



4a Old Main Road, Judges Walk, Kloof, Kwazulu-Natal South Africa 3610
PO Box 819 Gillitts 3603 South Africa

Telephone: +27 (0)31 764 7130 Facsimile: +27 (0)31 764 7140
Web: www.gcs-sa.biz

Proposed Rohill Business Estate on Rem. of Erf 3481 Durban North

Final Scoping Report

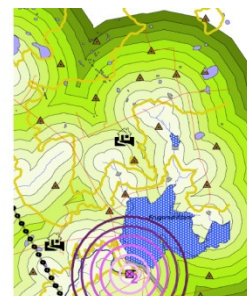
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JT Ross Properties (Pty) Ltd



Proposed Rohill Business Estate on Rem. of Erf 3481 Durban North

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Version - 1


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JT Ross Properties (Pty) Ltd



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PURPOSE OF THIS REPORT

JT Ross Properties (Pty) Ltd proposes to develop the Rohill Business Estate on the Remainder of Erf 3481 Durban North, on the corner of Chris Hani Road and Old North Coast Road. The proposed development will generally comprise of light industrial and business uses with the possibility of warehouse-based retail uses.

In terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), JT Ross requires Environmental Authorisation from the Department of Agriculture and Environmental Affairs (DAEA) subject to conducting an Environmental Impact Assessment (EIA) process before the proposed development activities can commence. In this regard, GCS Water and Environment (Pty) Ltd, an independent environmental consulting company, has been appointed to conduct the EIA for the proposed Business Estate.

An EIA has two distinct phases: the Scoping Phase and the Impact Assessment Phase. This EIA process commences with the Scoping Phase. **The purpose of the Scoping Phase is to scope (identify) the potential negative and positive environmental issues and impacts associated with the proposed development and determine those impacts and issues which need further investigation in the impact assessment phase before an informed decision can be made. The purpose is NOT to assess/evaluate and mitigate the impacts, which is the function of the Impact Assessment Phase.**

The objectives of the Scoping Phase are to:

- Investigate and gather information on the proposed site to establish an understanding of the area.
- Identify Interested and Affected parties (I&APs) and relevant authorities by conducting a public participation process.
- Identify potential environmental impacts and issues through public consultation and professional experience and existing investigations.
- Describe proposed and potential alternatives.
- Define the scope of the Impact Assessment Phase.

The Scoping Phase concludes with the compilation and submission of a Scoping Report to the DAEA for acceptance. The Scoping Report documents all activities undertaken in the scoping phase, the issues and impacts identified by I&APs and professional experience, and the plan of study for the Impact Assessment. If accepted, the DAEA will instruct GCS to commence the Impact Assessment Phase. This report represents the final version of the

Scoping Report that will be made available for public comment.

A prescribed Public Participation Process runs concurrently with the Scoping and Impact Assessment Phases.

The Background Information Document (BID) on the proposed development and the EIA process was distributed to all I&APs on the 4th October 2012 and an open day was held on 18th October 2012 at the Firwood Library. All comments received at the open day, and in response to the BID, were recorded in the Comments and Response Report (CRR) and have been addressed in this report. This Final Scoping Report (FSR) consists of:

- An overview of background description of the proposed project.
- Identified alternatives to the proposed project.
- A description of the existing environment of the project area.
- An overview of the EIA process, including public participation followed to date.
- The potential environmental issues and impacts which have been identified to date.
- Comments from the I&APs collected during the Scoping Phase (including comments on the BID and from the Open Day).
- A Plan of Study (POS) detailing the tasks and specialist studies that will be undertaken during the Impact Assessment Phase.

It is important to note that the Scoping Phase for the project was originally initiated by the previous applicant, Investec Property, and the initial public notification was undertaken as an Investec Project with an Investec conceptual layout plan. This process was halted when JT Ross purchased the land. JT Ross undertook to continue the EIA process from where the Investec application left off, an approach that was accepted by the assessing authority, the Department of Agriculture and Environmental Affairs (DAEA) on the condition that all registered I&APs were notified of the change in applicant and project details. All registered I&APs were subsequently notified of these changes.

The Draft Scoping Report was made available to all registered I&APs for public review and comment from the **18th March 2014 for a period of 40 days** (comment period ended on the **28th April 2014**). All comments received on the Draft Scoping Report were included in the Comment and Response Report and in the Final Scoping Report (this document) where necessary.

Only minor changes have been made to the Draft Scoping Report during finalisation. Changes made to the Scoping Report are listed below:

- Inclusion of warehouse-based retail land use in project description.
- Minor grammatical changes throughout the document.
- Minor changes to public participation details for the Final Scoping Report.
- Minor changes to the potential issues and impact list following comments received during the Draft Scoping Report public comment period.
- Minor re-organisation of the public participation section.
- Inclusion of **Table 7** in the Plan of Study for EIA that summarised issues raised and how these issues are to be addressed in the Impact Assessment Phase.
- Updating of the Comment and Response Report (CRR) to include comments received during the Draft Scoping Report public comment period.

YOUR COMMENT ON THE DRAFT SCOPING REPORT

This Final Scoping Report and Plan of Study for EIA will be submitted to the DEAE for acceptance. In parallel to this submission, this Final Scoping Report will be made available to all registered I&APs for public review and comment from **20th May 2014** for a period of **21 days** (comment period ending **9th June 2014**). I&AP's will be notified of the availability and will be sent an electronic copy on request. Copies will also be available for download from the GCS website: www.gcs-sa.biz. A hard copy will be placed at the Firwood and Glenashley Libraries for those I&APs without access to the internet or email.

Any comments on the Final Scoping Report must be submitted in writing or email (including any additional supporting material) on or before **9th June 2014** directly to:

Ms. Natasha Brijlal
Environmental Officer
Environmental Impact Assessment
eThekweni District Office
KZN Department of Agriculture and Environmental Affairs (DAEA)

Private Bag X54321
Durban
4000

Tel: 031 302 2800
Fax: 031 302 2824
E-mail: Natasha.Brijlal@kzndae.gov.za

Please also carbon copy (cc) the Environmental Assessment Practitioner:

Ryan Edwards
GCS Water & Environmental Consultants
Fax: 031 764 7140
Email: ryane@gcs-sa.biz

EXECUTIVE SUMMARY

Environmental Authorisation

In terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), the development of the Proposed Rohill Business Estate constitutes a number of listed activities defined in the EIA Regulations (2010) that may be detrimental to the environment and thus, requires authorisation from the Department of Agriculture and Environmental Affairs (DAEA) before it can proceed. JT Ross has appointed GCS as the Environmental Assessment Practitioner (EAP) to undertake the Environmental Impact Assessment (EIA) for the project.

This report represents the Final Scoping Report (FSR) for the proposed project and has been prepared in accordance with the EIA Regulations (2010) published in Government Notice No. R. 543 of 2010. These Regulations were published by the National Department of Environmental Affairs (DEA) under Section 24(5) read with Section 24M and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) to control activities which may have a detrimental effect on the environment.

Public Participation Process

The public participation for this project has been undertaken in accordance with Regulation 54 of the EIA Regulations (2010) and associated guidelines. As part of the prescribed process, the following tasks were undertaken:

- Identification and registration of stakeholders and interested and affected parties (I&APs) on a database.
- Notification of Key Stakeholders through letters, email and telephonic discussions between the 4th and 24th October 2012.
- An invitation for the registration and participation of I&APs, was placed in the Mercury, Isolezwe and the Northglen newspapers on the 2nd & 3rd October 2012.
- Notice boards detailing information about the project and the Scoping and EIA Process, as well as invitation to register as I&APs, were strategically fixed at various points around the development site on the 4th & 24th October 2012.
- A Background Information Document (BID) was compiled in English and distributed to surrounding landowners on the 4th October 2012. The BID contains information on the proposed project, the proponent, consultants and the proposed Scoping and EIA process and associated PPP to be followed.
- An Open Day was held at the Firwood Library on 18th October 2012. The purpose of the open day was to provide an informal opportunity for I&APs to interact one-on-

one with members of the project team and discuss their issues and concerns.

- All I&AP and Stakeholder comments and issues were recorded and all written comments received have been documented in the Comments and Response Report (CRR) which is included in this Draft Scoping Report.
- Notification of change in project proponent and land ownership was sent to all registered I&APs via email between the 7th and 11th March 2014 via email.
- The Draft Scoping Report was made available to all registered I&APs for public review and comment on the 18th March 2014 for a period of 40 days (comment period ended on the 28th April 2014).
- All I&AP and Stakeholder comments submitted in response to the review of the DSR were collated, documented and responded to in the CRR and Final Scoping Report (FSR) where appropriate.

It is important to note that the Scoping Phase for the project was originally initiated by the previous applicant, Investec Property, and the initial public notification was undertaken as an Investec Project with an Investec conceptual layout plan. This process was halted when JT Ross purchased the land. JT Ross undertook to continue the EIA process from where the Investec application left off, an approach that was accepted by the assessing authority, the Department of Agriculture and Environmental Affairs (DAEA) on the condition that all registered I&APs were notified of the change in applicant and project details. All registered I&APs were subsequently notified of these changes.

Project Description

JT Ross proposes to develop the Rohill Business Estate on Remainder of Erf 3481 Durban North, on the corner of Chris Hani Road and Old North Coast Road. The land is currently zoned as extractive industry and is used for sugar cane farming. Portions of the site are also used by Corobrik to mine clay under an existing Mining Right. The total area of the site is 59.61 hectares. Approximately 32 hectares of the land will become levelled platforms and subdivided to form light industrial, general business, retail and warehousing platforms while the remainder of the site will be zoned as open space or conservation and roads.

Alternatives

A scoping-level alternatives assessment has been undertaken to comparatively evaluate the positive and negatives and viability of a suite of land use and layout alternatives. At this stage, the only viable land use option for the proponent is to develop a light-industrial and warehouse-based retail business estate. Thus, only the different layout alternatives will be investigated, not the land use alternatives.

Potential Environmental Impact and Issues

The environmental impacts and issues identified during Scoping to date have been summarised into the following categories:

Biophysical/Ecological:

- Soil erosion and sedimentation.
- Potential water and soil pollution.
- Alteration of hydrological functioning and change in habitat of the wetlands and rivers.
- Loss of wetland and riparian habitat.
- Sedimentation of local water sources and rivers.
- Disturbance of floral and faunal species.
- Loss of, or reduction in, local biodiversity.

Social Impacts:

- Noise generated during construction and operational phases.
- Visual impacts associated with construction, operation and improper rehabilitation.
- Dust impacts during construction and operational phases.
- Air quality and odour impacts during construction and operational phases.
- Change to sense of place and experience.
- Changes in traffic patterns and increased congestion.
- Increased use of residential roads by taxis and heavy vehicles.
- Establishment and acceptability of 'green belt' buffer zone.
- Changes in human movement and trade patterns.
- Safety and security of local residents and businesses.
- Change in property values.
- Increased and/or reduced crime.

Economic:

- Impact on employment and trade.
- Local economic development and job creation.

Cultural Heritage:

- Impact on cultural heritage resources.

Air Quality:

- Construction related impacts such as dust pollution.

- Construction vehicles causing traffic congestion.
- Dust pollution.

Municipal/Regional Infrastructure and Services:

- Increased demand on municipal infrastructure and services.
- Reduction in level of service of electrical services.
- Effect on poor cellphone network.
- Impact on existing sewer infrastructure.
- Capacity and upgrade requirements.

Traffic Impacts:

- Increase in traffic volumes and congestion.
- Capacity and upgrade requirements.

Waste Impacts and Management:

- Waste generation and disposal during construction and operational phases.

Safety Impacts:

- Safety of workers.
- Safety of travellers / pedestrians.
- Safety of residents in the area.

Geotechnical:

- Onsite and adjacent land use instability due to high clay content.

Cumulative Impacts:

- It is anticipated that the development of the Proposed Business Estate will create a number of cumulative impacts which will be identified and analysed in terms of these impacts on the Estate and surrounding area.

Operational Management and Monitoring:

- Maintenance and responsibility for buffer zone.
- Water quality monitoring.

Layout requirements:

- Size of residential buffer zone.
- Location of access points.

- Location of different land uses.

Specialist and Technical Investigations

The following specialist and technical investigations will be undertaken in the Impact Assessment phase to assess and mitigate the above listed potential issues and impacts:

- Wetland and Riparian Zone Impact Assessment
- Wetland Offset Study and Rehabilitation Plan
- Vegetation Assessment
- Faunal Assessment
- Conservation Area Rehabilitation and Management Plan
- Agricultural Potential Assessment
- Heritage Impact Assessment
- Noise Impact Assessment
- Visual Impact Assessment
- Social Impact Assessment
- Economic Impact Assessment
- Floodline Assessment
- Stormwater Management Plan
- Preliminary Geotechnical Assessment
- Civil Engineering Services Assessment
- Electrical Services Assessment

Changes to the Draft Scoping Report

Only minor changes have been made to the Draft Scoping Report during finalisation. Changes made to the Scoping Report are listed below:

- Inclusion of warehouse-based retail land use in project description.
- Minor grammatical changes throughout the document.
- Minor changes to public participation details for the Final Scoping Report.
- Minor changes to the potential issues and impact list following comments received during the Draft Scoping Report public comment period.
- Minor re-organisation of the public participation section.
- Inclusion of **Table 7** in the Plan of Study for EIA that summarised issues raised and how these issues are to be addressed in the Impact Assessment Phase.
- Updating of the Comment and Response Report (CRR) to include comments received during the Draft Scoping Report public comment period.

Way Forward

This Final Scoping Report and Plan of Study for EIA will be submitted to the DEAE for acceptance. In parallel to this submission, the FSR will be made available in hard copy for public review at the public places listed below from **20th May 2014 until 9th June 2014 (21 days)**:

- Firwood Library
- Glenashley Library

Electronic versions of the report will also be available on CD on request or can be downloaded from the GCS website. All registered I&APs will be informed of the availability of the FSR for review.

All comments received on the Background Information Document (BID), at the Open Day Meeting and on the Draft Scoping Report (DSR) have been recorded in the Comments and Response Report (CRR). All comments received on this FSR must be submitted directly to the Natasha Brijlal at the DAEA. The FSR will be submitted to the DAEA for review and approval on the **9th June 2014**. On receiving approval from the DAEA, the Impact Assessment Phase of the EIA will be initiated.

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ACRONYMS AND ABBREVIATIONS

AMAFA:	AMAFA aKwaZulu-Natali
a.s.l:	above sea level
BID:	Background Information Document
CRR:	Comments and Response Report
DAEA:	KZN Department of Agriculture and Environmental Affairs
DAFF:	Department of Agriculture, Fisheries and Forestry
DEAT:	Department of Environmental Affairs and Tourism
DEIR:	Draft Environmental Impact Report
DM:	District Municipality
DMA:	Demarcated Management Area
DMOSS:	Durban Metro Open Space System
DMR:	Department of Mineral Resources
DOT:	Department of Transport
DSR:	Draft Scoping Report
DWA:	Department of Water Affairs
EA:	Environmental Authorisation
ECA:	Environment Conservation Act
ECO:	Environmental Control Officer
EIA:	Environmental Impact Assessment
EKZNW:	Ezemvelo KZN Wildlife
EMP:	Environmental Management Programme
FEIR:	Final Environmental Impact Report
FSR:	Final Scoping Report
GNR:	Government Notice Regulation
HIA:	Heritage Impact Assessment
I&AP:	Interested and Affected Party
IDP:	Integrated Development Plan
IMP:	Integrated Management Plan
IRP:	Issues and Response Report
KZN:	KwaZulu-Natal
LM:	Local Municipality
NEMA:	National Environmental Management Act
NEM:BA:	National Environmental Management: Biodiversity Act
NEM:WA:	National Environmental Management: Waste Act
NHRA:	National Heritage Resources Act

NWA:	National Water Act
POS:	Plan of Study
PPP:	Public Participation Programme
ROD:	Record of Decision
SANRAL:	South African National Roads Agency Limited
SAHRA:	South African Heritage Resource Agency
STEP:	Subtropical Thicket Ecosystem Plan
TOR:	Terms of Reference
VIA:	Visual Impact Assessment

The contents of a scoping document are required to contain information as outlined in Table A below. These requirements are regulated under Regulation 28 of GNR 543.

Table A: Contents of Scoping Report

REGULATION REQUIREMENT	SECTION IN THIS REPORT
Details of the EAP who prepared this report, and the expertise of the EAP to carry out scoping procedures	Section 1
A description of the proposed activity	Section 3
A description of any feasible and reasonable alternatives that have been identified	Section 5
A description of the property on which the activity is to be undertaken	Section 4
A description of the environment that may be affected by the activity and the manner in which the activity may be affected by the environment	Section 6
Identification of all legislation and guidelines that have been considered in the preparation of the scoping report	Section 2
A description of environmental issues and potential impacts including cumulative impacts that have been identified	Section 8
Details of the public participation process conducted in terms of Regulation 27(e)	Section 7
An indication of the stages at which the competent authority will be consulted	Section 7
A description of the need and desirability of the proposed activity	Section 1
A description of identified potential alternatives to the proposed activity	Section 5
A description of the tasks that will be undertaken as part of the environmental impact assessment process, including any specialist reports or specialised processes and the manner in which such tasks will be undertaken.	Section 9
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Provide a Plan of Study for the Impact Assessment Stage	Section 9

1 INTRODUCTION

1.1 Overview and Background

The applicant, JT Ross Properties (Pty) Ltd (hereafter referred to as 'JT Ross') proposes to develop the Rohill Business Estate on Remainder of Erf 3481 Durban North, on the corner of Chris Hani Road and Old North Coast Road, in the suburb of Red Hill (See **Figures 1 & 2 included in Appendix A**). The land is currently zoned as extractive industry and is currently under cane cultivation with portions being used by Corobrik to mine clay (**Figure 3**). The total area of the site is 59.61 hectares. Approximately 32-36 hectares of the land will become levelled platforms and subdivided to form light industrial, general business, warehouse-based retail and warehousing platforms while the remainder of the site will be zoned as open space or conservation and roads. The study area falls within the eThekweni Municipality.

The EIA process for the proposed development was originally initiated by Investec under the project name 'Proposed Rinaldo East Industrial and Business Estate'. However, the land has subsequently been sold to JT Ross who is now the new applicant for the EIA. JT Ross proposes the same type of light industrial development estate concept as was originally proposed with minor changes under the name 'Rohill Business Estate'.

JT Ross, as the project proponent, has appointed GCS as the Independent Environmental Assessment Practitioner (EAP) to undertake the Environmental Impact Assessment (EIA) for the proposed Rohill Business Estate.

This report constitutes the Scoping Report of the EIA, which places the project in context, describes the proposed project and alternatives, and identifies the potential negative and positive issues and impacts related to the proposed project through public involvement and professional judgement.

The following chapter provides a background to the proposed project and associated EIA process, outlines the purpose and structure of the Scoping Report, and details of the EIA application and the project team.

1.2 Motivation for the Project

The use of the site for business / light industrial use is in line with both the eThekweni zoning and the Spatial Development Framework (SDF) prepared by the eThekweni

Municipality.

From a business perspective, the proposed Business Estate is ideally located within the already existing Red Hill/Avoca industrial node catering for light industry and residential services. The site is located close to the N2 highway and in close proximity to the KwaMashu railway line. The development site is located close to major routes such as Chris Hani Road (North Coast Road) which extends roughly from the Umgeni River to the N2, providing road and rail access into the Inner City from Phoenix, KwaMashu, Ntuzuma and Inanda.

The site is situated in an already built up area which provides an opportunity for the development to tie into the existing bulk services. According to the 1998, 2004 and 2012 Spatial Development Framework (SDF), the proposed development site has been earmarked as light industrial development.

The proposed Business Estate will:

- Provide industrial / logistics, clean manufacturing, business park and office opportunities in close proximity to the King Shaka Airport and with good accessibility to major routes.
- Contribute towards positioning eThekweni as an industrial, logistics and business hub.
- Create an opportunity to improve the road network.
- Create job/employment opportunities.
- Generate revenue for the city through municipal rates.

1.3 Background and Environmental Authorization

This report represents the Final Scoping Report (DSR) for the proposed Business Estate development in Durban North and has been prepared in accordance with the EIA Regulations (2010) published in Government Notice No. R. 543 of 2010. These Regulations were published by the National Department of Environmental Affairs (DEA) under Section 24(5) read with Section 24M and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) to control activities which may have a detrimental effect on the environment.

Activities listed under Government Notice No. R544 require a Basic Assessment process to be undertaken while those listed under Government Notice No. R545 require a Full

Environmental Impact Assessment process. The following activities (**Table 1**), as listed in Government Notice No. R544 and 545 (July 2010 EIA Regulations) have relevance to the proposed project:

Table 1: Identified Listed Activities in terms of the EIA Regulations to date

Relevant Notice	Activity No	Listed Activity	Description of the activity
GNR 544	9	<p><i>The construction of facilities or infrastructure exceeding 1000 meters in length for the bulk transportation of water, sewage or storm water -</i></p> <ul style="list-style-type: none"> <i>(i) With an internal diameter of 0,36 metres or more; or</i> <i>(ii) With a peak throughput of 120 litres per second or more,</i> <p><i>Excluding where:</i></p> <ul style="list-style-type: none"> <i>a. Such facilities or infrastructure are for bulk transportation of water, sewage or storm water or storm water drainage inside a road reserve; or</i> <i>b. Where such construction will occur within urban areas but further than 32 metres from a watercourse, measured from the edge of the watercourse.</i> 	<p>The infrastructure for the transportation of water, sewage and storm water has not been finalised, however it is likely that the pipelines may have an internal diameter of 0,36 metres or more or a have a peak throughput of 120 litres per second. Even though the development falls within an urban area, the pipelines are likely to cross or fall within 32 meters of certain watercourses.</p>
GNR 544	11	<p><i>The construction of</i></p> <ul style="list-style-type: none"> <i>(i) Canals;</i> <i>(ii) Channels;</i> <i>(iii) Bridges</i> <i>(iv) Dams;</i> <i>(v) Weirs;</i> <i>(vi) Bulk storm water outlet structures;</i> <i>(vii) Marinas;</i> <i>(viii) Jetties exceeding 50 square metres in size;</i> <i>(ix) Slipways exceeding 50 square metres in size;</i> <i>(x) Building exceeding 50 square metres in size; or</i> <i>(xi) Infrastructure or structures covering 50 square metres in size; or</i> <i>(xii) Infrastructure or structures covering 50 square metres or more</i> <p><i>Where such construction occurs within a watercourse or within 32 metres of a water course, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</i></p>	<p>The specific details of the development plan have not been finalised; however from preliminary investigations it is likely that certain access roads and platforms will encroach within 32 meters of certain watercourses. In addition, civil infrastructure for sewage, storm water and water which is greater than 50 square metres in size will be constructed within 32 meters of some of the watercourses.</p>
GNR 544	13	<p><i>The construction of facilities or infrastructure for the storage, or for the storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic metres.</i></p>	<p><i>Exact details are unknown at this stage but hazardous substances may be stored on site e.g. Diesel storage.</i></p>
GNR 544	18	<p><i>The 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:</i></p> <ul style="list-style-type: none"> <i>(i) A water course</i> 	<p>During the construction phase, more than 5 cubic meters of material will be deposited and/or excavated from the watercourses. In addition, certain systems are likely to be</p>

Relevant Notice	Activity No	Listed Activity	Description of the activity
		<p>(ii) The sea (iii) The seashore (iv) The littoral active zone, an estuary or a distance of 100 metres inland of the high water mark of the sea or an estuary, whichever distance is the greater-</p> <p>But excluding where such infilling, depositing, dredging, excavation, removal or moving; (a) Is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority or (b) Occurs behind the development setback line</p>	<p>in filled to allow for platforming due to their low ecological value. Other wetland systems will be fully rehabilitated as a form of offsetting.</p>
GNR 544	27	<p>The decommissioning of existing facilities or infrastructure, for activities where the facility or the land on which it is located is contaminated.</p>	<p>The existing clay mining operations will need to be decommissioned prior to the Business Estate being developed.</p>
GNR 544	37	<p>The expansion of facilities or infrastructure for the bulk transportation of water, sewage or storm water where:</p> <p>(a) the facility or infrastructure is expanded by more than 1000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more-</p> <p>excluding where such expansion:</p> <p>(i) relates to transportation of water, sewage or storm water within a road reserve; (ii) Where such expansion will occur within urban areas but further than 32 metres from a watercourse, measured from the edge of the watercourse.</p>	<p>Municipal infrastructure is likely to be expanded for the bulk transportation of water, sewage or storm water where this infrastructure may be constructed within 32 meters of a watercourse.</p>
GNR 544	56	<p>Phased activities for all activities listed in this Schedule, which commenced on or after the effective date of this Schedule, where anyone phase of the activity may be below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.</p>	<p>The development is likely to be divided into phases and thus all phases will be taken into account when determining whether the activity is greater than the threshold.</p>
GNR 545	15	<p>Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more;</p>	<p>The property on which the industrial development has been proposed is currently being used by Corobrik for clay mining and</p>

Relevant Notice	Activity No	Listed Activity	Description of the activity
		<p><i>Except where such physical alteration takes place for:</i></p> <ul style="list-style-type: none"> <i>(i) Linear development activities; or</i> <i>(ii) Agricultural or afforestation where activity 16 in this Schedule will apply.</i> 	<p>sugar cane farming and the land is zoned as extractive industrial. The property size is approximately 59.61 hectares, thus the size of the property to be developed is greater than 20 hectares.</p>
GNR 545	18	<p><i>The route determination of roads and design of associated physical infrastructure including roads that have not yet been built for which routes have been determined before 03 July 2006 and which have not been authorised by a competent authority in terms of the Environmental Impact Assessment Regulations, 2006 or 2009, made under section 24(5) of the Act and published in Government Notice No. R. 385 of 2006,-</i></p> <ul style="list-style-type: none"> <i>(i) It is a national road as defined in section 40 of the South African National Roads Agency Limited and National Roads Act, 1998 (Act No. 7 of 1998);</i> <i>(ii) It is a road administered by a provincial authority;</i> <i>(iii) The road reserve is wider than 30 metres; or</i> <i>(iv) The road will cater for more than one lane of traffic in both directions.</i> 	<p>The development may require that certain intersections that belong to either SANRAL or the Department of Transport (DOT) are upgraded to cater for the increase in traffic flow. This will be determined from a detailed traffic impact assessment during the EIA phase and assessed where necessary.</p>

The proposed project constitutes activities under both GNR 544 requiring a Basic Assessment and GNR 545 requiring a full Scoping and Environmental Impact Assessment Process. However, the EIA Regulations (GNR 543) stipulate that where any activity associated with a proposed development is listed within GNR 545, a full Scoping and EIA Process must be followed, regardless of whether additional activities are identified in GNR 544 for Basic Assessments. Hence, a full Scoping and EIA Process will be undertaken for the proposed Business Estate.

1.4 Responsible Parties

Table 2: Responsible Parties in EIA

DAEA ASSESSING OFFICER	PROPONENT/APPLICANT
Department of Agriculture and Environmental Affairs: Environmental Impact Assessment Unit Ms Yugesni Govender Assistant Manager Impact Assessment Eagle Building, 357 West Street, 3000 Tel: 031 302 2868 Fax: 031 302 2824 Email: Yugesni.Govender@kzndae.gov.za	JT Ross Properties (Pty) Ltd Mr. Andre Proctor PO Box 47174 Greyville 4023 Tel: 031 372 9700 Fax: 031 303 1122 Email : andrep@jtrross.co.za
PROJECT CIVIL ENGINEER	ENVIRONMENTAL ASSESSMENT PRACTITIONER
SMEC South Africa Mr Dave Duke Functional Head, Urban Development 2 The Crescent Westway Office Park Westville 3629 Tel: 031 277 6650 Fax: 27 031 277 6700 Email: dave.duke@smec.com	GCS (Pty) Ltd Mr Ryan Edwards Senior Environmental Scientist P.O. Box 819 Gillits, 3603 Tel: 031 764 7130 Fax: 031 764 7140 Email: ryane@gcs-sa.biz

1.5 GCS Project Team

GCS is an independent consultancy providing expertise in earth sciences, environmental sciences / management, Geographic Information Systems (GIS) and water resources management. The environmental unit at GCS (national) has been involved in environmental authorisation processes and related work for the past 8 years. The unit members of the Durban team, specifically Mr Labuschagne and Mr Stow, have a wide range of environmental

management skills and have been involved in the application for authorisation for a number of large scale developments and multi-discipline projects for the past 12 years. All team members hold post-graduate degrees in the natural sciences. Mr Labuschagne, Mr Stow and Mr Edwards are all currently registered as Professional Natural Scientists under the South African Natural Science Professions Council (SACNASP). Thus, the team has the required expertise to carry out the scoping and EIA procedures.

The EIA project team comprises the following members from GCS (**Table 3**):

Table 3: GCS EIA Team Members and Role/Duties

NAME	ROLE	DUTIES
Pieter Labuschagne	Project Director	Singing-off
Russell Stow	Environmental Unit Manager	Advice and report review
Ryan Edwards	Project Leader and Environmental Scientist	Team management, public participation, report writing and report review
Kelly Taylor	Project Environmental Consultant	Public participation, report writing and report review
Ntombifuthi Vilakazi	Project Environmental Consultant	Public participation and report writing
Kendyl le Roux	Project Environmental Consultant	Public participation and report writing

2 ENVIRONMENTAL LEGISLATION

This chapter details applicable legal provisions and aims to provide a review of relevant national and provincial legislation and regulations, and policy documents, which are applicable to, or have implications for, the proposed Business Estate on Rem of Erf 3481 Durban North.

2.1 The Constitution of South Africa

The legal reference source for environmental law in South Africa is found in the Constitution of the Republic of South Africa (Act No.108 of 1996) and as such, all environmental aspects should be interpreted within the context of the Constitution. The Constitution has enhanced the status of the environment by virtue of the fact that environmental rights have been established (Section 24) and other rights created in the Bill of Rights which impact on environmental management. An objective of local government is to provide a safe and healthy environment (Section 152) and public administration must be accountable, transparent and encourage participation (Section 195(1)(e) to (g)).

2.2 The National Environmental Management Act

The National Environmental Management Act (Act No. 107 of 1998) (NEMA) is South Africa's overarching framework for environmental legislation. The objective of NEMA is to provide for operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance, and procedures for coordinating environmental functions exercised by organs of state.

NEMA sets out a number of principles that aim to implement the environmental policy of South Africa. These principles are designed, amongst other purposes, to serve as a general framework for environmental planning, as guidelines by reference to which organs of state must exercise their functions and to guide other law concerned with the protection or management of the environment.

The principles include a number of internationally recognised environmental law norms and some principles specific to South Africa, namely, the:

- Preventive Principle
- Precautionary Principle
- Polluter pays Principle
- Equitable access for the previously disadvantaged to ensure human well-being.

Chapter 5 of NEMA is designed to promote integrated environmental management. Environmental management must place people and their needs at the forefront of its concerns, and serve their physical, psychological, developmental, cultural and social interests equitably. Development must be socially, environmentally and economically sustainable. Sustainable development therefore requires the consideration of all relevant factors including the following:

- The disturbance of ecosystems and loss of biological diversity is avoided, or, minimized and remedied.
- The pollution and degradation of the environment are avoided, or, minimized and remedied.
- The disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or, minimized and remedied.
- That waste is avoided, or, minimized and re-used or recycled where possible and otherwise disposed of in a responsible manner.
- The use and exploitation of non-renewable natural resources should be utilised responsibly and equitably.
- The development, use and exploitation of renewable resources and the ecosystem of which they are part of, do not exceed the level beyond which their integrity is jeopardized.
- A risk-averse and cautious approach is applied.
- Negative impacts on the environment and on the people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.

Regulations promulgated under NEMA include the EIA Regulations published under GNR 543, and the associated Listing Notices GNR 544, 545 and 546. Section 24(5) of NEMA stipulates that certain "listed activities" require environmental authorisation by way of either a Basic Assessment (BA) or a full Scoping and Environmental Impact Assessment as defined in the EIA Regulations Listing Notices (July 2010 EIA Regulations). As identified in Chapter 1.2 above, the proposed project constitutes listed activities in both Listing Notices. However, GNR 545 supersedes GNR 544 and, as such, a full Scoping and Environmental Impact Assessment must be undertaken.

This report represents the Draft Scoping Report (DSR) which has been prepared in accordance with the EIA Regulations published in GNR 543.

2.3 The Environment Conservation Act

The objectives of the Environment Conservation Act (Act No. 73 of 1989) (ECA) are to provide for the effective protection and controlled utilisation of the environment. Following the enactment of NEMA, a number of the powers of the Act have either been repealed from or assigned to the provinces. These include the EIA Regulations for activities that were regarded as detrimental on the environment and were published under Government Notice Regulation 1182 of 05 September 1997, as amended. New EIA Regulations were published in Government Notice No. R543 of 2010.

2.4 National Environmental Management: Waste Act

The purpose of the National Environmental Management: Waste Act (Act No 59 of 2008 [NEM:WA]) is to reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development; to provide for institutional arrangements and planning matters; to provide for national norms and standards for regulating the management of waste by all spheres of government; to provide for specific waste management measures; to provide for the licensing and control of waste management activities; to provide for the remediation of contaminated land; to provide for the national waste information system; to provide for compliance and enforcement; and to provide for matters connected therewith. The objectives of the Waste Act are:

- to protect health, well-being and the environment by providing reasonable measures for:
 - Minimizing the consumption of natural resources.
 - Avoiding and minimizing the generation of waste.
 - Reducing, re-using, recycling and recovering waste.
 - Treating and safely disposing of waste as a last resort.
 - Preventing pollution and ecological degradation.
 - Securing ecologically sustainable development while promoting justifiable economic and social development.
 - Promoting and ensuring the effective delivery of waste services.
 - Remediating land where contamination presents, or may present, a significant risk of harm to health or the environment.
 - Achieving integrated waste management reporting and planning.

A holder of waste must, within the holder's power, take all reasonable measures to:

- Avoid the generation of waste and where such generation cannot be avoided, to minimize the toxicity and amounts of waste that are generated.
- Reduce, re-use, recycle and recover waste.
- Where waste must be disposed of, ensure that the waste is treated and disposed of in an environmentally sound manner.
- Manage the waste in such a manner that it does, not endanger health or the environment or cause a nuisance through noise, odour or visual impacts.
- Prevent any employee or any person under his or her supervision from contravening this Act.
- Prevent the waste from being used for an unauthorized purpose.

2.5 National Water Act

The National Water Act (Act No. 36 of 1998) (NWA) is the fundamental law for managing South Africa's water resources. The purpose of the Act is to ensure that water resources of the nation are protected, used, developed, conserved and controlled. It is concerned with the allocation of equitable access and the conservation of water resources within South Africa. The NWA repeals many of the powers and functions of the Water Act (Act No. 54 of 1956).

Key Aspects of the NWA include:

- Catchment Areas - Any disturbance to a watercourse such as the construction of a dam or weir type facility requires authorization from the DWA.
- Water Supply - Under the NWA, a developer is required to obtain the necessary permits for water usage and the disposal of wastewater from the DWA.
- Wastewater - the NWA is the principal piece of South African legislation governing wastewater management. Under the Act there are several important issues relating to wastewater to note:
 - It is an offence to willfully or negligently pollute surface water or groundwater.
 - In the event of a pollution incident, the offending party is obliged to report the incident to the regulatory authority.
 - The regulatory authority can take the necessary steps to prevent the pollution of water resources and can recover the costs of clean up from the polluter.

2.6 National Environmental Management: Biodiversity Act

The National Environmental Management: Biodiversity Act (Act No. 10 of 2004) (NEM:BA) provides for the management and conservation of South Africa's biodiversity within the framework of the NEMA. This Act allows for the protection of species and ecosystems that warrant national protection, the sustainable use of indigenous biological resources, the fair and equitable sharing of benefits arising from bio-prospecting involving indigenous biological resources and the establishment and functions of the South African National Biodiversity Institute.

Key elements of the NEM:BA are:

- The identification, protection and management of species of high conservation value.
- The identification, protection and management of ecosystems and areas of high biodiversity value.
- Biodiversity Initiatives such as the STEP (Subtropical Thicket Ecosystem Plan) and CAPE (Cape Action Plan for People and Environment) may become accepted as bioregional plans and are thus implemented as legislation.
- Alien invasive species control of which the management responsibility is directed to the landowner.
- Section 53 of the Act identifies that any process or activity that is regarded as a threatening process in terms of a threatened ecosystem, requires environmental authorization via a full Environmental Impact Assessment.

2.7 National Forests Act

Under the National Forest Act (Act No. 84 of 1998), listed trees and forests are protected and no person may cut, disturb, damage or destroy a protected tree or forest without prior approval via a permit from the Minister of the DWAF.

Vegetation is further protected from disturbance in terms of NEMA, (EIA Regulation GNR 545) where environmental authorisation is required for the transformation or removal of indigenous vegetation of 3 ha or more.

2.8 National Heritage Resources Act

The National Heritage Resources Act (Act 25 of 1999) (NHRA) aims to promote the protection and good management of the national estate of South Africa. In terms of Section

38 of the Act, the South African Heritage Resources Agency (SAHRA) must be notified during the early planning phases of a project for any development that includes any of the following activities:

- The construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length.
- Any development or other activity which will change the character of a site exceeding 5 000 m² in extent.
- The costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority.
- Any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority.

If a project is listed under the NHRA Regulations, then a permit application must be made to the SAHRA before the project can commence. For projects in KwaZulu-Natal permit applications must be made to AMAFA in terms of KwaZulu-Natal Heritage Act (Act No. 10 of 1997) (see below).

2.9 The KwaZulu-Natal Heritage Act

The aim of the KwaZulu-Natal Heritage Act (Act No. 10 of 1997) is to provide for the establishment of a statutory body to administer heritage conservation on behalf of the provincial government of KwaZulu-Natal, namely AMAFA aKwaZulu-Natali (AMAFA). Section 27 of the Act states that the developer must notify AMAFA if he is wishing to undertake a proposed development in terms of the following categories:

- Linear Developments (roads, walls, powerlines, pipelines) greater than 300m in length.
- Bridges greater than 50m in length.
- Proposed developments exceeding 10000m².
- Proposed developments exceeding three or more erven.
- Proposed developments exceeding three or more existing erven consolidated within past five years.
- Proposed developments exceeding a cost set in terms of regulations.
- Any other category provided for in regulations.

2.10 Local and Regional Integrated Development Plans

2.10.1 eThekweni Municipal Vision

“By 2030, eThekweni Municipality will enjoy the reputation of being Africa’s most caring and liveable City, where all citizens live in harmony”.

The Vision for the Municipality has been amended to ensure that there is alignment with key strategic documents namely the National Planning Vision and The Provincial Growth and Development Strategy. Both these strategic documents have a 2030 timeframe. Through a more structured participation process with all stakeholders, the Municipality may choose to review this Vision so as to realise the development plans of National and Provincial government.

To realise the existing vision, the Municipality believes there are basic elements that all citizens, the business community and visitors must enjoy:

- Ease of movement in the Municipality.
- A safe environment in all parts of the municipal area.
- Access to economic opportunities.
- Resources to afford what the Municipality offers.
- A clean and green Municipality, capable of delivering a range of ecosystem goods and services.
- Homely neighbourhoods.
- Access to services, in particular municipal, health and education services.

With the delivery of these, the people of eThekweni should be able to:

- Live in harmony.
- Be proud of their Municipality.
- Feel protected.
- Feel their basic needs are being met.

Achieving the vision means addressing the key development challenges by making key interventions.

The development of the subject site for industrial / business use in the SDF has been proposed to take advantage of the site’s strategic location and adjacent major roads

thereby facilitating the successful development of industrial and business ventures to generate much needed job opportunities and increase the municipal rates base.

3 DESCRIPTION OF THE PROPOSED DEVELOPMENT

3.1 Proposed Development

The proposed development will comprise the establishment of light/service industrial warehousing and warehouse-based retail business estate on extensive platforms covering an estimated 32ha as shown in the preliminary layout plan prepared by SMEC SA in **Appendix B**. The remainder of the site will be zoned as public/private open space or conservation and roads.

At this stage the civil engineer has produced a layout plan that maximises the available platform area taking into account the following constraints:

- Preservation of as much of the central/main watercourse and narrow buffer zone as possible.
- Preservation of a 100m buffer zone to the Glen Hills suburb.
- Preservation of a 40m buffer to the D'MOSS area.
- Exclusion of unstable geological areas.
- Location of access points away from Harrison Drive and Rinaldo Road.

Based on preliminary cut-to-fill and platform location and alignment exercises with the aim of maximising platform area, the following features of the preliminary plan are worth noting:

- The smaller tributary watercourses to the central watercourse will be in-filled.
- The lower reaches of the central watercourse will be in-filled and flow diverted into a culvert.
- Stormwater attenuation and erosion control measures will be installed within the central drainage line.
- Platform embankments along the watercourse generally encroach to within a few metres of the watercourse edge (minimal buffer zone).
- Two internal road watercourse crossings are proposed that will involve the infilling of portions of the central watercourse.
- The open spaces onsite including the central drainage line and 100m buffer will be rehabilitated and managed by the applicant and zoned appropriately.

A preliminary technical motivation/substantiation of the need to encroach into the onsite watercourses is provided below.

To ensure a sustainable development is achieved, the developer is required to maximise the site taking into account environmental and geotechnical constraints. To service the individual platform sites, the proposed access road will need to cross the existing natural valley system at two places. The valley system is too wide to be effectively bridged by structure and therefore a culverted fill embankment has been proposed using a portal culvert 1.5 x 1.5m to ensure that the normal pre-development water course flow is uninterrupted and ecological movement along the existing system is maintained.

The central watercourse exiting the site has already been in-filled and flow is currently diverted into a culvert underneath Old North Coast Road and the surrounding industrial platforms. With consideration to the site's geotechnical conditions and large excess volumes of material being available to complete a practical industrial development, it is desirable to infill in the lower portion of the watercourse below the attenuation pond and extend the existing culvert back to the proposed attenuation pond.

Furthermore, with large surfaces being proposed for development, it is important to ensure water quality and quantity will be controlled within the development. Therefore, it is proposed that an attenuation pond is constructed at the Access Road crossing on the South side to ensure that sufficient attenuation is achieved on site to ensure post development flow is attenuated back to predevelopment flow. The outlet pipe will be sized accordingly.

3.2 Proposed Services

3.2.1 Water Supply

The water supply authority for the area is eThekweni Municipality. Discussions regarding the availability of water for the proposed development are currently underway with the eThekweni Municipality.

3.2.2 Sewage

At present, the nearest Waste Water Treatment Works has the capacity to accommodate the estimated quantity of sewage expected to be generated by the Proposed Business Estate. Further investigations with the eThekweni Municipality while the EIA process is in progress.

3.2.3 Electricity Supply

Eskom is the supply authority and preliminary discussions have taken place with Eskom and the eThekweni Municipality to secure electricity supply to the site. The Municipality is currently busy compiling its Electrical Master Plan and discussions to date have highlighted that the Municipality may not have adequate supply and infrastructure to feed directly from the existing system and as a result, a sub-station may need to be constructed on the site. Preliminary discussions with eThekweni indicate that a substation will likely be required to be established onsite and thus will be included in the development plan going forward once details are finalised.

3.2.4 Stormwater Management

The stormwater management reticulation system is currently being designed but will only be finalised once the Storm Water Management Plan (SWMP) and preliminary engineering studies have been conducted in the EIA Phase. The general principles that will guide the design of the stormwater management system will be:

- To ensure that post-development flows are equal to pre-development flows exiting the proposed development.
- To minimise the volumes of stormwater runoff generated by the proposed development through stormwater runoff recycling and infiltration wherever possible.
- To minimise the concentration and velocity of stormwater runoff onsite.
- To attenuate locally where possible.
- To implement stormwater polishing locally where possible.
- To enhance the central watercourse as a stormwater attenuation and filtration feature.

3.2.5 Roads and Access

At this stage, two access points are proposed off North Coast Road as shown in the Layout Plan (**Appendix B**). The internal road system is preliminary at this stage and is likely to change following the completion of the technical studies and designs. However, it appears that at least two watercourse crossings via culverted embankments will be required. With regards to local access, substantial local intersection and interchange upgrades will be required.

4 PROJECT LOCALITY, CURRENT LAND USE AND DEVELOPMENT CONTEXT

The site for the proposed development is located in the North Central part of Durban in the Red Hill/Avoca suburb, in the eastern parts of KwaZulu-Natal. The site is bordered by Old North Coast Road and the Avoca/Red Hill commercial and industrial node in the north and west, by Chris Hani and Rinaldo Road in the south, and by the Harrison Drive and the Glen Hills and Glen Anil residential suburbs in the east.

The total area of the site is 59.61 hectares and is currently zoned as extractive industry. The land is currently under cane cultivation by Tongaat Hulett and clay mining by Corobrik. Corobrik currently have a mining right to mine the clay within the property.

5 ALTERNATIVES

5.1 Description of Alternatives

The EIA Regulations (2010) guideline document stipulates that the environmental investigation needs to consider feasible alternatives for the proposed development. The developer should be encouraged to consider alternatives that would meet the objective of the original proposal and which could have an acceptable impact on the environment. The role of alternatives in the EIA process is therefore to find the most effective way of meeting the need and purpose of the proposal, either through enhancing the environmental benefits of the proposed activity, and/or through reducing or avoiding potentially significant negative impacts.

5.1.1 Potential Alternatives Scoping Assessment

Context for considering alternatives:

- JT Ross owns the property.
- The property is zoned as extractive industry.
- The property is earmarked as industrial land use in the SDF and SDP.
- The property is surrounded on 3 sides by existing industrial development.

5.1.2 Land Use Alternatives

The applicant desires to develop a light industrial land use. Three potential land use

alternatives exist and are assessed at a scoping level in **Table 4**. These alternatives are:

1. Low to middle income housing development.
2. Mixed-use development.
3. No-go option / status quo.

Alternative 1 - Low Cost/ Middle Income Housing Development

The eThekweni Municipality has earmarked the site as one of many possible sites they are investigating for a low cost housing development as an alternative land use to extractive industry. However, given the steepness of the site and nature of surrounding industry, housing is not seen as a suitable use for the site. This option will still be assessed in the EIA process.

Alternative 2 - Mixed Land Use Development

The mixed land use option would include residential and business units built on the property. Within the mixed-use development framework there is scope for changes in densities and proportional allocations of the different land uses depending on the findings of the numerous specialist studies. For this particular site, because of the dire shortage of industrial land, and friction between large industrial trucks and residential traffic and pedestrians, the residential component may be mitigated or limited.

Alternative 3 - No go Option

Maintaining the *status quo* would leave the area undeveloped and the land would continue to be mined and/or used for sugarcane farming. Corobrik have a phased mining plan which will continue until all the areas have been fully mined by 2015 (estimated). Thereafter an alternative land use to mining will have to take place because such a strategically located site cannot remain under its present sugar cane production once the clay has been extracted.

Ultimately, the only financially viable land use alternative to the proposed option is low cost housing development. However, such a project is likely to be met with fierce social opposition from the adjacent residential suburbs and is not the best proposal in terms of the current zoning and strategic planning for the site. Thus, none of the identified land use alternatives will be evaluated in the Impact Assessment phase, and will not be submitted for environmental authorisation. The no-go option, however, will be considered as required in the EIA Regulations (2010).

Table 4: Comparative Scoping Assessment of Potential Land Use Alternatives

Proposed and Alternative Options	Key Features	Opportunities / Benefits	Constraints / Negative Impacts	Technical and Financial Viability
<p>Developer’s Preferred Option - Light Industrial Land Use</p>	<ul style="list-style-type: none"> • Platform area maximised taking into account the following constraints only: <ul style="list-style-type: none"> ○ Preservation of the majority of central/main watercourse only (limited buffer zone). ○ Preservation of a 100m buffer zone to the Glen Hills suburb. ○ Preservation of a 40m buffer to the D’MOSS area. ○ Exclusion of unstable geological areas. 	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> • Rehabilitation and establishment of a D’MOSS ecological corridor along the 100m residential buffer. • Enhancement of central watercourse for stormwater attenuation and filtration. <p><u>Social:</u></p> <ul style="list-style-type: none"> • Creation of a green area along the 100m residential buffer. <p><u>Economic:</u></p> <ul style="list-style-type: none"> • Acceptable platform area and thus economic viability for the developer. • Maximise creation of temporary and permanent employment and income. • Increase in rates base and income to the local authority. 	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> • Minimal to limited watercourse buffer. • Infilling of lower reaches of central watercourse. • Infilling of watercourses at two road crossings. • Platform embankment encroachment along central watercourse. • Loss of tributary watercourses. • Loss of some marginal faunal habitats along central watercourse. <p><u>Social:</u></p> <ul style="list-style-type: none"> • Visual intrusion (still to be determined by specialist). • Noise pollution (still to be determined by specialist). • Quality of life impacts (still to be determined by specialist). • Traffic impacts (still to be determined by specialist). 	<p>The option is technically and financially feasible while taking into account environmental and social constraints.</p>

Proposed and Alternative Options	Key Features	Opportunities / Benefits	Constraints / Negative Impacts	Technical and Financial Viability
			<ul style="list-style-type: none"> Property value impacts (still to be determined by specialist). <p><u>Economic:</u></p> <ul style="list-style-type: none"> None for developer. Loss of a relatively small area of sugarcane farm. 	
<p>Alternative 1 - Low to middle income housing development</p>	<ul style="list-style-type: none"> Residential development maximised taking into account the following constraints only: <ul style="list-style-type: none"> Preservation of all watercourses and the entire a 30m buffer. Preservation of a 100m buffer zone to the Glen Hills suburb. Preservation of a 40m buffer to the D'MOSS area. Exclusion of unstable geological areas. 	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> Maintenance of wetlands and a 30m buffer zone. Minimal wetland infill and encroachment besides road crossings. Enhancement of central watercourse for stormwater attenuation and filtration. Rehabilitation and establishment of a D'MOSS ecological corridor along the 100m residential buffer. Maintenance of marginal faunal habitats along central 	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> Typical watercourse impacts associated with low to middle income residential areas e.g. dumping, informal earthworks etc. Likely no financial and human resources to manage public open spaces along watercourses and 100m buffer zone. <p><u>Social:</u></p> <ul style="list-style-type: none"> Visual intrusion. Noise pollution. Quality of life impacts. Traffic impacts. 	<ul style="list-style-type: none"> The topography does not lend itself to residential development without considerable investment in infrastructure. Such an option is likely to be met with fierce social opposition from neighbouring suburbs. Potential Income from a residential development makes such a scheme financially viable.

Proposed and Alternative Options	Key Features	Opportunities / Benefits	Constraints / Negative Impacts	Technical and Financial Viability
		<p>watercourse.</p> <p><u>Social:</u></p> <ul style="list-style-type: none"> Housing creation in close proximity to job opportunities. Creation of a green area along the 100m residential buffer. <p><u>Economic:</u></p> <ul style="list-style-type: none"> Limited economic value for developer. 	<ul style="list-style-type: none"> Property value impacts. Increase in crime. <p><u>Economic:</u></p> <ul style="list-style-type: none"> No economic return for developer. Reduction in income and employment opportunities relative to light-industrial land use. Loss of a relatively small area of sugarcane farm 	
<p>Alternative 2 - Mixed-Use Development (Residential and Business)</p>	<ul style="list-style-type: none"> Mixed-use development maximised taking into account the following constraints only: <ul style="list-style-type: none"> Preservation of central watercourse and the entire a 30m buffer. Preservation of a 100m buffer zone to the Glen Hills suburb. Preservation of a 40m buffer to the D'MOSS area. Exclusion of 	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> Maintenance of wetlands and a 30m buffer zone. Minimal wetland infill and encroachment besides road crossings. Enhancement of central watercourse for stormwater attenuation and filtration. Rehabilitation and establishment of a D'MOSS ecological corridor along the 	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> Typical watercourse impacts associated with low to middle income residential areas e.g. dumping, informal earthworks etc. Likely no financial and human resources to manage public open spaces along watercourses and 100m buffer zone. <p><u>Social:</u></p>	<ul style="list-style-type: none"> The topography does not lend itself to residential development without considerable investment in infrastructure. The market for residential units in such a mixed-use setting and location is unknown and may not be feasible. If low cost housing

Proposed and Alternative Options	Key Features	Opportunities / Benefits	Constraints / Negative Impacts	Technical and Financial Viability
	<p>unstable geological areas.</p>	<p>100m residential buffer.</p> <ul style="list-style-type: none"> Maintenance of marginal faunal habitats along central watercourse. <p><u>Social:</u></p> <ul style="list-style-type: none"> Housing could act as a buffer to industrial development. Housing creation in close proximity to job opportunities. Creation of a green area along the 100m residential buffer. <p><u>Economic:</u></p> <ul style="list-style-type: none"> Limited economic value for developer. 	<ul style="list-style-type: none"> Visual intrusion. Noise pollution. Quality of life impacts. Traffic impacts. Property value impacts. Increase in crime. <p><u>Economic:</u></p> <ul style="list-style-type: none"> No economic return for developer. Reduction in income and employment opportunities relative to light-industrial land use. Loss of industrial land development opportunities. Loss of a relatively small area of sugarcane farm 	<p>is proposed, such an option is likely to be met with fierce social opposition from neighbouring suburbs.</p> <ul style="list-style-type: none"> Not financially viable for the developer.
<p>Alternative 3 - No-go Option (Status Quo)</p>	<p>In the medium term - Continuation of cane farming and clay mining. In the long term - Will be developed for light industrial or low to middle income residential development.</p>	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> Watercourses remain. Marginal ecological linkages remain. <p><u>Social:</u></p> <ul style="list-style-type: none"> Site continues to buffer 	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> Status quo will remain and the site will remain in a degraded state and likely further degrade over time due to 	<p>Not financially viable for the developer.</p>

Proposed and Alternative Options	Key Features	Opportunities / Benefits	Constraints / Negative Impacts	Technical and Financial Viability
		<p>Glen Hills from surrounding industrial land uses.</p> <p><u>Economic:</u></p> <ul style="list-style-type: none"> • None to the current owner/developer or surrounding area • Loss of potential rates income. 	<p>continuation of mining operations and illegal dumping.</p> <ul style="list-style-type: none"> • Loss of opportunities to rehabilitate as an ecological D'MOSS corridor. <p><u>Social:</u></p> <ul style="list-style-type: none"> • Site continues to be a potential hideout/refuge for local criminals. • Loss of opportunities to establish a green space. <p><u>Economic:</u></p> <ul style="list-style-type: none"> • Financial losses to the developer. • Loss of income, employment opportunities. 	

5.1.3 *Layout Alternatives*

The preliminary layout plan (**Appendix A**) was developed with the intention of maximising the platform areas and thus the economic value of the project while taking into consideration the following environmental and social constraints:

- Preservation of the majority of central/main watercourse.
- Preservation of a 100m buffer zone to the Glen Hills suburb.
- Preservation of a 40m buffer to the D'MOSS area.
- Exclusion of unstable geological areas.
- Access points off North Coast Road only.

At this stage, three potential layout alternatives exist and are assessed at a scoping level in **Table 5**. These alternatives are:

1. Best-case environmental option.
2. Worst case environmental option.
3. Environmental / Developer trade-off option.

Both layout alternatives are financially viable, but Alternative 1 is considered undesirable due to the reduced financial return and alternative 2 because of the infilling of the entire central watercourse. Nevertheless, both alternative options and will be taken forward into the Impact Assessment phase for consideration.

It is important to note, however, that the preferred and alternative layout concepts are preliminary at this stage and are likely to change following the incorporation of the findings and recommendations of the specialist studies.

Table 5: Comparative Scoping Assessment of Potential Layout Alternatives

Alternative Options	Key Features	Opportunities / Benefits	Constraints / Negative Impacts	Technical and Financial Viability
<p>Developer’s Option (taking into account environmental constraints)</p>	<ul style="list-style-type: none"> • Platform area maximised taking into account the following constraints: <ul style="list-style-type: none"> ○ Preservation of the majority of central/main watercourse (limited buffer zone). ○ Preservation of a 100m buffer zone to the Glen Hills suburb. ○ Preservation of a 40m buffer to the D’MOSS area. ○ Exclusion of unstable geological areas. 	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> • Rehabilitation and establishment of a D’MOSS ecological corridor along the 100m residential buffer. • Enhancement of central watercourse for stormwater attenuation and filtration. <p><u>Social:</u></p> <ul style="list-style-type: none"> • Creation of a green area along the 100m residential buffer. <p><u>Economic:</u></p> <ul style="list-style-type: none"> • Acceptable platform area and thus economic value for developer. • Creation of temporary and permanent employment and income. 	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> • Minimal to limited watercourse buffer. • Infilling of lower reaches of central watercourse. • Infilling of watercourses at two road crossings. • Platform embankment encroachment along central watercourse. • Loss of tributary watercourses. • Loss of some marginal faunal habitats along central watercourse. <p><u>Social:</u></p> <ul style="list-style-type: none"> • Visual intrusion (still to be determined by specialist). • Noise pollution (still to be determined by specialist). • Quality of life impacts (still to be determined by specialist). • Traffic impacts (still 	<p>The option is technically and financially feasible while taking into account environmental and social constraints.</p>

Alternative Options	Key Features	Opportunities / Benefits	Constraints / Negative Impacts	Technical and Financial Viability
			<p>to be determined by specialist).</p> <ul style="list-style-type: none"> Property value impacts (still to be determined by specialist). <p><u>Economic:</u></p> <ul style="list-style-type: none"> Cost of maintaining parts of the watercourse +-R15 million Loss of a relatively small area of sugarcane farm 	
<p>Alternative 1 - Best-Case Environmental Option</p>	<ul style="list-style-type: none"> Platform area maximised taking into account the following constraints only: <ul style="list-style-type: none"> Preservation of the entire central/main watercourse and a 20m buffer. Preservation of a 100m buffer zone to the Glen Hills suburb. Preservation of a 40m buffer to the D'MOSS area. Exclusion of 	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> Maintenance of a 20m wetland buffer. Minimal wetland infill and encroachment besides road crossings. Enhancement of central watercourse for stormwater attenuation and filtration. Rehabilitation and establishment of a D'MOSS ecological corridor along the 100m residential 	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> Infilling of watercourses at two road crossings. Loss of all tributary watercourses. <p><u>Social:</u></p> <ul style="list-style-type: none"> Visual intrusion (still to be determined by specialist). Noise pollution (still to be determined by specialist). Quality of life impacts (still to be 	<p>This option will result in a reduced return as platform areas will be reduced and there will be an increase in the amount of earth to be removed from site resulting in significant additional earthworks costs.</p>

Alternative Options	Key Features	Opportunities / Benefits	Constraints / Negative Impacts	Technical and Financial Viability
	<p>unstable geological areas.</p>	<p>buffer.</p> <ul style="list-style-type: none"> • Maintenance of marginal faunal habitats along central watercourse. <p><u>Social:</u></p> <ul style="list-style-type: none"> • Creation of a green area along the 100m residential buffer. <p><u>Economic:</u></p> <ul style="list-style-type: none"> • Economic value for developer. • Creation of temporary and permanent employment and income. 	<p>determined by specialist).</p> <ul style="list-style-type: none"> • Traffic impacts (still to be determined by specialist). • Property value impacts (still to be determined by specialist). <p><u>Economic:</u></p> <ul style="list-style-type: none"> • Reduction in platform area and economic value for developer relative to the 'Preferred Option' as well as increased earthworks costs • Loss of a relatively small area of sugarcane farm 	
<p>Alternative 2 - Worst Case Environmental Option</p>	<ul style="list-style-type: none"> • Platform area maximised taking into account the following constraints only: <ul style="list-style-type: none"> ○ Preservation of a 100m buffer zone to the Glen Hills suburb. ○ Preservation of a 40m buffer to the 	<p><u>Environmental:</u></p> <ul style="list-style-type: none"> • Rehabilitation and establishment of an ecological corridor along the 100m residential buffer. <p><u>Social:</u></p> <ul style="list-style-type: none"> • Creation of a green area along the 100m 	<ul style="list-style-type: none"> • Infilling and loss of all watercourses onsite. • Loss of all marginal faunal habitats along central watercourse. <p><u>Social:</u></p> <ul style="list-style-type: none"> • Visual intrusion (still to be determined by specialist). 	<p>This option will result in the lowest development cost as the requirement to cart off excess earth will be reduced, in addition the environmental impact of carting large quantities of earth</p>

Alternative Options	Key Features	Opportunities / Benefits	Constraints / Negative Impacts	Technical and Financial Viability
	<p>D'MOSS area.</p> <ul style="list-style-type: none"> ○ Exclusion of unstable geological areas. 	<p>residential buffer.</p> <p><u>Economic:</u></p> <ul style="list-style-type: none"> • Maximise platform area and reduces earthworks costs thus increasing economic value for the developer. • Maximise temporary and permanent employment and income. 	<ul style="list-style-type: none"> • Noise pollution (still to be determined by specialist). • Quality of life impacts (still to be determined by specialist). • Traffic impacts (still to be determined by specialist). • Property value impacts (still to be determined by specialist). <p><u>Economic:</u></p> <ul style="list-style-type: none"> • Cost of attenuation tanks rather than making use of the natural watercourse to attenuate stormwater • Loss of a relatively small area of sugarcane farm 	<p>will be reduced.</p>

5.1.4 Design Alternatives

5.1.4.1 Internal Infrastructure

The recommendations and mitigation measures provided by the wetland and water specialists will be incorporated into the design of the internal water and sewer reticulation and storm water management system wherever possible to effectively manage water movement on site and minimise the impacts on watercourses from discharging stormwater.

5.1.4.2 Energy and water consumption reduction and recycling

The project engineer and environmental consultants will be commissioned to identify feasible energy and water consumption reduction measures for the development and these will be incorporated wherever possible.

6 DESCRIPTION OF THE PROJECT ENVIRONMENT

6.1 General Description of the Region

The development site is located within the eThekweni Municipality which is located on the central coast of KwaZulu-Natal and is the province's only metropolitan municipality. The municipality consists of 100 wards of which only two are part of the development site - namely ward 34 (Effingham-Avooca) and ward 36 (Redhill, Umhlanga Rocks, Glen Anil, Sunningdale, La Lucia). The geographical area of the municipality is 2 292 km² with a population of about 3 442 361 (Census, 2001) for the municipality.

Effingham-Avooca is an industrial node catering to light industry as well as meeting residential demand. The Durban Metropolitan Open Space System (D'MOSS) areas around Avoca include the Umhlangane Vlei, Umhlangane River and floodplains, and Sugarcane Bush which previously belonged to Tongaat Hulett and is now the intended location of the Proposed Business Estate. Currently the area is being mined for clay deposits by Corobrik. The remaining vacant land is used by farmers to grow sugarcane. As envisaged by the eThekweni Municipality in the Spatial Development Framework in 1998, 2004 and 2012, the potential uses for the Avoca east area include light industries with public investment targeting industrial infill, with the provision of transport infrastructure. The Effingham-Avooca area is located in the North Central part of Durban in the Effingham-Avooca suburb, in the eastern side of KwaZulu-Natal. The other areas that bound the development site include Glen Hills, Glen Anil, Red-Hill and Sunning Dale.

The major routes along Effingham-Avoca includes North Coast Road which extends roughly from the Umgeni River to the N2 providing road and rail access into the Inner City from Phoenix, KwaMashu, Ntuzuma and Inanda. The Effingham-Avoca area is also in close proximity to the Gateway Mall located in Umhlanga Rocks and the King Shaka Airport located in La Mercy with N2 being the major route to both of these facilities. Residential areas around the development site include Avoca Hills, Red Hill, Park Hill, Greenwood Park, Glen Hills, Glen Anil and Glenashley.

6.2 Biophysical Environment

6.2.1 Topography

The topography of the site is highly undulating, with a few elevated hilltops and ridges with moderately to steeply sloping hillsides interspersed with gently sloping to incised drainage lines. Elevations vary from a maximum of approximately 97.5m MSL to approximately 20m MSL (See **Figure 4**).

6.2.2 Geology and Soils

The Geology of the proposed development site is mainly Vryheid Shale as seen in **Figure 5**. A portion of the site in the north east corner, adjacent to the coastal forest is made up of Berea formation. A small portion on the top of the hills in the south is made up of Karoo Dolerite. The property is underlain by carbonaceous shales of the Pietermaritzburg Formation and Vryheid Formation which are extensively used for brick manufacture in the Durban area. These shales are overlain by Quaternary sediments (Berea Red Sands) on some of the higher hilltops and by recent alluvial clays in the valleys of minor watercourses. The soil is comprised of soft reddish soil derived from Recent Sands.

A preliminary geotechnical investigation of the site will be undertaken by Drennan Maud and Partners and included in the EIA Report.

6.2.3 Drainage and Watercourses

There is one major watercourse that bisects the site as seen in **Figure 4**. The watercourse is a channeled valley bottom wetland has been heavily degraded after years of farming and mining and as such does not appear to have much ecological value. In addition, there are a number of small drainage lines which traverse the site which are also heavily impacted and modified by farming and mining.

The lower reaches of the main watercourse have been in-filled for the establishment of Old North Coast Road and the adjacent industrial platforms and flow is currently diverted into a culvert that discharges into the perennial uMhlangane River below the Chris Hani/Old North Coast Road intersection. The uMhlangane is the main river that meanders through the Riverhorse Valley industrial area. The uMhlangane River is a left-bank tributary of the Mgeni River and the confluence of the two rivers is located approximately 6km south of the property.

A wetland impact assessment will be undertaken by SiVEST and GCS.

6.2.4 Vegetation Cover

Due to the high degree of urbanization and intensive agricultural use of the property, little of the natural vegetation remains. Patches of mixed natural/alien vegetation do, however, occur on the property. The development site is mainly covered by sugar cane plantations. A portion of D'MOSS lies adjacent to the property on the north-eastern portion of the site (**Figure 6**). This portion is classified as Coastal Forest. Rinaldo Park to the south-east of the site has also been classified as coastal forest under the D'MOSS. The development aims to link these D'MOSS areas by creating a 100m wide indigenous forest buffer from the residential properties in the Glen Hills area and the proposed development site. Various plant species are also found growing on site but with no particular known importance and most of these are also alien plant species.

A detailed vegetation assessment will be undertaken by Mr David Styles.

6.2.5 Fauna

According to the EKZNW's C-Plan, important faunal species are modelled to occur in and around the proposed site, namely *Bradypodion melanocephalum* (Natal Dwarf Chameleon, Vulnerable) and *Hyperolius pickergilli* (Pickersgill's Reed Frog, Critically Endangered). In addition, a number of I&APs have raised concern over the effect of the proposed development on local wildlife such as birds, fish eagles, monkeys, lizards, snakes etc. A surrounding resident also indicated that the area has the only colony of wild parakeet birds and the development could contribute to their demise or migration to another area.

A detailed faunal assessment will be undertaken by the Strategic Environmental Focus (SEF) to determine which species are currently present on, and surrounding, the proposed development site.

6.3 Social Environment

6.3.1 Social Structure

The residential suburbs around the development site include a low income township and informal areas west of N2 (KwaMashu, Inanda, Ntuzuma, Newlands East and Newlands West), lower/middle income areas (Phoenix west of N2 and Sea Cow Lake, Kenville and Avoca east of N2) and middle/upper income areas around Rinaldo Road in the east. Commercial Land uses are situated along the North Coast Road, but most of the area is dominated by an extractive industry tied to its raw material source: Corobrik Mining (established in Durban in 1902) operating in Avoca and on the other side of N2. Corobrik is based on the quarrying of various shales in the Ecca formations. Following North Coast road are other residential areas of Park Hill, Greenwood Park and Red Hill and Avoca. In the late 19th century these areas were villages focused on railway halts.

6.3.2 Municipal Region

The development site is located within the eThekweni Municipality which is located on the central coast of KwaZulu-Natal lity. The development site is located within ward 34 and ward 36. The geographical area of the municipality is 2 292 km².

6.4 Cultural Heritage Environment

Due to the nature of the site, it is unlikely that any heritage resources occur. GCS has included Amafa on the project's Interested and Affected Parties (I&APs) database and provided them with a copy of the Background Information Document (BID) with a request to comment. Amafa indicated that they would comment on the potential heritage sensitivity of the area once they have been provided with copies of the Heritage Impact Assessment Report.

A Heritage Impact Assessment for the site will be undertaken by Active Heritage to determine if there are any archaeological artefacts on site. This will be undertaken during the EIA phase of the project.

7 EIA PROCESS AND APPROACH

7.1 EIA Process

The NEMA EIA Regulations (Government Notice No R544 and R545) identify a number of “listed activities” for which authorisation is required. In order to obtain this authorisation, either a “Basic Assessment Process” or “Scoping and EIA Process” must be followed. Basic Assessments are typically required for activities that have less detrimental impact, whilst the Scoping and EIA process is required for larger projects that typically have potentially significant detrimental impact on the environment. Both processes include very specific public participation requirements.

This environmental authorisation process commences with an Environmental Scoping Phase (hereafter referred to as the ‘Scoping Phase’). Following submission of a Scoping Report and associated Plan of Study for the Impact Assessment Phase, to and approval by the DAEA, the ‘Impact Assessment Phase’ will be initiated. A prescribed PPP runs concurrently with the Scoping and Impact Assessment Phases.

The aim of Scoping is to inform I&APs of the proposed project, identify issues and concerns, scope potential impacts, plan investigative specialist studies to research and accurately assess potentially significant impacts.

The Impact Assessment Phase addresses the issues that have been raised during the Scoping Phase; assesses alternatives to the proposed activity in a comparative manner; assesses all identified impacts and determines the significance of each impact and formulates appropriate mitigation measures. The Impact Assessment Phase thus comprises the actual assessment of potential impacts and the compilation of a comprehensive EIA Report. The Impact Assessment Phase will include specialist studies, which need to be included in the EIA Report and must also include a Draft EMP for the construction and operational phases of the project.

The purpose of EMP is to control the impacts of construction and operational activities. The effective implementation of the EMP will ensure that the required works are conducted in an environmentally sound manner and that the potential negative impacts of construction and operational activities are minimised and/or prevented.

Refer to **Figure 7** for a summary of the EIA process.

7.2 Scoping Phase

7.2.1 Objectives

The Environmental Scoping Phase has been undertaken in accordance with the requirements of sections 24 and 24D of the NEMA, as read with GNR 543 (Regulations 26-29), 544, 545 and 546 of the NEMA and the IEM Information Series (DEAT, 2002). The objectives of the Scoping Phase are to:

- Ensure that the process is open and transparent and involves the authorities, proponent, project team, stakeholders and general public.
- Identify the important characteristics of the affected environment.
- Ensure that feasible alternatives are identified and selected for further assessment.
- Determine possible impacts of the proposed project on the biophysical and socio-economic environment.
- Undertake comprehensive and encompassing public participation process.
- Ensure compliance with the relevant legislation.

An important aspect of the Scoping Phase is the Public Participation Process (PPP), which aims to:

- Ensure all relevant I&APs have been identified and invited to engage in the scoping process.
- Raise awareness, educate and increase understanding of I&APs about the proposed project, the affected environment and the environmental process being undertaken.
- Create open channels of communication between I&APs and the project team.
- Provide opportunities for I&APs to identify issues or concerns and suggestions for enhancing potential benefits and to prevent or mitigate impacts.
- Accurately document all opinions, concerns and queries raised by I&APs regarding the project.
- Ensure consideration of alternatives and issues and solutions related to the project as proposed by I&APs.

7.2.2 Scoping Report Requirements

The Scoping Phase for this project has been undertaken to ensure compliance with the requirements of the NEMA EIA Regulations. This Scoping Report has been compiled in

accordance with the following requirements prescribed in Regulation 28:

- Provide the details and expertise of the EAP undertaking the EIA process.
- Describe the proposed location for the activity along with all applicable alternatives.
- Provide a baseline description of the environment that may be affected by the activity and the manner in which the physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed project.
- Identify all relevant legislation and guidelines that have been considered for the project.
- Provide a description of the environmental issues and potential impacts, including cumulative impacts that have been identified.
- Provide the methodology that will be adopted in assessing the potential impacts that have been identified, including any specialist studies that will be undertaken.
- Outline the PPP that has been undertaken for the project to date.
- Provide a Plan of Study for the Impact Assessment Phase.

7.3 Pre Application Consultation

A pre-application meeting was held with Ms Yugesni Govender of the DAEA on 05 September 2012. The purpose of the meeting was to introduce the project and to discuss and obtain clarification on the following:

- The application procedure.
- The applicable listed activities.
- Other government departments and the legislative requirements.
- DAEA document review.
- The scope of the PPP and advertising requirements.
- Alternative assessment scope.
- Cumulative Impacts.
- The EIA timeframes and PPP comment periods.

7.4 EIA Application

Subsequent to the pre-application meeting, the EIA application to undertake the listed activities was submitted to the DAEA on 26 October 2012. GCS received the acknowledgement of the application form and authorisation to proceed on 29 October 2012. The project was allocated reference number **DM/0061/2012**.

7.5 Specialist Studies

The following specialist and technical investigations will be undertaken in the Impact Assessment phase to assess and mitigate the potential issues and impacts identified in the Scoping Phase to date:

- Wetland and Riparian Zone Impact Assessment
- Wetland Offset Study and Rehabilitation Strategy
- Vegetation Assessment
- Faunal Assessment
- Conservation Area Rehabilitation and Management Plan
- Agricultural Potential Assessment
- Heritage Impact Assessment
- Noise Impact Assessment
- Visual Impact Assessment
- Social Impact Assessment
- Economic Impact Assessment
- Floodline Assessment
- Stormwater Management Plan

Based on their findings, the specialists are expected to quantify the risks involved with the proposed development and propose measures to minimise or eliminate negative impacts and enhance positive impacts. For the EIA process to add more value to decision making, the results of the specialist studies must accurately predict and assess potential project merits and demerits; adequately evaluate reasonable alternatives; provide practical recommendations for avoiding or adequately managing negative impacts and enhancing benefits; supply enough relevant information at the most appropriate stage of the EIA process to address adequately the key issues and concerns, and effectively inform decision-making in support of sustainable development.

In addition to these specialist investigations, the following engineering/technical studies will be undertaken as part of the engineering component which have relevance to the EIA:

- Preliminary Geotechnical Assessment
- Civil Engineering Services Assessment
- Electrical Investigation

7.6 Public Participation Process

The NEMA EIA Regulations (Government Notice No. R543) specify that a Public Participation Process (PPP) must be conducted as an integral part of the EIA and in accordance with Sections 54 of the Regulations and associated guidelines.

This Chapter outlines the procedures followed during the undertaking of the PPP for the proposed project. The processes undertaken adheres to the NEMA principle whereby the participation of all I&APs in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured [NEMA, Section 2(1)(f)].

The main objectives of the PPP are to:

- Inform I&APs about the proposed project and the Scoping and EIA Process.
- Establish lines of communication between I&APs and the project team to deal with potentially contentious issues.
- Provide ample opportunity to all parties to exchange information and express their views and raise issues and concerns.
- Obtain contributions of I&APs and ensure that all issues, concerns and queries raised are fully documented and carried forward in the EIA process.
- Identify all the significant issues that need to be addressed in the EIA.

In order to fulfill the above-mentioned objectives, a number of tasks were undertaken as noted below.

7.6.1 Identification and Involvement of Stakeholders and I&APs

Regulation 54 of the NEMA EIA Regulations outlines the requirements for the notification and involvement of all potential I&APs. These requirements include to:

- Fix a notice board at a conspicuous place on all alternative sites.
- Give written notice to:
 - The landowners and occupiers of the sites and those within 100m of the alternative sites or those directly influenced by the activity under consideration.
 - The municipality which has jurisdiction in the area.

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- Any organs of state having jurisdiction in respect of any aspect of the activity.
 - Place an advertisement in a local newspaper or official Gazette.
 - Place an advertisement in a regional and provincial and or national newspaper if the impact extends beyond 'local' boundaries.
 - Make information containing all relevant facts in respect of the application available to potential I&APs.
 - Facilitate participation by potential I&APs in such a manner that all potential I&APs are provided with a reasonable opportunity to comment on the application.

GCS has adhered to these requirements as detailed in the sub-sections below.

7.6.2 Register of I&APs

As part of the requirements for NEMA EIA Regulation 57, GCS has developed, maintained and is constantly updating an electronic I&AP register for the project. I&APs are welcome to register their interest in the project at any time. **Appendix D** contains a copy of the latest I&APs register as at 16 May 2014.

7.6.3 Notification of Key Stakeholders

At the commencement of the Scoping and EIA Process, GCS identified key stakeholders such as municipal authorities, government departments and environmental groups that have jurisdiction over, or potential interest in, the activity and provided them with written notification in the form of a Background Information Document (BID) on the 4th October 2012. The BIDs detailed introductory technical information about the project and the EIA process to be followed as well as an invitation to I&APs to register and submit any comments to GCS in writing. A locality map was also included (see **Appendix F**).

The key organisations and stakeholders identified through the public participation process include:

- eThekweni Municipality.
- Local Ward 34, 35 and 36 Councilors.
- Department of Agriculture and Environmental Affairs (DAEA) - Land Use.
- AMAFA - KwaZulu-Natal Heritage.
- Department of Water Affairs (DWA).
- Ezemvelo KZN Wildlife (EKZNW).
- Coastwatch.

- Department of Agriculture, Forestry and Fisheries (DAFF) - Land Use.
- Department of Agriculture, Forestry and Fisheries (DAFF) - Forestry.
- KZN Department of Transport.
- Glenhills Ratepayers Association.

7.6.4 Landowner Notification

Six hundred (600) BIDs were also delivered to all landowners and tenants within 100m of the project site on the 4th October 2012. Thereafter, BIDs were sent to all I&APs on request. In addition, the rates payers association and the relevant ward councilors were notified via email. All affected individuals are outlined in **Appendix D**.

Concern was raised over the extent to which local residents had been notified. GCS therefore conducted a second BID drop on 24th October 2012 distributing another 600 BIDS to residents in the Glen Hills area.

7.6.5 Notice Boards

Ten (10) notice boards detailing information about the project and the Scoping and EIA Process, as well as invitation to register as I&APs, were strategically fixed at various conspicuous points around the site on 4th October 2012. A second set of site notices were placed around the site on 24th October 2012 (see **Appendix E**). All notice boards were designed to the specification of Section 54 (3) of the NEMA EIA Regulations.

7.6.6 Stakeholder Meetings

An open day meeting was held on 18th October 2012 at the Firwood Library, in Redhill. The purpose of such an open meeting was to offer key stakeholders an opportunity to discuss ideas, issues, concerns and solutions related to the proposed project directly with the project team. At the open day I&APs were requested to ensure they registered with the project and submitted their comments to GCS. The comments received have been captured and responded to in the Comments and Response Report (CRR) (**Appendix G**).

7.6.7 Interested and Affected Parties and Stakeholder Comments Register

NEMA EIA Regulation 56 entitles registered I&APs to comment in writing, on all written submissions made to the competent authority as part of the environmental authorisation and to raise any issues or concerns which they believe may be of significance to the

consideration of the application. Copies of all comments and issues raised during the PPP have been consolidated into the CRR, (See **Appendix G**), which summarises each comment/issue received and provides a response.

All I&AP written comments received subsequent to the publishing of the media notices, the distribution of the BID and the DSR have been recorded in the CRR which is included in **Appendix G**. Responses to each comment submitted are also provided. Copies of the submissions received from I&APs are included in **Appendix H** and those received from authorities are included in **Appendix I**.

7.6.8 Compilation of the Draft Scoping Report and Public Review

The Draft Environmental Scoping Report was compiled in accordance with the requirements of the NEMA EIA Regulations (DEAT, 2006), specifically Regulation 28. The Draft Scoping Report was made available for public comment for 40 day and all registered I&APs were informed of the availability of the DSR for public review. The DSR was submitted for public review from 18 March 2014 until 28 April 2014 (40 days) at the following public places listed below.

- Firwood Library
- Glen Ashley Library
- GCS office (Kloof)

Electronic copies of the Report were made available on CD on request or alternatively were downloaded from the GCS website: www.gcs-sa.biz.

7.6.9 Compilation of the Final Scoping Report and Public Review

This Final Environmental Scoping Report was compiled in accordance with the requirements of the NEMA EIA Regulations (DEAT, 2006), specifically Regulation 28. This Final Scoping Report will be made available for public comment for 21 days and all registered I&APs will be informed of the availability of the FSR for public review. This FSR has been submitted for public review from 19th May 2014 until 9th June 2014 (21 days) at the following public places listed below.

- Firwood Library
- Glen Ashley Library

Electronic copies of the Report will be made available on CD on request or alternatively could be downloaded from the GCS website: www.gcs-sa.biz.

All I&APs will be requested to submit comments on the FSR directly to Ms. Natasha Brijlal at the KZN DAEA.

8 POTENTIAL ENVIRONMENTAL IMPACTS AND ISSUES

8.1 Introduction

In terms of Regulation 28 of the EIA Regulations which describes the contents of a Scoping Report, sub-regulation (g) states that the Scoping Report must contain “a description of environmental issues and potential impacts, including cumulative impacts that have been identified.”

The purpose of this chapter is, therefore, to provide a brief description of both the potential positive and negative environmental impacts which could occur as a result of the proposed Business Estate. This chapter does not attempt to assess, rank, or provide mitigation for any of the identified impacts or issues, positive or negative. The Plan of Study described in **Section 9** describes the approach/method by which the impacts will be assessed in the subsequent Impact Assessment Phase.

Although not assessing impacts, this chapter will identify those consolidated issues which are known at this stage to be significant and require specialist input and investigations either to research and understand the impact/issues, and/or to determine their significance. The motivation and need to undertake the specialist studies for these impacts is described in the Plan of Study.

The impacts associated with activities during construction are usually short lived and mitigated in a Draft EMP, included in the Draft EIAR. Once approved, the EMP will be implemented on-site and enforced by regular monitoring with submission of audit reports to the DAEA Compliance Monitoring Department. As a living document, the EMP can be modified, with approval from the DAEA, to suit the conditions, constraints and practicalities of the construction once it has begun.

It is expected that additional impacts and issues will be identified during the public review process and the Impact Assessment Phase. These will be highlighted, described and assessed as per all other impacts in the Impact Assessment Phase.

8.2 Biophysical Impacts

8.2.1 Soil Erosion

Earth grading and soil stockpiling for site preparation, and the construction of the platforms and access roads may promote erosion and sedimentation.

8.2.2 Soil Contamination

Soil may also be contaminated during the construction phase of the platforms as a result of improper management and use, or disposal of hazardous substances such as fuel, oil and cement.

8.2.3 Surface and Groundwater Contamination

Groundwater contamination may occur due to poor management of hazardous substances during construction of the platforms and roads. Once constructed, previously vegetated areas will be covered by hard-standing platforms which could result in increased runoff of stormwater from the platforms and road surface which will need to be managed and mitigated. In addition, contamination (oil and fuel spills) on the roads could potentially lead to stormwater contamination should such contaminants drain into the roads' stormwater system. However, the construction of the proposed platforms is likely to affect an existing wetland and as a result, impacts on the surrounding hydrology and drainage are expected to occur.

8.3 Ecological Systems

The site has been relatively disturbed due to historical and current mining and sugar cane farming activities on the site and, as such, is generally not considered to be of any ecological importance. The site is surrounded by existing industry and residential properties. The main impact on the environment is primarily the clearing of land and associated earthworks. Once the platforms are complete and the area is rehabilitated, there will be no operational impacts on the environment apart from possible contaminated stormwater discharge from the road into the surrounding environment.

8.3.1 Flora

There are minimal vegetated areas on the development site which contain significant stands of alien vegetation.

However, due to the sites proximity to D'MOSS, a botanical investigation has therefore been

commissioned to assess the site to determine if any species of significance remain on the site.

8.3.2 Fauna

While the nature of the area, being a mining and sugar cane farming zone with high disturbance is expected to be unsuitable for certain species to inhabit, faunal species of significance may still be present on the proposed site.

A faunal assessment will be undertaken to determine if any species of significance remain on the site.

8.3.3 Sedimentation of the wetlands and surrounding water courses and loss of habitat

Erosion may occur on the site due to construction activities (refer 7.2.1 above). This in turn causes sedimentation of watercourses and wetlands which in turn affects ecological systems due to a loss of habitat, reduced ecological functioning and a subsequent loss of biodiversity.

8.4 Potential Impacts on the Socio-Economic Environment

8.4.1 Impacts on the local economy

- Loss of cane yields produced by the farm proposed for development and the resultant impacts on the sugar industry.
- Loss of jobs for employees on farms under consideration for development.
- Increase in construction industry related jobs.
- Increase in industry related jobs.
- The growth of light industrial and businesses and the creation of temporary and/or permanent jobs for unemployed, local labour, contractors, artisans and professionals.

8.4.2 Impacts on the Quality of Life of Local Residents

- Air pollution during the construction phase and associated health, nuisance and economic impacts.
- Noise pollution during the construction and operational phases and associated health and nuisance impacts.
- Loss of local sense of place and character for the surrounding residents.

- Visual impact of the industrial development as seen from the Glen Hills residents.
- Traffic impacts - Increase in stress and nuisance levels of the local residents as a result of an increase in traffic congestion and delay times associated with access point and intersection upgrades and heavy construction vehicles travelling to and from the site during construction phase.
- The creation of jobs may result in the influx of people into the area from the rural areas, which may result in the expansion and/or creation of informal settlements in the area.
- Possible decrease in property values of surrounding homes (as raised by residents).
- Possible increase in property values of surrounding homes.
- Possible increase in crime in the area.
- Soil instability on the site which is not conducive for development and which may affect adjacent residential and business properties.

8.5 Impacts on Municipal/Regional Infrastructure and Services

- Increased demand on Eskom's power grid.
- Increased demand on eThekweni Municipality's local water resources.
- Degeneration of local roads as a result of the increase in traffic associated with the proposed development during the construction and operational phases.
- Increased pressure on the sewage treatment infrastructure in the area.
- Increased demand on the cell phone network.

Various engineering studies are currently in progress to determine, calculate and assess all infrastructure and services requirements.

8.6 Safety

A number of safety concerns have been identified through the public participation process. There is likely to be increased danger to children and pedestrians of the Glen Hills, Red Hill and Glen Anil suburbs as a result of an increase in traffic associated with the proposed developments. Concern has also been raised regarding the potential for increased crime within the Glen Anil, Glen Hills and Red Hill area associated with an influx of people into the area. The development area will be fenced and it is anticipated that this will provide better security than the current open space area. As such, the operational phase of the project is intended to have positive impacts. There will, however, be some potential safety risks associated with the construction phase which may include:

- General construction activities.
- Accidents on site caused by human error.
- Use of plant machinery.
- Potential safety risk to passing traffic and pedestrians.

8.7 Traffic

During the construction phase there will be an influx of construction vehicles and vehicles transporting materials in the area. This, coupled with construction activities, is likely to cause a disruption to the traffic flow for the duration of the construction period. Delays and congestion of traffic at the intersection may also occur, increasing the chance of accidents occurring. There is already a major traffic concern at the KwaMashu Offramp and along Chris Hani and North Coast Road.

A traffic impact assessment has been commissioned to determine and mitigate all traffic flow problems related to the proposed development.

Once construction is complete it is anticipated that the road upgrade will reduce accident potential and improve safety as well as improve the flow of traffic along Chris Hani and North Coast Road.

8.8 Visual and Aesthetics

Visual and aesthetic impacts will result from the construction and operation of the proposed Rohill Business Park. Those who will be most impacted by the visual/aesthetic features are the surrounding residents from the Glenhills area. For many years the residents from the Glenhills areas have overlooked an open space sugar cane area. The proposed development is likely to change the sense of place for residents living in the area and some visual and aesthetic impacts may result from:

- Signage.
- Construction activities.
- Warehouse roofs.
- Business Parks.
- Ineffective management of waste (littering) during construction and operation of the proposed development.

A visual impact assessment (VIA) will be undertaken by SRK Consulting to determine and

assess the visual intrusiveness the proposed development would present on the surrounding area.

8.9 Noise

Ambient noise levels are expected to rise during the construction and operation of the Rohill Business Estate as described below. Construction activities that may cause noise include:

- Vehicle traffic (entering and exiting the site).
- Generator noise from construction equipment.
- Noise from hydraulic hammers and winches.
- Construction worker voices.
- General construction noise.

Accordingly, a noise impact investigation will be undertaken by WardKarlson Consulting Group.

8.10 Property Prices

The proposed development is likely to have an impact on the surrounding industrial and residential property prices. The property prices could increase or decrease depending on the final product of the development.

8.11 Heritage Resource Impacts

It is not foreseen that any heritage resources will be found, as the site, as a whole, is generally disturbed. However, a heritage impact assessment will be undertaken to confirm this. In addition, the EMP will consider and provide mitigation measures should potential heritage artefacts be discovered.

8.12 Waste Management

Waste generated on the site during construction and operation will include solid and liquid waste comprising general litter, general waste, hazardous waste, sanitary waste and contaminated water. Improper management of all waste, will result in both direct and indirect soil and water pollution. Considering the sensitive nature of the area, such pollution, regardless of volume or concentration could lead to significant ecological damage.

The EMP to be prepared for the site will consider in details the aspects, impacts and mitigation measures related to waste management during and post construction.

8.13 Construction Phase Impacts

The nature of the construction activities of the proposed project has the potential to cause on and off-site environmental damage. Such activities include:

- Traffic congestion and disruption during construction of the new intersections and road upgrades.
- Removal of vegetation.
- Use of available roads and tracks for transportation of equipment materials and for construction site access.
- Use of transportation and construction vehicles and equipment.
- Setting up of a construction camp site at the proposed site.
- Noisy construction activities, such as heavy vehicles, jack hammers, hoists, cranes etc.
- Refuelling and maintenance of construction vehicles and plants.
- Establishment and use of concrete batching equipment and/or a concrete batching facility.
- Resourcing, introduction, storage and use of construction material such as water, concrete, brick, fuel, oils, steel structures, equipment, construction wastes and litter.
- Use of hazardous substances such as fuels, oils, paints, solvents, etc.
- Possible use of portaloos for construction.
- Disposal of construction rubble.
- Waste management during construction.
- Safety issues during construction.
- Stormwater management on the construction site which could result in erosion and soil loss.

8.14 Cumulative Impacts

In terms of Regulation 28 of the EIA Regulations which describes the contents of a Scoping Report, sub-regulation (g) states that the Scoping Report must contain “a description of environmental issues and potential impacts, including cumulative impacts that have been identified.” The NEMA EIA regulations define cumulative impact as follows: “in relation to

an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.”

The previous sub-sections identified both the potential positive and negative environmental impacts which could occur as a result of the construction of the proposed Rohill Business Park. The impacts identified above are direct and immediate whereas cumulative impacts may not be significant on their own but become significant when coupled with others.

The Scoping Phase of this EIA has not identified or considered cumulative impacts as further investigation of the potential impacts and issues and their significances is required in the Impact Assessment Phase before the cumulative effects can be accurately defined and assessed.

8.15 Public Issues and Concerns Raised

The following Table 6 summarises the main potential impacts and issues and concerns raised by the I&APs through the Public Participation Process which will be considered and assessed in the Impact Assessment Phase.

Table 6: I&AP Issues and Concerns list

<p>Biophysical/Ecological:</p> <ul style="list-style-type: none"> • Soil erosion and sedimentation. • Potential water and soil pollution. • Alteration of hydrological functioning and change in habitat of the wetlands and rivers. • Loss of wetland and riparian habitat. • Sedimentation of local water sources and rivers. • Disturbance of floral and faunal species. • Loss of, or reduction in, local biodiversity. <p>Social Impacts:</p> <ul style="list-style-type: none"> • Noise generated during construction and operational phases. • Visual impacts associated with construction, operation and improper rehabilitation. • Dust impacts during construction and operational phases. • Air quality and odour impacts during construction and operational phases. • Change to sense of place and experience. • Changes in traffic patterns and increased congestion. • Increased use of residential roads by taxis and heavy vehicles. • Establishment and acceptability of ‘green belt’ buffer zone. 	<p>Air Quality:</p> <ul style="list-style-type: none"> • Construction related impacts such as dust pollution. • Construction vehicles causing traffic congestion. • Dust pollution. <p>Municipal/Regional Infrastructure and Services:</p> <ul style="list-style-type: none"> • Increased demand on municipal infrastructure and services. • Reduction in level of service of electrical services. • Effect on poor cellphone network. • Impact on existing sewer infrastructure. • Capacity and upgrade requirements. <p>Traffic Impacts:</p> <ul style="list-style-type: none"> • Increase in traffic volumes and congestion. • Capacity and upgrade requirements. <p>Waste Impacts and Management:</p> <ul style="list-style-type: none"> • Waste generation and disposal during construction and operational phases. <p>Safety Impacts:</p> <ul style="list-style-type: none"> • Safety of workers. • Safety of travellers / pedestrians. • Safety of residents in the area. <p>Geotechnical:</p> <ul style="list-style-type: none"> • Onsite and adjacent land use instability due to high clay content. <p>Cumulative Impacts:</p>
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<ul style="list-style-type: none"> • Changes in human movement and trade patterns. • Safety and security of local residents and businesses. • Change in property values. • Increased and/or reduced crime. <p>Economic:</p> <ul style="list-style-type: none"> • Impact on employment and trade. • Local economic development and job creation. <p>Cultural Heritage:</p> <ul style="list-style-type: none"> • Impact on cultural heritage resources. 	<ul style="list-style-type: none"> • It is anticipated that the development of the Proposed Business Estate will create a number of cumulative impacts which will be identified and analysed in terms of these impacts on the Estate and surrounding area. <p>Operational Management and Monitoring:</p> <ul style="list-style-type: none"> • Maintenance and responsibility for buffer zone. • Water quality monitoring. <p>Layout requirements:</p> <ul style="list-style-type: none"> • Size of residential buffer zone. • Location of access points. • Location of different land uses.
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9 PLAN OF STUDY FOR THE ENVIRONMENTAL IMPACT ASSESSMENT

The Plan of Study (POS) for the Impact Assessment Phase describes the approach to the Assessment, as required in terms of Section 28(1)(n) of Regulation GNR 543 promulgated in terms of the NEMA. In accordance with Regulation 28(1)(n) of the NEMA, this POS includes:

- A description of the tasks that will be undertaken as part of the EIA process.
- The potential impacts requiring further investigation.
- Details of the specialist investigations that need to be undertaken and the manner in which such tasks will be undertaken (Terms of Reference).
- An indication of the stages at which the competent Authority will be consulted.
- A description of the proposed method of assessing the environmental issues and alternatives, including the option of not proceeding with the activity.
- Particulars of the PPP that will be conducted during the EIA process.
- Any specific information required by the DAEA.

The potential environmental impacts associated with the proposed development have been identified and described through the Scoping exercise in the context of the biophysical, social and economic aspects of the area. These potential impacts will be assessed in more detail in the Impact Assessment Phase of the EIA.

9.1 Impact Assessment Phase Tasks

The objectives of the EIA Phase are to:

- Address the issues and concerns expressed by the environmental authorities in the response to the Scoping Study
- Assess the potential significant impacts imposed by the project and assess alternatives and mitigation measures to minimise potential impacts
- Assess layout and design alternatives in order to minimise potential impacts
- Document findings into an Environmental Impact Report (EIR) in order to inform the authorities with regard to issuing an environmental authorisation.

The following tasks are required to be undertaken during the EIA process:

- Appoint specialists to undertake the specialist investigations.
- Review of the specialist reports and amendment where necessary.
- Discuss the specialist report results and conclusions with the DAEA, eThekweni

Municipality, EKZNW, DWA, DOT, SANRAL and the Interested and Affected Parties either through 1-on-1 meetings or the convening of an authorities workshop if appropriate.

- Incorporate the assessments in the Draft EIA Report (DEIR).
- Distribute the DEIR to I&APs and authorities for review.
- Convene a public open day.
- Collate and address any comments/concerns documented by I&APs.
- Incorporate issues and responses into the Final EIA Report (FEIR).
- Submit the FEIR to the DAEA for consideration.
- Inform I&APs of the submission of the FEIR to the DAEA and make copies available for review.

The EIA process involves the compilation of an Environmental Impact Assessment (EIA) Report that provides a formal assessment of the significance of all of the potential impacts identified for assessment in the Scoping Phase. The impact assessment will be based on the findings and assessments of the various specialist reports listed and described in Section 9.3 and 9.4 below.

Once the EIA Report has been drafted according to the findings of the specialist reports and their recommended mitigation measures, the Draft EIA Report will be made available to all registered I&APs for public comment. The aim of this public comment period is to allow the public to review the findings of the specialist reports and the findings of the significance assessment, the revised development proposal, and the mitigation measures proposed to minimise the impacts of the proposed development. All registered I&APs will be requested to comment on these aspects and confirm and/or reject the findings or assessments based on reasonable and substantiated arguments. Thereafter, reasonable and substantiated comments will be incorporated into the assessment and a final draft of the development proposal and the EIA Report produced.

9.2 Competent Authority Consultation

The Competent Authority (DAEA) will be consulted at the following key stages:

- A meeting has already been held with DAEA on 5 September 2012 to discuss the details of the project.
- A possible site meeting and site visit with DAEA will be held during the scoping phase.
- A meeting at the initiation of the Impact Assessment Phase to discuss possible

timeframes and to clarify any queries or concerns regarding the EIA process.

- A consultation meeting will be held with DAEA approximately two weeks after the distribution of the DEIR to discuss any additional comments from I&APs as well as the outcome of the specialist studies. An indication of the DAEA’s satisfaction with the process undertaken to that stage should also be clear after the meeting.
- The FEIR will be submitted to the DAEA once all outstanding issues have been resolved.
- The DAEA may convene a meeting post-submission of the FEIR should it be deemed necessary.

9.3 Environmental Issues and Way Forward in the Impact Assessment Phase

A broad range of potential environmental impacts and issues which were identified during the Scoping process are described in Section 8. Many of these can be grouped into ‘over-arching’ aspects which, are cumulatively significant and therefore warrant the need for specialist investigation and assessment as part of the Impact Assessment Phase of the project. The consolidated issues and the ways in which the issues are going to be addressed in the Impact Assessment Phase are summarised in Table 7 below.

Table 7: Significant Issues and Specialist/Technical Studies

Issues	Plan for Way Forward in EIA
1. Traffic Impacts: <ul style="list-style-type: none"> • Increase in congestion • Exacerbation of already poor congestion situation • Increased use of smaller residential roads by heavy vehicles • Creation of unintended shortcuts for taxis and heavy vehicles • Upgrade requirements and costs • Opportunity for rail to development • Avoid access off Harrison Drive 	<p>These issues will be investigated as part of the Traffic Impact Assessment.</p> <p>Two access points are currently proposed off Old North Coast Road. Harrison and Rinaldo Roads have been avoided.</p>
2. Impacts on Telephone / Cell Phone services: <ul style="list-style-type: none"> • Direct impact to cell phone tower and reception • Increased network usage and capacity • Reduction in level of service 	<p>These issues will be investigated as part of the Electrical Services Study.</p>
3. Impacts on municipal waterborne sewer services: <ul style="list-style-type: none"> • Increased sewage volumes • Capacity of infrastructure (pipes, pump stations and WWTWs) • Reduction in level of service • Upgrade requirements • Damage to existing services 	<p>These issues will be investigated as part of the Civil Engineering Services Study.</p>
4. Impacts on municipal water services: <ul style="list-style-type: none"> • Increased demand • Capacity of infrastructure and supply • Reduction in level of service • Upgrade requirements • Damage to existing services 	<p>These issues will be investigated as part of the Civil Engineering Services Study.</p>
5. Impacts on municipal electrical services:	<p>These issues will be investigated as part</p>

Issues	Plan for Way Forward in EIA
<ul style="list-style-type: none"> • Increased demand • Capacity of infrastructure • Reduction in level of service • Upgrade requirements • Damage to existing services 	<p>of the Electrical Services Study.</p>
<p>6. Geotechnical impacts:</p> <ul style="list-style-type: none"> • Slope instability and financial an safety implications for onsite and neighbouring properties 	<p>These issues will be investigated as part of the Geotechnical Investigation.</p>
<p>7. Stormwater impacts:</p> <ul style="list-style-type: none"> • Increased stormwater volumes • Erosion and sedimentation of watercourses • Impacts on municipal stormwater infrastructure and services • Capacity of infrastructure • Reduction in level of service and flooding • Upgrade requirements • Damage to existing services • Will attenuation ponds be considered storage ponds for clean water or for contaminated stormwater? 	<p>These issues will be investigated as part of the Civil Engineering Services Study and a Stormwater Management Plan will be compiled for the development.</p>
<p>8. Flooding and Property Damage Impacts:</p>	<p>A floodline assessment will be undertaken to calculate the 1:50 and 1:100 year floodlines.</p>
<p>9. Social Impacts:</p> <ul style="list-style-type: none"> • Noise pollution • Dust pollution • Visual impacts • Change in sense of place and character • Loss of 'green buffer' • Increase in crime (increased foot traffic) • Positive and negative security impacts • Reduction in privacy • Business operating times and restrictions 	<p>The following specialist studies will be conducted to investigate the social issues raised:</p> <ul style="list-style-type: none"> • Social impact assessment • Noise impact assessment • Visual impact assessment <p>The dust impact will be addressed in the Construction Environmental Management Programme (EMPr).</p> <p>In addition, business estate restrictions will also be included as part of the EIA Phase.</p>
<p>10. Socio-economic impacts:</p> <ul style="list-style-type: none"> • Employment/job creation • Increase in municipal rates base • Decrease in property values 	<p>These issues will be investigated as part of the Economic Impact Assessment.</p>
<p>11. Open space management:</p> <ul style="list-style-type: none"> • What type of open space zoning? Public open space or private open space/conservation etc. • Will the open space be fenced? • Responsibility for management and maintenance of open space. • 100m residential buffer - 'green belt'. • Risks of informal settlement. 	<p>A conservation, rehabilitation and management plan will be compiled for the proposed development.</p> <p>Different and use options will be investigated e.g. public open space, private conservation etc.</p>
<p>12. River and wetland impacts:</p> <ul style="list-style-type: none"> • Wetland and riparian zone infilling • Alteration of hydrology • Establishment of stormwater structures within wetlands • NEMA principles which require that specific attention is given to stressed or impacted ecosystems in planning and management - section 2(4)(r) - have been overlooked. • Overlooks the mitigation hierarchy and advocates upfront that a wetland offset is investigated. • Query the 1:3 wetland offset ratio. 	<p>A wetland and riparian zone impact assessment will be undertaken. Following this a wetland offset and rehabilitation strategy will be undertaken.</p>
<p>13. Fauna impacts:</p> <ul style="list-style-type: none"> • Impacts to onsite and surrounding fauna • Impacts on local faunal biodiversity maintenance 	<p>A faunal impact assessment will be undertaken.</p>

Issues	Plan for Way Forward in EIA
<ul style="list-style-type: none"> Impacts to threatened Pickersgill's Reed Frog, KwaZulu Dwarf Chameleon and various millipedes and molluscs 	
<p>14. Flora impacts:</p> <ul style="list-style-type: none"> Impacts to onsite flora Impacts on local floral biodiversity maintenance Impacts to adjacent D'MOSS area Require a buffer zone to adjacent D'MOSS area 	<p>A vegetation impact assessment will be undertaken.</p>
<p>15. Legislative Implications:</p> <ul style="list-style-type: none"> A water use license in terms of the National Water Act must be acquired for the water uses associated with the proposed development. The removal of indigenous trees may require a permit in terms of the National Forests Act. 	<p>An integrated water use license application will be compiled in parallel to the EIA process.</p> <p>Permits for the destruction of protected trees will be acquired where necessary.</p>
<p>16. Air quality impacts and carbon footprint:</p>	<p>Green designs will be considered by the applicant wherever possible.</p>
<p>17. Heritage impacts:</p>	<p>A heritage impact assessment will be undertaken.</p>
<p>18. Agricultural impacts:</p>	<p>An agricultural potential assessment will be undertaken.</p>
<p>19. Waste management:</p> <ul style="list-style-type: none"> Require a plan for how waste is going to be managed within the proposed development. Require details on waste generated during construction and operation phases. 	<p>A waste management plan will be compiled and included in the construction and operational EMPr.</p>
<p>20. Water Pollution:</p> <ul style="list-style-type: none"> DWA require spill contingency plans for handling and storage of hazardous materials onsite. 	<p>A detailed construction and operational Environmental Management Programme will be compiled as part of the Final EIA Report that will include a spill contingency plan.</p>
<p>21. Alternatives:</p> <ul style="list-style-type: none"> Investigate an office land use that will serve as a buffer/intermediate use between the Industrial land use and Residential land. 	<p>A 100m 'no-development' buffer is proposed along the boundary between the proposed development and the Glen Hills residential suburb.</p>
<p>22. Insufficient Information / Information Requirements:</p> <ul style="list-style-type: none"> Insufficient detail regarding the proposed development e.g. zoning, land use, building type, business type etc. Will the estate be gated? Operational times Timeframes for construction and phasing 	<p>Details of proposed development will be finalised as part of the Draft EIA Report. These details include:</p> <ul style="list-style-type: none"> platform size and location; infrastructure type and location; building type, size and location; the different land uses associated with each platform/building; fencing and access control; and zoning and subdivisions.
<p>23. Implications of Corobrik mining:</p> <ul style="list-style-type: none"> Mine rehabilitation requirements prior to proposed development 	<p>The details of the Corobrik mine rehabilitation requirements will be included in the Draft EIA Report.</p>
<p>24. Layout comments:</p> <ul style="list-style-type: none"> The 100m buffer is not sufficient and needs to be larger. For the previous Investec proposal, the 100m buffer was calculated from the property boundary and not Harrison Drive. 	<p>The current development proposal including the proposed 100m buffer will be assessed in terms of visual, noise and social impacts as part of the Visual, Noise and Social Impact Assessments. Wherever possible, significant impacts will be mitigated. After mitigation, if it is found that the current proposed 100m buffer is still inadequate in terms of significant social impacts, it will need to</p>

Issues	Plan for Way Forward in EIA
	<p>be increased or re-looked at altogether.</p> <p>Regarding the difference in 100m buffer calculations compared to the original Investec proposal, JT Ross cannot be held to commitments made by Investec. Nevertheless, JT Ross have committed to a 100m buffer from the residential area. Please also note that due to the high cost of earthworks, the platform area needs to be maximised in order for the project to be financially viable and this is a fine balancing act. The planning approach thus far has been to incorporate a 100m residential buffer while maximising platform area as far as possible to ensure that the project is feasible as well as being socially responsible.</p>

9.4 Terms of Reference for Specialists

The Terms of Reference (TOR) for the specialist impact assessment studies to be undertaken to assess the potential impacts identified during the scoping phase are provided below. If accepted by the DAEA, the TOR will define the scope of work for the specialists for the Impact Assessment Phase.

9.4.1 Wetland & Riparian Zone Impact Assessment

The wetland and riparian zone impact assessment will be undertaken according to the following terms of reference:

- Delineate the outer boundaries of the wetland and riparian areas within the project site.
- Classify the wetland units.
- Determine the present ecological state of the delineated wetland and riparian areas.
- Determine the ecological/ecosystem importance of the delineated wetland and riparian areas.
- Determine suitable setbacks/buffers to protect the health and functionality of the wetland and riparian systems delineated.
- Identify and assess the potential impacts of the project on the wetland and riparian systems delineated.
- Provide recommendations and mitigation measures to minimise the severity/magnitude of the impacts and maintain and/or improve the functionality and health of the wetland and riparian systems.

9.4.2 Wetland Offset Study and Rehabilitation Strategy

A wetland offset mitigation study and rehabilitation strategy will be undertaken according to the following terms of reference:

- Determine the appropriate wetland area or hectare equivalent gains required to offset the proposed loss of wetland at an offset ratio of 1:3.
- Identify suitably degraded, candidate offset wetland units that can be rehabilitated as an offset for the proposed loss of wetland and calculate the hectare equivalents provided by these systems in their current state.
- Recommend rehabilitation objectives and interventions to improve the health of the offset wetland areas in the form of a wetland rehabilitation strategy (not a detailed plan).
- Determine the gains in wetland health resulting from the implementation of the proposed rehabilitation strategy.
- Provide a budget estimate for the compilation of a detailed wetland rehabilitation plan and the bill of quantities for the implementation of the rehabilitation interventions in the plan.

9.4.3 Vegetation Assessment

A Vegetation Assessment of the entire project site will be undertaken according to the following terms of reference:

- Identify and map the vegetation communities within and immediately surrounding the project site.
- Determine the species composition, integrity and conservation value of the vegetation communities identified and recommended 'no-go' areas.
- Identify and map the position of floral species encountered which are protected, rare, Red Listed and/or are of conservation importance for other reasons.
- Identify and map any functional and/or potential ecological linkages/corridors that exist and/or could exist between the various landscape elements on site and those surrounding the site.
- Apply suitable buffers/setbacks to the valuable communities needed to maintain and/or improve the ecological integrity of these communities in light of the development proposed.

- Identify the potential impacts of development on the integrity of the communities.
- Provide general management procedures to ensure that the integrity of these systems is maintained.

9.4.4 Faunal Assessment

A Faunal Assessment of the project will be undertaken according to the following terms of reference:

- Identify threatened faunal species and populations that are likely to occur within or utilise the property based on existing datasets, aerial photography and ground-truthing.
- Identify and map any functional and/or potential ecological linkages/corridors that exist and/or could exist between the various landscape elements on site and those surrounding the site.
- Apply suitable buffers/setbacks to the valuable faunal habitats (if present) needed to maintain and/or improve the ecological integrity of these habitats in light of the development proposed.
- Identify the potential impacts of development on the faunal habitats and populations (construction and operational phases).
- Provide mitigation measures to avoid or minimise these impacts where applicable and provide general management measures where applicable.

9.4.5 Conservation Area Rehabilitation and Management Plan

A Conservation Area Rehabilitation Plan will be undertaken according to the following terms of reference:

- Provision of comments and recommendations for the open space design.
- Provision of a practical plan for the rehabilitation and management of the open space areas to achieve the above intentions.

9.4.6 Agricultural Potential Assessment

An Agricultural Potential Assessment will be undertaken according to the following terms of reference:

- Source best aerial or satellite imagery, geo-reference and prepare for GIS environment.
- Source reliable, long term or modeled climate data. Interpret for crop suitability and agricultural limitations and risk.

- Source available contours and conduct topographic assessment.
- Via imagery interpretation, map current land use and comment thereon.
- Conduct reconnaissance soil survey, measure and record pertinent pedological properties and classify soils.
- Define relatively homogeneous soil bodies/sites for agriculture. Discuss properties and determine extent of each.
- Deduce agricultural land capability (8 class scale) for each soil body.
- Estimate current sugarcane yield on site. Determine extent of sugarcane via image interpretation.
- Compile detailed report and maps reflecting current land use, agricultural land potential, suitable crops and yields.

9.4.7 Visual Impact Assessment

A Visual Impact Assessment (VIA) will be undertaken. The purpose of the VIA is to determine the impact of the proposed development on the visual and aesthetic character of the area. The rationale for this study is that the construction of the proposed development may fundamentally alter the landscape character and sense of place of the local environment. The primary objective of this specialist study is therefore to identify the potential impact of the proposed development on the character and sense of place of the area. This specialist study will have the following objectives:

- Identify and assess the visual impact of a change in land use from sugarcane and mining to the proposed development in terms of current sense of place and visual character.
- Identify elements of particular visual quality that could be affected by the proposed project.
- Describe and evaluate the visual impacts of the individual components of the proposed project from identified critical areas and view fields as per the prescribed assessment methodology.
- Recommend mitigation measures to reduce the potential visual impacts generated by the components of the proposed project for inclusion into the EMP and the engineering design.
- Determine the extent of the visibility of the project from surrounding areas.
- Propose relevant aspects to be included in a visual monitoring programme.
- Identify requirements for further investigation if these fall outside the current scope of the project.
- Provide recommendations to minimise the visual impacts of the proposed

development.

9.4.8 Noise Impact Assessment

A Noise Impact Assessment will be undertaken. The general procedure used to measure baseline environmental noise at the site prior to operation will be guided by local legislation, the SANS guidelines and international best practice. The baseline survey will include the following components:

- **Characterisation of Noise Associated with Similar Types of Industry**
Both day time and night time measurements will be collected in and around existing logistics and warehouse sites similar to the proposed development to characterize typical noise levels associated with these land uses. Measurements will be collected on a normal working week day and night.
- **Baseline Characterisation at the Rohill Business Estate**
The description of the Rohill Business Estate baseline noise levels will comprise measurements collected both at the proposed site and within the residential areas surrounding the proposed development.
- **Noise Screening Assessment**
Calculations based on first acoustic principles to determine if the SANS guidelines and or local bylaws will be met based on the existing noise climate and the type of processes that are likely to be undertaken within the facility. The locations of the existing and proposed noise sensitive areas/receptors and the regulatory noise limited criteria for these areas.

Calculations will be carried out based on the inverse square law to determine whether or not the proposed boundary noise limits for the development will impinge on the noise sensitive areas and this will include the baseline noise measurements from the “representative industry types”. The assessment methodology will be in accordance with BS 4124 - Rating industrial noise affecting mixed residential and industrial areas.

Where road traffic is expected to increase to more than 50 vehicles per hour, the Calculation of Road Traffic Noise (CRTN) noise screening model will be used to assess the noise impacts associated with vehicle traffic. The model applies

procedures detailed in the CRTN-ISBN 0 11 550847 3 and provides a basic platform for calculating road traffic noise levels for non-complex situations. Model results demonstrating potential noise impacts at identified noise sensitive receptors will be compared to the “no development” scenario and baseline data. Fifteen locations along the road network will be assessed using the CRTN model and will include selected sensitive receptors for up to 300m from the road in question. The results will be presented in tabular format and assessed using internationally recognized assessment methodology.

9.4.9 Economic Impact Assessment

A Socio-Economic Assessment will be undertaken according to the following terms of reference:

- Assessment of the development's compatibility with the IDP, SDF and SDP.
- Identify and assess the positive and negative socio-economic impacts of the proposed development with. Including but not limited to:
 - Socio-economic impacts on local, city and regional economic environment (employment, income, municipal rates base, different industries etc.).
 - Impacts of change in land use - impact on agricultural (sugarcane) business, employment and incomes.
 - Possible decrease in property values of surrounding homes (as raised by residents).
- Provide recommendations and mitigation measures regarding the findings of the assessment.

9.4.10 Social Impact Assessment

A Social Impact Assessment will be undertaken according to the following terms of reference:

- Identify and assess the positive and negative social impacts of the proposed development with. Including but not limited to:
 - Quality of life impacts - nuisance impacts (noise, dust, traffic) and change in sense of place and character for residential areas (noise, visual and traffic impact assessments are being undertaken).
 - In-migration impacts and the expansion and/or creation of informal settlements in the area.
 - Possible increase in crime in the area (as raised by residents).
- Provide recommendations and mitigation measures regarding the findings of the assessment.

9.4.11 Traffic Impact Assessment

A Traffic Impact Assessment (TIA) for the project will be undertaken according to the following terms of reference:

- Assess the existing capacity, level-of-service (LOS) and delays of the local roads and intersections to be affected.
- Assess the status quo of the pedestrian and public transport facilities.
- Identify and assess the impact that the proposed development's traffic will have on local road network in terms of traffic flows, LOS and delays.
- Comment on the cumulative traffic impact of the development in light of other planned developments in the area.
- Recommend upgrades required to ensure that the proposed development's impact on traffic flows, road safety and pedestrian safety is reduced to acceptable levels.

9.4.12 Heritage Impact Assessment

A Heritage Impact Assessment (HIA) for the project will be undertaken to identify and evaluate any heritage resources that occur onsite. Any development or other activity which will change the character of a site exceeding 5 000 m² in extent must undertake a HIA. The assessment will involve the following:

- Undertake a site visit of the proposed development area and establish what heritage resources are present on the site or surrounding the site.
- Liaise with Amafa to obtain local knowledge of the site in terms of heritage resources.
- Determine the nature extent and significance of any heritage resources that might be present within the site and surrounding the site.
- Provide an indication of the potential impact that construction of the industrial platforms could have on the any available heritage resources.
- Provide recommendations on what heritage resources should be maintained in the development proposal.
- Provide input into the proposed layout.

9.4.13 Geotechnical Investigation

The geotechnical investigation will be undertaken according to the following terms of reference:

- Assess the site geology and geotechnical characteristics of the subsoil materials with respect to suitability for the proposed development and engineering services.
- Recommend sound and economic development practices and initial founding guidelines to ensure long-term stability of the development based on the geotechnical conditions encountered.

9.4.14 Floodline Assessment

A floodline assessment for the project will be undertaken which will involve the calculation of the 1:50 and 1:100 year floodlines for the site.

9.4.15 Stormwater Management Plan

A stormwater management plan will then be designed to best manage post development stormwater runoff.

9.5 Method for Impact Assessment Scoring

The impact assessment methodology, as covered in this section, considers the aspects listed below in order to calculate the significance of impacts linked with the construction and operation of the Rohill Business Estate. The predicted impacts fluctuate between qualitative and quantitative, depending on the need for appropriate classification of the impact.

The methodology used to rate all potential and identified environmental risks are as follows: Risk or Significance is determined using a quantitative ranking technique, and ultimately expressed as a very high (17-19), High (14-16), moderate to high (11-13), moderate (8-10), Low to moderate (5-7) risk or low (2-4) risk. The predicted impacts are described for the situation preceding mitigation as well as after the implementation of mitigation measures for those situations where impacts of significance are predicted. Regarding those cases where the mitigation requires time to establish, the consequential impact is based on the situation after establishment of the mitigation measures.

To ensure uniformity, the assessment of potential impacts will be addressed in a standard manner so that a wide range of impacts are comparable. For this reason a clearly defined rating methodology will be used by the specialists to assess the impacts identified in each

study. Each impact identified will be assessed in terms of:

- Extent of the Impact
- Duration of the Impact
- Intensity of the Impact
- Probability of the Impact, and
- Significance of the Impact.

The significance of the impact upon each environmental factor is classified according to its quantitative evaluation (Table 8 below). This rating, however, is not a reflection of the environmental risk or severity of impact. In certain instances a specific factor may have been permanently altered, but the impact of that factor on the environment (natural, cultural, social) is marginal or even inconsequential. It is therefore important to analyse the entire scope of the impact and its context and not assess it entirely on the significance of the rating alone.

Table 8: Impact Assessment Scoring

Rating	Description	Quantitative Rating
Status (S)		
Positive	A benefit to the holistic environment	1
Negative	A detriment to the holistic environment	-1
Probability (P)		
Improbable	In all likelihood the impact will not occur	1
Low Probability	Possibility of the impacts to materialise is very low	2
Probable	A distinct possibility that the impact will occur	3
Highly Probable	Most likely that the impact will occur	4
Definite	The impact will occur regardless of any prevention measures	5
Frequency (F)		
Continuous	Daily	1
Frequent	Less than daily (hours)	0.8
Infrequent	Moderate frequency (weekly)	0.5
Occasional	Less than weekly (once or twice per month)	0.2
Spatial Extent (SE)		
Site Specific	Effects occur within the site/servitude boundary	1
Local	Effects extend beyond the site boundary	2
	Affects immediate surrounding areas	
Regional	Widespread	3
	Extends far beyond the site boundary	
	Effects felt within a 50km radius of the surface lease area	

Rating	Description	Quantitative Rating
National	Effects felt beyond the 50km radius	4
Intensity (I)		
Very Severe	Substantial deterioration/improvement	4
	Irreversible or permanent	
	Cannot be mitigated	
Very Beneficial	Permanent improvement and benefit	4
Severe	Marked deterioration	3
	Long term duration	
	Serious and severe impacts	
	Mitigation is very expensive, difficult or time consuming	
Beneficial	Large improvement	3
	Long term duration	
Moderately Severe	Moderate deterioration	2
	Medium term to long term duration	
	Fairly easily mitigated	
Moderately Beneficial	Moderate improvement	2
	Medium to long term duration	
Slight	Minor deterioration	1
	Short to medium term duration	
	Mitigation is easy, cheap or quick	
Beneficial	Minor improvement	1
	Short to medium term duration	
Duration (D)		
Short Term	0 - 5 years	1
	Less than the project life span	
Medium Term	5 - 10 years	2
Long Term	15 - 40 years	3
	Life of project	
Permanent	Where the impact will be irreversible and will remain	4
Significance		(Negative)
High	Negative long term/permanent change to the natural and social environment	13 - 18
Medium	Medium or long term effects to natural and social environment	7 - 12.9
	These effects are real and mitigation is possible, difficult and often costly	
Low	Short term effects on the natural environment	0 - 6.9
	Effects are not substantial and are often viewed as unimportant	
	Mitigation is cheap, easy, quick or seldom required	
		(Positive)
Low	No real benefit to the holistic environment	0 - 6.9

Rating	Description	Quantitative Rating
Medium	A benefit to the holistic environment	7 - 12.9
	Monitoring is needed	
	Some mitigation is needed	
High	To the greater benefit of the social and/or natural environment	13 - 18
	No mitigation or monitoring needed	

9.6 Impact Management

Each specialist will be required to identify means of avoiding, mitigating and/or managing the negative impacts in their particular aspect of investigation. The recommended management strategies will be synthesized by GCS to formulate the EMP for the proposed project. Management strategies will be based on the BATNEEC principle (Best Available Technology Not Involving Excessive Cost).

9.7 Environmental Management Programme (EMP)

GCS will prepare a Draft EMP which is required as part of the EIA submission (Regulation 33). The purpose of the EMP is to control the impacts of construction and operational activities. The effective implementation of an EMP will ensure that the required works are conducted in an environmentally sound manner and that the potential negative impacts of construction and operational activities are minimised and/or prevented.

The Draft EMP document details the responsibilities and authority of the various parties involved in the project and contains environmental specifications to which the Contractor and Operator are required to adhere throughout the duration of the construction and operational phases. The Draft EMP will cover impacts that have been identified in the EIA Process and which could potentially arise during the construction and/or operation of the road. The EMP will cover the following aspects:

- Project background information.
- Identification/listing of project and operational activities.
- Implementation and operational instructions.
- Roles and responsibilities of parties with regard to environmental management.
- Environmental training and awareness material for construction staff.
- Environmental specifications e.g. protection of biodiversity and sensitive environments, rehabilitation, public safety and perceptions, traffic control, material and waste management, litter, containment and disposal of hazardous substances (e.g. paints, waste oils) etc.

- Measurement of compliance with the EMP.

9.8 Public Participation Process

The PPP for the Impact Assessment Phase of the Project will involve the following tasks:

9.8.1.1 Announcement of the Availability of the Draft EAIR and Draft EMPr

At this point, the specialist studies would have been completed and the Draft EIA Report and Draft EMPr would be ready for public review. A letter will be circulated to all registered I&APs, informing them of progress made with the study and the availability of the Draft EIR and Draft EMPr for a 40 day comment period. The Draft EIR will be distributed to the same locations as the DSR/FSR was distributed during the Scoping Phase.

9.8.1.2 Public Review of Draft EIAR and Draft EMPr

The EIA Guidelines specify that stakeholders must have the opportunity to verify that their issues have been captured and assessed before the EIA Report will be approved by the competent authority (DAEA). The Draft EIAR provides this opportunity and will be written in a way which makes it accessible to stakeholders in terms of language level and general coherence.

As part of the process to review the Draft EIAR and Draft EMPr, an open day similar to that held during the Scoping Phase, will be arranged to afford the public the opportunity to obtain first-hand information from the project team members and also to discuss their issues and concerns. Contributions at this meeting will be considered in the Final EIR.

9.8.1.3 Announcement of the Availability of the Final EIAR and Draft EMPr

After comments from I&APs have been incorporated into the CRR and the Draft EIR revised accordingly, all stakeholders on the database will receive a letter informing them that the Final EIAR and Draft EMPr have been submitted to the DAEA for consideration. Electronic copies of the Final EIAR will be available should the I&APs wish to review the documents submitted to the DAEA. The I&APs will be informed that should they wish to submit comments on the Final EIAR; these must be submitted directly to the DAEA and copied to the EAP.

9.8.2 Announcement of Authorities' Decision

Based on the contributions by the stakeholders, the decision of the authorities may be advertised through the following methods:

- Letters to individuals and organisations on the database.
- Advert in local or regional newspapers.

10 CONCLUSION AND WAY FORWARD

10.1 Conclusion

Local knowledge, professional experience and specialist knowledge of the area have all been used to identify the potential environmental issues associated with this development and the resultant potential environmental impacts. There is no guarantee that all the potential impacts arising from the proposed development have been identified within the Scoping Phase, however the report provides an outline of the established measures that were taken to best identify all the potential impacts. The purpose of the Scoping Phase is NOT to assess and mitigate the potential environmental impacts and issues identified but rather to scope them and determine which need further investigation before an assessment can be undertaken.

The Draft version of the Scoping Report was made available for a 40-day public comments period in order to give the public a chance to review the outcomes of the Scoping Process and identify additional possible issues that have not been identified. Comments received on the Draft Scoping Report were included in the Comments and Response Report and any additional issues were incorporated into the report. Only minor changes have been made to the Draft Scoping Report during finalisation. Changes made to the Scoping Report are listed below:

- Inclusion of warehouse-based retail land use in project description.
- Minor grammatical changes throughout the document.
- Minor changes to public participation details for the Final Scoping Report.
- Minor changes to the potential issues and impact list following comments received during the Draft Scoping Report public comment period.
- Minor re-organisation of the public participation section.
- Inclusion of **Table 7** in the Plan of Study for EIA that summarised issues raised and how these issues are to be addressed in the Impact Assessment Phase.
- Updating of the Comment and Response Report (CRR) to include comments received during the Draft Scoping Report public comment period.

The scoping phase has revealed that there are a number of potentially significant impacts associated with the proposed development, particularly the potential social impacts to Glen Hills residents (visual, noise, quality of life etc.), traffic impacts and watercourse impacts. On the other hand, the proposed development also stands to have some significant positive economic impacts (e.g. job creation, revenue generation) as well as onsite environmental impacts provided the correct rehabilitation and management of the open spaces is implemented. The Plan of Study for EIA outlines the strategy to identify and assess all these potential impacts and concerns in the Impact Assessment Phase.

10.2 Way Forward

This Final Scoping Report and Plan of Study for EIA will be submitted to the DEAE for acceptance. In parallel to this submission, the FSR will also be made available to all I&AP's for a 21 day public comment period. All comments on the FSR from I&AP's must be submitted directly to Ms. Natasha Brijlal at the KZN DAEA. Once the DAEA are satisfied that all the issues associated with the proposed development have been scoped and the plan to address these issues are sufficient, the FSR and Plan of Study for EIA will be accepted and the Impact Assessment Phase will commence as per the Plan of Study for EIA.

Following completion of the specialist studies and assessment of the impacts, a Draft Environmental Impact Assessment Report will be compiled and will follow a similar public participation procedure to that undertaken for the Scoping Phase whereby opportunities for engagement will be provided through stakeholder meetings and dissemination of project information. I&APs will, again, be afforded the opportunity to review the Draft Environmental Impact Report prior to submission to the DAEA for assessment. a public meeting will be held to present the findings to the I&APs during the Draft EIA Report public comment period. Once finalised, the Draft EIA Report will be made available for a 21 day public comment period and then submitted to the KZN DAEA for acceptance and used to inform the Environmental Authorisation.

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APPENDICES

