



higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

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Proposed Development of Further Education Training College (FET) in Greytown, Kwa-Zulu Natal

DRAFT BASIC ASSESSMENT REPORT

DEA Reference: 14/12/16/3/3/1/1034

PREPARED BY:



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P.O. BOX 1673
SUNNINGHILL
2157

23 Jan Hofmeyer Drive
WESTVILLE
3630

Tel: 031 266 3884
Fax: 031 266 5287
Email: info@nemai.co.za



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

(For official use only)

File Reference Number:

Application Number:

Date Received:

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of **1 September 2012**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily 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 typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. 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 may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. 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.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

BASIC ASSESSMENT REPORT

14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?

YES	NO X
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If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

Proposed Development of Further Education Training College (FET) in Greytown, Kwa-Zulu Natal

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN R.544, 545 and 546	Description of project activity
<p>Example: GN R.544 Item 11(3): The construction of a bridge where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p>	<p>A bridge measuring 5 m in height and 10m in length, no wider than 8 meters will be built over the Orange river</p>
<p>GN R.544 Item 23(i): The transformation of undeveloped, vacant or derelict land to: residential, retail, commercial, recreational, industrial or institutional use, inside an urban area, and where the total area to be transformed is 5 hectares or more, but less than 20 hectares.</p>	<p>The transformation of approximately 10 hectares of land for the development of accommodation and education facilities for a new Further Education Training (FET) college in Greytown.</p>
<p>GN R.544 Item 11(3): The construction of a bridge where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p>	<p>The proposed FET college will be constructed within 32m from a wetland.</p>

BASIC ASSESSMENT REPORT

<p>GN R.544 Item 18The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from:</p> <ul style="list-style-type: none">(i) a watercourse;(ii) the sea;(iii) the seashore;(iv) the littoral active zone, an estuary or a distance of 100 metres inland of the highwater mark of the sea or an estuary, whichever distance is the greater but excluding where such infilling, depositing , dredging, excavation, removal or moving; <p>(a) is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or</p> <p>(b) occurs behind the development setback line.</p>	<p>The proposed wetland may be infilled as part of the construction process. Furthermore, excavation of material and the depositing of material may also take place during the construction phase.</p>
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2. 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 application as required by Regulation 22(2)(h) of GN R.543. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) 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.

BASIC ASSESSMENT REPORT

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.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Please Note: There is only one Site Alternative for the proposed project. Other site alternatives will not be considered as these sites were chosen as there is a lack tertiary facilities within the identified areas.

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Construction of a new FET College in Greytown	29° 03' 39"S	30° 36' 48"E
Alternative 2		
Alternative 3		

In the case of linear activities:

Alternative:	Latitude (S):	Longitude (E):
Alternative S1 (preferred)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S2 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S3 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A.

BASIC ASSESSMENT REPORT

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Construction of a new FET College in Greytown - Layout A	29° 03' 39"S	30° 36' 48"E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Construction of a new FET College in Greytown - Layout B	29° 03' 39"S	30° 36' 48"E
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
Construction of a new FET College in Greytown - Layout C	29° 03' 39"S	30° 36' 48"E

Greytown – Layout A Description:

This option will occupy 10.9hectares as illustrated in the map below:

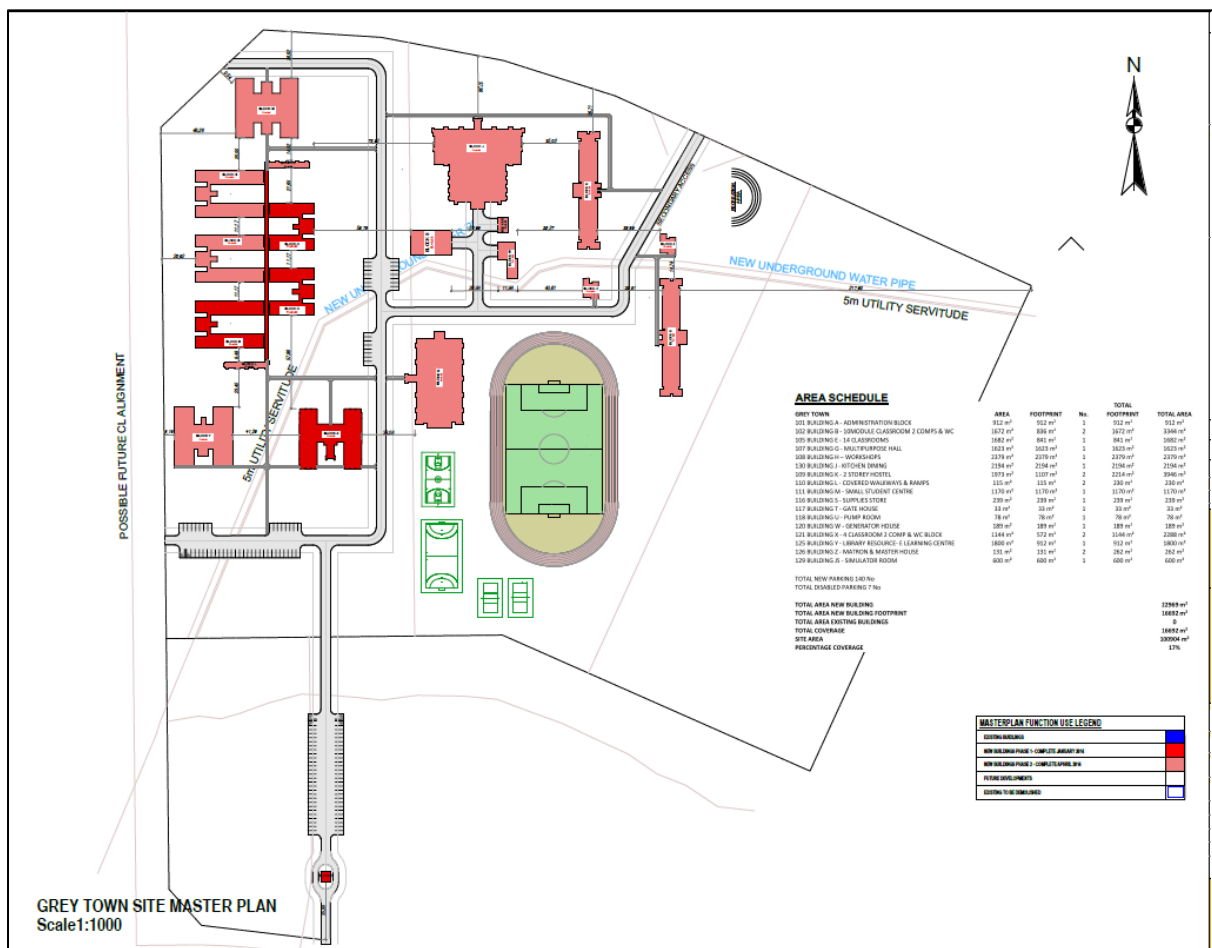


Figure 1: Map showing alternative layout A for the proposed Greytown FET College

BASIC ASSESSMENT REPORT

This layout alternative will consist of the following:

- Administration building;
- 2 X Computer rooms;
- 10 X Classroom blocks with toilet facilities;
- A 14 classroom block (no toilet facility);
- A multipurpose hall;
- A workshop / training hall;
- A kitchen;
- Double storey student hostels;
- Open and Covered walkways and access ramps;
- Supplies storeroom;
- Pump house.
- Covered carports;
- Generator house;
- 2 X Computer classroom and 4 X classroom;
- Boarding master / matrons house;
- Simulator rooms;
- Student centre;
- Gate house;
- Sports pitches;
- New roads;
- Other associated infrastructure i.e. water, sewer, pipelines etc.

Greytown – Layout B Description:

This option will occupy 10 hectares as illustrated in the map below:

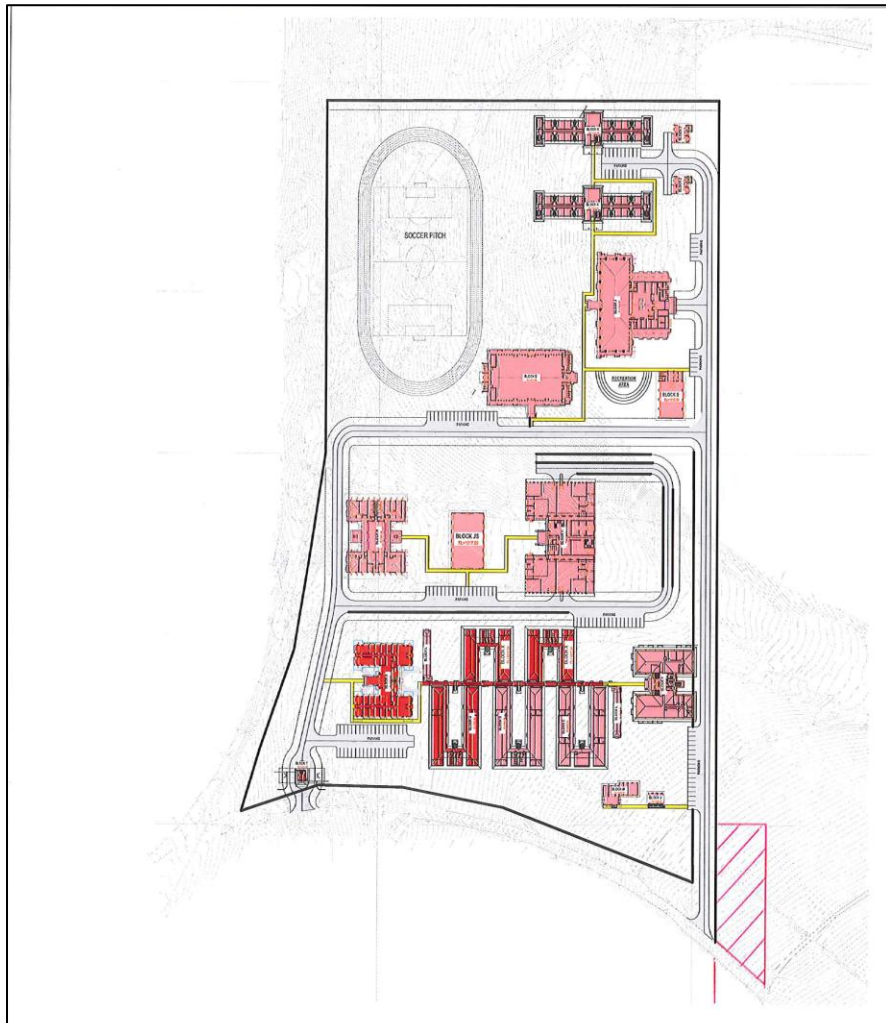


Figure 2: Map showing alternative layout B for the proposed Greytown FET College

BASIC ASSESSMENT REPORT

This layout alternative will consist of the following:

- Administration building;
- 2 X Computer rooms;
- 10 X Classroom blocks with toilet facilities;
- A single storey library resource / e-learning centre;
- An 8 module classroom block with toilet facility;
- A 14 classroom block (no toilet facility);
- A lecture theatre;
- A multipurpose hall;
- A workshop / training hall;
- A kitchen;
- Double storey student hostels;
- Covered walkways and access ramps;
- 10 Module classroom (no toilet facility);
- 16 Module classroom (4 storey – with toilet facility);
- 20 Module classroom (4 storey – no toilet facility);
- 4 storey student hostels;
- Supplies storeroom;
- Pump house;
- Covered carports;
- Generator house;
- 2 X Computer classroom and 6 X classroom with toilet facilities;
- Large library resource / e-learning centre (double storey);
- Boarding master / matrons house;
- Open masonry workshop shed;
- General Workshop;
- Simulator rooms;
- Student centre;
- Staff housing; open walkways;
- Waste / skip enclosures;
- Planter boxes;
- Open walkways;
- Parking courts;
- Landscaped courtyards;
- Mash lands / water treatment;
- Tennis court, soccer pitch and recreation areas;
- New roads.

Greytown – Layout C Description:

This layout will be approximately 10.5 hectares.

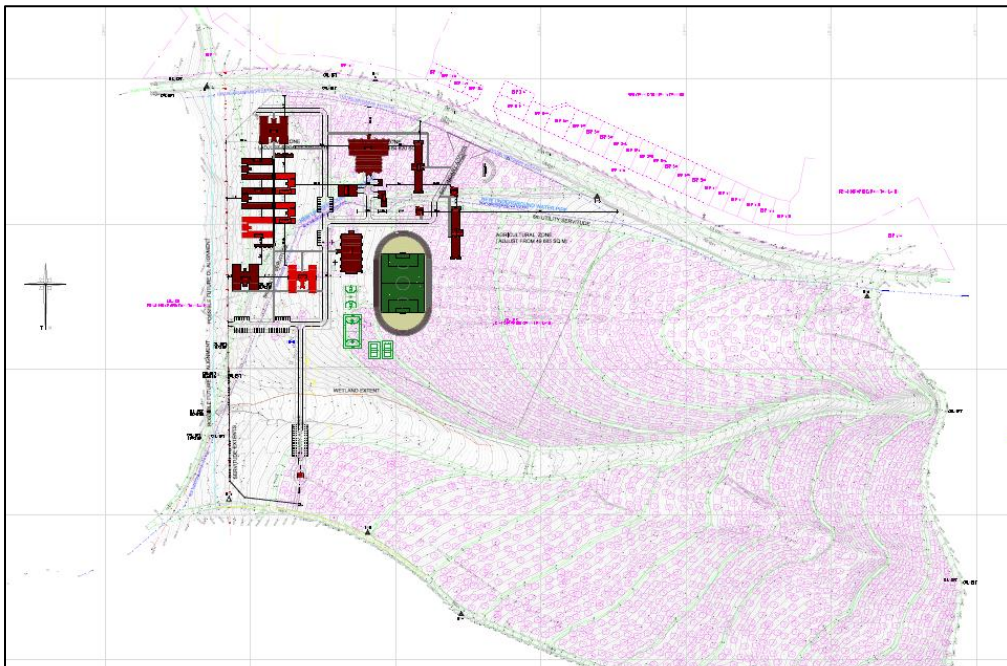


Figure 3: Map showing alternative layout C for the proposed Greytown FET College

BASIC ASSESSMENT REPORT

This layout alternative will consist of the following:

- Administration building;
- 2 X Computer rooms;
- 10 X Classroom blocks with toilet facilities;
- A 14 classroom block (no toilet facility);
- A multipurpose hall;
- A workshop / training hall;
- A kitchen;
- Double storey student hostels;
- Open and Covered walkways and access ramps;
- Supplies storeroom;
- Pump house.
- Covered carports;
- Generator house;
- 2 X Computer classroom and 4 X classroom;
- Boarding master / matrons house;
- Simulator rooms;
- Student centre;
- Gate house;
- Sports pitches;
- New roads;
- Other associated infrastructure i.e. water, sewer, pipelines etc.

c) Technology alternatives

Alternative 1 (preferred alternative)
Alternative 2
Alternative 3

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

Alternative 1 (preferred alternative)
Alternative 2
Alternative 3

e) No-go alternative

If the development does not occur, no new college facility will be built. This will result in a lack of benefit to the local communities both with respect to job opportunities and procurement. Junior practitioners that could potentially take part in the proposed project will not be trained towards professional registration. The necessary elements of educational facilities will not be in place for the intake of students at the start of the 2014 academic year as defined in the tender clarifications.

Paragraphs 3 – 13 below should be completed for each alternative.

SITE ALTERNATIVES

There is only one site alternative for the proposed project; therefore Paragraphs 3-13 below will not be repeated.

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

Alternative A1¹ (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the activity:

Approximately 82 200 m ²
Approximately 82 000 m ²
Approximately 82 000 m ²

or, for linear activities:

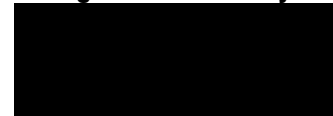
Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Length of the activity:



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

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the site/servitude:

550 000 m ²
550 000 m ²
550 000 m ²

4. SITE ACCESS

Does ready access to the site exist?

YES	
X	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Access to the site will be obtained from the existing road as illustrated in figure 3 in red. New internal roads will be constructed within the proposed site as illustrated in Figure 1, Appendix A.

¹ "Alternative A.." refer to activity, process, technology or other alternatives.



Figure 4: Map showing the existing access road to the proposed FET site in orange and the proposed site boundary in red

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.

5. LOCALITY MAP

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.). The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- indication of all the alternatives identified;
- closest town(s);
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);

- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (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 and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).

6. LAYOUT/ROUTE PLAN

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 document.

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- the 1:100 year flood line (where available or where it is required by DWA);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

8. SITE PHOTOGRAPHS

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.

BASIC ASSESSMENT REPORT

9. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

10. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?	YES X		Please explain
The land is currently used for agricultural purposes (plantations). The land makes provision for future educational infrastructure developments.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES X		Please explain
As part of the KZN Provincial Growth and Development Stagey, Education is a social necessity. The strategic objective 2.2 of the strategy refers to the provision of tertiary education systems for the youth. There is a critical urgency to deal with education challenges in the Province.			
(b) Urban edge / Edge of Built environment for the area	YES X		Please explain
The proposed FET college will not affect the Urban Edge.			
(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES X		Please explain
The Umvoti IDP (2012 – 2016) states that the lack of educational training facilities is linked to the poor skills base. This means that there is limited capacity to capitalise on the eminent local economic opportunities. The establishment of FET satellite collage in the Umvoti area was thus identified in the IDP. The 2009 Umvoti SDF discusses tertiary education centres as part of the Development and Planning strategies. The integrity of the IDP and SDF will not be compromised by the proposed development.			
(d) Approved Structure Plan of the Municipality	YES X		Please explain
Unknown at this stage. This project is aimed at improving the education status of the local community through the provision of further education colleges in the Greytown area.			

BASIC ASSESSMENT REPORT

<p>(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)</p>	<p>YES X</p>		
<p>There is no EMF for the area; however, the FET college was identified as part of the local municipality's IDP.</p>			
<p>(f) Any other Plans (e.g. Guide Plan)</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>Not Applicable</p>			
<p>3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?</p>	<p>YES X</p>		
<p>The Umvoti IDP recognises that the FET college is a permanent structure and is therefore considered in future planning initiatives in the area.</p>			
<p>4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)</p>	<p>YES X</p>		
<p>The project is needed because education facilities are required for the area in order to enhance education and skills for the community.</p>			
<p>5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)</p>	<p>YES X</p>		<p>Please explain</p>
<p>There local municipality will be requested to provide comment on this Basic Assessment Report with regards to the confirmation of services.</p>			
<p>6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)</p>	<p>YES X</p>		<p>Please explain</p>
<p>The Umvoti IDP recognises that the FET college is a permanent structure and is therefore considered in future planning initiatives in the area.</p>			

BASIC ASSESSMENT REPORT

7. Is this project part of a national programme to address an issue of national concern or importance?	YES X	[Redacted]	Please explain
Enhancing the education and skills of the community if of importance.			
8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	YES X	[Redacted]	Please explain
The proposed site is currently used for agricultural / plantation purposes, however it is in close proximity to the town of Greytown and will therefore fit into the surrounding land use.			
9. Is the development the best practicable environmental option for this land/site?	YES X	[Redacted]	Please explain
A number of factors were considered in the selection of the site for the proposed FET college, such as geological conditions, topography, presence of rivers and wetlands, presence of heritage resources, biota, etc.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES X	[Redacted]	Please explain
Negative impacts will mainly be experienced during the construction phase of the project. The Environmental Management Programme (EMPr) attached as Appendix G to this Report makes provision for management as well as mitigation measures to be implemented during both the construction and operational phases of the project. The provision of education to surrounding areas is a necessity thus this benefit outweighs any negative impacts.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES X	[Redacted]	Please explain
It is possible that another education institution could be developed in the area in the future to add to the education of the area.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	[Redacted]	NO X	Please explain
Persons' rights will be positively affected through the provision of education. Negative impacts will mainly occur during the construction phase of the project.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	[Redacted]	NO X	Please explain
The project will not impact the urban edge.			

BASIC ASSESSMENT REPORT

14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES X	Please explain
<p>SIP 14: Higher education infrastructure</p> <ul style="list-style-type: none"> • Infrastructure development for higher education, focusing on lecture rooms, student accommodation, libraries and laboratories, as well as ICT connectivity. • Development of university towns with a combination of facilities from residence, retail to recreation and transport. • Potential to ensure shared infrastructure such as libraries by universities, FETs and other educational institutions. 		
15. What will the benefits be to society in general and to the local communities?	Please explain	
The development will enhance education and skills of the local community.		
16. Any other need and desirability considerations related to the proposed activity?	Please explain	
N/A		
17. How does the project fit into the National Development Plan for 2030?	Please explain	
The NDP aims to eliminate poverty and reduce inequality by 2030. According to the plan, South Africa can realise these goals by enhancing the capacity of the state, one way to do this is through provision of education for society.		
18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.		
This project considers socio-economic factors (heritage, and the value of the project regarding education and skills) along with specialist studies investigating potential effects on terrestrial and aquatic environments. As independent Environmental Assessment Practitioners, our task is to balance the impacts and suggest appropriate mitigation measures with the aim of minimising negative impact and enhancing benefits while promoting sustainable development.		
19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.		
The principles of NEMA have been taken into account through the consideration of the aspects and benefits of the FET college in terms of social factors as well as sustainable development. The use of specialists to identify possible impacts and mitigation measures allows for the proposed FET college to go forward in a manner than will have minimal impact on the environment.		

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline	Administering authority	Date
Constitution of the Republic of South Africa (No. 108 of 1996)	National and Provincial	18 December 1996
National Environmental Management Act (No. 107 of 1998)	National: Department of Environmental Affairs (DEA) Provincial: Department of Agriculture and Environmental Affairs (DAEA)	27 November 1998
Environmental Impact Assessment Regulations, 2010, promulgated in terms of Section 24(5) of NEMA.	National and Provincial	02 August 2010
National Water Act (No. 36 of 1998)	National and Provincial	26 August 1998
National Environmental Management: Biodiversity Act, 2004 (No. 10 of 2004)	National and Provincial	07 June 2004
National Environmental Management Waste Act (Act 59 of 2008)	National and Provincial	10 March 2009
National Heritage Resources Act (No. 25 of 1999)	National and Provincial	28 April 1999
Occupational Health & Safety Act (No. 85 of 1993)	National and Provincial	23 June 1993
South African Schools Act (No. 84 of 1996)	National and Provincial	6 November 1996
The Basic Education Laws Amendment Act (No. 15 of 2011)	National and Provincial	19 September 2011
Higher Education Amendment Act (No. 39 of 2008)	National and Provincial	04 February 2009
Further Education and Training Colleges Amendment Act (No. 1 of 2013)	National and Provincial	18 March 2013

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	<input type="checkbox"/>
X	<input checked="" type="checkbox"/>

If YES, what estimated quantity will be produced per month?

Solid waste will be produced during the construction phase. The waste will be temporarily stored in designated skips on site and will then be taken off site by an appointed waste contractor to the closest registered landfill site.

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

Disposed at nearest landfill site.

BASIC ASSESSMENT REPORT

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

The closest available municipal landfill site

Will the activity produce solid waste during its operational phase?

YES	NO
X	
Less than 100m ³	

If YES, what estimated quantity will be produced per month?

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

Solid waste during the operational phase will be temporarily stored on site in the allocated waste/ skip enclosure. The waste will be collected by the local municipality's designated waste contractor. Any other solid waste not collected by the designated municipal contractor will be taken off site to the closest registered landfill site.

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

The waste will either collected by a municipal appointed waste contractor or taken to the closest registered landfill site. The Greytown Municipal waste department (Umvoti LM) will be contacted 033 413 9132 to identify the closest landfill site.

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

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 whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA? Should any hazardous waste in the forms of oils rags, cement bags etc, be produced during either the construction or operational phase, the waste will be temporarily stored in a designated hazardous skip and the temporary storage will not exceed 35m³ at any given time.

	NO
	X

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility?

	NO
	X

If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

	NO
	X

If YES, what estimated quantity will be produced per month?

Will the activity produce any effluent that will be treated and/or disposed of on site?

	NO
	X

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.

BASIC ASSESSMENT REPORT

Will the activity produce effluent that will be treated and/or disposed of at another facility?

	NO X
--	---------

If YES, provide the particulars of the facility:

Facility name:

Contact

person:

Postal

address:

Postal code:

Telephone:

E-mail:

Cell:

Fax:

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

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other than exhaust emissions and dust associated with construction phase activities?

	NO X
--	---------

If YES, is it controlled by any legislation of any sphere of government?

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

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

Types of emissions include exhaust emissions and dust associated with construction phase activities. These emissions generated into the atmosphere will be temporary and limited to the construction phase, as the project is not anticipated to produce any emissions during the operation phase. It is recommended that all construction vehicles are regularly serviced and kept in good working condition to minimise exhaust emissions. Furthermore a water cart / truck must be used as a dust suppression measure to reduce the dust related impacts.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?

YES	NO X
-----	---------

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?

YES X	
----------	--

If YES, is it controlled by any legislation of any sphere of government?

	NO X
--	---------

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:

BASIC ASSESSMENT REPORT

An increase in noise levels is expected during the construction phase due to construction vehicles and machinery. Mitigation measures included in the Environmental Management Programme (EMPr) attached as Appendix G to this Report.

13. WATER USE

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

Municipal

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:

Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?

YES
X

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

A Water Use License Application (WULA) will be submitted to the Department of Water Affairs. The Basic Assessment Process and the WULA Process will run concurrently. See Appendix J1.

14. ENERGY EFFICIENCY

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

None

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

None

LAYOUT ALTERNATIVES

There are two layout alternatives for the proposed project. Paragraph 3 will only be repeated. Paragraphs 4-13 below will not be repeated because the information is the same as above for the site alternative.

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

Alternative A1² (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the activity:

Approximately 82 200 m ²
Approximately 82 000 m ²
Approximately 83 000 m ²

or, for linear activities:

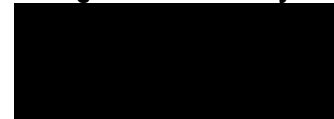
Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Length of the activity:



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

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the site/servitude:

550 000 m ²
550 000 m ²
550 000 m ²

² "Alternative A.." refer to activity, process, technology or other alternatives.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. 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 B and indicate the area, which is covered by each copy No. on the Site Plan.

Please note that this section will just be completed once for the entire site.

Section B Copy No. (e.g. A): N/A

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section? YES
X []

If YES, please complete the form entitled “Details of specialist and declaration of interest” for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property description/physical address:

Province	Kwa-Zulu Natal
District Municipality	Umzinyathi
Local Municipality	Umvoti
Ward Number(s)	9
Farm name and number	Farm 5695 of Greytown
Portion number	N/A
SG Code	N0FT00000000569500000

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.

Current land-use zoning as per local municipality IDP/records:

The land is currently used for agricultural / plantations.

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required? YES
X []

SITE ALTERNATIVES

There is only one site alternative for the proposed project; therefore Paragraphs 1-6 below will not be repeated.

BASIC ASSESSMENT REPORT

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

	1:15 – 1:10 X	1:10 – 1:7,5 X	1:7,5 – 1:5 X	
--	------------------	-------------------	------------------	--

Alternative S2 (if any):

--

Alternative S3 (if any):

--

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

2.1 Ridgeline		2.4 Closed valley		2.7 Undulating plain / low hills	
2.2 Plateau		2.5 Open valley	X	2.8 Dune	
2.3 Side slope of hill/mountain	X	2.6 Plain		2.9 Seafront	

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

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

BASIC ASSESSMENT REPORT

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.

4. GROUND COVER

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

	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	
	Cultivated land		Building or other structure

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.

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River		NO	
Non-Perennial River	YES		
Permanent Wetland	YES		
Seasonal Wetland	YES		
Artificial Wetland		NO	
Estuarine / Lagoonal wetland		NO	

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse ([Refer to Appendix D for the Wetland Delineation Report](#)).

Wetland/Riparian Delineation

Two areas of significance were noted on and adjacent to the site. The first was a substantial wetland to the west of the site, between the site and the town of Greytown and the second was an ephemeral drainage line and associated temporary wetland area falling within the site area. The characteristics of the systems are described below. Some basic indicators of water flow and the presence of possible wetland noted included the presence of culverts under roads and a swathe of land not planted to timber.

Topography

The site has a westerly aspect and occurs on a gradual slope. A minor valley line was noted extending through the centre of the site. West of the site lies a broad flat valley. The minor valley and the broad flat valley were indicators of a watercourse and extensive wetland respectively.



Fig 5. The shallow valley line within the site (left) and the broad flat valley bottom adjacent to the site (right).

6. LAND USE CHARACTER OF SURROUNDING AREA

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

Natural area		
Medium density residential	School	Plantation
Informal residential ^A		River, stream or wetland

If any of the boxes marked with an "N" are ticked, how will this impact / be impacted upon by the proposed activity?

[Redacted area]

BASIC ASSESSMENT REPORT

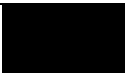
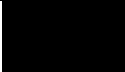
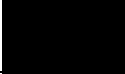
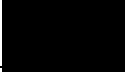
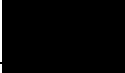
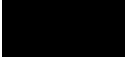
If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

There is an informal settlement located within 500m of the proposed site. The proposed FET college will have no impact on the informal settlement and the settlement will have no impact on the proposed FET college.

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:



Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)		NO X
Core area of a protected area?		NO X
Buffer area of a protected area?		NO X
Planned expansion area of an existing protected area?		NO X
Existing offset area associated with a previous Environmental Authorisation?		NO X
Buffer area of the SKA?		NO X

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.



LAYOUT ALTERNATIVES

There are two layout alternatives for the proposed project. However, Paragraphs 1-6 will not be repeated because the information is the same as above for the site alternative.

7. 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 paleontological sites, on or close (within 20m) to the site? If YES, explain:

NO
X

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

A site visit was undertaken by the heritage specialist and there was no evidence of any cultural or historical elements on the site. As such, an exemption letter was submitted to AMAFA / SAHRA for this proposed activity (Appendix D).

Will any building or structure older than 60 years be affected in any way?

NO
X

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

NO
X

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

The following information was obtained from *Quantec I reference as Quantec Research (Pty) Ltd. (2012, May 14). RSA Regional Indicators . Lynnwood, Gauteng, South Africa.*

Region	P5D04M04: Umvoti Local Municipality
Concept	
IT000: Employed - Formal and informal - Total (Number)	22788
UT000: Unemployed (Number)	3814
UT001: Unemployment rate (Percentage)	14.33726787

Economic profile of local municipality:

The following information was obtained from *Quantec I reference as Quantec Research (Pty) Ltd. (2012, May 14). RSA Regional Indicators . Lynnwood, Gauteng, South Africa.*

Geography	P5D04M04: Umvoti Local Municipality
Industry	
0: Total	2445.227238
PA: Agriculture, forestry and fishing [SIC: 1]	348.1555809

BASIC ASSESSMENT REPORT

PB: Mining and quarrying [SIC: 2]	38.7607972
SC: Manufacturing [SIC: 3]	576.3581736
SD: Electricity, gas and water [SIC: 4]	64.62368994
SE: Construction [SIC: 5]	26.69010291
TF: Wholesale and retail trade, catering and accommodation [SIC: 6]	374.3015139
TG: Transport, storage and communication [SIC: 7]	186.668377
TH: Finance, insurance, real estate and business services [SIC: 8]	350.0973592
TI: Community, social and personal services [SIC: 92, 95-6, 99, 0]	192.6532204
TJ: General government [SIC: 91, 94]	286.9184226

Level of education:

The following information was obtained from the following source: Statistics South Africa. (2013, 11 01). Census 2011. Pretoria, Gauteng, South Africa

	No schooling	Some primary	Completed primary	Some secondary	Grade 12/Std 10	Higher	Other	Unspecified	Not applicable	Grand Total
KZN245: Umvoti	15501	28536	4914	23178	13155	2544	-	57	15207	103092

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R120M
What is the expected yearly income that will be generated by or as a result of the activity?	R 134 048 750.00
Will the activity contribute to service infrastructure?	YES X
Is the activity a public amenity?	YES x
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	330
What is the expected value of the employment opportunities during the development and construction phase?	R6M
What percentage of this will accrue to previously disadvantaged individuals?	75 %
How many permanent new employment opportunities will be created during the operational phase of the activity?	58
What is the expected current value of the employment opportunities during the first 10 years?	R 84 450 713.00
What percentage of this will accrue to previously disadvantaged individuals?	75 % or more

9. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult <http://bgis.sanbi.org> or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity

BASIC ASSESSMENT REPORT

information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

- a) **Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)**

Systematic Biodiversity Planning Category	If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Other Natural Area (ONA)	

Isolated patches of disturbed Gs 9 occur within the development site. The remainder is exotic *A. mearnsii* plantation. The grassland present on site has been disturbed through the establishment of roads, houses/structures, exotic vegetation, burning and subsistence agriculture. The grassland area can thus be classified as transformed. The species diversity was representative with *A. junciformis*, *Eragrostis plana*, *Hypanthia hirta* and *Sporobolus africanus* dominant outside of the wetland areas. *Hypoxis multiceps* was noted on site, however the forb diversity on site was not deemed to be significant.

The lower portion of the central drainage line was characterized by a lack of obligatory hygrophilous vegetation usually associated with wetland areas. Instead, facultative species and species associated with moist grassland areas were present. Species such as *Cymbopogon validus*, *A. junciformis*, *Pteridium aquilinum*, *Imperata cylindrica* and the exotic *Rubus cuneifolius* were present in area surrounding the inspection pit in the lower portion of the drainage line.

Further up the drainage line, a road crossing was established in the past leading to the semi impoundment of water in the upper portion of the drainage line. More hygrophilous species such as *Cyperus latifolius*, *Miscanthus capensis*, *Seteria sphacelata* and *Zantedeschia aethiopica* appeared alongside the species already mentioned in the lower portion.

The wetland situated adjacent to the site exhibited a range of hygrophilous species associated with temporary, seasonal and permanently wet wetland conditions. Indicator species present included *Kniphophia linearifolia*, *Paspalum urvillei*, *C. latifolius*, *I. cylindrica*, *Zantedeschia aethiopica*, *Phragmites australis*, *Scirpis ficinioides*, *A. junciformis* and the exotics, *Verbena bonariensis* and *R. cuneifolius*.

BASIC ASSESSMENT REPORT

Table 3. Summary of species found within the wetland/riparian habitats on site. * Denotes exotic species.

Species	Description (DWAF 2005, Pooley 1998, Van Oudtshoorn 2001)
<i>Kniphophia linearifolia</i>	Marsh poker. Associated with wetland areas, watercourses and mountain grassland
<i>Paspalum urvillei</i> *	Grass species associated with temporary wetland areas (facultative wetland species).
<i>Cyperus latifolius</i>	Sedge. Associated with permanent and seasonal wetland areas.
<i>Zantedeschia aethiopica</i>	Lily. Associated with wetland areas.
<i>Phragmites australis</i>	Reed. Associated with watercourses and permanent wetland.
<i>Verbina bonariensis</i> *	Exotic herb. Associated with damp areas.
<i>Imperata cylindrica</i>	Grass species. Associated with temporary wetland areas inland.
<i>Rubus cuneifolius</i> *	Exotic shrub. Often invades wetland areas.
<i>Cymbopogon validus</i>	Grass species. Not a recognized wetland indicator, but does occur in damp soils.
<i>Aristida junciformis</i>	Grass species. Associated with temporary wetland areas, but also disturbed grassland.
<i>Miscanthus capensis</i>	Grass species found near water courses and temporary or seasonally wet areas.
<i>Pteridium aquilinum</i>	Fern. Often found in damp, shady areas.
<i>Seteria sphacelata</i>	Grass species associated with temporary and seasonal wetland.
<i>Scirpus ficinioides</i>	Sedge. Associated with damp marshy soils. Indicates shallow water table.

b) Indicate and describe the habitat condition on site

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	0%	
Near Natural (includes areas with low to moderate level of alien invasive plants)	15%	The remaining portions of the site are made up of a drainage line, grass and a few scattered trees.
Degraded (includes areas heavily invaded by	0%	

BASIC ASSESSMENT REPORT

alien plants)		
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	85%	Most of the site consists of a plantation. Isolated patches of disturbed Gs 9 occur within the development site. The remainder is exotic <i>A. mearnsii</i> plantation. The grassland present on site has been disturbed through the establishment of roads, houses/structures, exotic vegetation, burning and subsistence agriculture.

c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, present on the site; and
- (ii) whether an aquatic ecosystem is present on site.

Vegetation Type	Ecosystems Status
Midlands Mistbelt Vegetation	Endangered

Terrestrial Ecosystems	Aquatic Ecosystems			
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Endangered X	Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)	Estuary	Coastline
		YES X		NO X
				NO X

BASIC ASSESSMENT REPORT

- d) **Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)**

The site falls within the Grassland Biome and is characterised by Midlands Mistbelt Grassland. The Midlands Mistbelt Grassland vegetation type is found in the KwaZulu-Natal and Eastern Cape Provinces. KwaZulu-Natal Midlands-scattered in broad belt in the form of several major patches including Melmoth-Babanango area, Kranskop and Greytown, Howick Lions River, Karkloof, Belgowan, Cedara, Edenhale, Hilton, Richmond, the Ixopo-Highflats area, Mount Malowe in the Umzimkhulu enclave of the Eastern Cape Province and Harding-Weza area.

The Important taxa in this vegetation type includes species such as *Andropogon appendiculatus*, *Aristida junciformis*, *Diheteropogon filifolius*, *Eragrostis plana*, *Hyparrhenia hirta*, *Sporobolus africanus*, *Themeda trianda*, *Tristachya leucothrix*, *Alloteropsis semialata*, etc. (Mucina and Rutherford, 2006).

The conservation status of this vegetation type is classified as Endangered with a national conservation target of 23%. Only about 0.5% is statutorily conserved in a number of reserves such as Ngeli, Impendle, Blinkwater, Qudeni, Doreen Clark, Karkloof and Queen Elizabeth Park-still heavily underrepresented in conservation plans. More than half already transformed for plantations, cultivated land or by urban sprawl. Uncontrolled fires and poorly regulated grazing by livestock add to threats to this unique grassland. Some aliens (including *Solanum mauritanum*, species of *Rubus*, *Acaia*, *Pinus* and *Eucalyptus*) are of concern in places (Mucina and Rutherford, 2006).

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Greytown Gazette	
Date published	04 October 2013	
Site notice position	Latitude	Longitude
	29° 3'34.11"S	30°36'59.25"E
	29° 3'25.64"S	30°36'36.43"E
	29° 3'44.89"S	30°36'12.87"E
	29° 3'47.52"S	29° 3'47.52"S
	29° 4'12.07"S	30°37'21.66"E
Date placed	To be confirmed in the final BAR	

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 54(2)(e) and 54(7) of GN R.543.

Key stakeholders (other than organs of state) identified in terms of Regulation 54(2)(b) of GN R.543:

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)

BASIC ASSESSMENT REPORT

To be confirmed in the Final BAR	To be confirmed in the Final BAR	To be confirmed in the Final BAR

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP

No issues received to date. All issues raised by interested and affected parties (I&APs) will be incorporated in the Final Basic Assessment Report.

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as Appendix E3.

No comments received to date. All comments received will be incorporated in a Comments and Responses Report which will be attached as Appendix E3 to the Final Basic Assessment Report.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
DAEA Umzimyathi	Gerald Willis Smith	0342999667			Talana Building, 29 Beacon Street, Dundee
DWA	Manisha Maharaj	0313362718			P.O.Box 1018, Durban,

BASIC ASSESSMENT REPORT

					4000 88 Joe Slovo Street (old Field Street, Southern life building, 9th floor, Durban
Umvoti Local Municipality	Ms Mbhele	0334139100			41 Bell street, Greytown
Umzimyathi District Municipality	Shamaine Moodley	034 219 1500			39 Victoria Street, Princess Magogo building, Dundee
Ward 9 Councillor	Cllr Chonco	0735032918			141 Pine Street, Greytown
Greytown Local Library					
SAHRA / AMAFA	Information relating to the project will be uploaded onto the SAHRA website for the attention of AMAFA – Weziwe Tshabalala				
KZN Wildlife	Dominic Weiners				P.O.Box 13053, Cascades, PMB 3202
Department of Transport	Roy Ryan				P/Bag x9043, PMB, 3200
Eskom	Barbara van Geens	021 980 8675		vangeensb@eskom.co.za	Eskom road, Protea Heights, Brackenseel, 7160

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum 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. 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

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

Please note: The Significance value of the impacts provided below represents the overall impact score (Please refer to Impact Assessment in Appendix F which describes this fully). The Significance value in the table below refers to the overall impact score BEFORE the proposed mitigations. Please refer to Appendix F for the overall impact scores AFTER the proposed mitigations.

Activity	Impact summary	Significance	Proposed mitigation
Alternative A1			
PRE-CONSTRUCTUION PHASE			
	<i>Direct impacts:</i> Wetland Loss	High	No area of the adjacent wetland area will be lost as a result of the proposed development, however the drainage line passing through the center of the site will be lost judging by the layout plans. The area of loss appears greater in the preferred plan, possibly affecting the entire system. The alternative shows loss of the lower portion only. No information has been provided as to how the drainage line will be accommodated, therefore it is assumed that the intention is to completely fill the system. The proposed mitigation would be to accommodate the drainage line and implement a 32 m buffer from the edge of both the adjacent wetland area and the central drainage line. This would require an amendment of the proposed

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			layout plan.
	Impact on flora due to site preparation	Medium	<p>During site preparation, topsoil and subsoil are stripped separately from each other and must be stored separately from spoil material for use in the rehabilitation phase. It should be protected from wind and rain, as well as contamination from diesel, concrete or wastewater.</p> <p>Records of all environmental incidents must be maintained and a copy of these records must be made available to authorities on request throughout the project execution.</p>
	Impact on fauna during site preparation	Medium	<p>During site preparation special care must be taken during the clearing of the works area to minimise damage or disturbance of possibly roosting and nesting sites.</p> <p>Before construction commences, barricading measures to be utilised should not restrict the movement of the fauna in the area.</p>
	Impact on Fauna (Search and Rescue)	Medium	<p>A qualified and / or appropriately experienced Zoologist or an experienced person who knows the animals in the region well will identify any possible Red Data fauna on site and the necessary permits to relocate fauna will be obtained if avoidance is not possible.</p> <p>Training of construction workers to recognise threatened animal species will reduce the probability of fauna being harmed unnecessarily.</p>
	Indirect impacts:		
	Cumulative impacts:		
CONSTRUCTION PHASE			
	Direct impacts: Possible erosion on steep slopes and loss of top soil. Compaction of top soil through construction activities.	Medium	Stabilisation of cleared areas to prevent and control erosion will be actively managed. The method chosen (e.g. watering, planting, retaining structures, commercial anti-erosion

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	An increased sediment load within the watercourses may impact on the water quality and habitat quality of the watercourses.		<p>compounds) will be selected according to the site-specific conditions. Construction employees to be restricted to approved access roads and walk ways.</p> <p>Adequate measures to be implemented for soil erosion and soil contamination as a result of hydrocarbon spills which in turn will impact vegetation on site.</p>
	Increased Runoff thus affecting the drainage and the ecosystem downstream of the proposed activity - Alternative A1 – Layout A	Medium	<p>The increase in hardpanned area will result in an increase in stormwater runoff from the site. Increased impermeable areas will result in increased runoff, which will be released into the drainage line and adjacent wetland area. Mitigation would take the form of suitable stormwater management which reduces flow velocity and maintains acceptable post development flow scenarios.</p>
	Soil contamination, vegetation loss and vegetation disturbance due to fuel and chemical spills.	Medium	<p>Employ on site personnel responsible for preventing and controlling potential soil pollution through fuel and oil leaks and spills.</p> <p>Make sure construction vehicles are maintained and serviced to prevent oil and fuel leaks. Emergency on-site maintenance should be done over appropriate drip trays and all oil or fuel must be disposed of according to waste regulations. Drip-trays must be placed under vehicles and equipment when not in use.</p>
	Vegetation and habitat disturbance due to the accidental introduction of alien species.	Medium	<p>Promote awareness of all personnel.</p> <p>After construction programme, monitoring and control of alien weeds and invaders through hand removal; slashing (annuals) or chemical control (perennials). Chemical control may only be done upon approval from the Environmental Control Officer.</p>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	Vegetation and habitat disturbance due to pollution and littering during construction phase.	Low	Employ personnel on site responsible for preventing and controlling of litter. Promote housekeeping with daily clean-ups on site. Before construction commences, construction workers should be educated with regards to littering, <i>ad hoc</i> veld fires, and dumping. No fires are allowed on site.
	Damage to plant life outside of the proposed development area	Low	Construction activities should be restricted to the footprint area. All workers must be trained before construction commences.
	Disturbance to animals	Low	Animals residing within the designated area shall not be unnecessarily disturbed. Before construction starts, construction workers must be educated with regards to littering and poaching. The Contractor and his/her employees shall not bring any domestic animals onto site. Toolbox talks should be provided to contractors regarding disturbance to animals. Particular emphasis should be placed on talks regarding snakes.
	Allow for safe animal passage through and specifically out of the construction site.	Low	Construction areas must be demarcated but should allow for the migration of small faunal species out of the construction zone. Fencing types must be selected for minimal disturbance to animal movement corridors (e.g. palisade fencing is preferable to diamond-mesh fencing).
	Dust from movement of construction vehicles and machinery as well as bare surface areas. Vehicles and construction machinery's emissions. Smoke from uncontrolled fires.	Low	Dust abatement measures to be implemented for construction activities. Vehicles not to travel faster than 30km on servitude road. Bare areas (i.e. siphon sections) must be watered to minimise dust. No uncontrolled fires to be

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			allowed on site.
	Noise associated with construction activities (e.g. vehicle movement, demolition work, generators).	Low	<p>The provisions of SANS 10103 will apply to all areas within audible distance of residents.</p> <p>Construction activities generating output levels of 55 dB or more will be confined to normal working hours.</p> <p>Construction work to be restricted to approved working hours.</p> <p>Construction machinery (especially silencers) to be maintained and kept in working condition.</p> <p>No loud music to be played on servitude or at construction camp site.</p>
	<p>Visual alterations to the area.</p> <p>Visual impact associated with construction camp/s</p> <p>Adverse impacts on the landscape character and sense of place of the affected area.</p>	Low	<p>Construction camp to be positioned so as to minimize its visual impacts.</p> <p>Sound housekeeping practices to be enforced.</p> <p>Damage to the natural environment should be minimised.</p> <p>Vegetation should be cut only if absolutely necessary.</p> <p>The clearing of all sites should be kept to a minimum and surrounding vegetation should as far as possible be left intact.</p>
	<p>Development of FET College</p> <p>Uncontrolled access to servitude.</p> <p>Construction employees getting injured.</p>	Medium	<p>Construction methodology to make provision for development of FET College.</p> <p>Compliance with Occupational Health and Safety Act (Act No. 85 of 1993).</p> <p>Contractor to provide an Occupational Health and Safety Management Plan to the Construction Manager for approval prior to the commencement of works in terms of the Construction Regulations (2003).</p>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			<p>Proper supervision of employees at all times. Employees to be clearly identifiable.</p> <p>Employees to remain within the servitude and no loitering to be allowed.</p> <p>Access into and out of the servitude must only be via existing access roads from local public roads.</p> <p>Contractor to prepare and submit, for approval, a rescue procedure for employees in the case of an injury.</p>
	<p>Use of veld/ riparian areas for ablution purposes.</p> <p>Land, air and water pollution through poor waste management practises.</p>	Medium	<p>Sufficient ablution facilities to be provided at the Construction Camp and along construction servitude. Ablution facilities to be maintained.</p> <p>No ablution facilities to be positioned within riparian areas.</p> <p>Suitable litter receptacles to be positioned strategically across the site at all working areas.</p> <p>Contractor to submit waste management plan prior to commencement. Such plan to be approved by ECO and enforced by contractor.</p> <p>Waste must be separated at source (e.g. containers for glass, paper, metals, plastics, organic waste and hazardous wastes).</p>
	Job Creation	N/A	Employment creation is a positive impact therefore no mitigation measures are required.
	Education Provision	N/A	The provision of education is a positive impact therefore no mitigation measures are required.
	<p>Damage to archaeological sites.</p> <p>Damage to graves.</p>	Medium	Should remains and/or artefacts be discovered on the site during earthworks, all work will cease in the area affected and the Contractor will immediately inform the Construction Manager.

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			<p>Should any heritage resources be exposed during excavation or be found on site, the relevant heritage resource agency (SAHRA) must be informed and a registered heritage specialist must be called to site for inspection.</p> <p>No person may, without a permit issued by SAHRA or a provincial heritage resources authority –</p> <ul style="list-style-type: none"> ○ Destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves; ○ Destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority or; ○ Bring onto or use at a burial ground or grave referred to in above any excavation equipment, or any equipment which assists in the detection or recovery of metals.
	Indirect impacts:		
	Cumulative impacts:		
OPERATION PHASE			
	Direct impacts: Increased Runoff thus affecting the drainage and the ecosystem downstream of the proposed activity	Medium	The increase in hardpanned area will result in an increase in stormwater runoff from the site. Increased impermeable areas will result in increased runoff, which will be released into the drainage line and adjacent wetland area. Mitigation would take the form of

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			suitable stormwater management which reduces flow velocity and maintains acceptable post development flow scenarios.
	Habitat Loss	Medium	Mitigation options include maintaining/rehabilitating open space areas within the campus to indigenous grassland rather than lawn, or institute the 32m buffer from the drainage line and manage the area as both a grassland and wetland conservation area. Benefits of mitigation measures will take to before they become apparent and will require long term management. A further possible mitigation option is to develop structure as infrastructure within the areas of exotic plantation and not disturb the drainage line or grassland area. This will further reduce the impact on remaining habitats.
	Indirect impacts:		
	Cumulative impacts: The proposed development may affect biodiversity through the encroachment of exotic vegetation following soil disturbance, in addition the maintenance of the area would disturb naturalised species within the area.	Medium	Encroachment of alien vegetation should be monitored regularly and controlled; the area must be kept clear of all invader plants as per the Conservation of Agricultural Resources Act, 1983 (Act No 43 of 1983). Rehabilitation measures must be employed until such a time as indigenous species are established.

Activity	Impact summary	Significance	Proposed mitigation
Alternative A2			
PRE-CONSTRUCTUION PHASE			
	Direct impacts: Wetland Loss	Medium	No area of the adjacent wetland area will be lost as a

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			<p>result of the proposed development, however the drainage line passing through the center of the site will be lost judging by the layout plans. The area of loss appears greater in the preferred plan, possibly affecting the entire system. The alternative shows loss of the lower portion only. No information has been provided as to how the drainage line will be accommodated, therefore it is assumed that the intention is to completely fill the system. The proposed mitigation would be to accommodate the drainage line and implement a 32 m buffer from the edge of both the adjacent wetland area and the central drainage line. This would require an amendment of the proposed layout plan.</p>
	Impact on flora due to site preparation	Medium	<p>During site preparation, topsoil and subsoil are stripped separately from each other and must be stored separately from spoil material for use in the rehabilitation phase. It should be protected from wind and rain, as well as contamination from diesel, concrete or wastewater.</p> <p>Records of all environmental incidents must be maintained and a copy of these records must be made available to authorities on request throughout the project execution.</p>
	Impact on fauna during site preparation	Medium	<p>During site preparation special care must be taken during the clearing of the works area to minimise damage or disturbance of possibly roosting and nesting sites.</p> <p>Before construction commences, barricading measures to be utilised should not restrict the movement of the fauna in the area.</p>
	Impact on Fauna (Search and Rescue)	Medium	<p>A qualified and / or appropriately experienced Zoologist or an experienced person who knows the animals</p>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			<p>in the region well will identify any possible Red Data fauna on site and the necessary permits to relocate fauna will be obtained if avoidance is not possible.</p> <p>Training of construction workers to recognise threatened animal species will reduce the probability of fauna being harmed unnecessarily.</p>
	Indirect impacts:		
	Cumulative impacts:		
CONSTRUCTION PHASE			
	<p>Direct impacts: Possible erosion on steep slopes and loss of top soil. Compaction of top soil through construction activities.</p> <p>An increased sediment load within the watercourses may impact on the water quality and habitat quality of the watercourses.</p>	Medium	<p>Stabilisation of cleared areas to prevent and control erosion will be actively managed. The method chosen (e.g. watering, planting, retaining structures, commercial anti-erosion compounds) will be selected according to the site-specific conditions. Construction employees to be restricted to approved access roads and walk ways.</p> <p>Adequate measures to be implemented for soil erosion and soil contamination as a result of hydrocarbon spills which in turn will impact vegetation on site.</p>
	Increased Runoff thus affecting the drainage and the ecosystem downstream of the proposed	Medium	<p>The increase in hardpanned area will result in an increase in stormwater runoff from the site. Increased impermeable areas will result in increased runoff, which will be released into the drainage line and adjacent wetland area. Mitigation would take the form of suitable stormwater management which reduces flow velocity and maintains acceptable post development flow scenarios.</p>
	Soil contamination, vegetation loss and vegetation disturbance due to fuel and chemical spills.	Medium	<p>Employ on site personnel responsible for preventing and controlling potential soil pollution through fuel and oil leaks and spills.</p>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			<p>Make sure construction vehicles are maintained and serviced to prevent oil and fuel leaks. Emergency on-site maintenance should be done over appropriate drip trays and all oil or fuel must be disposed of according to waste regulations. Drip-trays must be placed under vehicles and equipment when not in use.</p>
	<p>Vegetation and habitat disturbance due to the accidental introduction of alien species.</p>	<p>Medium</p>	<p>Promote awareness of all personnel.</p> <p>After construction programme, monitoring and control of alien weeds and invaders through hand removal; slashing (annuals) or chemical control (perennials). Chemical control may only be done upon approval from the Environmental Control Officer.</p>
	<p>Vegetation and habitat disturbance due to pollution and littering during construction phase.</p>	<p>Low</p>	<p>Employ personnel on site responsible for preventing and controlling of litter. Promote housekeeping with daily clean-ups on site.</p> <p>Before construction commences, construction workers should be educated with regards to littering, <i>ad hoc</i> veld fires, and dumping.</p> <p>No fires are allowed on site.</p>
	<p>Damage to plant life outside of the proposed development area</p>	<p>Low</p>	<p>Construction activities should be restricted to the footprint area. All workers must be trained before construction commences.</p>
	<p>Disturbance to animals</p>	<p>Low</p>	<p>Animals residing within the designated area shall not be unnecessarily disturbed.</p> <p>Before construction starts, construction workers must be educated with regards to littering and poaching.</p> <p>The Contractor and his/her employees shall not bring any domestic animals onto site.</p> <p>Toolbox talks should be provided to contractors regarding disturbance to animals. Particular emphasis</p>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			should be placed on talks regarding snakes.
	Allow for safe animal passage through and specifically out of the construction site.	Low	Construction areas must be demarcated but should allow for the migration of small faunal species out of the construction zone. Fencing types must be selected for minimal disturbance to animal movement corridors (e.g. palisade fencing is preferable to diamond-mesh fencing).
	<p>Dust from movement of construction vehicles and machinery as well as bare surface areas.</p> <p>Vehicles and construction machinery's emissions.</p> <p>Smoke from uncontrolled fires.</p>	Low	<p>Dust abatement measures to be implemented for construction activities.</p> <p>Vehicles not to travel faster than 30km on servitude road.</p> <p>Bare areas (i.e. siphon sections) must be watered to minimise dust.</p> <p>No uncontrolled fires to be allowed on site.</p>
	Noise associated with construction activities (e.g. vehicle movement, demolition work, generators).	Low	<p>The provisions of SANS 10103 will apply to all areas within audible distance of residents.</p> <p>Construction activities generating output levels of 55 dB or more will be confined to normal working hours.</p> <p>Construction work to be restricted to approved working hours.</p> <p>Construction machinery (especially silencers) to be maintained and kept in working condition.</p> <p>No loud music to be played on servitude or at construction camp site.</p>
	<p>Visual alterations to the area.</p> <p>Visual impact associated with construction camp/s</p> <p>Adverse impacts on the landscape character and sense of place of the affected area.</p>	Low	<p>Construction camp to be positioned so as to minimize its visual impacts.</p> <p>Sound housekeeping practices to be enforced.</p> <p>Damage to the natural environment should be minimised.</p> <p>Vegetation should be cut only</p>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			<p>if absolutely necessary.</p> <p>The clearing of all sites should be kept to a minimum and surrounding vegetation should as far as possible be left intact.</p>
	<p>Development of FET College</p> <p>Uncontrolled access to servitude.</p> <p>Construction employees getting injured.</p>	Medium	<p>Construction methodology to make provision for development of FET College.</p> <p>Compliance with Occupational Health and Safety Act (Act No. 85 of 1993).</p> <p>Contractor to provide an Occupational Health and Safety Management Plan to the Construction Manager for approval prior to the commencement of works in terms of the Construction Regulations (2003).</p> <p>Proper supervision of employees at all times. Employees to be clearly identifiable.</p> <p>Employees to remain within the servitude and no loitering to be allowed.</p> <p>Access into and out of the servitude must only be via existing access roads from local public roads.</p> <p>Contractor to prepare and submit, for approval, a rescue procedure for employees in the case of an injury.</p>
	<p>Use of veld/ riparian areas for ablution purposes.</p> <p>Land, air and water pollution through poor waste management practises.</p>	Medium	<p>Sufficient ablution facilities to be provided at the Construction Camp and along construction servitude. Ablution facilities to be maintained.</p> <p>No ablution facilities to be positioned within riparian areas.</p> <p>Suitable litter receptacles to be positioned strategically across the site at all working areas.</p> <p>Contractor to submit waste management plan prior to</p>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			<p>commencement. Such plan to be approved by ECO and enforced by contractor.</p> <p>Waste must be separated at source (e.g. containers for glass, paper, metals, plastics, organic waste and hazardous wastes).</p>
	Job Creation	N/A	Employment creation is a positive impact therefore no mitigation measures are required.
	Education Provision	N/A	The provision of education is a positive impact therefore no mitigation measures are required.
	<p>Damage to archaeological sites.</p> <p>Damage to graves.</p>	Medium	<p>Should remains and/or artefacts be discovered on the site during earthworks, all work will cease in the area affected and the Contractor will immediately inform the Construction Manager.</p> <p>Should any heritage resources be exposed during excavation or be found on site, the relevant heritage resource agency (SAHRA) must be informed and a registered heritage specialist must be called to site for inspection.</p> <p>No person may, without a permit issued by SAHRA or a provincial heritage resources authority –</p> <ul style="list-style-type: none"> ○ Destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves; ○ Destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority or; ○ Bring onto or use at a burial ground or grave

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			referred to in above any excavation equipment, or any equipment which assists in the detection or recovery of metals.
	<i>Indirect impacts:</i>		
	<i>Cumulative impacts:</i>		
OPERATION PHASE			
	<i>Direct impacts:</i> Increased Runoff thus affecting the drainage and the ecosystem downstream of the proposed activity	Low	<p>The increase in hardpanned area will result in an increase in stormwater runoff from the site. The impact that this will have on the drainage line and the down stream ecosystem is a function of</p> <ol style="list-style-type: none"> 1) whether or not stormwater is adequately controlled and 2) the extent of the buffer around the drainage to absorb abnormal flow. <p>The site already received some stormwater from the neighbouring sports complex and this would need to be considered in the stormwater planning for the development. The mitigation is fairly straight forward and simply requires adequate stormwater planning to be undertaken and suitable stormwater management principles applied to the stormwater bulk infrastructure design (header walls, chambers etc.).</p>
	Habitat Loss	Medium	Mitigation options include maintaining/rehabilitating open space areas within the campus to indigenous grassland rather

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			<p>than lawn, or institute the 32m buffer from the drainage line and manage the area as both a grassland and wetland conservation area. Benefits of mitigation measures will take to before they become apparent and will require long term management.</p> <p>A further possible mitigation option is to develop structure as infrastructure within the areas of exotic plantation and not disturb the drainage line or grassland area. This will further reduce the impact on remaining habitats.</p>
	Indirect impacts:		
	Cumulative impacts:	Medium	Encroachment of alien vegetation should be monitored regularly and controlled; the area must be kept clear of all invader plants as per the Conservation of Agricultural Resources Act, 1983 (Act No 43 of 1983). Rehabilitation measures must be employed until such a time as indigenous species are established.
	The proposed development may affect biodiversity through the encroachment of exotic vegetation following soil disturbance, in addition the maintenance of the area would disturb naturalised species within the area.		

Activity	Impact summary	Significance	Proposed mitigation
Alternative A3			
PRE-CONSTRUCTUION PHASE			
	Direct impacts: Wetland Loss	Medium	No area of the adjacent wetland area will be lost as a result of the proposed development, however the drainage line passing through the center of the site will be lost judging by the layout plans. The area of loss appears greater in the preferred plan, possibly affecting the entire system. The alternative shows loss of the lower portion only. No information has been provided

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			as to how the drainage line will be accommodated, therefore it is assumed that the intention is to completely fill the system. The proposed mitigation would be to accommodate the drainage line and implement a 32 m buffer from the edge of both the adjacent wetland area and the central drainage line. This would require an amendment of the proposed layout plan.
	Impact on flora due to site preparation	Medium	<p>During site preparation, topsoil and subsoil are stripped separately from each other and must be stored separately from spoil material for use in the rehabilitation phase. It should be protected from wind and rain, as well as contamination from diesel, concrete or wastewater.</p> <p>Records of all environmental incidents must be maintained and a copy of these records must be made available to authorities on request throughout the project execution.</p>
	Impact on fauna during site preparation	Medium	<p>During site preparation special care must be taken during the clearing of the works area to minimise damage or disturbance of possibly roosting and nesting sites.</p> <p>Before construction commences, barricading measures to be utilised should not restrict the movement of the fauna in the area.</p>
	Impact on Fauna (Search and Rescue)	Medium	<p>A qualified and / or appropriately experienced Zoologist or an experienced person who knows the animals in the region well will identify any possible Red Data fauna on site and the necessary permits to relocate fauna will be obtained if avoidance is not possible.</p> <p>Training of construction workers to recognise threatened animal species will reduce the probability of fauna being harmed unnecessarily.</p>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	Indirect impacts:		
	Cumulative impacts:		
CONSTRUCTION PHASE			
	<p>Direct impacts: Possible erosion on steep slopes and loss of top soil. Compaction of top soil through construction activities.</p> <p>An increased sediment load within the watercourses may impact on the water quality and habitat quality of the watercourses.</p>	Medium	<p>Stabilisation of cleared areas to prevent and control erosion will be actively managed. The method chosen (e.g. watering, planting, retaining structures, commercial anti-erosion compounds) will be selected according to the site-specific conditions. Construction employees to be restricted to approved access roads and walk ways.</p> <p>Adequate measures to be implemented for soil erosion and soil contamination as a result of hydrocarbon spills which in turn will impact vegetation on site.</p>
	Increased Runoff thus affecting the drainage and the ecosystem downstream of the proposed	Medium	The increase in hardpanned area will result in an increase in stormwater runoff from the site. Increased impermeable areas will result in increased runoff, which will be released into the drainage line and adjacent wetland area. Mitigation would take the form of suitable stormwater management which reduces flow velocity and maintains acceptable post development flow scenarios.
	Soil contamination, vegetation loss and vegetation disturbance due to fuel and chemical spills.	Medium	<p>Employ on site personnel responsible for preventing and controlling potential soil pollution through fuel and oil leaks and spills.</p> <p>Make sure construction vehicles are maintained and serviced to prevent oil and fuel leaks. Emergency on-site maintenance should be done over appropriate drip trays and all oil or fuel must be disposed of according to waste regulations. Drip-trays must be placed under vehicles and equipment when not in use.</p>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	Vegetation and habitat disturbance due to the accidental introduction of alien species.	Medium	<p>Promote awareness of all personnel.</p> <p>After construction programme, monitoring and control of alien weeds and invaders through hand removal; slashing (annuals) or chemical control (perennials). Chemical control may only be done upon approval from the Environmental Control Officer.</p>
	Vegetation and habitat disturbance due to pollution and littering during construction phase.	Low	<p>Employ personnel on site responsible for preventing and controlling of litter. Promote housekeeping with daily clean-ups on site.</p> <p>Before construction commences, construction workers should be educated with regards to littering, <i>ad hoc</i> veld fires, and dumping.</p> <p>No fires are allowed on site.</p>
	Damage to plant life outside of the proposed development area	Low	Construction activities should be restricted to the footprint area. All workers must be trained before construction commences.
	Disturbance to animals	Low	<p>Animals residing within the designated area shall not be unnecessarily disturbed.</p> <p>Before construction starts, construction workers must be educated with regards to littering and poaching.</p> <p>The Contractor and his/her employees shall not bring any domestic animals onto site.</p> <p>Toolbox talks should be provided to contractors regarding disturbance to animals. Particular emphasis should be placed on talks regarding snakes.</p>
	Allow for safe animal passage through and specifically out of the construction site.	Low	Construction areas must be demarcated but should allow for the migration of small faunal species out of the construction zone. Fencing types must be selected for minimal disturbance to animal movement corridors (e.g. palisade fencing is preferable to diamond-mesh fencing).

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	<p>Dust from movement of construction vehicles and machinery as well as bare surface areas.</p> <p>Vehicles and construction machinery's emissions.</p> <p>Smoke from uncontrolled fires.</p>	Low	<p>Dust abatement measures to be implemented for construction activities.</p> <p>Vehicles not to travel faster than 30km on servitude road.</p> <p>Bare areas (i.e. siphon sections) must be watered to minimise dust.</p> <p>No uncontrolled fires to be allowed on site.</p>
	<p>Noise associated with construction activities (e.g. vehicle movement, demolition work, generators).</p>	Low	<p>The provisions of SANS 10103 will apply to all areas within audible distance of residents.</p> <p>Construction activities generating output levels of 55 dB or more will be confined to normal working hours.</p> <p>Construction work to be restricted to approved working hours.</p> <p>Construction machinery (especially silencers) to be maintained and kept in working condition.</p> <p>No loud music to be played on servitude or at construction camp site.</p>
	<p>Visual alterations to the area.</p> <p>Visual impact associated with construction camp/s</p> <p>Adverse impacts on the landscape character and sense of place of the affected area.</p>	Low	<p>Construction camp to be positioned so as to minimize its visual impacts.</p> <p>Sound housekeeping practices to be enforced.</p> <p>Damage to the natural environment should be minimised.</p> <p>Vegetation should be cut only if absolutely necessary.</p> <p>The clearing of all sites should be kept to a minimum and surrounding vegetation should as far as possible be left intact.</p>
	<p>Development of FET College</p> <p>Uncontrolled access to servitude.</p> <p>Construction employees getting</p>	Medium	<p>Construction methodology to make provision for development of FET College.</p> <p>Compliance with Occupational</p>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	injured.		<p>Health and Safety Act (Act No. 85 of 1993).</p> <p>Contractor to provide an Occupational Health and Safety Management Plan to the Construction Manager for approval prior to the commencement of works in terms of the Construction Regulations (2003).</p> <p>Proper supervision of employees at all times. Employees to be clearly identifiable.</p> <p>Employees to remain within the servitude and no loitering to be allowed.</p> <p>Access into and out of the servitude must only be via existing access roads from local public roads.</p> <p>Contractor to prepare and submit, for approval, a rescue procedure for employees in the case of an injury.</p>
	<p>Use of veld/ riparian areas for ablution purposes.</p> <p>Land, air and water pollution through poor waste management practises.</p>	Medium	<p>Sufficient ablution facilities to be provided at the Construction Camp and along construction servitude. Ablution facilities to be maintained.</p> <p>No ablution facilities to be positioned within riparian areas.</p> <p>Suitable litter receptacles to be positioned strategically across the site at all working areas.</p> <p>Contractor to submit waste management plan prior to commencement. Such plan to be approved by ECO and enforced by contractor.</p> <p>Waste must be separated at source (e.g. containers for glass, paper, metals, plastics, organic waste and hazardous wastes).</p>
	Job Creation	N/A	Employment creation is a positive impact therefore no mitigation measures are

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			required.
	Education Provision	N/A	The provision of education is a positive impact therefore no mitigation measures are required.
	<p>Damage to archaeological sites.</p> <p>Damage to graves.</p>	Medium	<p>Should remains and/or artefacts be discovered on the site during earthworks, all work will cease in the area affected and the Contractor will immediately inform the Construction Manager.</p> <p>Should any heritage resources be exposed during excavation or be found on site, the relevant heritage resource agency (SAHRA) must be informed and a registered heritage specialist must be called to site for inspection.</p> <p>No person may, without a permit issued by SAHRA or a provincial heritage resources authority –</p> <ul style="list-style-type: none"> ○ Destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves; ○ Destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority or; ○ Bring onto or use at a burial ground or grave referred to in above any excavation equipment, or any equipment which assists in the detection or recovery of metals.
	Indirect impacts:		
	Cumulative impacts:		
OPERATION PHASE			

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	<p>Direct impacts: Increased Runoff thus affecting the drainage and the ecosystem downstream of the proposed activity</p>	Low	<p>The increase in hardpanned area will result in an increase in stormwater runoff from the site. The impact that this will have on the drainage line and the down stream ecosystem is a function of</p> <ol style="list-style-type: none"> 1) whether or not stormwater is adequately controlled and 2) the extent of the buffer around the drainage to absorb abnormal flow. <p>The site already received some stormwater from the neighbouring sports complex and this would need to be considered in the stormwater planning for the development. The mitigation is fairly straight forward and simply requires adequate stormwater planning to be undertaken and suitable stormwater management principles applied to the stormwater bulk infrastructure design (header walls, chambers etc.).</p>
	Habitat Loss	Low	<p>Mitigation options include maintaining/rehabilitating open space areas within the campus to indigenous grassland rather than lawn, or institute the 32m buffer from the drainage line and manage the area as both a grassland and wetland conservation area. Benefits of mitigation measures will take to</p>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			before they become apparent and will require long term management. A further possible mitigation option is to develop structure as infrastructure within the areas of exotic plantation and not disturb the drainage line or grassland area. This will further reduce the impact on remaining habitats.
	Indirect impacts:		
	Cumulative impacts: The proposed development may affect biodiversity through the encroachment of exotic vegetation following soil disturbance, in addition the maintenance of the area would disturb naturalised species within the area.	Medium	Encroachment of alien vegetation should be monitored regularly and controlled; the area must be kept clear of all invader plants as per the Conservation of Agricultural Resources Act, 1983 (Act No 43 of 1983). Rehabilitation measures must be employed until such a time as indigenous species are established.
DECOMMISSIONING PHASE			
Please note that no decommissioning and closure phase is expected to take place as the college is a permanent feature. However, if decommissioning will be undertaken a separate Basic Assessment Report inclusive of a site decommissioning Environmental Management Programme should be developed and implemented.			
No-go option			
The 'No-Go' alternative means that the proposed development will not take place and the area will retain its status quo. If the development does not occur, no new college facility will be built. This will result in a lack of benefit to the local communities both with respect to job opportunities and procurement. The necessary elements of educational facilities will not be in place for the intake of students at the start of the 2014 academic year as defined in the tender clarifications.			

A complete impact assessment in terms of Regulation 22(2)(i) of GN R.543 must be included as Appendix F.

Please see Appendix F.

2. 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 A1

This alternative is for the construction of a new FET College in Greytown, at the identified location using Layout alternative A1.

The key factors which formed part of evaluating the potential environmental impacts associated with the proposed project included the significance of the impacts likely to result from each of the project life-cycle phases, the receiving environment, the extent of the development footprint as well as the degree to which adverse environmental impacts could be either prevented, minimised, rehabilitated or compensated to a satisfactory level.

This alternative will result in the following positive impacts:

- Job creation;
- Provision of higher education facilities.

The following negative impacts are however associated with this alternative:

- Potential loss of the wetland on the proposed site.

The main impacts that may arise from the proposed FET College is the destruction and disturbance of the watercourse (wetland) and infilling of the watercourse should no buffer be implemented, the increased runoff and the destruction of the vegetation. All impacts that have been identified can be mitigated against and or minimised.

All recommendations made by the wetland specialist must be adhered to and the site specific Environmental Management Programme (EMPr) must be implemented to ensure that all potential impacts are mitigated against. The findings of the impact assessment carried out concluded that should this alternative be implemented without the mitigation, the drainage line / watercourse on site will be infilled and destroyed. As such this option is not recommended by the wetland specialist.

Alternative A2(preferred alternative)

This alternative is for the construction of a new FET College at the identified site using Layout alternative A2.

The key factors which formed part of evaluating the potential environmental impacts associated with the proposed project included the significance of the impacts likely to result from each of the project life-cycle phases, the receiving environment, the extent of the development footprint as well as the degree to which adverse environmental impacts could be either prevented, minimised, rehabilitated or compensated to a satisfactory level.

This alternative will result in the following positive impacts:

- Job creation;
- Provision of higher education facilities.

The following negative impacts are however associated with this alternative:

- Potential loss of wetland on the proposed site.

BASIC ASSESSMENT REPORT

The main impacts that may arise from the proposed FET College the potential destruction of the vegetation and increased stormwater runoff, however all impacts that have been identified can be mitigated against and or minimised.

All recommendations made by the wetland specialist must be adhered to and the site specific Environmental Management Programme (EMPr) must be implemented to ensure that all potential impacts are mitigated against. The findings of the impact assessment, specifically the wetland impact assessment found that this alternative is not suitable from an ecological perspective.

Alternative C

This alternative is for the construction of a new FET College at the identified site using Layout alternative A3.

The key factors which formed part of evaluating the potential environmental impacts associated with the proposed project included the significance of the impacts likely to result from each of the project life-cycle phases, the receiving environment, the extent of the development footprint as well as the degree to which adverse environmental impacts could be either prevented, minimised, rehabilitated or compensated to a satisfactory level.

This alternative will result in the following positive impacts:

- Job creation;
- Provision of higher education facilities.

The following negative impacts are however associated with this alternative:

- Potential damage to wetland on the proposed site.

The main impacts that may arise from the proposed FET College the potential destruction of the vegetation and increased stormwater runoff, however all impacts that have been identified can be mitigated against and or minimised.

All recommendations made by the wetland specialist must be adhered to and the site specific Environmental Management Programme (EMPr) must be implemented to ensure that all potential impacts are mitigated against. The findings of the impact assessment carried out concluded that there is no fatal flaw which prevents the proposed project from proceeding provided that all recommendations are adhered to.

No-go alternative (compulsory)

The 'No-Go' alternative means that the proposed development will not take place and the area will retain its status quo. If the development does not occur, no new college facility will be built. This will result in a lack of benefit to the local communities both with respect to job opportunities and procurement. The necessary elements of educational facilities will not be in place for the intake of students at the start of the 2014 academic year as defined in the tender clarifications.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES	
X	

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment).

BASIC ASSESSMENT REPORT

If "YES", please 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.

Based on the information contained in this report, and taking into account the outcome of the impact assessment, opinions and recommendations included in the specialist studies as well as all supporting documentation it is the recommendation of the practitioner that Environmental Authorisation (EA) be granted by the Department of Environmental Affairs (DEA) for **Alternative S1 and A3**.

Furthermore the following conditions for inclusion in the EA are recommended:

- Construction should take place during the dry season (i.e. low rainfall period);
- The Environmental Management Programme should form part of the contract with the Contractor appointed by the proponent, as a means of facilitating compliance with environmental specifications and the implementation of mitigation measures;
- Preventative measures avoiding contaminated runoff from the construction area into the watercourses, must be implemented throughout the construction phase; and
- An Independent Environmental Control Officer (ECO) must be appointed by the proponent prior to the commencement of construction activities. The ECO's primary role will be to assess whether construction activities are implemented as per the conditions stipulated in the EA.

Is an EMPr attached?

YES	NO
X	

The EMPr must be attached as Appendix G.

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Any other information relevant to this application and not previously included must be attached in Appendix J.

Manogrie Chetty

NAME OF EAP



SIGNATURE OF EAP

25 October 2013

DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix 1: Locality Map

Appendix 2: Site or Route Plan

Appendix 3: Sensitivity Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix C1: Layout A

Appendix C2: Layout B

Appendix D: Specialist reports (including terms of reference)

Appendix 1: Wetland Assessment and Delineation and Ecological Survey

Appendix 2: Heritage Impact Assessment

Appendix E: Public Participation

Appendix 1 – Proof of newspaper advertisements

Appendix 2 – Proof of I&AP (Key Stakeholders) Notification

Appendix 3 – Comments and Responses Report

Appendix 4 – Proof of I&AP (Authorities or Organs of State) Notification

Appendix 5 – List of I&APs

Appendix 6 - Correspondence and Minutes

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information

Appendix 1 – Water use license(s) authorisation