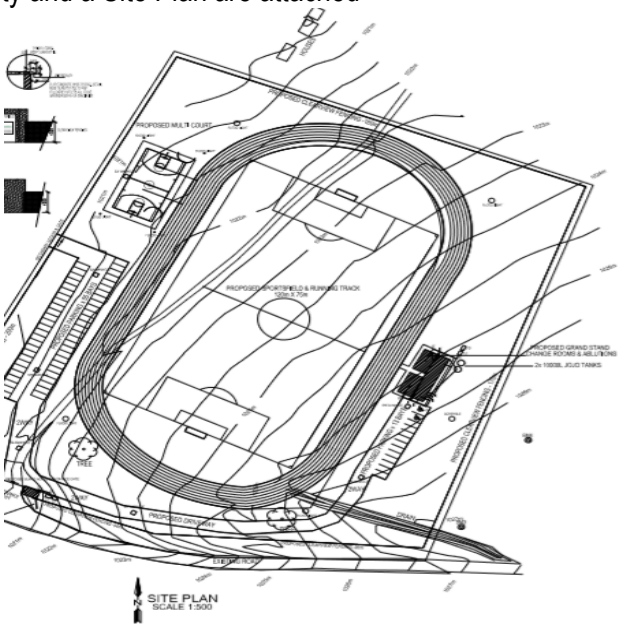


Figure 1. Site layout

Currently the site topsoil has been stripped in areas where construction will take place. Preparation of foundation works was underway.


Photo 1and 2. Emathendeni sportfield site

SITE GEOLOGY

According to the 2830 Dundee, 1:250 000 Geological Map Series the general area within which the site is located is underlain by medium to coarse grained sandstone and grey micaceous shale bedrock of the Vryheid Formation.

The investigation conducted indicate the site for the proposed development to be underlain by a mantle of transported and residual materials overlying weathered shale bedrock of the Volksrust Formation.

Topography

Topographically, the site is gently sloping towards the south.

Groundwater Seepage

There was no groundwater seepage encountered in any of the investigative pits below existing ground level during investigation. It should be noted that there is a possibility that, during periods of prolonged rainfall, particularly during the summer season, there will be a marked increase in the occurrence and magnitude of groundwater seepage flow. Perched groundwater flows at the soil/rock interface are likely to become more prolific in the rainy months. Platforms intercepting this interface are likely to encounter groundwater seepage during these times.

Soil and rock conditions

The investigation undertaken on site indicated the site to be underlain by transported materials comprising mainly colluvial materials and residual overlying weathered shale bedrock of the Vryheid Formation.

Site Access

Access is through the main road connecting Ezakheni and Ladysmith and into the local gravel roads. Access to the property will be from the existing gravel road.

Potable Water Supply

The total daily water demand expected from the development is 20litres per day. Water will be supplied by Alfred Duma through water tankers and stored on site in jojo tanks.

Sanitation

The total sewage volume that is estimated to be generated by the development is minimal and will be catered for through the use of septic tank. In the Mathendeni area there is currently no sewer system in place. To cater for this service, the Municipality proposes to construct septic tanks from the facility.

The general feasibility of an on-site sanitation system, in particular, a septic tank soakaway disposal method, has been evaluated in terms of the requirements laid down by SABS0400:1990.

Several criteria are used to assess whether septic tank soak-away systems are feasible.

These are the following:-

- Suitability of the subsoils/existing geotechnical conditions for disposal of wastewater and sewage effluent by subsoil percolation,
- Occurrence of groundwater,
- Availability of sufficient area that may be allocated for evapotranspiration purposes, and
- Sufficient soil cover.

Due to the shallow bedrock that was encountered on site, the site is considered to be unsuitable for the disposal of effluent via a septic tank and soakway system.

The septic tank will be constructed with bricks and concrete and painted with bitumen inside which will serve as a membrane to ensure 100% containment (see designs in Appendix C).

Solid Waste

The total solid waste that is expected to be generated by the development when fully operational is 5m³ per week, which will be collected by the Municipality and disposed via the municipal waste stream.

Stormwater

A most important factor in the promotion of a stable site is the control and removal of both surface and groundwater from the site. Such water should be directed towards the natural surface drainage lines. Disposal of stormwater should conform to the Local Authority's requirements.

Surface drainage of building platforms should be designed to direct water away from fill edges to prevent overtopping of the fill crest and erosion of the fill embankment slopes. It is important that grassing of fill embankments be carried out as soon as possible after construction.

Suitable stormwater attenuation facilities will need to be constructed to service the development as specified in the stormwater management plan (Appendix D).

Electricity and Lighting

The maximum expected electricity demand for the development is close to 200kVA. Alfred Duma Municipality, as the electricity provider in the area, has confirmed in writing (Appendix G) availability of electricity in the area.

Description of Environment

Description of Ecological environment

Emathendeni lies within the catchment of the Sundays River, which is located some 5 kilometres to the north of the settlement. The area is part of a wide, generally flat to undulating terrain that is the elevated peneplain associated with the Sundays river. The area is underlain by a primarily Karoo and earlier sandstone geology, with occasional shale exposures and Jurassic dolerites being evident. Soils are fine, sandy to heavy clays, which are moderately to high erodible.

The predominant vegetation type in the region is classified by Mucina and Rutherford (2006) as 'Tugela Thornveld' (Figure 2), which is an Acacia dominated veld type. Sub canopy strata comprise primarily of grasses including Hyparrhenia hirta and Aristida junctiformis. Other common woody and succulent species within the veld type include Aloes, particularly A mudenensis and A marlothii, as well as Boscia albitrunca (a listed protected species), Euclea crispa and Ziziphus mucronata. From a conservation perspective, this veld type is considered to be of 'least concern", and does not constitute an area of conservation importance, as per the EKZNWildlife data.

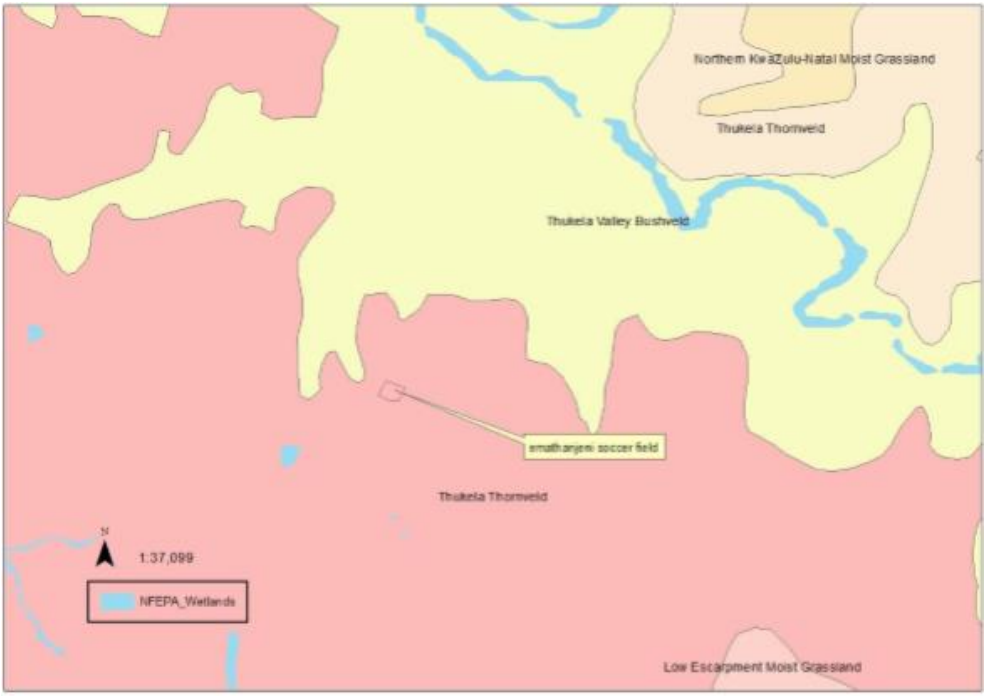


Figure 2 Map showing site in relation to veld types (SANBI) and wetland habitats (NFEPA)

Figure 3 Map showing site in relation to protected areas within the region (EKZNW)

As per Figure 3 above, the area in and around the site indicates no features that have been categorised as being of importance from a freshwater ecological perspective. Much of the wetland areas encountered in the region are related to the flood terraces of the Sundays River, while other wetland environments are anthropogenic in origin. No wetland environments were identified within 500m of the site in terms of the NFEPA data, although, as indicated below a dam and drainage line are evident to the north of the site.

Description of Social Environment

The Alfred Duma Local Municipality is the result of the redetermination of boundaries in terms of section 21 of the Local Government: Municipal Demarcation Act 1998 (Act No.27 of 1998) which resulted in certain municipalities being disestablished and their former areas of jurisdiction merged under new municipalities and in this case Emnambithi/ Ladysmith and Indaka Local Municipality are part of the municipalities that merged and formed a new municipality known as Alfred Duma Local Muncipality.

The current population for the Alfred Duma Local Municipality is 356 276 people as per the 2016 Community Survey by Statistics SA and the Dependency Raion is sitting ar 69.44%. One of the reasons that has led to decrease in the population is that the youth migrates to other cities like Durban, Pietermaritzburg and Gauteng looking for jobs and tertiary institutions.

Alfred Duma Local spans over an area of 4 010,13km2 of which 90% is rural land with limited basic services and infrastructure. The project area is rural in nature with settlements, gravel roads, subsistence farming including the keeping of cattle and goats (see Figures below).

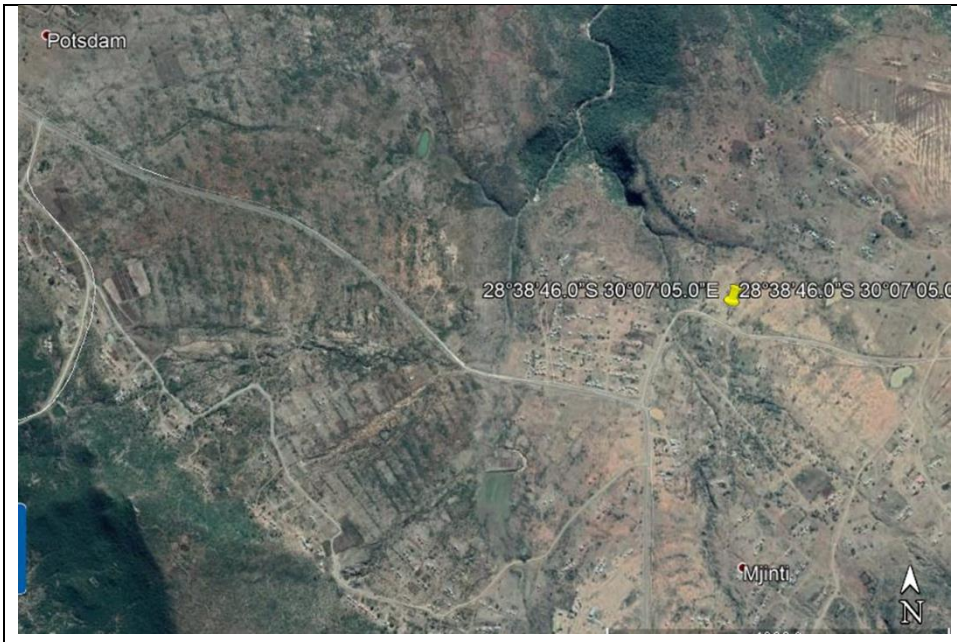


Figure 4 Map of Emathendeni area

Two grave sites were encountered just outside the project area. The one site, situated furthest from the proposed sports field, contains 3 graves that belong to the Mthethwa clan and is located at: 28°38'43.5"S 30°07'04.8"E. The graves are made from packed rocks/stones and are situated approximately 40 m west of the boundary of the sports field.

Photo 3. Graves on site boundary

Due to the proximity of the proposed Emathendeni sports field to the two grave sites, it is recommended that both grave sites are permanently fenced to avoid any damage to them during the construction and operation/use of the sports field.

3. ACTIVITY DESCRIPTION

Describe each listed activity in Listing Notice 1 (GNR 544, 18 June2010), Listing Notice 3 (GNR 546, 18June 2010) or Category A of GN 718, 3 July 2009 (Waste Management Activities) which is being applied for as per the project description:

GNR 983 of 04 December 2014 Activity 27	The clearance of vegetation for the construction of Emathendeni sportfield with a total development footprint of 3 Ha.

4. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

Describe alternatives that are considered in this report. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Sections B 5 – 15 below should be completed for each alternative.

5. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. List alternative sites were applicable.

	Latitude (S):	**Longitude (E):**
Alternative:		

Alternative S1[1] (preferred or only site alternative)	28o	38‘	46“	30o	07‘	05“
Alternative S2 (if any) **There are no site alternatives as construction has already commenced at preferred site hence the application for S24G**	o	‘	“	o	‘	“
Alternative S3 (if any)	o	‘	“	o	‘	“

In the case of linear activities:

Alternative:	**Latitude (S):**			**Longitude (E):**		
Alternative S1 (preferred or only route alternative)						
• Starting point of the activity	o	‘	“	o	‘	“
• Middle point of the activity	o	‘	“	o	‘	“
• End point of the activity	o	‘	“	o	‘	“
Alternative S2 (if any)						
• Starting point of the activity	o	‘	“	o	‘	“
• Middle point of the activity	o	‘	“	o	‘	“
• End point of the activity	o	‘	“	o	‘	“
Alternative S3 (if any)						
• Starting point of the activity	o	‘	“	o	‘	“
• Middle point of the activity	o	‘	“	o	‘	“
• End point of the activity	o	‘	“	o	‘	“

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 500m along the route for each alternative alignment.

6. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:	**Size of the activity:**
Alternative A1[2] (preferred activity alternative)	3000m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

or, for linear activities:

Alternative:	**Length of the activity:**
Alternative A1 (preferred activity alternative)	M
Alternative A2 (if any)	M
Alternative A3 (if any)	M

[1] “Alternative S..” refer to site alternatives.
[2] “Alternative A..” refer to activity, process, technology or other alternatives.

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:	**Size of the site/servitude:**
Alternative A1 (preferred activity alternative)	m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

7. SITE ACCESS

Does ready access to the site exist?	~~YES~~	NO
If NO, what is the distance over which a new access road will be built	m	

Describe the type of access road planned:

Access will be gained via existing gravel road

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

8. SITE OR ROUTE PLAN

A LOCALITY MAP IS ATTACHED AS APPENDIX A

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this report.

The site or route plans must indicate the following:

8.1. the scale of the plan which must be at least a scale of 1:500;
8.2. the property boundaries and numbers/ erf/ farm numbers of all adjoining properties of the site;
8.3. the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
8.4. the exact position of each element of the application as well as any other structures on the site;
8.5. the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
8.6. walls and fencing including details of the height and construction material;
8.7. servitudes indicating the purpose of the servitude;
8.8. sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
- rivers, streams, drainage lines or wetlands;
- the 1:100 year flood line (where available or where it is required by DWA);
- ridges;
- cultural and historical features;

- areas with indigenous vegetation including protected plant species (even if it is degraded or infested with alien species);

8.9. for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and

8.10. the positions from where photographs of the site were taken.

9. SITE PHOTOGRAPHS

PHOTOS ARE ATTACHED AS APPENDIX B

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report**.** It must be supplemented with additional photographs of relevant features on the site, if applicable.

10. FACILITY ILLUSTRATION

THE LAYOUT/DESIGN PLAN WILL SERVE AS THE FACILITY ILLUSTRATION

A detailed illustration of the facility must be provided at a scale of 1:200 and attached to this report as Appendix C. The illustrations must be to scale and must represent a realistic image of the planned activity/ies.

11. ACTIVITY MOTIVATION

11.1. Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R5 099 465.00	
What is the expected yearly income that will be generated by or as a result of the activity?	R 0	
Will the activity contribute to service infrastructure?	~~YES~~	NO
Is the activity a public amenity?	~~YES~~	NO
How many new employment opportunities will be created in the development phase of the activity?	20	
What is the expected value of the employment opportunities during the development phase?	R1 500 000.00	
What percentage of this will accrue to previously disadvantaged individuals?	10%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	15	
What is the expected current value of the employment opportunities during the first 10 years?	R6 000 000.00	
What percentage of this will accrue to previously disadvantaged individuals?	10%	

11.2. Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

Very little social and economic amenities have been developed in new townships and or housing developments. The Comprehensive Plan for the creation of Sustainable Human Settlements (DOHS, 2004) identified the need for a special intervention in this regard. In trying to address this, the Department of Sports and Recreation has identified and prioritized communities that are in dire need of social and economic infrastructure.

A Multi-Purpose sports facility is a structure which enables communities to manage their development, by providing access to appropriate information facilities, recreational resources, training and Services. In all cases the sharing of facilities of the providers should result in more cost effective and efficient provision of Services

The mathendeni area is undeveloped and generally lacking in public facilities and amenities. The Multi-Purpose sports facility aims to enhance community growth and development, by providing opportunities in terms of sports and recreation for the locals within the Emathendeni community.

Before construction commences, the property was vacant with no infrastructure or buildings. The site was subject to illegal dumping and trespassing.

Indicate any benefits that the activity will have for society in general:

- Recreational facilities (soccer, rugby and track running)
- Potential volunteer centre for locals willing to teach/share skills and expertise
- Provides employment opportunities
- Promotes community development (counselling, coaching, teaching, projects)
- Skills development

Indicate any benefits that the activity will have for the local communities where the activity will be located:

More jobs will be created during construction and operational phases, which will benefit the local community and enhance their quality of life.

12. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are relevant to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
National Environmental Management Act (No 107 0f 1998; as amended)	**NEMA is the overarching environmental law in SA. NEMA requires integration and consideration of all aspects of the environment, with the 'people first' principle, when considering projects. NEMA is thus considered applicable as this is an infrastructure project. In additional, the EIA regulations are linked to NEMA.**	**Provincial national and**	**1998**

EIA regulations of 2014	**Listed activities as applied for herein are triggered under the EIA Regs, 2014.**	**National provincial and**	**2014**
NEMA: Biodiversity Act (10 of 2004)	**An area to the west of the project site (not the actual site itself) is identified as a CBA. Protection of biodiversity elements and permitting requirements as required.**	**Provincial national and**	**1998**
National Water Act (No 36 of 1998)	**Protection of watercourses during construction, and permit requirements (water use licence) from DWS before working in the watercourses**	**Provincial national and**	**1998**
National Heritage Resources Act (Act 25 of 1999)	**This act needs to be complied with, Amafa requires a heritage study for infrastructure exceeding 300m in length. In addition, the area is classified as having a high likelihood of yielding archaeological and palaeontological specimens.**	**Provincial national and**	**1999**
NEMA: Waste Act (Act 59 of 2008 as amended)	**This act requires the safe and correct, legal disposal of waste generated on site, even if temporary and nonhazardous, according to waste stream, by the generator of waste.**	**Provincial national and**	**2008**
Conservation of Agricultural Resources Act (Act 43 of 1983)	**The proponent is required to implement erosion controls, protect top soil, soil structure and fertility as relevant, implement measures to prevent spreading of alien vegetation, and restore profiles once complete**	**Provincial national and**	**1983**
Hazardous Substances Act (Act 15 of 1973)	**The contractor may be storing chemicals and fuel on site and these activities must be compliant with the**	**National provincial and**	**1973**
	HAS.		
National Spatial Biodiversity Assessment (2011)	**This assessment aims to inform all private and public-sector activities and provides tools for use in planning. The data available on the BGIS website is used in this report**	**National (Sanbi)**	**2011**
IDP for Alfred Duma and Uthukela Municipalites	**All projects to be guided by these documents.**	**Local**	**2016-2017**

All local and provincial regulations and by municipality by laws	**The contract must identify, consider and adhere to all relevant laws (possibly via a legal register)**	**Local and provin ial**	**current**
Construction Regulations	**The contractor will build according to these laws**	**Provincial national and**	**2015**
Occupational Health and Safety Act	**The contractor will need to comply with all requirements of the OHSACT.**	**Provincial and national**	**1993**

13. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

13.1. Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	YES	NO
If yes, what estimated quantity will be produced per month?	80m^3	

How will the construction solid waste be disposed of? (describe)

Solid construction waste will be disposed by means of machinery, or hand. Machinery includes tipper trucks as well as flatbed rollers/TLB/excavator. Excavated material (soil, rock) will be used as backfill where feasible.

Where will the construction solid waste be disposed of? (provide details of landfill site)

The solid construction waste will be disposed at approved (legal) sites. Waste will be reused (recycled) on site where possible. General waste to be removed via municipal services.

Will the activity produce solid waste during its operational phase?	YES	NO
If yes, what estimated quantity will be produced per month?	5m^3	

How will the solid waste be disposed of? (provide details of landfill site)

Domestic waste (office waste, food packaging etc) will be created during the operation of the facility. This waste will be removed via municipal services.

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

N?A

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine the further requirements of the application.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?	YES	NO

If yes, contact the KZN Department of Economic Development, Tourism & Environmental Affairs to obtain clarity regarding the process requirements for your application.

Is the activity that is being applied for a solid waste handling or treatment facility?	YES	NO

If yes, contact the KZN Department of Economic Development, Tourism & Environmental Affairs to obtain clarity regarding the process requirements for your application.

13.2. Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	NO X
If yes, what estimated quantity will be produced per month?	m^3	
Will the activity produce any effluent that will be treated and/or disposed of on site?	Yes	NO X

If yes, contact the KZN Department of Economic Development, Tourism & Environmental Affairs to obtain clarity regarding the process requirements for your application.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	YES	NO X

If yes, provide the particulars of the facility:

Facility name:	N/A		
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

13.3. Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	~~YES~~	NO
If yes, is it controlled by any legislation of any sphere of government?	YES	~~NO~~

If yes, contact the KZN Department of Economic Development, Tourism & Environmental Affairs to obtain clarity regarding the process requirements for your application.

If no, describe the emissions in terms of type and concentration:

During construction, CO2 emissions from construction vehicles will occur. Dust entrainment from construction vehicles and activities will also occur. The concentration will be low-moderate and will be temporary and limited to the construction work area, for the duration of the construction phase.

13.4. Generation of noise

Will the activity generate noise?	~~YES~~	NO
If yes, is it controlled by any legislation of any sphere of government?	YES	~~NO~~

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

Low-moderate level noise will result from construction vehicles and machinery and is not expected to exceed the occupational health and safety levels. Noise generated at the site due to construction activity will be temporary.

14. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

municipal	water board	groundwater	river, stream, dam or lake	other	the activity will not use water
X					

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	Litres	
Does the activity require a water use permit from the Department of Water Affairs?	YES	NO X

If YES, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this report.

15. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

During construction, diesel (generators) can be used as an energy source rather than connecting to the grid. Further, construction will be confined to daylight hours to reduce the need for night lighting.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

Construction will be confined to daylight hours and generators will be used where feasible to serve as an energy source.
LED lighting will be utilised.

SECTION C: SITE/ AREA/ PROPERTY DESCRIPTION

Important notes:

- For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No. (e.g. A): [ ]

- Subsections 1 - 6 below must be completed for each alternative.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

~~Flat~~	~~1:50 – 1:20~~	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site **(Please cross the appropriate box)**.

Alternative S1 (preferred site):

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	~~Open valley~~	Plain	Undulating plain/low hills	Dune	Sea-front

Alternative S2 (if any):

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front

Alternative S3 (if any):

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Has a specialist been consulted for the completion of this section?		~~YES~~	NO
If YES, please complete the following:			
Name of the specialist:	Lindokuhle Maphumulo		
Qualification(s) of the specialist:			
Postal address:	Geo-Caluza Consulting Engineers Suite No. 109 Wearcheck House 16 School Road Pinetown		
Postal code:	3600		
Telephone:	(0)31 701 1532	Cell:	
E-mail:	info@geocaluza.co.za	Fax:	(0)86 618 7349
Are there any rare or endangered flora or fauna species (including red data species) present on any of the alternative sites?		YES	NO
If YES, specify and explain:			
Are their any special or sensitive habitats or other natural features present on any of the alternative sites?		YES	NO
If YES, specify and explain:			
Are any further specialist studies recommended by the specialist?		YES	NO
If YES, specify:			
If YES, is such a report(s) attached in Appendix D?		YES	NO

Signature of specialist: _____ Date: _____

Is the site(s) located on any of the following (cross the appropriate boxes)?

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
Shallow water table (less than 1.5m deep)	YES	NO X	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO X	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies) **Perched groundwater flows at the soil/rock interface are likely to become more prolific in the rainy months**	YES X	NO	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO X	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO X	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO X	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO X	YES	NO	YES	NO
An area sensitive to erosion	YES	NO X	YES	NO	YES	NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

A GEOTECHNICAL REPORT HAS BEEN PREPARED AND ATTACHED AS APPENDIX D.

According to the 2830 Dundee, 1:250 000 Geological Map Series the general area within which the site is located is underlain by medium to coarse grained sandstone and grey micaceous shale bedrock of the Vryheid Formation.

The investigation conducted indicate the site for the proposed development to be underlain by a mantle of transported and residual materials overlying weathered shale bedrock of the Volksrust Formation.

The transported materials comprising mainly colluvial soils are encountered on site occurring from the surface to depths ranging between 0.31 and 0.41m below existing ground level. These soils are described as dry, dark greyish brown to black, stained brown, medium dense / firm to stiff, intact, silty sands and silty sandy clays.

The residual shale materials as derived from the complete in situ weathering of the underlying shale bedrock was only encountered in IP1 at a depth of 0.42m below existing ground level. They are described as dry, dark greyish brown, firm to stiff, intact, silty sandy clays.

The underlying weathered shale bedrock occurs from the surface level as indicated in the exposures profiled to depths ranging between 0.42 and 0.67m below existing ground level. It is described as dark grey to black, stained brown and mottled orange,

highly to completely weathered, highly fractured, soft to medium hard rock strength improving with depth.

Groundwater Seepage
There was no groundwater seepage encountered in any of the investigative pits below existing ground level during investigation. It should be noted that there is a possibility that, during periods of prolonged rainfall, particularly during the summer season, there will be a marked increase in the occurrence and magnitude of groundwater seepage flow. Perched groundwater flows at the soil/rock interface are likely to become more prolific in the rainy months. Platforms intercepting this interface are likely to encounter groundwater seepage during these times.

4. GROUNDCOVER

Has a specialist been consulted for the completion of this section?			~~YES~~	NO
If YES, please complete the following:				
Name of the specialist:	Simon Bundy			
Qualification(s) of the specialist:	MSc Ecologist and Environmental			
Postal address:	SDP Ecological and Environmental Services P.O. Box 1016, Ballito			
Postal code:	4420			
Telephone:	(0)32 946 0685	Cell:		
E-mail:	simon@ecocoast.co.za	Fax:	(0)32 946 0784	
Are there any rare or endangered flora or fauna species (including red data species) present on any of the alternative sites?			YES	NO
If YES, specify and explain:				
Are their any special or sensitive habitats or other natural features present on any of the alternative sites?			YES	NO
If YES, specify and explain:				
Are any further specialist studies recommended by the specialist?			YES	NO
If YES, specify:				
If YES, is such a report(s) attached in Appendix D?			YES	NO

Signature of specialist: _____ Date: _____

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld - good condition[E]	Natural veld with scattered aliens[E]	Natural veld with heavy alien infestation[E]	Veld dominated by alien species[E]	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an "[E] "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

A ECOLOGICAL REPORT HAS BEEN PREPARED AND ATTACHED AS APPENDIX D.

Emathendeni lies within the catchment of the Sundays River, which is located some 5 kilometres to the north of the settlement. The area is part of a wide, generally flat to undulating terrain that is the elevated peneplain associated with the Sundays river. The area is underlain by a primarily Karoo and earlier sandstone geology, with occasional shale exposures and Jurassic dolerites being evident. Soils are fine, sandy to heavy clays, which are moderately to high erodible.

The predominant vegetation type in the region is classified by Mucina and Rutherford (2006) as 'Tugela Thornveld' (Figure 2), which is an Acacia dominated veld type. Sub canopy strata comprise primarily of grasses including Hyparrhenia hirta and Aristida junctiformis. Other common woody and succulent species within the veld type include Aloes, particularly A mudenensis and A marlothii, as well as Boscia albitrunca (a listed protected species), Euclea crispa and Ziziphus mucronata. From a conservation perspective, this veld type is considered to be of 'least concern", and does not constitute an area of conservation importance, as per the EKZNWildlife data.

The area in and around the site indicates no features that have been categorised as being of importance from a freshwater ecological perspective. Much of the wetland areas encountered in the region are related to the flood terraces of the Sundays River, while other wetland environments are anthropogenic in origin. No wetland environments were identified within 500m of the site in terms of the NFEPA data, although, as indicated below a dam and drainage line are evident to the north of the site.

The proposed project is therefore considered to have a low to very low impact on the prevailing ecology of the area. Measures to reduce impacts arising from the development of the soccer stadium include the establishment of suitable stormwater disposal mechanisms within the stadium and perhaps the use of locally endemic species, including Aloe marlothii in any landscaping that is to be undertaken

5. LAND USE CHARACTER OF SURROUNDING AREA

Cross the land uses and/or prominent features that currently occur within a 500m radius of the site and give a description of how this influences the application or may be impacted upon by the application:

Land use character			Description
Natural area	YES	NO	The predominant vegetation type in the region is classified by Mucina and Rutherford (2006) as 'Tugela Thornveld' (Figure 2), which is an Acacia dominated veld type. Sub canopy strata comprise primarily of grasses including Hyparrhenia hirta and Aristida junctiformis. Other common woody and succulent species within the veld type include Aloes, particularly A mudenensis and A marlothii, as well as Boscia albitrunca (a listed protected species), Euclea crispa and Ziziphus mucronata. From a conservation perspective, this veld type is considered to be of 'least concern", and does not constitute an area of conservation importance, as per the EKZNWildlife data.
Low density residential	YES	NO	The project area is rural in nature with settlements, gravel roads, subsistence farming including the keeping of cattle and goats
Medium density residential	YES	NO	
High density residential	YES	NO	
Informal residential	YES	NO	
Retail commercial & warehousing	YES	NO	
Light industrial	YES	NO	
Medium industrial	YES	NO	
Heavy industrial	YES	NO	
Power station	YES	NO	
Office/consulting room	YES	NO	
Military or police base/station/compound	YES	NO	
Spoil heap or slimes dam	YES	NO	
Quarry, sand or borrow pit	YES	NO	
Dam or reservoir	YES	NO	
Hospital/medical centre	YES	NO	
School/ crèche	YES	NO	
Tertiary education facility	YES	NO	
Church	YES	NO	
Old age home	YES	NO	
Sewage treatment plant	YES	NO	
Train station or shunting yard	YES	NO	
Railway line	YES	NO	
Major road (4 lanes or more)	YES	NO	
Airport	YES	NO	
Harbour	YES	NO	
Sport facilities	YES	NO	
Golf course	YES	NO	
Polo fields	YES	NO	
Filling station	YES	NO	
Landfill or waste treatment site	YES	NO	
Plantation	YES	NO	
Agriculture	YES	NO	

River, stream or wetland	YES	NO	
Nature conservation area	YES	NO	
Mountain, hill or ridge	YES	NO	
Museum	YES	NO	
Historical building	YES	NO	
Protected Area	YES	NO	
Graveyard	YES	NO	Two grave sites were encountered just outside the project area. The one site, situated furthest from the proposed sports field, contains 3 graves that belong to the Mthethwa clan and is located at: 28°38'43.5"S 30°07'04.8"E. The graves are made from packed rocks/stones and are situated approximately 40 m west of the boundary of the sports field.
Archaeological site	YES	NO	
Other land uses (describe)	YES	NO	

6. CULTURAL/ HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or within 20m of the site?	YES	NO

If YES, contact a specialist recommended by AMAFA to conduct a heritage impact assessment. The heritage impact assessment must be attached as an appendix to this report.

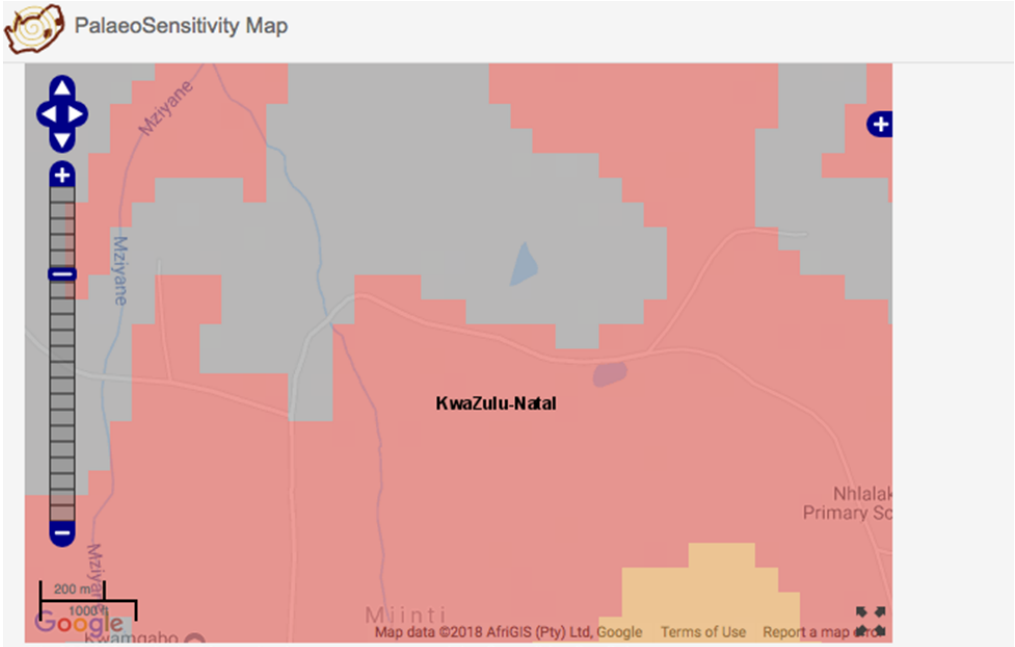
Briefly explain the recommendations of the specialist:	A specialist heritage study has been conducted, refer to appendix D for the complete study. Due to the proximity of the proposed Emathendeni sports field to the two grave sites, it is recommended that both grave sites are permanently fenced to avoid any damage to them during the construction and operation/use of the sports field. The fencing should be of sturdy / strong and durable material and must be highly visible to the construction crew. The fencing must incorporate a buffer of 2 m which means that there should be 2 m between the graves and the fence in which no construction can take place. From a heritage perspective, the proposed construction of the sports field can continue as long the recommendations and mitigation measures provided in this report are implemented and once the section 24G process has been concluded

Will any building or structure older than 60 years be affected in any way?	YES	NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO

If YES, please submit the necessary application to AMAFA and attach proof thereof to this report.

A HERITAGE IMPACT ASSESSMENT REPORT HAS BEEN PREPARED AND ATTACHED AS APPENDIX D.

The South African fossil sensitivity map shows that the area of the proposed sports field falls largely into an area of insignificant fossil sensitivity and partly into an area of very high sensitivity. An area of very high fossil sensitivity requires an on-site field assessment and an area of insignificant or zero fossil sensitivity requires no further studies. As the larger balance of the sports field falls within an area of insignificant fossil sensitivity and because the area is already disturbed, it is recommended that no further palaeontological studies are undertaken.



1 in 250 000 geological formation layers are courtesy of the Council for GeoScience

For more information, go to How to Use the Palaeontological (fossil) Sensitivity Map

Colour	Sensitivity	Required Action
RED	VERY HIGH	field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	desktop study is required
BLUE	LOW	no palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	no palaeontological studies are required
WHITE/CLEAR	UNKNOWN	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

Figure 11: Fossil sensitivity of project area

The project site was inspected on foot in the company of the project site agent and senior foreman respectively. Two grave sites were encountered just outside the project area. The one site, situated furthest from the proposed sports field, contains 3 graves that are located at: 28°38'43.5"S 30°07'04.8"E. The graves are made from packed rocks/stones and are situated approximately 40 m west of the proposed sports field.

The other grave site contain 5 graves and those buried there were killed during violence some years back and come from different families. The grave site is located at:

28°38'45.6"S 30°07'05.1"E and is situated 10 m west of the proposed sports field. These graves are also made from packed rock and stone. **Inside the sport field and near its eastern boundary, the remains of small sections of stone walling were found that, according to the site agent, were subdivided subsistence gardens of which the remaining gardens can still be found immediately outside the sports field. According to the site agent, the Ward Councillor and the Induna of the area agreed that some of the gardens could be incorporated into the sports field which led to their subsequent destruction. It is unclear how old the gardens are.** **No signs or remains of other heritage resources were found on the proposed sports field during the site inspection.**

SECTION D: PUBLIC PARTICIPATION

1. ADVERTISEMENT

Publication name	Ladysmith Gazette	
Date published	23 November 2018	
Site notice position	Latitude	Longitude
Date placed		

Newspaper advert published on 23 November 2018 in the Ladysmith Gazette news:

24 Ladysmith Gazette W/E Friday 23 November 2018

Classifieds

0700 MOTORING

0750 WANTED

We Buy
Cars & LDV'S for cash.
Contact 082 767 4476

We're HIRING

0800 VACANCIES

0877 DOMESTIC EMPLOYMENT / ACCOMMODATION

Domestic Required
Live in. -Must have experience with traceable references.
CVs to be dropped off @ the Ladysmith Gazette Offices, Pick n Pay Centre

VACANCY
SALES REP
Dynamic, hardworking individual required to ambitiously grow client base.
Exp in the FMCG Environment and knowledge of the inland routes will be adv.
Own vehicle req (fuel saver, relatively new and reliable).
Remuneration is R5000.00 basic, R2700.00 Car Allow, R300.00 Cell plus com and fuel.
Field marketers welcome to apply.
Candidate needs to reside in Ladysmith to draw stock from depot and distribute.
Interview will take place in Durban

0900 LEGALS

0910 PUBLIC / LEGAL NOTICES

CAUTION

F M C G Wholesaler Group Ladysmith Head Office is looking for a:
Sales Representative
You need to have the following in order to apply:
- Matric
- Drivers licence
- Traceable references.
- Minimum 3 years experience
EMAIL CV's to hrnkr@tfs.co.za

ESTATE NOTICE

ESTATE NOTICE
In the Estate of the Late ... Gapa, Identity Number: 211114 5035 085, Estate No: 8652/2017/PMB. Notice is hereby given that the First and Final Liquidation and Distribution Account in the above estate will be for inspection at the office of the Master of the High Court, Pietermaritzburg and the Magistrate's Office, Ladysmith for a period of twenty one days as from date of the publication hereof. ATTORNEYS FOR EXECUTOR, VISHNU MOODLEY AND COMPANY, SUITE 1, HILLSIDE PARK, 74 ALEXANDER STREET, LADYSMITH, 3370, TEL: 036-631 1645, FAX: 086-614 1732, OUR REF: V MOODLEY/KM/G213/0718131.

LEGAL

VRYHEID SALE
TUESDAY • 27 NOVEMBER 2018
11:00 at Auction Grounds
ON OFFER:-
150 CATTLE
- 20 Slaughter Cattle (B & C Grade)
- 30 Store & Trades
- 100 Weaners & Feeders

BKB LOUWID

NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION FOR EMATHENDENI SPORTS FIELD IN WARD 29 LADYSMITH, ALFRED DUMA LOCAL MUNICIPALITY, UTHUKELA DISTRICT
EDTEA REF DC23/524G/0002/2018

Project title: Emathendeni Sports field
Project proposal: The Emathendeni sports facility comprises a Soccer / Rugby sports field, Combo Courts comprising Volleyball, Netball and Basketball sports fields, Sports field multi-purpose building with changing rooms and ablutions, 2 Grandstands, Clear View fencing and Security / Guard House. The total footprint of development is 3 Ha.
Applicant: Alfred Duma Local Municipality
Location: 28°38'46"S 30°07'05"E Emathendeni area Ward 29 of Alfred Duma Municipality.

Interested and affected parties (I&AP) desiring to comment or object to the above application may do so within 30 (thirty) days from the date of publication of this notice.

Enquiries/comments to: Nokuthula Nyuswa
Tel : 084 201 3829
Fax: 086 519 0942
Email: info@fuzeenvironmental.co.za

FUZE ENVIRONMENTAL Services

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

(a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
  (i) the site where the activity to which the application relates is or is to be undertaken; and
  (ii) any alternative site mentioned in the application;

(b) giving written notice to—
  (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
  (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
  (v) the local and district municipality which has jurisdiction in the area;
  (vi) any organ of state having jurisdiction in respect of any aspect of the activity (as identified in the application form for the environmental authorization of this project); and
  (vii) any other party as required by the competent authority;

(c) placing an advertisement in—
  (i) one local newspaper; or
  (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;

(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and

(e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
  (i) illiteracy;
  (ii) disability; or
  (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

(a) indicate the details of the application which is subjected to public participation; and

(b) state—

(i) that an application for environmental authorization has been submitted to the KZN Department of Economic Development, Tourism & Environmental Affairs in terms of the EIA Regulations, 2010;(ii)
(iii) a brief project description that includes the nature and location of the activity to which the application relates;
(iv) where further information on the application can be obtained; and
(iv) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE PROCESS

The EAP must ensure that the public participation process is according to that prescribed in regulation 54 of the EIA Regulations, 2010, but may deviate from the requirements of subregulation 54(2) in the manner agreed by the KZN Department of Economic Development, Tourism & Environmental Affairs as appropriate for this application. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate.

Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before this application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations (regulation 57 in the EIA Regulations, 2010) and be attached as Appendix E to this report.

6. PARTICIPATION BY DISTRICT, LOCAL AND TRADITIONAL AUTHORITIES

District, local and traditional authorities (where applicable) are all key interested and affected parties in each application and no decision on any application will be made before the relevant

local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of this application and provided with an opportunity to comment.

Has any comment been received from the district municipality?	YES	NO

If "YES", briefly describe the feedback below (also attach any correspondence to and from this authority with regard to this application):

Still underway

Has any comment been received from the local municipality?	YES	NO

If "YES", briefly describe the feedback below (also attach any correspondence to and from this authority with regard to this application):

Still underway

Has any comment been received from a traditional authority?	YES	NO

If "YES", briefly describe the feedback below (also attach any correspondence to and from this authority with regard to this application):

Still underway

7. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?	YES	NO

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

Still underway

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

Still underway

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached as Appendix E to this report):

Still underway

2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Assumptions, Limitations and Gaps in knowledge:

A description of impacts used in this assessment was based on professional experience and judgement, projects conducted for similar projects within similar environments, as well as specialist input, site investigations and site-specific evaluations. In assessing the risks and impacts, the Precautionary Principle was applied.

The assessment is also underpinned by the project information, available drawings and layouts provided by the Applicant (via the engineer) at the time of the assessment and is taken to be correct.

IMPACT AND RISK ASSESSMENT

CONSTRUCTION, POST CONSTRUCTION/OPERATIONAL PHASE IMPACTS

Alternative A1 and S1: **Refer to EMPR for mitigation measures**

Aspect	Description of impact and risk	Brief Mitigation Summary
Direct and Indirect Impacts during Construction		
General Construction Related Impacts		

Geotechnical and design aspects	• Geology must be considered during construction, and selection of materials • An adequate design is required to ensure the integrity of the structures and the sporadic flow regimes	• All trenches and excavations must be properly backfilled and compacted in 150 mm thick layers and compacted to 95% of modified AASHTO density. • No foundations should be placed on fill unless the fill is engineered for this purpose. To optimise shallow foundation it is recommended that structures be positioned in areas of cut of building platforms as far as possible. • As a general indication, subgrade treatment should comprise a simple rip and recompact procedure. The surface of the sports field should therefore be ripped to at least 300mm depth, wet and recompacted to a minimum density of 90% Modified AASHTO and Optimum Moisture Content (OMC). • It is expected that the paved areas and internal roads will be lightly trafficked within the structures. The layer works should therefore be designed by a competent engineer for the anticipated traffic loads. Generally, it will suffice to treat the in situ subgrade material by ripping to a minimum depth of 150mm (or as required by the roads design Engineer) and recompact to a minimum 93% Mod AASHTO dry density. • A most important factor in the promotion of a stable site is the control and removal of both surface and groundwater from the site. Such water should be directed towards the natural surface drainage lines. Disposal of stormwater should conform to the Local Authority's requirements. • Surface drainage of building platforms should be designed to direct water away from fill edges to prevent overtopping of the fill crest and erosion of the fill embankment slopes. It is important that grassing of fill embankments be carried out as soon as possible after construction. • No accumulation of surface water is permitted and the entire development must be properly drained. • Control of both surface and potential subsoil seepage is essential on this site to protect the works against the ingress of water. Control of surface drainage should be by means of the installed surface drains.

Watercourse and Soil Impacts **Surface and ground water quality, storm water runoff, erosion** (general construction impacts)-	• Spillage of cement powder, waste, can cause pollution of both surface and subsurface water and eventually pollute. • Increased hard panned area will be available from pavement construction. Surrounding soils are susceptible to erosion. • Excavation, earth moving, and vehicular movement will increase the susceptibility of the site to erosion during the construction phase	• Oil spill kits must be available on site. • Oil/hydrocarbon/chemical/cement spills must be prevented in the first instance and cleaned immediately upon discovery. • Formal storm water management measures and erosion protection measures must be implemented.

Access (general construction impacts)	• Increase in traffic resulting from construction can be expected.	• Existing accesses are to be used.
Waste (general construction impacts)	• Generation of waste will be expected during construction.	• Adequate waste management facilities

Noise (general construction impacts)	• Operation of construction equipment, movement staff will generate a potential for increased noise at the work area.	• Vehicles must adhere to speed limits and be serviced according to a service schedule.
Air quality (general construction impacts)	• Dust entrainment and vehicular emissions (exhaust fumes) are expected during construction, from driving of vehicles on cleared surfaces, and operation of equipment, stripped groundcover/soil/bare surfaces, stockpiles	• Vehicles must adhere to speed limits at all times. • Dampening of exposed surfaces must be undertaken to reduce dust emissions, as required.

Waste management (general construction impacts)	• Waste will be generated by construction activity and crew. This includes waste rock/spoil, plastic, paper, steel, concrete rubble, bitumen, recyclables etc.	• Waste receptacles (bins or skips, or sealable drums) are required on site for waste management
Safety, security (general construction impacts)	• During construction, opportunities may be presented for crime to occur. • Safety risks to staff and community members via excavations and construction traffic can occur.	• The site camp must be fenced, work areas to be demarcated, and warning signage must be used.

Heritage and Palaeontology	• During construction, subsurface artefacts and fossils may be uncovered from excavations. No cultural elements are expected to be affected. No relocation of communities or cultural and religious elements will be required.	• For any chance finds of heritage resources all work must cease in the area affected and the Contractor must immediately inform the Project Manager. A registered heritage specialist must be called to site for inspection. The relevant heritage resource agency (Amafa) must also be informed about the finding. • The heritage specialist will assess the significance of the resource and provide guidance on the way forward. • Written permission (permits) must be obtained from Amafa if heritage resources are to be altered, destroyed or removed. • Any other heritage resources found in close proximity to the construction area that were not identified during the site inspection must be protected by a 2 m buffer in which no construction can take place. The buffer material (danger tape, fencing, etc.) must be highly visible to construction crews. • Under no circumstances may any heritage material be destroyed or removed from site unless under direction of a heritage specialist. • Should any remains be found on site that are potentially human remains, the South African Police Service (SAPS) should also be contacted. No SAPS official may disturb or exhume such remains, whether of recent origin or not, without the necessary permission.
Habitat disturbance and loss	• Increased surface runoff due to removal of vegetation	• Stormwater management and disposal of stormwater from site should be given consideration. Stormwater should be subject to attenuation with the use of energy dissipation and perhaps, water harvesting and conservation measures should be instituted. It would be advisable to dispose of all stormwater onto the soccer pitch, rather than external to the site.

	• Loss of habitat and biodiversity.	• Aloe marlothii and endemic species may be considered in respect of landscaping in and around the site.
Storm water run off	• A most important factor in the promotion of a stable site is the control and removal of both surface and groundwater from the site. Such water should be directed towards the natural surface drainage lines. Disposal of stormwater should conform to the Local Authority's requirements.	• Storm water management needs to be undertaken during the construction phase and a formal storm water control system must be included in the design for the operational phase.

Post Construction and Operation		
Rehabilitation	• Disturbed areas can pose weed and erosion concerns, collapse of embankments and structural failure, should proper reinstatement and rehab not occur.	• Rapid revegetation of disturbed areas is essential. This is best done using grass turf or seed.
Cumulative impacts		

Socio-economic **(+)**	• The project construction will provide temporary employment for locals. • No impacts are expected on businesses in the area, but conversely the local markets will benefit from the construction through increased business and sales opportunities, including supply and delivery of materials. • In the long term, the sports facility will enhance community development.	• Local labour must be given preference for job opportunities, with women being further preference. • In addition, in terms of routine maintenance of the infrastructure, women should additionally be given preference for such work.
No Go		
There will be no opportunities for local construction suppliers and contractors to benefit from the proposed development		

Should the sportfield facility not be constructed, the existing status quo will be maintained.

IMPACTS/RISK RATING:

Impact		Before							After						
		N	M	S	E	D	P	Total	N	M	S	E	D	P	Total
Construction related impacts		-1	1	2	1	1	1	-4	-1	1	2	1	1	0.8	-3.6
Habitat disturbance and loss		-1	2	2	1	4	1	-20	-1	1	2	1	4	1	-10
Increased storm water runoff		-1	1	2	1	4	1	-10	-1	1	2	1	4	0.8	-8.4
Hydrological changes		-1	1	2	1	4	1	-10	-1	1	2	1	4	0.8	-8.4
Erosion and sedimentation		-1	1	2	1	4	1	-10	-1	1	2	1	4	0.8	-8.4
Socio-economic		1	1	1	2	1	4	+12	1	1	2	2	2	12	+12

2.1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN PHASE

a. Site alternatives

List the potential impacts associated with site alternatives that are likely to occur during the planning and design phase:

Alternative S1 (preferred alternative)

Direct impacts:

- ***Access to site***
- ***Setting up the construction camp***
- ***Establishing Equipment Lay-Down & Storage Areas***
- ***Stormwater***

Indirect impacts:

- ***Loss of natural vegetation***
- ***Soil Erosion***

Cumulative impacts:

- **None**

Alternative S2 (if any)

Direct impacts: N/A

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

- ***New jobs will not be created***
- ***Loss of boost to local GDP***

Indirect impacts:

- ***N/A***

Cumulative impacts:

- **N/A**

Indicate mitigation measures to manage the potential impacts listed above:

Alternative S1	Alternative S2
• Access to site must be via existing roads only • No trees / shrubs / groundcover may be removed or vegetation stripped without prior permission of the Engineer / Project Manager or ECO • Temporary advance warning "construction traffic ahead" signs to be erected where construction access is to be taken, as well as in areas which may pose a hazard to motorists or pedestrians • This layout plan is to be submitted prior to site establishment for acceptance. Any changes to this plan require review by the Project Manager in conjunction with the ECO. The Contractor will take into account prevailing wind directions when designing the site layout to minimize impacts due to dust, unpleasant odours etc • Topsoil is to be stripped from all areas where permanent or temporary structures are to be constructed • Temporary chemical toilets must be provided by a company approved by the Engineer / Project Manager. Such facilities, which shall comply with local authority regulations, shall be maintained in a clean and hygienic condition. Their use shall be strictly enforced. They must	N/A

be positioned in an appropriate place and within 100m of the work font • Bins and / or skips shall be provided at convenient intervals for the disposal of waste within the camp. The bins must be covered to prevent wind-blown • Choice of location for equipment lay-down and storage areas must take into account prevailing winds, distances to water bodies, general on-site topography and water erosion potential of the soil • Equipment lay-down and storage areas must be designated, demarcated, signed and fenced.	

b. Process, technology, layout or other alternatives

List the impacts associated with any process, technology, layout or other alternatives that are likely to occur during the planning and design phase (please list impacts associated with each alternative separately):

Alternative A1 (preferred alternative)

Direct impacts:
- ***NONE***

Indirect impacts:
- ***Technology applies to the proposed development in respect to the servicing of the development***
- ***The property on which development is proposed is not serviced at present. In order to minimise environmental impacts associated with the installation of bulk service supply infrastructure, the Project Team investigated ways to supply services to incorporate the latest technology in terms of energy and water efficiency. These efficiencies are beneficial to both running costs and the environment as a whole***
- ***The buildings were designed to optimise the space provided***
- ***Factors such as the slope angle and slope direction were taken into consideration in the design phase to ensure optimum positioning of the sportfield thus minimising environmental impacts***

Cumulative impacts:
- ***Inappropriate positioning would result in increased construction costs***

Alternative A2 (if any)

Direct impacts:
- ***NONE***

Indirect impacts:
- ***Technology applies to the proposed development in respect to the servicing of the development***
- ***The property on which development is proposed is not serviced at present. In order to minimise environmental impacts associated with the installation of bulk service supply infrastructure, the Project Team investigated ways to supply services to incorporate the latest technology in terms of energy and water efficiency. These efficiencies are beneficial to both running costs and the environment as a whole***
- ***The buildings were designed to optimise the space provided to fit in allocated site***
- ***Factors such as the slope angle and slope direction were taken into consideration in the design phase to ensure optimum positioning of sportfield thus minimising environmental impacts***

Cumulative impacts:
- ***Inappropriate positioning would result in increased construction costs***

No-go alternative (compulsory)

Direct impacts:
- ***New jobs will not be created***
- ***Loss of boost to local GDP***

Indirect impacts:
- ***N/A***

Cumulative impacts:
- **N/A**

Indicate mitigation measures to manage the potential impacts listed above:

Alternative A1:	Alternative A2:
• Strict adherence to Engineers structural designs.	N/A

2.2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION PHASE

a. Site alternatives

List the potential impacts associated with site alternatives that are likely to occur during the construction phase:

Alternative S1 (preferred site)

Direct impacts:

- ***Soil disturbance and potential loss of topsoil***
- ***Job creation for professional skilled, semi-skilled, unskilled construction workers.***
- ***Job creation for skilled professionals.***
- ***Noise and dust pollution during construction resulting from movement of construction machinery, plant equipment and vehicles.***

Indirect impacts:

- ***Movements of trucks delivering construction material, and other construction activities will constitute the main impacts during the construction phase***
- ***Contamination of the environment by poorly managed solid wastes and / or liquid contaminants***
- ***Clearance of vegetation will result in aesthetic /visual impacts and air quality impacts (dust)***
- ***Most of the cement which will be utilised during construction will be delivered to the site, premixed, by a supplier. There may, however, be a need to mix small amounts of concrete on the site. This presents a contamination risk to soils and water resources***
- ***Increased opportunity for the encroachment of alien vegetation on site***
- ***The influx of workers to the site will result in increased expenditure, for food, accommodation and entertainment, within the local economy, generating economic growth in the region***

Cumulative impacts:

- ***Skills development for construction workers***
- **Increased revenue for construction material suppliers**
- **Due to the small size of the area to be transformed, it is not anticipated that the faunal movement and behaviour will be significantly altered**

Alternative S2 (if any)

Direct impacts: N/A

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

- ***If the no-go alternative were to be pursued, the environmental, social and economic status quo would remain***
- ***New job opportunities will not be created***

Indirect impacts:

- ***There will be no opportunities for local construction suppliers and contractors to benefit from the proposed development***

Cumulative impacts:

- ***There will be no development of skills for construction workers***

Indicate mitigation measures to manage the potential impacts listed above:

Alternative S1	Alternative S2
• The site shall only be cleared immediately prior to construction activities commencing i.e. at the last practicable stage • Proper topsoil management should be implemented in accordance EMPr conditions. • The topsoil must be stripped together with vegetation prior to commencement of construction. • Topsoil must handled twice only, prior to construction and for rehabilitation purposes. • Topsoil stockpiles must not exceed 2m in height and must be kept clear of alien species. • Dust can be controlled by dampening the exposed areas during windy conditions. • Local construction material suppliers should be used where possible. • The access to the construction camp site will need to be upgraded to an acceptable standard during construction (i.e. such that large amounts of dust is not generated, improve surface of road to prevent vehicles sliding on wet and muddy surface during heavy rainfall events and no unwarranted damage caused to construction, neighbour and visitor's vehicles) • The Contractor must monitor and manage drainage of the camp site • Temporary chemical toilets must be provided by a company approved by the Engineer • There shall be a minimum of 1 toilet for every 20 workers and these should be situated no further than 100m from the work front • The Contractor shall ensure that all litter is collected from the work and camp areas daily • The Contractor shall ensure that the camp and working areas are kept clean and tidy at all times • No open fires will be allowed anywhere on site • Stormwater outfalls must be designed to reduce flow velocity and avoid stream bank and soil erosion • The site must be kept clean to minimise the visual impact of the site	N/A

b. Process, technology, layout or other alternatives

List the impacts associated with process, technology, layout or other alternatives that are likely to occur during the construction phase (please list impacts associated with each alternative separately):

Alternative A1 (preferred alternative)

Direct impacts:

- ***Soil disturbance and potential loss of topsoil***
- ***Job creation for professional skilled, semi-skilled, unskilled construction workers.***
- ***Job creation for skilled professionals.***
- ***Noise and dust pollution during construction resulting from movement of construction machinery, plant equipment and vehicles.***

Indirect impacts:

- ***Increased opportunity for the establishment of alien vegetation on site and in the surrounding area due to earth works.***
- ***Increased revenue for construction material suppliers.***

Cumulative impacts:

- ***Skills development for construction workers***

Alternative A2

Direct impacts:

- ***Soil disturbance and potential loss of topsoil***
- ***Job creation for professional skilled, semi-skilled, unskilled construction workers.***
- ***Job creation for skilled professionals.***
- ***Noise and dust pollution during construction resulting from movement of construction machinery, plant equipment and vehicles.***

Indirect impacts:

- ***Increased opportunity for the establishment of alien vegetation on site and in the surrounding area due to earth works.***
- ***Increased revenue for construction material suppliers.***

Cumulative impacts:

- ***Skills development for construction workers***

No-go alternative (compulsory)

Direct impacts:

- ***If the no-go alternative were to be pursued, the environmental, social and economic status quo would remain***
- ***New job opportunities will not be created***

Indirect impacts:

- ***There will be no opportunities for local construction suppliers and contractors to benefit from the proposed development***

Cumulative impacts:

- ***There will be no development of skills for construction workers***

Indicate mitigation measures to manage the potential impacts listed above:

Alternative A1:	**Alternative A2:**
• The site shall only be cleared immediately prior to construction activities commencing i.e. at the last practicable stage • Proper topsoil management should be implemented in accordance EMPr conditions. • The topsoil must be stripped together with vegetation prior to commencement of construction. • Topsoil must handled twice only, prior to construction and for rehabilitation purposes. • Topsoil stockpiles must not exceed 2m in height and must be kept clear of alien species. • Dust can be controlled by dampening the exposed areas during windy conditions. • Local construction material suppliers should be used where possible. • The Contractor must monitor and manage drainage of the camp site • Temporary chemical toilets must be provided by a company approved by the Engineer • There shall be a minimum of 1 toilet for every 20 workers and these should be situated no further than 100m from the work front • The Contractor shall ensure that all litter is collected from the work and camp areas daily • The Contractor shall ensure that the camp and working areas are kept clean and tidy at all times • No open fires will be allowed anywhere on site • Stormwater outfalls must be designed to reduce flow velocity and avoid stream bank and soil erosion	N/A

• The site must be kept clean to minimise the visual impact of the site	

2.3. IMPACTS THAT MAY RESULT FROM THE OPERATIONAL PHASE

a. Site alternatives

List the potential impacts associated with site alternatives that are likely to occur during the operational phase:

Alternative S1 (preferred alternative)

Direct impacts:
- ***Solid Waste***
- ***Energy Consumption***
- ***Water Consumption***
- ***Fires and other emergencies***
- ***Alien Invasive Species***
- ***Increased hardened surfaces will lead to an increase in runoff, which in turn may lead to increased risk of erosion at stormwater discharge points***

Indirect impacts:
- ***Increase in electricity demand***
- ***Increase in water demand***
- ***Slight increase in traffic on local road network***

Cumulative impacts:
- ***Increased standard of living and job security for those employed and their dependents.***
- ***Increased GDP for Municipality.***

Alternative S2 (if any)

Direct impacts: N/A

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:
- ***If the no-go alternative were to be pursued, the environmental, social and economic status quo would remain***
- ***New job opportunities will not be created***

Indirect impacts:
- ***There will be no opportunities for local construction suppliers and contractors to benefit from the proposed development***

Cumulative impacts:
- ***There will be no development of skills for construction workers***

Indicate mitigation measures to manage the potential impacts listed above:

Alternative S1	Alternative S2
• All waste must be removed from the site and transported to a registered landfill site • Refuse must be placed in the designated skips / bins which must be regularly Emptied. These must remain within demarcated areas and should be covered to	N/A

prevent wind-blown rubbish and scavenging by people and animals • Switch off all electrical equipment, appliances and lights when not in use • Install energy saving fluorescent tubes at all lighting points instead of bulbs which consume more electricity • All leaking pipes, tapes and connections on the property must be repaired/fixed immediately when found • Conserve water e.g. avoid unnecessary toilet flushing • Install automatic fire alarm system to detect fires • All fire fighting equipment must be strategically positioned, regularly maintained and serviced • Rehabilitate disturbed areas as quickly as practically possible following completion of construction activities in an area	

b. Process, technology, layout or other alternatives

List the impacts associated with process, technology, layout or other alternatives that are likely to occur during the operational phase (please list impacts associated with each alternative separately):

Alternative A1 (preferred alternative)

Direct impacts:
- ***Increased stormwater runoff.***
- ***Job creation and skills development.***

Indirect impacts:
- ***Slight increase in electricity demand***
- ***Slight increase in water demand***
- ***Slight increase in traffic on local road network***

Cumulative impacts:
- ***Increased standard of living and job security for those employed and their dependents.***
- ***Increased GDP for Municipality***

Alternative A2

Direct impacts:
- ***Increased stormwater runoff.***
- ***Job creation and skills development.***

Indirect impacts:
- ***Slight increase in electricity demand***
- ***Slight increase in water demand***
- ***Slight increase in traffic on local road network***

Cumulative impacts:
- ***Increased standard of living and job security for those employed and their dependents.***

Increased GDP for Municipality

No-go alternative (compulsory)
- ***If the no-go alternative were to be pursued, the environmental, social and economic status quo would remain***
- ***New job opportunities will not be created***

Indirect impacts:
- ***There will be no opportunities for local construction suppliers and contractors to benefit from development***

Cumulative impacts:
- ***There will be no development of skills for construction workers***

Indicate mitigation measures to manage the potential impacts listed above:

Alternative A1 **Alternative A2**

• Employment must be offered to members of the local community before approaching communities farther afield. • All staff must receive regular training on best practice. • The entire facility must be fully maintained and regularly inspected for operational efficiency and sustainability.	N/A

2.4. IMPACTS THAT MAY RESULT FROM THE DECOMISSIONING OR CLOSURE PHASE

a. Site alternatives

List the potential impacts associated with site alternatives that are likely to occur during the decommissioning or closure phase:

Alternative S1 (preferred alternative)

Direct impacts:
- ***Decommissioning the facility would create rubble and waste/scrap metal.***
- **Erosion could occur if the cleared site is not rehabilitated.**
- **Alien vegetation could invade the site following site clearance.**
- **Jobs would be lost if a new facility was not established.**

Indirect impacts:
- **Decrease in the standard of living for those who have lost their jobs (and associated dependents) if no new employment opportunities were created.**

Cumulative impacts:
- **The facility will no longer help enhance community development.**

Alternative S2

Direct impacts: N/A

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:
- ***If the no-go alternative were to be pursued, the environmental, social and economic status quo would remain***
- ***New job opportunities will not be created***

Indirect impacts:
- ***There will be no opportunities for local construction suppliers and contractors to benefit from the development***

Cumulative impacts:
- ***There will be no development of skills for construction workers***

Indicate mitigation measures to manage the potential impacts listed above:

Alternative S1	**Alternative S2**
• If waste rubble cannot be used in the area, it must be transported to the Municipal landfill site for disposal. • Any scrap metal must be transferred to a metal recycling depot. • Bare soil must be re-vegetated to avoid windblown dust and erosion (and thus sedimentation of water courses). The sites should either be vegetated with indigenous vegetation or crops.	N/A

• An alien vegetation control plan must be implemented on the site following decommissioning.	

b. Process, technology, layout or other alternatives

List the impacts associated with process, technology, layout or other alternatives that are likely to occur during the decommissioning or closure phase (please list impacts associated with each alternative separately):

Alternative A1 (preferred alternative)

Direct impacts:
- ***Decommissioning the facility would create rubble and waste/scrap metal***
- ***Erosion could occur if the cleared site is not rehabilitated***
- ***Alien vegetation could invade the site following site clearance***
- ***Jobs would be lost if a new facility is not established***
- ***Skills development would also be lost if the facility is not established***

Indirect impacts:
- ***There will be no opportunities for local construction suppliers and contractors to benefit from the proposed development***

Cumulative impacts:
- ***The facility will no longer help enhance community development.***

Alternative A2

Direct impacts:
- ***Decommissioning the facility would create rubble and waste/scrap metal***
- ***Erosion could occur if the cleared site is not rehabilitated***
- ***Alien vegetation could invade the site following site clearance***
- ***Jobs would be lost if a new facility is not established***
- ***Skills development would also be lost if the facility is not established***

Indirect impacts:
- ***There will be no opportunities for local construction suppliers and contractors to benefit from the proposed development***

Cumulative impacts:
The facility will no longer help enhance community development.

No-go alternative (compulsory)

Direct impacts:
- ***If the no-go alternative were to be pursued, the environmental, social and economic status quo would remain***
- ***New job opportunities will not be created***

Indirect impacts:
- ***There will be no opportunities for local construction suppliers and contractors to benefit from the proposed development***

Cumulative impacts:
- ***There will be no development of skills for construction workers***

Indicate mitigation measures to manage the potential impacts listed above:

Alternative A1	Alternative A2
• If waste rubble cannot be used in the area, it must be transported to the nearest registered landfill site for disposal. • Any scrap metal must be transferred to a metal recycling depot. • Bare soil must be re-vegetated to avoid windblown dust and erosion (and thus sedimentation of water	N/A

courses). The sites should either be vegetated with indigenous vegetation or crops. • An alien vegetation control plan must be implemented on the site following decommissioning.	

2.5. PROPOSED MONITORING AND AUDITING

For each phase of the project and for each alternative, please indicate how identified impacts and mitigation will be monitored and/or audited.

Alternative S1 (preferred site)	Alternative S2
• It is recommended that the Environmental Management Programme (EMPr) be implemented for all phases of the development. • This EMPr must be used to monitor the site on a monthly basis during construction and the first six months of operation. Audits will then be reduced if environmental compliance is satisfactory. • Auditing must be conducted by an independent Environmental Control Officer in order to ensure compliance with all aspects of environmental management and responsibility.	N/A

Alternative A1 (preferred alternative)	Alternative A2

3. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative S1 (preferred site)

The project will result in limited negative environment impacts during the construction phase. However, the proposed project will result in an overall positive impact on the socio-economic environments of the area during the operational phase.

During the construction phase, the following negative environmental impacts were identified:

- **Loss of vegetation**
- **Dust and visual impacts**
- **Ground contamination**
- **Waste generation**
- **Increased stormwater runoff**

These potential impacts on the environment in the area were assessed to be of low significance. These impacts would be minimised through the implementation of the EMPr.

There were also positive impacts from the project. Mainly the potential employment opportunities during construction and operational phases. It should be realised that any employment opportunities generated

by a project would result in significant positive benefits to an area with a low employment rate. Also the construction of the sportfield will enhance community development. **As long as all recommendations are taken into account and due procedures are followed, it is likely that the potentially negative environmental impacts can be minimised and/or avoided altogether.**

Alternative S2

N/A

No-go alternative (compulsory)

The No-Go alternative would result in the status quo continuing on the site. New employment opportunities would be lost both during the construction and operational phases.

Section F: Recommendation of EAP

Is the information contained in this report and the documentation attached hereto in the view of the EAP sufficient to make a decision in respect of this report? If "NO", please contact the KZN Department of Economic Development, Tourism & Environmental Affairs regarding the further requirements for your report.	YES	NO

If "YES", please attach the draft EMPr as Appendix F to this report and list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

Conditions to be added in the Environmental Authorisation

- Access to site must be via existing roads only
- New access routes must be clearly defined with white stakes/painted rocks and disturbance outside these areas is not permitted
- All roads for construction access must be planned and approved by the Engineer / Project Manager and ECO ahead of construction activities. They must not be created on an ad-hoc basis
- Temporary advance warning "construction traffic ahead" signs to be erected where construction access is to be taken, as well as in areas which may pose a hazard to motorists or pedestrians
- This layout plan is to be submitted prior to site establishment for acceptance. Any changes to this plan require review by the Project Manager in conjunction with the ECO. The Contractor will take into account prevailing wind directions when designing the site layout to minimize impacts due to dust, unpleasant odours etc

- Site security lighting is to be positioned such that the direct beam is focused away from adjacent residential properties and businesses and does not pose a nuisance or danger to road users
- Topsoil is to be stripped from all areas where permanent or temporary structures are to be constructed
- Temporary chemical toilets must be provided by a company approved by the Engineer / Project Manager. Such facilities, which shall comply with local authority regulations, shall be maintained in a clean and hygienic condition. Their use shall be strictly enforced. They must be positioned in an appropriate place and within 100m of the work font
- Bins and / or skips shall be provided at convenient intervals for the disposal of waste within the camp. The bins must be covered to prevent wind-blown
- Choice of location for equipment lay-down and storage areas must take into account prevailing winds, distances to water bodies, general on-site topography and water erosion potential of the soil
- Equipment lay-down and storage areas must be designated, demarcated, signed and fenced.
- The site shall only be cleared immediately prior to construction activities commencing i.e. at the last practicable stage
- Proper topsoil management should be implemented in accordance EMPr conditions.
- The topsoil must be stripped together with vegetation prior to commencement of construction.
- Topsoil must handled twice only, prior to construction and for rehabilitation purposes.
- Topsoil stockpiles must not exceed 2m in height and must be kept clear of alien species.
- Dust can be controlled by dampening the exposed areas during windy conditions.
- Local construction material suppliers should be used where possible.
- The Contractor must monitor and manage drainage of the camp site
- Temporary chemical toilets must be provided by a company approved by the Engineer
- There shall be a minimum of 1 toilet for every 20 workers and these should be situated no further than 100m from the work front
- The Contractor shall ensure that all litter is collected from the work and camp areas daily
- The Contractor shall ensure that the camp and working areas are kept clean and tidy at all times
- No open fires will be allowed anywhere on site
- Stormwater outfalls must be designed to reduce flow velocity and avoid stream bank and soil erosion
- The site must be kept clean to minimise the visual impact of the site

Section G: Appendixes

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information