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*Advancement Through Sustainability*

**DRAFT BASIC ASSESSMENT REPORT THE PROPOSED  
MPUSHINI PARK SUBSIDISED HOUSING  
DEVELOPMENT WITHIN THE UMLALAZI LOCAL  
MUNICIPALITY, KWAZULU-NATAL**

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## CONTENT AND GENERAL REQUIREMENTS

Note that:

This Basic Assessment Report is the standard report format which, in terms of Regulation 16(3) of the EIA Regulations, 2014 (as amended) must be used in all instances when preparing a Basic Assessment Report for Basic Assessment applications for an environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the EIA Regulations, 2014 (as amended) and/or a waste management licence in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) ("NEM:WA"), and/or an atmospheric emission licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA") when the Western Cape Government: Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority/Licensing Authority.

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<sup>1</sup> In terms of Regulation 40(3) potential or registered interested and affected parties, including the Competent Authority, may be provided with an opportunity to comment on the Basic Assessment Report prior to submission of the application but must again be provided an opportunity to comment on such reports once an application has been submitted to the Competent Authority. The Basic Assessment Report released for comment prior to submission of the application is referred to as the "Pre-Application Basic Assessment Report". The Basic Assessment Report made available for comment after submission of the application is referred to as the "Draft Basic Assessment Report". The Basic Assessment Report together with all the comments received on the report which is submitted to the Competent Authority for decision-making is referred to as the "Final Basic Assessment Report".

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## Acronyms

BAR	Basic Assessment Report
BID	Background Information Document
CBA	Critical Biodiversity Area
DEA	National Department of Environmental Affairs
DWS	National Department of Water and Sanitation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme

I&APs	Interested and Affected Parties
KZN EDTEA	KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:AQA	National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
NEM:BA	National Environmental Management Biodiversity Act [Act No. 10 of 2004
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
PPP	Public Participation Process

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Kwazulu-Natal



## 1. DETAILS OF THE PROJECT PROPONENT

The Applicant for the proposed project is the uMlalazi Local Local Municipality. The details of the Applicant are as follows:

TABLE 1: APPLICANT DETAILS

Applicant	uMlalazi Local Local Municipality
<b>Representative</b>	Mr. Raymond Phiwamandla Mnguni
<b>Physical Address</b>	Hutchinson Street, Eshowe
<b>Postal Address</b>	P O Box 37, Eshowe
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<b>E-mail</b>	<a href="mailto:raymondm@umlalazi.org.za">raymondm@umlalazi.org.za</a>

## 2. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

The environmental team of Baboloki Geohub & Project Managers [hereafter referred to as Baboloki Geohub] are appointed as the Environmental Assessment Practitioner [EAP] on behalf of uMlalazi Local Local Municipality. Baboloki Geohub is therefore undertaking the appropriate environmental studies for this proposed project.

TABLE 2: EAP DETAILS<sup>2</sup>

Detail	Baboloki Geohub
<b>Contact Person</b>	Miss Kudakwashe Michele Samantha Zhandire
<b>Address</b>	110 Signal Hill, 45 Nienaber Road, Prestbury, 3201
<b>Telephone</b>	079 962 1987
<b>E-mail</b>	<a href="mailto:babolokigeohub@gmail.com">babolokigeohub@gmail.com</a>
<b>Qualification</b>	Bachelor of Arts Geography & Environmental Science and International Relations

<sup>2</sup> Full curriculum vitae of the above practitioners can be found in Appendix G of this report. [double-check this – above reference to EAP is Appendix G]



Detail	Baboloki Geohub
<b>Affiliations</b>	Environmental Assessment Practitioners Association of South Africa (EAPASA) – Registered EAP International Association of Impact Assessment South Africa (IAIAsa) Institute for Waste Management of Southern Africa (IWMSA)
<b>Experience</b>	10 years

Kudakwashe Zhandire is the Director at Baboloki Geohub. Having obtained her Bachelor of Arts Degree from the Monash South Africa University; she has over 10 years' experience in the environmental consulting industry in southern Africa. She has gained extensive experience in the field of Integrated Environmental Management, environmental impact assessments and public participation. She has also been actively involved in a number of projects, including road and water infrastructure, sanitation, irrigation as well as renewable energy facilities. Kudakwashe has major project experience in the development of Environmental Impact Assessments, Basic Assessments, Environmental Management Plans and the monitoring of construction activities. Her areas of expertise include project management, environmental scoping and impact assessments, environmental management plans, environmental compliance monitoring and environmental feasibility studies. For the detailed experience of the EAP, refer to Appendix G of this fBAR.



## **3. EXECUTIVE SUMMARY OF THE BASIC ASSESSMENT REPORT:**

### **3.1. The Proposed Development**

The uMlalazi Local Municipality has, through its IDP process, and extensive consultation with respective beneficiary communities residing within the Municipality, identified the need to provide low cost housing throughout its entire area of jurisdiction. Such a process was initiated as a means to address the municipality's predominantly traditional/informal housing profile, and in doing so reduce the current backlog within the uMlalazi Local Municipality. The provision and implementation of such subsidised housing projects will occur in accordance with the terms of the Housing Subsidy Scheme (as described in Chapter 11 of the National Housing Code). The Mpushini Park Subsidised Housing Project, situated within Wards 7, 11 and 12 of the uMlalazi Local Municipality forms part of this initiative.

### **3.2. Site Location & Description:**

The uMlalazi Local Municipality is one of the six local municipalities forming the uThungulu District Municipality. The total population of the uMlalazi Local Municipality, as recorded in the Census 2011 is estimated at 213 601 persons. The project area is located adjacent to Eshowe and is depicted on the attached thematic map. The Mpushini Park Project Area entails the establishment of a township on the current land under commercial agricultural use. The Mpushini Park Housing Development has been earmarked for a potential of 3000 housing subsidies, the purpose of this project is to determine the suitability of the project area for development and whether the proposed housing units can be accommodated on the project site. The dominant land cover within the study area is described as "Cultivated: permanent – commercial sugarcane" covers 69.57% of the Mpushini Park Housing project area. The "Urban/Built-up land: residential" covers approximately 27.88% of the project area.



Site and activity alternatives and re-alignment have been proposed as per

the specialist recommendations with adequate mitigations in sensitive environments incorporated. The proposed project is aimed at address the municipality's predominantly traditional/informal housing profile, and in doing so reduce the current backlog within the uMlalazi Local Municipality.

### **3.3. Aims and Purpose of this Report**

The purpose of this Basic Assessment Report (BAR) is to present the environmental impact assessment undertaken on the preferred alternative for the proposed development. The preferred site layout and technical specifications, were assessed by the specialists and their findings and assessment are collated in this BAR. This BAR will provide sufficient information for the competent authority to make an informed decision on the proposed development. The report further addresses comments received during the public participation process.

The BAR has been compiled which:

- ❖ Describes the proposed project;
- ❖ Identifies appropriate alternatives;
- ❖ Identifies and assesses the possible positive and negative environmental (both social and biophysical) impacts associated with the proposed project; and
- ❖ Recommends reasonable and feasible mitigation measures which are measures that attempt to reduce potential negative impacts and increase positive impacts identified.

### **3.4. Legal Requirements**

The National Environment Management Act, 1998 (Act No 107 of 1998) (NEMA) promotes the use of scoping and EIA in order to ensure the integrated environmental management of activities.

Section 24(1) of NEMA states:

"In order to give effect to the general objectives of integrated environmental management laid down in this Chapter, the potential impact on the environment of listed activities



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must be considered, investigated, assessed and reported to the competent authority charged by this Act with granting the relevant environmental authorisation."

EIA is ultimately a decision-making process with the specific aim of selecting an option that will provide the most benefit, and cause the least impact. The EIA process should identify activities which may have a detrimental effect on the environment, and which would therefore require environmental authorisation prior to commencement.

The EIA process commences with formally notifying the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (KZN EDTEA) of the proposed development by the submission of application forms. Following the notification, the EAP, along with the team of technical specialists, will commence the process with defining the appropriate "scope" of the EIA process. This involves establishing the existing environmental baseline of the site proposed for development, considering the type of development and its potential impacts on the existing environment, and therefore determining what potential impacts should be assessed and how, within the EIA process.

The EAP therefore compiles a Draft BA Report which is made available for public and stakeholder comment for a prescribed consultation period. All comments received in response to the Draft BAR will be considered and as appropriate incorporated into the Final BAR.

I&APs will then be notified of the availability of the Final BAR and advised that should they like to comment on the report, they must submit their comments directly to the KZN EDTEA (contact details for KZN EDTEA will be included in the notification documents).

Once a FBAR has been submitted, the competent authority (the KZN EDTEA) will make a decision on whether to grant or refuse Environmental Authorisation.

**TABLE 3: LISTED ACTIVITIES OF THE EIA REGULATIONS 2014 [AS AMENDED IN 2017]**

Relevant notice	Activity No[s]
GN R No. [GNR] 327 Listing Notice 1	12, 19, 28,
GN R No. [GNR] 324 Listing Notice 3	4 and 14



### 3.5. Public Participation

The key phases of this environmental authorisation process are described below:

- ❖ **Initial Notification and Call to Register as I&APs through the following:**  
Advertisements, site notices, posters, letters to landowners and pre-identified I&APs.  
The aim of this step is to inform people of the proposed activity and to encourage initial comment and feedback.
- ❖ **Basic Assessment Process: Collation of initial comments and specialist investigations into a concise report (this document) which provides feedback on the following:**
  - Nature of the activity;
  - Description of the receiving environment;
  - Identification of potential feasible alternatives;
  - Identification of potential positive and negative impacts; and
  - Identification of knowledge gaps.

The process has involved an investigation and comparative assessment of the proposed development. The identified impacts have been assessed and relevant management and mitigation measures have been included in an Environmental Management Programme (EMPr). The findings are included in this Report.

**Ongoing Public Consultation:** Throughout the process, registered I&APs were consulted. This involvement was initiated through the dissemination of information by means of advertisements and notification letters, and opportunities were provided for Interested and Affected Parties (I&APs) to review and comment on the proposed development.

Following the completion of the relevant processes described above and the submission of documentation to the competent authority (KZN EDTEA), the KZN EDTEA will review the application and issue a decision (called an Environmental Authorisation). I&APs will be informed of the decision and their rights to appeal.

In terms of Public Participation for the proposed development, the following tasks have been completed:

- Interested and Affected Parties (I&APs) have been identified throughout the process. Initial identification of I&APs was done by identifying all landowners adjacent to the site boundary. Ward councillors, Authorities have also been informed;
- An advertisement were placed in a local newspaper (The Zululand Observer) on Wednesday 9<sup>th</sup> December 2020 to notify the public of the proposal; Notification letters, and project information was distributed on 9<sup>th</sup> December 2020;
- This Draft BAR is available for public review from the 10<sup>th</sup> December 2020 – 30<sup>th</sup> January 2021.
- Seven (7) site notices were placed on the boundaries of the development site on the 6<sup>th</sup> and 7<sup>th</sup> October 2020;
- The comment period on the Draft Basic Assessment Report closes on the 30<sup>th</sup> January 2021.

After the initiation of the public participation process, correspondence for the remainder of the process is directed to I&APs who are registered and placed on the project database. Correspondence with I&APs has been via telephone and email.

### **3.6. Assumptions, Gaps and Limitations of the study**

The BA process followed the legislated process required and as governed and specified by the EIA Regulations [2014 as amended in 2017]. Inevitably, when undertaking scientific studies, challenges and limitations are encountered. For this specific BA, the following assumptions and limitations are applicable to this study:

The following assumptions and limitations are applicable to this study:

- ❖ It is assumed that the proposed development site investigated and assessed for the proposed residential housing development is technically suitable for such development.
- ❖ It is assumed that all municipal infrastructure and capacity to support the proposed housing development is technically adequate, feasible and viable.
- ❖ Site alternatives were not investigated due to the fact that this application is project specific for this specific land portion.



- ❖ The assumption is made that the information on which this report is based (specialist studies and project information, as well as existing information) is accurate and correct at the time of writing this report.
- ❖ It is assumed that the recommendations derived from this study would be included in all tender documentation and the EMP for implementation.

### ***Wetland and Watercourse Impact Assessment***

There are no major gaps in the aquatic and wetland ecological impact assessment that are likely to influence the significance of the findings. The main assumption is that the aquatic and wetland samples which were taken are representative of wetland and watercourse environments in the whole study area.

### ***Vegetation Assessment***

There are no major gaps in the terrestrial vegetation ecological impact assessment that are likely to influence the significance of the findings.

### ***Heritage and Palaeontological Impact Assessment:***

- ❖ It is assumed that the SAHRIS database locations are correct.
- ❖ It is assumed that the paleontological information collected for the project is comprehensive.

## **3.7. Alternatives Assessment**

The following alternatives have been investigated:

The following alternatives have been investigated:

### ***Site Alternatives***

No site alternatives have been proposed for this project as the purpose of this application is for the development of residential houses and associated access roads

### ***Activity Alternatives***

No activity alternatives have been investigated for this project as applications for the Rezoning have been lodged for the development of residential and mixed-use housing.

### *Design or Layout Alternatives*

Design / layout alternatives were considered for Mpushini Subsidized Housing development. The proposed layout (by the Municipality) refers to a layout where the proposed development mirrors the municipal land currently under commercial sugarcane production.

### *Technology Alternatives*

Technology alternatives are not considered applicable to the general purpose of this Application as the purpose of this application is for the development of residential housing.

### *Operational Alternatives*

Operational alternatives are not considered applicable to the general purpose of this Application as the purpose of this application is for the development of residential housing.

### *The No-Go Alternative*

The “No Go” alternative is the “no-development alternative”. This option of retaining the status quo, and not proceeding with the proposed residential housing development is not reasonable considering the fact that the implementation of the uMlalazi Local Municipality Subsidised housing project will contribute in a tangible manner to one of the outcomes of the Provincial Growth and Development Strategy which is defined as overcoming services and infrastructure backlogs of rural communities, and the implementation of the Mpushini Park Subsidised housing project will contribute positively towards addressing the needs of the poor through the future provision of associated infrastructure such as social welfare services, public works programmes and health systems.

## **3.8. Summary of Key Findings**

Key findings of the impact assessment contained in the BAR are included below:

Construction phase impacts identified by the Basic Assessment Process include:

- ❖ Potential for Soil Erosion;
- ❖ Loss of or damage to Vegetation;
- ❖ Impact of litter/waste pollution from the activities and construction workers on site on the surrounding environment;
- ❖ Job creation;
- ❖ Wind-blown dust;
- ❖ Noise Impacts;
- ❖ Impact on cultural heritage aspects;

Operational phase impacts identified by the Basic Assessment Process include:

- ❖ Impact of potential soil erosion;
- ❖ Impact of the proposed development on visual aesthetics of the surrounding environment;
- ❖ Job creation; and
- ❖ Impact of increased revenue to the local economy.

The proposed development will result in no unacceptable biophysical and socio-economic impacts, after mitigation. No (post mitigation) impacts of high negative significance will occur as a result of the implementation of the proposed activity during either the construction or operational phase.

Negative impacts on the socio-economic environment are mainly limited to the construction phase and will be of low to very low negative significance with mitigation measures. The proposed development has positive socio-economic impacts of low significance in the construction phase, in terms of job creation, and positive impacts of very low significance in terms of increased revenue into the local economy as well as to the national fiscus during the operational phase.

The implementation of the “No-Go” alternative would have a negative impact in terms of the opportunity cost of lost increased revenue to local economy and a low negative impact of job losses.





### **3.9. Way Forward**

The impacts identified and assessed by way of risk ratings, have been extensively reported herein. The report at hand [i.e. dBAR] together with a comprehensive issues trail, the draft of the EMPr, and all Annexures as referred to will now be submitted to the KZN EDTEA, for comment. The fBAR report will be a culmination of scientific specialist studies' findings, public contribution via formal comment, comment made at meetings held, and the drawing of conclusions by the EAP as the environmental specialist.



## **4. SECTION A: PROJECT INFORMATION**

### **4.1. Project Description**

**(a) Is the project a new development? If “NO”, explain:**

This proposed project is a new residential housing development. The applicant will be responsible for the installation of municipal services to each residential stand, constructing subsidised houses, as well as for the construction of the access roads. Each land owner who purchases serviced stand will be responsible for the construction of their own individual houses.

**(b) Provide a detailed description of the scope of the proposed development (project).**

The uMlalazi Local Municipality has, through its IDP process, and extensive consultation with respective beneficiary communities residing within the Municipality, identified the need to provide low cost housing throughout its entire area of jurisdiction. Such a process was initiated as a means to address the municipality’s predominantly traditional/informal housing profile, and in doing so reduce the current backlog within the uMlalazi Local Municipality. The provision and implementation of such subsidised housing projects will occur in accordance with the terms of the Housing Subsidy Scheme (as described in Chapter 11 of the National Housing Code). The Mpushini Park Subsidised Housing Project, situated within Wards 7, 11 and 12 of the uMlalazi Local Municipality forms part of this initiative.

The site is situated within the urban edge of Eshowe and on the edge of existing residential suburbs. The majority of the site is under commercial sugarcane production. The applicant will build the standard subsidised houses, anticipated to measure 40m<sup>2</sup> each, and has made provision for plots to be sold to individuals who are permitted to build if they do not qualify for the houses under the housing subsidy. The



applicant will provide the services to each of the sub-divided erf's with common access roads.

Three specialist studies have been commissioned for this proposed development:

- ❖ Heritage – as the site is greater than 5000m<sup>2</sup> this triggers Section 38 of the National Heritage Resources Act, 1999 (Act No 25 of 1999)
- ❖ Ecological – as the site is situated within 5km radius of the Dlinza Forest Nature Reserve
- ❖ Wetland Delineation and Impact Assessment - as the site has various streams and freshwater resources over which portal culverts will be constructed.

The proposed project will include the road, power and water and sewer supply infrastructure:

**(c) List all the listed activities triggered and being applied for.**

**TABLE 4: LISTED ACTIVITIES OF THE EIA REGULATIONS [2014 AS AMENDED IN 2017]**

Relevant notice	Activity No[s]	Description [Verbatim and as per applicability to proposed development]
<b>GNR 327 - Listing Notice 1</b>	Activity 12	<i>The development of [iii] bridges exceeding 100 square metres in size and [vi] bulk storm water outlet structures exceeding 100 square metres in size; where such development occurs [a] within a watercourse; or [c] if no development setback exists, within 32 m of a watercourse, measured from the edge of a watercourse.</i> <b>The project entails the construction of a with an area exceeding 100m<sup>2</sup> in extent within 32m of the streams in the project area.</b>
<b>GNR 327 - Listing Notice 1</b>	Activity 19	<i>The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from [-(i)] a watercourse; [(ii) the seashore; or (iii) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or estuary, whichever distance is the greater—] but excluding where such infilling, depositing, dredging, excavation, removal or moving— (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; [or]</i>



Relevant notice	Activity No[s]	Description [Verbatim and as per applicability to proposed development]
		<p>(c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;</p> <p>(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour;</p> <p>or</p> <p>(e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.</p> <p>The project entails infilling, depositing and removing of material exceeding 10m<sup>3</sup> for the various infrastructure within watercourses throughout the project area.</p>
<b>GNR 327 - Listing Notice 1</b>	28	<p><i>Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development:</i></p> <p>(i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares</p> <p>The Mpushini housing development will be developed on land previously used for agriculture and will occur inside an urban area, where the total land to be developed exceeds 5 hectares</p>
<b>Government Notice Regulation No. [GNR] 325 of 2017</b>		No relevant activities
<b>GNR 324: Listing Notice 3</b>	4(d)(viii) and (xiii) (cc)	<p><i>The development of a road wider than 4 metres with a reserve less than 13,5 metres.</i></p> <p><i>in [d] KwaZulu-Natal</i></p> <p>vii. Critical biodiversity areas or ecological support areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p> <p>xiii. Inside urban areas:</p> <p>(cc) Within urban protected areas.</p> <p>The Mpushini housing development will require the development of access roads wider than 4 metres with a reserve less than 13,5 metres for easy access within the suburb in KwaZulu-Natal</p>
	Activity 14 (x) and [xii] [aa].	The development of— (x) Buildings exceeding 10 square metres insize;



Relevant notice	Activity No[s]	Description [Verbatim and as per applicability to proposed development]
		<p><i>(xii) infrastructure or structures with a physical footprint of 10 square metres or more;</i>  <i>where such development occurs—</i>  <i>(a) within a watercourse;</i>  <i>in [d] KwaZulu-Natal</i></p> <p>vii. Critical biodiversity areas or ecological support areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p> <p>xi. Inside urban areas:</p> <p>(aa) Areas zoned for use as public open space;            (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, zoned for a conservation purpose;</p> <p>The Mpushini housing development will entail the construction of portal culverts within watercourses whose size exceeds 10 square metres inside an urban area in KwaZulu-Natal</p> <p>Inside urban areas:</p>

#### **(d) Details of all components including associated structures and infrastructure**

The proposed project is for the development of approximately 2500 residential houses of 6m wide access roads with 12 portal culverts measuring 6.5m wide by 15m long. It is the uMlalazi Local Municipality's intention to transfer the serviced erf parcels to new owners for the development of residential housing, however the Applicant is responsible for the installation of all services to the erf parcels before any residential housing construction can take place for both the housing subsidy units and on the serviced residential stands.

##### **Power Infrastructure**

The proposed project will include the development of new reticulation networks (applicable to the standards and specification of SANS)

##### **Water Supply Infrastructure**

Water Reticulation: Individual erven will be connected onto the reticulation with a standard house connection yet to be determined.

**Storm Water Reticulation:**

The annual rainfall figure for the uMlalazi Area can be described as a high rainfall area and the undulating topography has resulted in a number of rivers and streams occurring in the area. There is no stormwater reticulation at the project site, however the soil is very permeable here and the surface runoff is negligible. The majority of the site has already been transformed and degraded by anthropological activities and agriculture Stormwater from the proposed new residential houses, as well as the internal roads will drain naturally onto abutting lower areas.

**4.2. Physical size of the Proposed Development**

Land Use	Erven	Units	Area (Ha)	Percentage
Active Open Space	12	N/A	1.63	0.58
Community Hall	1	N/A	0.34	0.12
Conservation	26	N/A	112.95	40.08
Creche	5	N/A	0.33	0.12
Elevated Storage Site	1	N/A	0.08	0.03
Health Facility	1	N/A	0.61	0.22
Low Impact Mixed Use	6	250	2.00	0.71
Municipal	3	N/A	0.80	0.28
Place of Worship	5	N/A	1.15	0.41
Primary School	1	N/A	3.04	1.08
Residential 1000	470	469	50.32	17.85
Residential - BNG	1531	1531	49.06	17.41
Residential - FLISP	152	152	7.46	2.65
Residential - Serviced Sites	151	151	7.48	2.65
Road Reserve	61	N/A	38.07	13.51
Secondary School	1	N/A	4.96	1.76
Sports Field	1	N/A	1.07	0.38



Land Use	Erven	Units	Area (Ha)	Percentage
Transportation	2	N/A	0.47	0.17
<b>Total</b>	<b>2430</b>	<b>2553</b>	<b>281.84</b>	<b>100.00</b>

### 4.3. Site Access

From Eshowe town, take Kangela Road and head east, after Dlinza Forest Nature Reserve on the left the project will be located in the area currently being used for sugarcane farming. The existing Main Road P50-1 provides access to the site, however other internal roads to the individual residential houses will be constructed (refer to Appendix C site plans).

An 8m road reserve (6.5 m paved and 1.5 m unpaved on each side) is proposed for main access to the subdivided erf parcels. Main access will be off the Main Road P50-1 and Windham Street.

## 5. SECTION B: DESCRIPTION OF THE PROPERTY (IES) ON WHICH THE LISTED ACTIVITY (IES) ARE TO BE UNDERTAKEN AND THE LOCATION OF THE LISTED ACTIVITY (IES) ON THE PROPERTY

Mpushini Park is located within the urban edge of Eshowe and on the edge of an existing residential suburb, approximately 3.2 km south east of the town of Eshowe. The property can be accessed from the Eshowe Kangela Road which becomes P50-1 and the study area lies within the uMlalazi Local Municipality of the KwaZulu Natal Province. There are no alternate properties associated with the proposed development.

Latitude (S): (deg.; min.; sec)			Longitude (E): (deg.; min.; sec.)		
28	53	10.03	31	26	38.26



Coordinates of all the proposed activities on the property or properties (sites): Centre Point of each parcel:	28	53	27.38	31	25	44.12
	28	53	47.15	31	25	53.41
	28	53	36.76	31	26	4.25
	28	53	43.72	31	26	10.97
	28	53	58.74	31	26	6.04
	28	53	55.45	31	26	18.35
	28	54	26.22	31	26	29.36

**Provide a location map (see below) as Appendix A to this report that shows the location of the proposed development and associated structures and infrastructure on the property; as well as a detailed site development plan / site map (see below) as Appendix B to this report; and if applicable, all alternative properties and locations. The GIS shape files (.shp) for maps / site development plans must be included in the electronic copy of the report submitted to the competent authority.**

Locality Map:	<p>The scale of the locality map must be at least 1:50 000.</p> <p>For linear development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map.</p> <p>The map must indicate the following:</p> <ul style="list-style-type: none"> <li>• an accurate indication of the project site position as well as the positions of the alternative sites, if any;</li> <li>• road names or numbers of all the major roads as well as the roads that provide access to the site(s)</li> <li>• a north arrow;</li> <li>• a legend;</li> <li>• a linear scale;</li> <li>• Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94; WGS84 co-ordinate system.</li> </ul> <p>PLEASE SEE APPENDIX A FOR LOCALITY MAP</p>
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Site Plan:	<p>Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following:</p> <ul style="list-style-type: none"> <li>• The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be indicated on the plan, preferably together with a linear scale.</li> <li>• The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan.</li> <li>• The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be indicated on the site plan.</li> <li>• The position of each element of the application as well as any other structures on the site must be indicated on the site plan.</li> <li>• Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the development must be indicated on the site plan.</li> <li>• Servitudes and an indication of the purpose of each servitude must be indicated on the site plan.</li> <li>• Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): <ul style="list-style-type: none"> <li>• Watercourses / Rivers / Wetlands - including the 32-meter set back line from the edge of the bank of a river/stream/wetland;</li> <li>• Flood lines (i.e., 1:100 year, 1:50 year and 1:10 year where applicable);</li> <li>• Ridges;</li> <li>• Cultural and historical features;</li> <li>• Areas with indigenous vegetation (even if degraded or infested with alien species).</li> <li>• Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted.</li> </ul> </li> </ul>
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- North arrow

A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.

PLEASE SEE APPENDIX B FOR SITE DEVELOPMENT PLAN.

## 6. SITE PHOTOGRAPHS

**Colour photographs of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached as Appendix C to this report. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.**

**PLEASE SEE APPENDIX B FOR SITE PHOTOGRAPHS**

### 6.1. Gradient of the Site

**Indicate the general gradient of the sites**

The slope analysis study indicates that the majority of the project area (58.95%) is characterized by flat slopes (Flatter than 1:20) and 9.10% of the area's topography has a slope character "Between 1:20 - 1:10" while 8.46% of the area has a slope of "Between 1:10 - 1:7.5. The Mpushini Park project area is therefore characterised by flat topography mainly. The nature of the slope and landscape of the project area will not impose any form of challenges or limitations to the proposed housing project and therefore appropriate planning and design principles suitable for this type of



topography must take due cognizance of the characteristics of the area during the detailed planning stages of the envisaged housing process.

## 6.2. Provide a description of the location in the landscape.

The site is situated in Eshowe on the in KwaZulu Natal. The site is bordered by the Mpushini Park residential suburb, and to the south and east Dlinza Forest Nature Reserve and the Main Road P50-1 runs between the sites.

## 6.3. Groundwater, Soil and Geological Stability of the Site

*(a) Is the site(s) located on or near any of the following (highlight the appropriate boxes)?*

Shallow water table (less than 1.5m deep)	✓ <b>Yes</b>	<b>No</b>	<b>Unsure</b>
Seasonally wet soils (often close to water bodies)	✓ <b>Yes</b>	<b>No</b>	<b>Unsure</b>
Unstable rocky slopes or steep slopes with loose soil	<b>Yes</b>	✓ <b>No</b>	<b>Unsure</b>
Dispersive soils (soils that dissolve in water)	<b>Yes</b>	✓ <b>No</b>	<b>Unsure</b>
Soils with high clay content	<b>Yes</b>	<b>No</b>	✓ <b>Unsure</b>
Any other unstable soil or geological feature	<b>Yes</b>	✓ <b>No</b>	<b>Unsure</b>
An area sensitive to erosion	✓ <b>Yes</b>	<b>No</b>	<b>Unsure</b>
An area adjacent to or above an aquifer.	<b>Yes</b>	✓ <b>No</b>	<b>Unsure</b>
An area within 100m of a source of surface water	✓ <b>Yes</b>	<b>No</b>	<b>Unsure</b>
An area within 500m of a wetland	✓ <b>Yes</b>	<b>No</b>	<b>Unsure</b>
An area within the 1:50 year flood zone	<b>Yes</b>	✓ <b>No</b>	<b>Unsure</b>
A water source subject to tidal influence	<b>Yes</b>	✓ <b>No</b>	<b>Unsure</b>



#### 6.4. Provide a description of the type of geological formation underlying the site.

The entire study area is underlain by sandstone bedrock of the Natal Group. The soil profile encountered in the area underlain by sandstone bedrock comprises dark grey/greyish brown, slightly to moderately clayey, silty SAND (colluvium), orange brown mottled yellow/red, clayey SAND to SANDY CLAY (residual), and underlying weathered sandstone bedrock. The bedrock across the site generally occurs at depths in the range 1.0 to 2.0 metres below existing ground level but may occur at deeper levels in localised areas.

#### 6.5. Surface Water

*Indicate the surface water present on and or adjacent to the site and alternative sites (highlight the appropriate boxes)?*

Perennial River	✓ Yes	No	Unsure
Non-perennial river	Yes	✓ No	Unsure
Permanent Wetland	✓ Yes	No	Unsure
Seasonal Wetland	Yes	✓ No	Unsure
Artificial Wetland	✓ Yes	No	Unsure
Estuarine/ Lagoon	Yes	✓ No	Unsure

#### 6.6. Biodiversity

**Highlight the applicable biodiversity planning categories of all areas on preferred and alternative sites**

The vegetation within the project area was found to be largely transformed by human disturbances relating to commercial farming activities and urban sprawl. The disturbances have had knock-on-effects on sensitive ecological habitats. Despite these



prevailing disturbances, patches of the Eastern Coastal Scarp Forest were noted within the development site. Faunal species recorded during the survey mostly consisted of small mammals such as the Common Dwarf Mongoose and Brown Rat. The majority of avian species recorded during the site visit were those often associated with human dwellings and have generalist habitat and dietary requirements. These mainly included granivorous (seed eating) species and “exploiters” of human areas. Low reptile diversity was recorded due to the degraded nature of the site and lack of suitable habitats. Low amphibian diversity was recorded within the proposed site due to extremely limited habitat diversity and degradation of suitable habitats.

No Red Data species were encountered within the development footprint due to high levels of disturbance and habitat transformation already present within the site.

Faunal impacts anticipated from the proposed construction and operational phase relate to loss of habitat, direct faunal impacts, disturbance and reduced landscape connectivity. These impacts are expected to be of high significance due to the large development footprint and the permanent nature of the development. The dramatic increase in population size within the development area will result in compounded impacts on faunal species. Although the ecological sensitivity of the area ranges from low-high, the impact of the construction and operation of the development will largely have a long-term cumulative effect. The study site is likely to form a critical habitat for Red Data avian species as it is located adjacent an Important Bird Area.

Notwithstanding the significant habitat degradation and transformation within the project site and the generalist nature (diet and habitat) of the recorded species, the proposed housing development will likely have a significant impact on avian species within the study site. Moreover, the project is likely to have a negative impact on biodiversity conservation targets since the project site is considered critical for meeting biodiversity targets.



## 6.7. Land use of the site

Untransformed area	Low density residential	Medium density residential	High density residential	Informal residential
Retail	Commercial & warehousing	Light industrial	Medium industrial	Heavy industrial
Power station	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Tourism and Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical centre	School	Tertiary education facility	Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes and more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	✓ Agriculture	River, stream or wetland	Nature conservation area
Mountain, koppie or ridge		Museum		

### Provide a description.

Commercial farming activities have predominantly resulted in the transformation of the project site. The vegetation onsite has been altered from its historic benchmark conditions. However, remnants of indigenous vegetation were encountered along the periphery of the plantations.

## 6.8. Land use character of the surrounding area

Untransformed area	Low density residential	✓ Medium density residential	High density residential	Informal residential
Retail	Commercial & warehousing	Light industrial	Medium industrial	Heavy industrial
Power station	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	✓ Tourism and Hospitality facility



Open cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
✓ Hospital/medical centre	✓ School	Tertiary education facility	✓ Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes and more)	Airport
Harbour	✓ Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	✓ Agriculture	✓ River, stream or wetland	✓ Nature conservation area
Mountain, koppie or ridge		Museum		

**Provide a description**

The proposed site is located within the urban edge of the uMlalazi Local Municipality and therefore various amenities surround the project area.

**6.9. Socio-Economic Aspects**

Describe the existing social and economic characteristics of the community in the vicinity of the proposed site, in order to provide baseline information (for example, population characteristics/demographics, level of education, the level of employment and unemployment in the area, available work force, seasonal migration patterns, major economic activities in the local municipality, gender aspects that might be of relevance to this project, etc.).



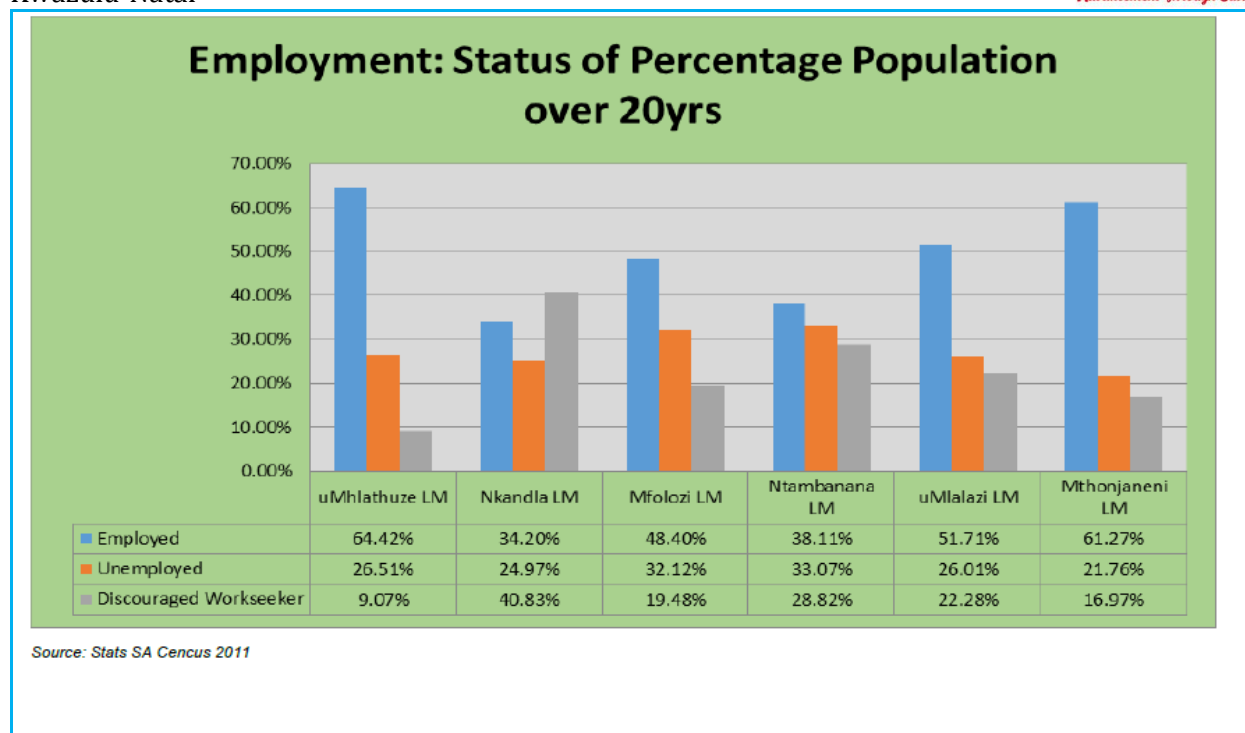
A number of important aspects and recommendations relating to the social characteristics of the study area include:

- ❖ Approximately 49.68% of the total population of the uMlalazi Local Municipality is younger than 19 years of age. This implies two important aspects as far as the development and implementation of the proposed housing project is concerned:
  - Sufficient and appropriate education facilities according to accepted national norms and standards will have to be provided.
- ❖ A large number of people will be entering the economically active age category over the next five to ten years and will thus be seeking appropriate employment opportunities.
- ❖ The uMlalazi Local Municipality is characterized as being female dominated with the majority of approximately 53.18% of the project area's total population being represented by females.
- ❖ Measures with which to ensure gender equality will thus have to be implemented as part of the proposed projects development phase.
- ❖ The uMlalazi Local Municipality is characterized by low levels of literacy with approximately 19.03% of the population of the study area older than 20 years of age not having received any form of schooling. In terms of overall project development and management it is important to ensure that all beneficiaries fully understand and grasp the implications and technical aspects relating to this housing initiative.
- ❖ A total of 17 199 (38.17%) of all households within the uMlalazi Local Municipality is potentially in need of formalized housing. The Mpushini Park Project Area will be well serviced in this regard and highly accessible in this regard.

### **Economic aspects**

Summary observations regarding the economic characteristics of the local municipality shows an unemployment rate of 26.01% of the labour force and 22.28% is regarded as discouraged work seekers.





## 6.10. Historical and Cultural Aspects

(a) Please be advised that if Section 38 of the NHRA is applicable to your proposed development, you are requested to furnish this Department with written comment from Amafa aKwaZulu-Natali as part of your public participation process. Amafa aKwaZulu-Natali must be given an opportunity, together with the rest of the I&APs, to comment on any Pre-application BAR, a Draft BAR, and Revised BAR.

Section 38 of the NHRA states the following:

*“38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-*

*(a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*

*(b) the construction of a bridge or similar structure exceeding 50m in length;*

*(c) any development or other activity which will change the character of a site-*

*(i) exceeding 5 000m<sup>2</sup> in extent; or*

*(ii) involving three or more existing erven or subdivisions thereof; or*

*(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or*

*(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;*



*(d) the re-zoning of a site exceeding 10 000m<sup>2</sup> in extent; or*

*(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,*

*must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development”.*

(a) The impact on any national estate referred to in section 3(2), excluding the national estate contemplated in section 3(2)(i)(vi) and (vii), of the NHRA, must also be investigated, assessed and evaluated. Section 3(2) states the following:

*“3(2) Without limiting the generality of subsection (1), the national estate may include—*

(a) places, buildings, structures and equipment of cultural significance;

(b) places to which oral traditions are attached or which are associated with living heritage;

(c) historical settlements and townscapes;

(d) landscapes and natural features of cultural significance;

(e) geological sites of scientific or cultural importance;

(f) archaeological and palaeontological sites;

(g) graves and burial grounds, including—

(i) ancestral graves;

(ii) royal graves and graves of traditional leaders;

(iii) graves of victims of conflict;

(iv) graves of individuals designated by the Minister by notice in the Gazette;

(v) historical graves and cemeteries; and

(vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);

(h) sites of significance relating to the history of slavery in South Africa;

(i) movable objects, including—

(i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;

(ii) objects to which oral traditions are attached or which are associated with living heritage;

(iii) ethnographic art and objects;

(iv) military objects;



(v) objects of decorative or fine art;

(vi) objects of scientific or technological interest; and

**(vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996)".**

<b>Is Section 38 of the NHRA applicable to the proposed development?</b>	✓ es	No	Uncertain
<p>The residential housing project exceeds the threshold specified in terms of S38 of the National Heritage Resources Act. A NID Application (a)) was sent to Amafa aKwaZulu-Natali. Amafa aKwaZulu-Natali requires that a Heritage impact Assessment (HIA) that satisfies the provisions of section 38(3) of the NHRA be submitted. This HIA must have specific reference to the following: (1) impacts to archaeological heritage resources and (2) visual impacts of the proposed development in reference to the any archaeological heritage resources. The Specialist Report can be found in Appendix D.</p>			

#### Impacts on the NHRA Sections

Act	Section	Description	Possible Impact	Action
<b>National Heritage Resources Act (NHRA)</b>	34	<b>Preservation of buildings older than 60 years</b>	No Impact	None
	35	<b>Archaeological, Paleontological and meteor sites</b>	No Impact	None
	36	<b>Graves and Burial Sites</b>	No Impact	None
	37	<b>Protection of Public Monuments</b>	No Impact	None
	38	<b>Does activity trigger a HIA?</b>	Yes	HIA



Action Trigger	Yes/No	Description
Construction of a road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length.	No	N/A
Construction of a bridge or similar structure exceeding 50m in length.	No	N/A
Development exceeding 5000 m <sup>2</sup>	Yes	<b>Proposed Mpushini Park Housing Development</b>
Development involving more than 3 erven or sub divisions	No	N/A
Development involving more than 3 erven or sub divisions that have been consolidated in the past 5 years	No	N/A
Re-zoning of site exceeding 10 000 m <sup>2</sup>	No	N/A
Any other development category, public open space, squares, parks or recreational grounds	No	N/A

**NHRA Triggers**

## 7. APPLICABLE LEGISLATION, POLICIES, CIRCULARS AND/OR GUIDELINES

**(a) Identify all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to the development proposal and associated listed activity(ies) being applied for and that have been considered in the preparation of the BAR.**

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING	ADMINISTERING AUTHORITY and how it is relevant to this application	TYPE Permit/license/authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval, Water Use License and/or General Authorisation, License in terms of the	DATE (if already obtained):



FRAMEWORKS, AND INSTRUMENTS		SAHRA and CARA, coastal discharge permit, etc.)	
National Environmental Management Act, 1998 (Act No. 107 1998) EIA regulations, 2014, as amended (GN No. R. 326) and Listing Notices 1, 2 and 3.	Department of Economic Development Tourism and Environmental Affairs  The proposed development triggers listed activities in listing Notice 1 and 3, which requires environmental authorisation.	Environmental Authorisation via a Basic Assessment Process	Application in progress
National Environmental Management: Biodiversity Act (Act No. 10 of 2004) list of ecosystems that are threatened and in need of protection	Ezemvelo KZN Wildlife The ecosystem status of the affected vegetation type was gained using the List of Threatened Terrestrial Ecosystems (Government Gazette, 2011). The gazette listings are crucial to commenting on the level of sensitivity in relation to natural vegetation quantity and quality, and hence in the assessment of the significance of the potential impact of the proposed project on vegetation. A specialist botanical assessment has been undertaken (by Bergwind Botanical	Comment	Application in progress



	Surveys and Tours cc) to assess the potential impacts of the proposed project on vegetation.		
The Conservation of Agricultural Resources	Department of Agriculture, Forestry and Fisheries	Comment	Comment will be obtained through the comment period of the BAR.
National Heritage Resources Act, 1999 (Act No. 25 of 1999)	Amafa aKwaZulu-Natali In terms of Section 38(1) of the NHRA, any person who intends to undertake “any development ... which will change the character of a site exceeding 5 000 m <sup>2</sup> in extent”, must at the very earliest stages of initiating the development notify the responsible heritage resources authority, viz. the South African Heritage Resources Agency (“SAHRA”) or the relevant provincial heritage agency, viz Amafa aKwaZulu-Natali	Comment	A NID Application was lodged to Amafa aKwaZulu-Natali on 10 December 2020



POLICY/ GUIDELINES	ADMINISTERING AUTHORITY
NEMA Environmental Impact Assessment Regulations Guidelines and Information Document Series (March 2013) on: <ul style="list-style-type: none"> <li>• Appeals</li> <li>• Alternatives</li> <li>• Exemptions</li> <li>• Needs and Desirability</li> <li>• Public participation</li> <li>• Transitional Arrangements</li> </ul>	EDTEA
uMlalazi Local Municipality Final Integrated Development Plan Review (2016/2017).	uMlalazi Local Municipality
uMlalazi Local Municipal Spatial Development Framework,	uMlalazi Local Municipality
King Cetshwayo District Integrated Development Plan	King Cetshwayo District Municipality
King Cetshwayo District Spatial Development Framework	West Coast District Municipality

**Describe how the proposed development complies with and responds to the legislation and policy context, plans, guidelines, spatial tools, municipal development planning frameworks and instruments.**

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	Describe how the proposed development complies with and responds:
National Environmental Management Act, 1998 (Act No. 107 1998) EIA Regulations, 2014, as amended (GN No. R. 982, R. 983, R.984 and R.985).	The NEMA, as amended, and EIA Regulations (2014) were consulted to determine the applicable activities triggered in Listing Notices 1, 2, and/or 3 for the proposed project. It was thereafter determined that the proposed project will require an Environmental Authorisation from EDTEA via the Basic Assessment process outlined in GN. 326.
National Environmental Management: Biodiversity Act (Act No. 10 of 2004) list of ecosystems that are threatened	The ecosystem status of the affected vegetation type was gained using the List of Threatened Terrestrial Ecosystems (Government Gazette, 2011). The gazette listings are



and in need of protection, (G 34809, GN 1002), 9 December 2011	crucial to commenting on the level of sensitivity in relation to natural vegetation quantity and quality, and hence in the assessment of the significance of the potential impact of the proposed project on vegetation. A specialist botanical assessment has been undertaken (by Umongo) to assess the potential impacts of the proposed project on vegetation.
National Heritage Resources Act, 1999 (Act No. 25 of 1999)	In terms of Section 38(1) of the NHRA, any person who intends to undertake “any development ... which will change the character of a site exceeding 5 000 m <sup>2</sup> in extent”, must at the very earliest stages of initiating the development notify the responsible heritage resources authority, viz. the South African Heritage Resources Agency (“SAHRA”) or the relevant provincial heritage agency, viz Amafa aKwaZulu-Natali. G&A Heritage was appointed to undertake the Heritage Impact Assessment which was submitted to Amafa aKwaZulu-Natali and EDTEA as an appendix to the draft BAR.
NEMA Environmental Impact Assessment Regulations Guidelines and Information Document Series	The applicable guidelines (outlined above) were reviewed in conjunction with the applicable sections of the EIA Regulation R.326 to ensure that all legal requirements were adequately met and that principles of best practice were applied, where applicable.
KwaZulu-Natal Provincial Spatial Development Framework	The PSDF was reviewed to determine whether the proposed project is in line with the principles and action plans of the PSDF. Refer to Section D: Need and Desirability for information on how the activity aligned with the municipal planning policies.
uMlalazi Local Municipal Spatial Development Framework	Refer to Section D: Need and Desirability for information on how the activity aligned with the municipal planning policies.





uMlalazi Local Municipal Final Integrated Development Plan	Refer to Section D: Need and Desirability for information on how the activity aligned with the municipal planning policies.
King Cetshwayo District Integrated Development Plan	Refer to Section D: Need and Desirability for information on how the activity aligned with the municipal planning policies.
King Cetshwayo District Spatial Development Framework	Refer to Section D: Need and Desirability for information on how the activity aligned with the municipal planning policies.
Guideline for Environmental Management Plans, June 2006	Refer to <b>Appendix F</b> : Environmental Management Plan

## 8. SECTION C: PUBLIC PARTICIPATION

The PPP must fulfil the requirements outlined in the NEMA, the EIA Regulations, 2014 (as amended) and if applicable any other legislation, and guidelines must also be taken into account.

1. Please highlight the appropriate box to indicate whether the specific requirement was undertaken or whether there was an exemption applied for.

### In terms of Regulation 41 of the EIA Regulations, 2014 (as amended) -

(a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of -

	YES	EXEMPTION	N/A
(i) the site where the activity to which the application relates, is or is to be undertaken; and	YES		
(ii) any alternative site			N/A
(b) giving written notice, in any manner provided for in Section 47D of the NEMA, to -			
(i) the occupiers of the site and, if the applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;			N/A



(ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	YES		
(iii) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;	YES		
(iv) the municipality (Local and District Municipality) which has jurisdiction in the area;	YES		
(v) any organ of state having jurisdiction in respect of any aspect of the activity; and	YES		
(vi) any other party as required by the Department;	YES		
(c) placing an advertisement in -			
(i) one local newspaper; or	YES		
(ii) any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;			N/A
(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken			N/A
(e) using reasonable alternative methods, as agreed to by the Department, in those instances where a person is desirous of but unable to participate in the process due to— (i) illiteracy; (ii) disability; or (iii) any other disadvantage.	YES		
If you have indicated that “EXEMPTION” is applicable to any of the above, proof of the exemption decision must be appended to this report. NOT APPLICABLE, NO EXEMPTIONS FOR THIS APPLICATION			

**Provide a list of all the State Departments and Organs of State that were consulted:**

The following departments will be contacted as part of the Basic Assessment process.

These state departments and organs of state will be provided with an opportunity to comment, along with all registered interested and affected parties on the proposed

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 development. Their comments will be included as part of the final basic  
 assessment report and included in the comments and response report.

<b>State Department / Organ of State</b>
Department of Agriculture, Forestry & Fisheries
Department of Economic Development, Tourism Environmental Affairs
Amafa aKwaZulu-Natal
Ezemvelo KZN Wildlife
King Cetshwayo District Municipality
Department of Water and Sanitation

**Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated, or the reasons for not including them.**

**(The detailed outcomes of this process, including copies of the supporting documents and inputs must be included in a Comments and Response Report to be attached to the BAR (see note below) as Appendix E).**

- Employment opportunities for the residents of Eshowe
- Qualifying criteria for being beneficiaries
- Allocation of houses according to the number of wards involved
- Adequacy of bulk services to service the new development
- Protection of the Dlinza Forest
- Protection of water courses in the area
- Duration of time before construction begins

**Provide a summary of any conditional aspects identified / highlighted by any Organs of State, which have jurisdiction in respect of any aspect of the relevant activity.**

- Adequacy of bulk services to service the new development (DWS)
- Protection of the Dlinza Forest (EKZNW)
- Protection of water courses in the area from pollution (DWS)



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A list of all the potential I&APs, including the Organs of State, notified and a list of all the registered I&APs must be submitted with the BAR. The list of registered I&APs must be opened, maintained and made available to any person requesting access to the register in writing.

The BAR must be submitted to the Department when being made available to I&APs, including the relevant Organs of State and State Departments which have jurisdiction with regard to any aspect of the activity, for a commenting period of at least 30 days. Unless agreement to the contrary has been reached between the Competent Authority and the EAP, the EAP will be responsible for the consultation with the relevant State Departments in terms of Section 240 and Regulation 7(2) – which consultation must happen simultaneously with the consultation with the I&APs and other Organs of State.

All the comments received from I&APs on the BAR must be recorded, responded to and included in the Comments and Responses Report included as **Appendix E** of the BAR. If necessary, any amendments made in response to comments received must be effected in the BAR itself. The Comments and Responses Report must also include a description of the PPP followed.

The minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded, must also be submitted as part of the public participation information to be attached to the final BAR as **Appendix E**.

Proof of all the notices given as indicated, as well as notice to I&APs of the availability of the Pre-Application BAR (if applicable), Draft BAR, and Revised BAR (if applicable) must be submitted as part of the public participation information to be attached to the BAR as **Appendix E**. In terms of the required “proof” the following must be submitted to the Department:

- a site map showing where the site notice was displayed, a dated photograph showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
  - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
  - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
  - if a facsimile was sent, a copy of the facsimile report;
  - if an electronic mail was sent, a copy of the electronic mail sent; and
  - if a “mail drop” was done, a signed register of “mail drops” received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement (“newspaper clipping”) that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).



## 9. SECTION D: NEED AND DESIRABILITY

The *Guideline on Need and Desirability in terms of the Environmental Impact Assessment (EIA) Regulations, 2010* published by the national Department of Environmental Affairs on 20 October 2014 (GN No. 891 on Government Gazette No. 38108 refers) (available at: [http://www.gov.za/sites/www.gov.za/files/38108\\_891.pdf](http://www.gov.za/sites/www.gov.za/files/38108_891.pdf)) also applied to EIAs in terms of the EIA Regulations, 2014 (as amended).

1. Is the development permitted in terms of the property's existing land use rights?	Yes		<b>Please Explain</b>
<b>The is currently zoned agriculture however applications for rezoning to residential will be made.</b>			
<b>2. Will the development be in line with the following?</b>			
<b>(a) Provincial Spatial Development Framework ("PSDF").</b>	Yes		<b>Please Explain</b>
<p>One of the guiding principles of the PSDF is sustainability and resilience. Land development should be spatially compact, resource-frugal, compatible with cultural and scenic landscapes, and should not involve the conversion of high potential agricultural land or compromise ecosystems. Resilience is about the capacity to withstand shocks and disturbances such as climate change or economic crises, and to use such events to catalyse renewal, novelty and innovation. The focus should be on creating complex, diverse and resilient spatial systems that are sustainable in all contexts. Development should be contained within a limited footprint, preferably adjacent to existing settlements, and the required ecological buffers and setbacks must be adhered to.</p> <p>The specialist studies undertaken as part of this Basic Assessment process will ensure that the proposed development is in line with the PSDF and that the project design, construction and operation of any aspects of the project (if the BAR is approved), are appropriate to ensuring that ecological integrity is maintained at an acceptable level.</p>			
<b>(b) Urban edge / edge of built environment for the area.</b>	YES		<b>Please explain</b>
The project is situated within the urban edge of the uMlalazi Local Municipality.			
<b>(c) Integrated Development Plan and Spatial Development Framework of the Local Municipality (e.g., would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).</b>	YES		<b>Please explain</b>



One of the visions of the uMlalazi Spatial Development Framework is to sustainably exploit the municipality's wide variety of agricultural, tourist and cultural resources. The main economic resources of the Eshowe town include agriculture and tourism (incl. family homes).

The housing backlog in the uMlalazi municipal area is such that only 28% of the households in the municipal area live in formal dwellings. The primary housing backlog remains in the tribal / rural areas, where housing projects will have to be implemented. The provision of housing in the rural areas is a high demand which will be in the form of Insitu Upgrades, in Eshowe and Gingindlovu is one of the prioritised needs of the municipality in order to address the prevailing backlog in the area which is growing at a very rapid rate.

Based on the current the current housing demand database for uMlalazi area the demand is estimated to be 7 380 in the urban areas and houses, whereas a quantified figure in the rural areas is estimated to be an average of 65% of the total demand which is 13 842 households not residing in a formal dwelling within the rural areas. It is therefore imperative that this housing shortage be addressed as soon as possible in order to avoid pressures building up to an uncontrollable level.

According to the uMlalazi Integrated Development Plan there is an emergence of Rural Housing Projects in the area, which is based on the formalisation of existing informal settlements. The formalisation of squatter shacks in the King Dinizulu and Gingindlovu has been identified as a high-rank priority in the area.

The proposed development (through providing permanent housing) will therefore not compromise the integrity of the existing IDP and SDF, but should benefit the municipality via contributions into the tourism sector and local town economy.

<b>Does the community/area need the project and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g., development is a National Priority, but within a specific local context it could be inappropriate.)</b>	<b>YES</b>		<b>Please explain</b>
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The surrounding community would benefit from the development in terms of a number of temporary employment opportunities during the construction, as well as possible permanent positions (i.e. domestic workers and gardeners) once the houses are developed. The uMlalazi municipality would benefit via the applicants contribution in rates and taxes, once the houses are complete.

<b>Are the necessary services available together with adequate unallocated municipal capacity (at the time of application), or must additional capacity be created to cater for the project?</b>	<b>YES</b>		<b>Please explain</b>
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The Applicant is responsible for the installation of all services to the properties before any residential housing construction can take place. Formal letters from the King Cetshwayo District Municipality confirming that there are plans in place to upgrade the water and sewer infrastructure to ensure adequate capacity (in terms of sewerage, potable water, solid waste, electrical supply, access and road network, as well as storm water management) for necessary services to cater for the development is attached as Appendix H.

<b>Is this project part of a national programme to address an issue of national concern or importance?</b>		<b>NO</b>	<b>Please explain</b>
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The proposed project addresses a local need. "The need and desirability for the housing development is of high priority for the Municipality due to the lack of availability of developed residential erven with reference to demand and uMlalazi municipal community needs, taking into account budgetary constraints. The municipality is also in need of funding that is this created by the sale of land which will be sold off as serviced residential stands. Jobs will be created with the proposed development in the area of Eshowe during the installation of services and building of house, thus unlocking the potential for economic growth and development"

<b>Do location factors favour this land use (associated with the development proposal and associated listed activity(ies) applied for) at this place? (This relates to the contextualisation of the proposed land use on the proposed site within its broader context.)</b>	YES		Please explain
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Yes, the site is ideal for residential urban development and will be surrounded by similar residential dwellings

<b>Will the development proposal or the land use associated with the development proposal applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?</b>		<b>NO</b>	<b>Please explain</b>
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Since the proposed development is in accordance with the existing surrounding land use of the existing Mpushini Park suburb, no significant impact on the environment are anticipated. Some minor impacts are anticipated during the construction phase of the project; however these can readily be mitigated through the implementation of the Environmental Management Program (EMPr) for the development (Refer to Appendix F). A heritage assessment was undertaken for this, and found that there are no heritage or archaeological sensitives on the proposed development site. This report can be found in Appendix D. A specialist's botanical survey was also completed for the site and found no areas of natural sensitivity. The botanical report can be found in Appendix D

<b>Will the development impact on people's health and well-being (e.g., in terms of noise, odours, visual character and 'sense of place', etc.)?</b>		<b>NO</b>	<b>Please explain</b>
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Since the proposed development is designed in accordance with the existing surrounding residential land use, no significant negative impacts on health and wellbeing are anticipated. Some minor impacts are anticipated during the construction phase of the project; however these can readily be mitigated through the implementation of the Environmental Management Program (EMPr) for the development (Refer to Appendix F).

<b>Will the proposed development or the land use associated with the proposed development applied for, result in unacceptable opportunity costs?</b>		NO	Please explain
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The development is within the existing development rights of the property, and does not conflict with the relevant planning regulations and zoning scheme. In addition, the proposal would not cumulatively have a significant negative impact on either the bio-physical or socio-economic environment.

**What will the cumulative impacts (positive and negative) of the proposed land use associated with the development proposal and associated listed activity(ies) applied for, be?**

The proposed development site will be rezoned for residential housing and is in line with the surrounding residential developments. The proposed project addresses a local need. "The need and desirability for the housing development is of high priority for the Municipality due to the lack of availability of developed residential erven with reference to demand and uMlalazi municipal community needs, taking into account budgetary constraints. The municipality is also in need of funding that is this created by the sale of land. Jobs will be created with the proposed development in the area of Eshowe during the installation of services and building of house, thus unlocking the potential for economic growth and development". Cumulatively there is the potential for the proposed development to increase the demand on local service infrastructure, in terms of transport, water, electricity, etc. The municipality has confirmed that they have the infrastructure capacity to support the additional number of people that will be living in the municipality.

<b>Is the development the best practicable environmental option for this land/site?</b>	Yes		Please explain
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The site is in line with the surrounding residential land use.

**What will the benefits be to society in general and to the local communities?** Please explain

The surrounding community would benefit from the development in terms of a number of temporary employment opportunities during the construction, as well as possible permanent positions (i.e. domestic workers and gardeners) once the houses are developed. The uMlalazi Local municipality would benefit via the applicant's contribution in rates and taxes, once the houses are complete.

"The need and desirability for the housing development is of high priority for the Municipality due to the lack of availability of developed residential erven with reference to demand and uMlalazi municipal community needs, taking into account budgetary constraints. The municipality is also in need of funding that is this created by the sale of land. Jobs will be created with the proposed development in the area of





Eshowe during the installation of services and building of house, thus unlocking the potential for economic growth and development”.

**Describe how the general objectives of Integrated Environmental Management as set out in Section 23 of the NEMA have been taken into account:**

The general objective of Integrated Environmental Management (Section 23, NEMA 1998) as amended, is listed below with a description of how the proposed project and associated Basic Assessment process has taken these objectives into account:

**Promote the integration of the principles of environmental management set out in section 2 into the making of all decisions which may have a significant effect on the environment:**

The BAR, through its identification and assessment of positive and negative impacts on the environment and the incorporation of mitigation measures to manage these impacts, will facilitate responsible decision making by the relevant authorities.

**Identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in section 2 of NEMA:**

In terms of the Basic Assessment process for the proposed activity, all potential impacts associated with the proposed development were identified and adequately assessed. Suitable mitigation measures were recommended to reduce the significance of the impacts.

**Ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them:**

Through inputs from the EAP and specialists during the Basic Assessment process, sufficient information has been made available to ensure that all effects to the surrounding environment have been adequately considered and incorporated into this report for decision making. Three specialist studies have been undertaken for the proposed development, Wetland Delineation, Heritage and Ecological. Recommendations of these reports have been included in this BAR and in the EMPr.

**Ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment:**

All public participation requirements in terms of the EIA Regulation Government Notice: R326 will be met during the course of the Basic Assessment process. A comment and response report will be compiled and included as part of the Final BAR. Section C of the report highlight the public participation undertaken during thus far in the basic assessment process.

**Ensure the consideration of environmental attributes in management and decision making which may have a significant effect on the environment:**



All environmental attributes have been adequately considered. Mitigation measures to manage impacts on sensitive environmental attributes have been included in the report to ensure that impacts on the environment are kept to a minimum.

**Identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2 of NEMA.**

An EMPr has been compiled and attached as **Appendix F**. The mitigation measures suggested (for the construction and operational phases) ensure that potential impacts can be effectively mitigated. The suggested measures outlined in the EMPr are consistent with principles outlined in Section 2 of NEMA.

**Describe how the principles of environmental management as set out in Section 2 of the NEMA have been taken into account:**

Mitigation measures to manage impacts have been included in the report to ensure that impacts on the environment are kept to acceptable levels. An EMP has been compiled which incorporates the mitigation measures put forward in the BAR. The implementation of the EMP will ensure that environmental management continues throughout the life cycle of the project. The appropriateness of the development in the broader context has received attention. All of the above aspects contribute to the sustainability of the development.

## 10. SECTION E: DETAILS OF ALL THE ALTERNATIVES CONSIDERED

The EIA Regulations, 2014 (as amended) defines “*alternatives*” as “*in relation to a proposed activity, means different means of fulfilling the general purpose and requirements of the activity, which may include alternatives to the—*

*(a) property on which or location where the activity is proposed to be undertaken;*

*(b) type of activity to be undertaken;*

*(c) design or layout of the activity;*

*(d) technology to be used in the activity; or*

*(e) operational aspects of the activity;*

*(f) and includes the option of not implementing the activity;”*

The NEMA (section 24(4)(a) and (b) of the NEMA, refers) prescribes that the procedures for the investigation, assessment and communication of the potential consequences or impacts of activities on the environment must, *inter alia*, with respect to every application for environmental authorisation –

- ensure that the general objectives of integrated environmental management laid down in the NEMA and the National Environmental Management Principles set out in the NEMA are taken into account; and

- include an investigation of the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity.

The general objective of integrated environmental management (section 23 of NEMA, refers) is, *inter alia*, to “*identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management*” set out in the NEMA. The identification, evaluation, consideration and comparative assessment of alternatives directly relate to the management of impacts. Related to every identified impact, alternatives, modifications or changes to the activity must be identified, evaluated, considered and comparatively considered to:

- in terms of negative impacts, firstly avoid a negative impact altogether, or if avoidance is not possible alternatives to better mitigate, manage and remediate a negative impact and to compensate for/offset any impacts that remain after mitigation and remediation; and
- in terms of positive impacts, maximise impacts.

### **10.1. Details of the Identified and Considered Alternatives and Indicate those Alternatives that were Found to be Feasible and Reasonable**

**Note: A full description of the investigation of alternatives must be provided and motivation if no reasonable or feasible alternatives exists.**

**(a) Property and location/site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:**

No site alternatives have been proposed for this project as the purpose of this application is for the development of residential houses and supporting infrastructure including but not limited to worship sites, schools, public road for access and open spaces. There are no location alternatives as the pockets of land are owned by the municipality.

The rezoning of the land from its current use of agriculture to mixed-use development will be handled by the town planning department of the uMlalazi Local Local Municipality.

The uMlalazi Local Local Municipality has communicated the intention to develop the land pockets to the commercial farmers currently producing sugarcane. It is the Applicant's intention to transfer the subdivided erf parcels to new owners once the development of residential housing and servicing of stand is completed.

**Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:**



Design / layout alternatives were considered for Mpushini Park Subsidized Housing Development. The layout authorised by the Municipality refers the Conceptual Site Development Plan attached as Appendix C. This was the preferred option since it is the most similar to the layout of the surrounding residential houses.

**Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:**

Technology alternatives are not considered applicable to the general purpose of this Application as the purpose of this application is for the development of residential housing.

**Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:**

Operational alternatives are not considered applicable to the general purpose of this Application as the purpose of this application is for the development of residential housing.

**The option of not implementing the activity (the 'No-Go' Option):**

The "No Go" alternative is the "no-development alternative". This option of retaining the status quo, and not proceeding with the proposed residential housing development is not reasonable considering the fact that the municipality acknowledges a large housing backlog, there is a very serious need for the housing and the land is available for the development of the housing development. In addition, the Municipality has already commenced rezoning the land from agriculture to mixed use.

**Preferred Alternative**

**(a) Provide a concluding statement indicating the preferred alternative(s), including preferred location, site, activity and technology for the development.**



No site alternatives have been proposed for this project as the purpose of this application is for the development of residential houses and a network of access roads.

The rezoning of the land parcels from agriculture to mixed-use is already underway, for the development of a housing development, supporting infrastructure including public roads for access to the properties. It is the Applicant’s intention to transfer the completed houses and serviced stands to new owners.

## 11. SECTION F: ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE ALTERNATIVES

**Describe the Environmental Aspects Associated with the Proposed Development and its Alternatives, focusing on the following:**

**(a) Geographical, geological and physical aspects:**

The study area is in Eshowe and normally receives on average 1119 mm of rain per year, with the most rainfall occurring during mid-summer of December (154mm) and its lowest rainfall in June (30mm). The average midday temperatures range between 22.2°C in February (summer) to 15.4°C in June (winter) (SA Explorer, 2000-2017).

According to Scott-Shaw & Escott (2011), at a local spatial scale, the study broadly falls within the following Vegetation Type:

- Scarp Forest (FOz5).
- KwaZulu-Natal Coastal Belt Grassland (CB3).
- Moist Coast Hinterland Grassland (Gs20).
- Eshowe Mthunzini Hilly Grasslands (KZN 4).

**(b) Ecological aspects:**

Will the proposed development and its alternatives have an impact on CBAs or ESAs? If yes, please explain: Also include a description of how the proposed development will influence the quantitative values (hectares/percentage) of the categories on the CBA/ESA map.	Yes		Please Explain
1. The project site generally encompasses a <b>CBA: Irreplaceable</b> area.			



<p>2. There are no Ecological Support Areas within the project site.</p> <p>3. The project site is located adjacent a protected forest area (Dlinza Forest Nature Reserve).</p>			
<p><b>Will the proposed development and its alternatives have an impact on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)? If yes, please explain:</b></p>			
Yes			<b>Please Explain</b>
<p>The proposed housing and related infrastructure will not only result in impacting on the portions of the wetlands in which they are located but will additionally result in the exposure of soil, increased surface runoff, and the risk of erosion and increased movement of sediment into remaining wetland areas. The deposition of sediments within the wetlands will likely impact on the geomorphological processes and thus change in wetland vegetation structure and composition. Increased turbidity and suspended solid loads are likely to result in deterioration of water quality, which may have a negative impact on aquatic biota. Other impacts on water quality, including increased loads of salts and chemical constituents of concern are possible and the risk of an altered pH regime must also be considered. Thus, it is anticipated that the proposed development will result in an overall reduction in the extent, ecological integrity and service provision of the wetlands that will receive direct impact from the proposed housing development and related infrastructure.</p>			
<p><b>Will the proposed development and its alternatives have an impact on any populations of threatened plant or animal species, and/or on any habitat that may contain a unique signature of plant or animal species? If yes, please explain:</b></p>			
Yes			<b>Please Explain</b>
<p>Only one (1) of the four vegetation communities (Eastern Coastal Scarp Forest) was determined as having a good ecological condition, while the Bushlands were regarded as Fair. The remainder of the vegetation communities were of poor ecological conditions. Similarly, the ecological sensitivity for the vegetation communities ranged from very low to High, with the forest patch areas having the highest sensitivity.</p> <p>No endangered mammals were recorded within the project area associated with the housing development; the likelihood of any threatened mammal species being encountered within the area is considerably low.</p> <p>20 bird species were recorded within the development footprint during the site investigation. No threatened bird species (Red Data species) were recorded within the study site during the survey. Low amphibian diversity was recorded within the proposed development site due to extremely limited habitat diversity and degradation of suitable habitats. No Red Data species are predicted</p>			



to be present within the proposed development site due to high levels of disturbance and habitat transformation already present.

**The likely socio-economic impact if the listed activity is authorised or is not authorised;**

If authorised the proposed development will have a negative socio-economic impact of low to very low significance in the construction phase, and a positive socio-economic of low significance in the construction phase in terms of job creation. The only negative socio-economic impacts anticipated in the operation phase is a visual impact of low significance. The development will have a positive impact of very low significance in the operational phase, in terms of increased revenue to the local economy and national fiscus.

The implementation of the “No-Go” alternative would have a negative impact of very low significance in terms of the opportunity cost of lost increased revenue to local economy and national fiscus, as well as a low negative impact of job losses. There will also be financial implications on the municipality, with regards to the sale of the residential stands specifically for the development of residential houses.

**(c) Social and Economic aspects:**

What is the expected capital value of the project on completion?	Approx. R5 billion	
What is the expected yearly income or contribution to the economy that will be generated by or as a result of the project?	Approx. R1 Billion	
Will the project contribute to service infrastructure?	Yes	
Is the project a public amenity?	Yes	
How many new employment opportunities will be created during the development phase?	Approximately 300	
What is the expected value of the employment opportunities during the development phase?	Approx. R 5 000 000 per year	
What percentage of this will accrue to previously disadvantaged individuals?	Approximately 95%	
How will this be ensured and monitored (please explain):		
By the correct choice of the contractors and their agreement prior to the contract being awarded. In addition, non-compliance will be monitored with the issuing of penalties if applicable.		





How many permanent new employment opportunities will be created during the operational phase of the project?	Approximately 50
What is the expected current value of the employment opportunities during the first 10 years?	This will be at the discretion of the municipality
What percentage of this will accrue to previously disadvantaged individuals?	Approximately 95%
<b>How will this be ensured and monitored (please explain):</b>	
Through discussions during the selection of beneficiaries who fit the criteria for receiving and buying the properties.	
<b>Any other information related to the manner in which the socio-economic aspects will be impacted:</b>	
<p>The surrounding community would gain a marginal benefit from the development in terms of a number of temporary employment opportunities during the construction, as well as possible permanent positions (i.e. domestic workers and gardeners) once the houses are developed. The uMlalazi Local Local municipality would benefit via the contribution in rates and taxes, once the houses are complete.</p> <p>The need and desirability for the housing development is of high priority for the Municipality due to a large housing backlog with reference to demand community needs, taking into account budgetary constraints. The municipality is also in need of funding that is this created by the sale of land. Jobs will be created with the proposed development in the area of Mpushini Park during the installation of services and building of house, thus unlocking the potential for economic growth and development.</p>	

**(d) Heritage and Cultural aspects:**

The study areas, located on Eshowe 8739, were investigated during a field visit and through archival studies. The study areas 1 to 7 were found to be devoid of any heritage sites with significance.





## Waste and Emissions

### (a) Waste (including effluent) management

<b>Will the development proposal produce waste (including rubble) during the development phase?</b>	YES	
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not)?	Site clearance Construction Rubble	
<p>During site clearance, the expected volume from clear and grub items.</p> <p>During the construction phase of the development, rubble would arise as a result of general breakages, off-cuts, batching of materials such as concrete and cement and the accumulation of refuse. The Construction Phase EMP (Appendix F) provides a detailed description of the manner in which rubble, refuse and material handling would be managed during the construction process. As noted in the Construction phase EMP, a site camp would be located at the property frontage. A skip would be installed in the site camp to allow for the effective management of rubble and debris from the site. The site camp and skip would be hoarded off, screened and maintained in good order.</p> <p>All rubble and refuse arising from the site would be offloaded into the skip which would be emptied at a municipal-approved landfill site. The adequate implementation by the contractor of waste management on site, as determined by the Construction phase EMP, would be monitored by an independent Environmental Control Officer (ECO), appointed by the owner prior to works commencing.</p> <p>Volumes of waste generated from residential buildings after development (i.e. during the operational phase) is yet to be determined by the municipality.</p>		
Will the development proposal produce waste during its operational phase?	YES	
<b>If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not)</b>		
Domestic refuse typical of a residential building will be produced once the houses are habitable.		



<b>Will the development proposal require waste to be treated / disposed of on-site?</b>		NO
<b>If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?</b>		0 m3
The proposed development will not require waste to be treated or disposed of on site.		
If no, where and how will the waste be treated / disposed of? Please explain.  Indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) from the proposed development to be disposed of?		Site clearance Construction Rubble Operational Phase
Domestic refuse typical of a residential building will be produced once the houses are habitable. This would be disposed of into a municipal 'wheelie bin' and made available to municipal refuse collectors on the appropriate collection day.		
<b>Describe the measures that will be taken to reduce, reuse or recycle waste:</b>		
Toolbox talks to construction staff regarding the reduction, reuse and recycling of waste. Contractors to use / source recycled material if possible. Select energy efficient appliances. Plan for waste separation and sorting on site during construction. Separate waste for recycling wherever possible. Provide recycling skips. Use offcuts where possible. Carry useful sized offcuts to the next job.		

**(b) Emissions into the atmosphere**

Will the development proposal produce emissions that will be released into the atmosphere? – <b>The proposal is residential development.</b>		NO
If yes, does this require approval in terms of relevant legislation?		NO
If yes, what is the approximate volume(s) of emissions released into the atmosphere?		
<b>Describe the emissions in terms of type and concentration and how these will be avoided/managed/treated/mitigated:</b>		



Atmospheric emissions associated with the construction of the proposed development would be negligible and limited to the construction phase of the activity. They would predominantly be associated with the equipment required to undertake the construction and to transport materials to the site. Lastly, the proposed activity would result in the generation of some minor construction related dust. All construction related activities and associated equipment will be compliant with relevant emission legislation and managed in terms of the EMP attached as Appendix F.

**WATER USE**

**(a) Indicate the source(s) of water for the development proposal by highlighting the appropriate box(es).**

✓	Municipal	Water board	Groundwater	River, Stream, Dam or Lake	Other
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**(a) If water is to be extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:**

Not applicable

0	m <sup>3</sup>
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**(b) Does the development proposal require a water use permit / license from DWS?**

YES	
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If yes, please submit the necessary application to the DWS and attach proof thereof to this application as an Appendix.

**(c) Describe the measures that will be taken to reduce water demand, and measures to reuse or recycle water:**

All home owners will be encouraged to construct their houses with the following in mind:

- Water-efficient plumbing fixtures (ultra-low flow toilets, low-flow and sensored sinks, low-flow showerheads, and water-efficient dishwashers and washing machines)
- Water recycling or reuse measures (Gray water and process recycling systems).



All contractors to educate workers on water usage, and ensure that there is no water wastage.  
No leaking taps on site.

## **POWER SUPPLY**

**(a) Describe the source of power e.g. municipality / Eskom / renewable energy source.**

Municipality

## **TRANSPORT, TRAFFIC AND ACCESS**

**Describe the impacts in terms of transport, traffic and access.**

Potential increase in terms of traffic during the construction of the housing developments, as well as during the operational phase. Even though there will be a slight increase in traffic when the landowners take up residency, the uMlalazi Local Municipality has planned the road infrastructure to have sufficient capacity for this increase by developing road infrastructure as part of the supporting infrastructure. This increase in traffic will also increase the noise in the surrounding area during construction of the housing development.

Main access to the site will be off Kangela Street and Windham Street onto the proposed access roads for the housing development.

## **NUISANCE FACTOR (NOISE, ODOUR, etc.)**

**Describe the potential nuisance factor or impacts in terms of noise and odours.**

Potential noise impact during the construction of the proposed developments.

Potential noise impact during the construction due to increased traffic and transporting of material to site.

Potential increase in noise from workers and machinery during the construction of the proposed developments.

Potential odour emissions from general food waste during the construction of the proposed development.



## **12. SECTION G: IMPACT ASSESSMENT, IMPACT AVOIDANCE, MANAGEMENT, MITIGATION AND MONITORING MEASURES**

### **METHODOLOGY USED IN DETERMINING AND RANKING ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WITH THE ALTERNATIVES**

**(a) Describe the methodology used in determining and ranking the nature, significance consequences, extent, duration and probability of potential environmental impacts and risks associated with the proposed development and alternatives.**

The assessment methodology that will be used will be in accordance with the recent revised 2014 EIA Regulations (as amended). The significance of environmental impacts is a function of the environmental aspects that are present and to be impacted on, the probability of an impact occurring and the consequence of such an impact occurring before and after implementation of proposed mitigation measures.

Impact assessment must take into account the nature, scale and duration of effects on the environment, whether such effects are positive [beneficial] or negative [detrimental]. It is also imperative that each issue / impact is also assessed according to the project stages from planning, through construction and operation to the decommissioning phase. Where necessary, the proposal for mitigation or optimisation of an impact is noted.

The environmental impact assessment is focused on the following phases of the project namely: **Pre-Construction, Construction, and Operational Phases** only. The impacts associated with decommissioning phase are not applicable to this project, however, responsible methods of post-construction clean-up are provided in the EMPr.

As the project entails rehabilitation of existing infrastructure which will be permanent, decommissioning is not applicable to this project, however, impacts associated with post construction clean-up are considered.

The potential environmental impacts associated with the project are evaluated according to it nature, extent, duration, intensity, probability and significance of the impacts, whereby:



- **Nature:** A brief written statement of the environmental aspect being impacted upon by a particular action or activity;
- **Extent:** The area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales. This is often useful during the detailed assessment phase of a project in terms of further defining the determined significance or intensity of an impact. For example, high at a local scale, but low at a regional scale;
- **Duration:** Indicates what the lifetime of the impact will be;
- **Intensity:** Describes whether an impact is destructive or benign;
- **Probability:** Describes the likelihood of an impact actually occurring; and
- **Cumulative:** 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.

Criteria	Description			
<b>EXTENT</b>	<b>National (4)</b> The whole of South Africa	<b>Regional (3)</b> Provincial and parts of neighbouring provinces	<b>Local (2)</b> Within a radius of 2 km of the construction site	<b>Site (1)</b> Within the construction site
<b>DURATION</b>	<b>Permanent (4)</b> Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient	<b>Long-term (3)</b> The impact will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter. The only class of impact which will be non-transitory	<b>Medium-term (2)</b> The impact will last for the period of the construction phase, where after it will be entirely negated	<b>Short-term (1)</b> The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase
<b>INTENSITY</b>	<b>Very High (4)</b> Natural, cultural and social functions and processes are altered to extent that they permanently cease	<b>High (3)</b> Natural, cultural and social functions and processes are altered to extent that they temporarily cease	<b>Moderate (2)</b> Affected environment is altered, but natural, cultural and social functions and processes continue albeit in a modified way	<b>Low (1)</b> Impact affects the environment in such a way that natural, cultural and social functions and processes are not affected
<b>PROBABILITY OF OCCURRENCE</b>	<b>Definite (4)</b> Impact will certainly occur	<b>Highly Probable (3)</b> Most likely that the impact will occur	<b>Possible (2)</b> The impact may occur	<b>Improbable (1)</b> Likelihood of the impact materialising is very low



Significance is determined through a synthesis of impact characteristics. Significance is also an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.

	Class	Description
+	Any value	Any positive / beneficial 'impact', i.e. where no harm will occur due to the activity being undertaken.
-	Low impact (4 - 6 points)	A low impact has no permanent impact of significance. Mitigation measures are feasible and are readily instituted as part of a standing design, construction or operating procedure.
	Medium impact (7 - 9 points)	Mitigation is possible with additional design and construction inputs.
	High impact (10 - 12 points)	The design of the site may be affected. Mitigation and possible remediation are needed during the construction and/or operational phases. The effects of the impact may affect the broader environment.
	Very high impact (12 - 14 points)	Permanent and important impacts. The design of the site may be affected. Intensive remediation is needed during construction and/or operational phases. Any activity which results in a "very high impact" is likely to be a fatal flaw.
Status		Denotes the perceived effect of the impact on the affected area.
Positive (+)		Beneficial impact.
Negative (-)		Deleterious or adverse impact.
Neutral (/)		Impact is neither beneficial nor adverse.

It is important to note that the status of an impact is assigned based on the *status quo* – i.e. should the project not proceed. Therefore, not all negative impacts are equally significant.

**(b) Please describe the underlying assumptions.**

The following assumptions and limitations are applicable to this study:



- It is assumed that the proposed development site investigated and assessed for the proposed residential housing development is technically suitable for such development.
- It is assumed that all municipal infrastructure and capacity to support the proposed housing development is technically adequate, feasible and viable.
- Site alternatives were not investigated due to the fact that this application is project specific for this specific land portion.
- The assumption is made that the information on which this report is based (specialist studies and project information, as well as existing information) is accurate and correct at the time of writing this report.
- It is assumed that the recommendations derived from this study would be included in all tender documentation and the EMP for implementation.

**(c) Please describe the uncertainties.**

The following assumptions and limitations are applicable to this study:

- It is assumed that the proposed development site investigated and assessed for the proposed residential housing development is technically suitable for such development.
- It is assumed that all municipal infrastructure and capacity to support the proposed housing development is technically adequate, feasible and viable.
- Site alternatives were not investigated due to the fact that this application is project specific for this specific land portion.
- The assumption is made that the information on which this report is based (specialist studies and project information, as well as existing information) is accurate and correct at the time of writing this report.
- It is assumed that the recommendations derived from this study would be included in all tender documentation and the EMP for implementation.

Describe adequacy of the assessment methods used.

The assessment methodology that will be used will be in accordance with the recent revised 2014 EIA Regulations (as amended). The significance of environmental impacts is a function of the environmental aspects that are present and to be impacted on, the





probability of an impact occurring and the consequence of such an impact occurring before and after implementation of proposed mitigation measures.

### **Identification, assessment and ranking of impacts to reach the proposed alternatives including the preferred alternative within the site**

List the identified impacts and risks for each alternative

This layout was authorised by the Municipality as it was the most similar to the layout of the surrounding residential houses. There are no further alternatives, other than the proposed development and the no – go alternative. The impact assessment below will be on the preferred alternative, which is the proposed development.

During the **Design and Planning Phase** of the proposed development the following potential impacts must be mitigated for:

- Visual – ensure that the housing style is in line with the surrounding residential properties.
- Search, rescue and translocate specific geophytes on site.

During the **construction** of the proposed development the following potential impacts are likely to occur:

- Archaeological and or heritage material could be found during the construction
- Visual impacts from construction vehicles and machinery
- Noise from construction vehicles and construction work force
- Dust from clearing of vegetation and general construction activities
- Increased traffic during the construction phase due to construction vehicles and transportation of materials and staff to site.
- Potential positive impact on the temporary employment for local community members during construction
- Waste and litter from construction activities, which if not dealt with could cause odour and visual impacts
- Stormwater impacts
- Erosion and loss of indigenous vegetation

- Contamination of the environment, through chemical / oil spills from construction activities and vehicles.

During the **operational phase** of the proposed development the following potential impacts are likely to occur:

- Visual impact of the constructed housing developments
- Increased traffic due to occupancy of residents
- Job creation for local community
- Rates and taxes to be paid to the local municipality and increased revenue.

No-go Alternative:	<p>The “No Go” Alternative is considered unreasonable due to the fact that the property belongs to the uMlalazi Local Local Municipality and has been earmarked for the purpose of housing opportunities to address a housing backlog. In addition, the Municipality has already commenced with rezoning the parcels of land from agriculture to mixed use</p> <p>With the “no go” alternative none of the impacts listed above would occur. There would however still be the potential for the loss of indigenous vegetation, as the municipality plans to develop the land whether for housing or another development at a later stage.</p> <p>If the proposed project does not proceed, increased income and economic spin-off activities will not be realised.</p>
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**(a) Describe the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts can be reversed; may cause irreplaceable loss of resources; and can be avoided, managed or mitigated.**

Impact Phase: Planning, Design and Development							
Potential impact description: potential loss of indigenous vegetation							
	Extent	Duration	Severity	Status	Significance	Probability	Confidence



<b>Without Mitigation</b>	Low	High	Medium	Negative	Medium	High	High
<b>With Mitigation</b>	Low	High	Low	Neutral	Low	Low	High
Can the impact be reversed?	Yes - with the implementation of the mitigation measures.						
Will impact cause irreplaceable loss or resources?	No - with the implementation of the mitigation measures, the indigenous vegetation will not be lost.						
Can impact be avoided, managed or mitigated?	Yes - mitigation measures can reduce impacts.						
<b>Mitigation measures</b>							
<b>Cumulative Impact</b>							

### Construction Phase Impact Assessment

Impact Phase: Construction							
Potential impact description: increase in dust and erosion from clearing vegetation, earth moving activities and increase vehicle traffic.							
	<b>Extent</b>	<b>Duration</b>	<b>Severity</b>	<b>Status</b>	<b>Significance</b>	<b>Probability</b>	<b>Confidence</b>
<b>Without Mitigation</b>	Low	Low	Low	Negative	Low	Low	High
<b>With Mitigation</b>	Low	Low	Low	Negative	Low	Low	High
Can the impact be reversed?	Yes - with the implementation of the mitigation measures.						
Will impact cause irreplaceable loss or resources?	No						
Can impact be avoided, managed or mitigated?	Yes - with the implementation of mitigation measures						
<b>Mitigation measures</b>							
<ul style="list-style-type: none"> <li>All reinstated trenches should be re-vegetated with the same vegetation that existed prior to the cable being laid.</li> <li>Carefully plan to reduce the construction period.</li> <li>Minimise vegetation clearing and rehabilitate cleared areas as soon as possible.</li> </ul>							



- Maintain a neat construction site by removing rubble and waste materials regularly.
- Make use of existing access roads where possible.
- Ensure that dust suppression techniques are implemented on all access roads

**Cumulative Impact****No cumulative impacts are anticipated.**

## Impact Phase: Construction

Potential impact description: Increase in sound levels at the dwellings of receptors during the day. These noises may be intrusive and increase annoyance with the project.

	Extent	Duration	Severity	Status	Significance	Probability	Confidence
<b>Without Mitigation</b>	Medium	Low	Medium	Negative	Negative	Medium	High
<b>With Mitigation</b>	Medium	Low	Medium	Negative	Low	Low	High

Can the impact be reversed?

Yes – the impact will stop once construction activities stop

Will impact cause irreplaceable loss or resources?

No. The increase in noise levels can increase annoyance levels with the project but will not result in the loss of any resource or an irreplaceable loss.

Can impact be avoided, managed or mitigated?

Yes – with the implementation of mitigation measures

## Mitigation measures

- Route construction traffic as far as practically possible from potentially sensitive receptors;
- Communication channels should be established to ensure prior notice to the sensitive receptor if work is to take place close to them. Information that should be provided to the potential sensitive receptor(s) include:
  - Proposed working times;
  - How long the activity is anticipated to take place;
  - What is being done, or why the activity is taking place;
  - Contact details of a responsible person where any complaints can be lodged should there be any issue of concern.



- When working near to potentially sensitive receptors, coordinate the working time with periods when the receptors are not at home where possible.
- Technical solutions to reduce the noise impact during the construction phase include:
  - Using the smallest/quietest equipment for the particular purpose. The use of smaller equipment therefore would have a significantly lower noise impact;
- Ensuring that equipment is well-maintained and fitted with the correct and appropriate noise abatement measures.
- No night time construction or construction related activities to take place.
- Construction personnel must wear proper hearing protection.
- Ensure construction personnel are provided with adequate Personal Protective Equipment (PPE), where appropriate.

**Cumulative Impact**

No cumulative impacts are anticipated.

## Impact Phase: Construction

Potential impact description: Contamination of the environment from building rubble, chemical / oil spills, litter, portable toilets etc.

	Extent	Duration	Severity	Status	Significance	Probability	Confidence
<b>Without Mitigation</b>	Low	Medium	Medium	Negative	Medium	Medium	High
<b>With Mitigation</b>	Low	Low	Low	Negative	Low	Low	High

Can the impact be reversed?

Yes

Will impact cause irreplaceable loss or resources?

No.

Can impact be avoided, managed or mitigated?

Yes

## Mitigation measures

- Ensure all vehicles and machinery are in good working order. Drip trays should be placed under all stationary construction vehicles.



- Spills on soils must be cleaned up immediately and contained using oil absorbents. This should be place in hazardous waste containers.
- No disposal of spilled products into sewers or drains.
- PPE must be worn during clean-up of hazardous spills
- A chemical toilet must be provided for every 15 workers on site. This toilet must be secured to the ground on a level surface that is sheltered from the elements in order to prevent it from toppling over. A maintenance schedule for the removal and cleaning of these toilets must be established in order to ensure that sufficient ablution facilities for the construction staff are maintained at all times.

**Cumulative Impact**

No cumulative impacts are anticipated.

## Impact Phase: Construction

Potential impact description: Large construction vehicles and equipment will alter the character of the area, exposing visual receptors to visual impacts associated with construction. The construction activities may be perceived as an unwelcome visual intrusion.

	Extent	Duration	Severity	Status	Significance	Probability	Confidence
<b>Without Mitigation</b>	Medium	Low	Medium	Negative	Medium	Medium	High
<b>With Mitigation</b>	Medium	Low	Medium	Negative	Low	Low	High
Can the impact be reversed?	Yes – after construction activities stop						
Will impact cause irreplaceable loss or resources?	No.						
Can impact be avoided, managed or mitigated?	Yes - Partially						
Mitigation measures							
<ul style="list-style-type: none"> <li>• Avoid litter and minimise waste. Adequate waste bins to be provided on site.</li> <li>• Ensure all waste bins have lids on them and are emptied at a registered landfill at least once a week.</li> <li>• Demarcate and limit construction area.</li> <li>• Workforce training to reuse, recycle and minimise waste.</li> </ul>							
<b>Cumulative Impact</b>	No cumulative impacts are anticipated.						



Impact Phase: Construction							
Potential impact description: Temporary employment opportunities may be created and afforded to local people							
	Extent	Duration	Severity	Status	Significance	Probability	Confidence
<b>Without Mitigation</b>	High	Low	Low	Positive	Medium	Medium	High
<b>With Mitigation</b>	High	Low	Medium	Positive	Medium	High	High
Can the impact be reversed?			Yes – after construction activities stop				
Will impact cause irreplaceable loss or resources?			No.				
Can impact be avoided, managed or mitigated?			Yes - Partially				
Mitigation measures							
<ul style="list-style-type: none"> <li>• Preference must be given to local people / contractors.</li> <li>• Maximise job creation opportunities during the construction phase.</li> <li>• Where the required skills do not occur locally, and where appropriate and applicable, ensure that relevant local individuals are trained.</li> <li>• Ensure that an equitable percentage allocation is provided for local labour employment as well as specify the use of small-to-medium enterprises and training specifications in the Contractors contract.</li> <li>• Ensure that goods and services are sourced from the local and regional economy as far as possible.</li> </ul>							
<b>Cumulative Impact</b>			No cumulative impacts are anticipated.				

Impact Phase: Construction							
Potential impact description: Impacts on heritage							
	Extent	Duration	Severity	Status	Significance	Probability	Confidence
<b>Without Mitigation</b>	Low	High	Medium	Negative	Medium	Medium	High
<b>With Mitigation</b>	Low	Low	Low	Negative	Low	Low	High



Can the impact be reversed?	No. Impact to archaeological material are irreversible. However, trial holes show that likelihood of archaeological material existing is low.
Will impact cause irreplaceable loss or resources?	Yes. Potential resources is on all likelihood in other areas of the region. Impacts to settings too small to have significant effect.
Can impact be avoided, managed or mitigated?	Yes
Mitigation measures	
<ul style="list-style-type: none"> <li>Should any archaeological materials or heritage resources be found during construction, all work is to be stopped immediately, area is to be cordoned off and an archaeologist contacted immediately to assess the area.</li> </ul>	
<b>Cumulative Impact</b>	Slight increase in the size of the urban area which will have a moderate impact on natural qualities.

Impact Phase: Construction							
Potential impact description: Increased Traffic and congestion							
	<b>Extent</b>	<b>Duration</b>	<b>Severity</b>	<b>Status</b>	<b>Significance</b>	<b>Probability</b>	<b>Confidence</b>
<b>Without Mitigation</b>	Low	High	Medium	Neutral	Medium	High	High
<b>With Mitigation</b>	Low	High	Low	Neutral	Low	Low	High
Can the impact be reversed?	Yes – when construction ends						
Will impact cause irreplaceable loss or resources?	No.						
Can impact be avoided, managed or mitigated?	Yes- with the implementation of mitigation measures.						
Mitigation measures							
<ul style="list-style-type: none"> <li>During the construction phase, suitable parking areas should be created and designated for construction trucks and vehicles.</li> <li>A construction supervisor should be appointed to co-ordinate construction traffic during the construction phase (by drawing up a traffic plan prior to construction).</li> <li>Road barricading should be undertaken where required and road safety signs should be adequately installed at strategic points within the construction site.</li> </ul>							





<b>Cumulative Impact</b>	Slight increase in traffic and congestion during the construction phase. During the operational phase, traffic will increase slightly as landowners take up occupancy of the houses.
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### Operational Phase Impact Assessment

Impact Phase: Operational							
Potential impact description: Visual impact of the constructed housing developments							
	<b>Extent</b>	<b>Duration</b>	<b>Severity</b>	<b>Status</b>	<b>Significance</b>	<b>Probability</b>	<b>Confidence</b>
<b>Without Mitigation</b>	Medium	Medium	Medium	Negative	Medium	Medium	Medium
<b>With Mitigation</b>	Medium	Medium	Medium	Negative	Low	Low	Medium
Can the impact be reversed?	Yes, if the housing developments are decommissioned						
Will impact cause irreplaceable loss or resources?	No.						
Can impact be avoided, managed or mitigated?	Partially						
Mitigation measures							
<ul style="list-style-type: none"> <li>The residential development should not contrast with the existing architecture and style.</li> </ul>							
<b>Cumulative Impact</b>	No cumulative impacts anticipated.						

Impact Phase: Operational							
Potential impact description: Socio Economic							
In the form of job creation and increased business for the local economy and the municipality in the form of rates and taxes.							
	<b>Extent</b>	<b>Duration</b>	<b>Severity</b>	<b>Status</b>	<b>Significance</b>	<b>Probability</b>	<b>Confidence</b>
<b>Without Mitigation</b>	High	High	Medium	Positive	High	Medium	Medium
<b>With Mitigation</b>	High	High	Medium	Positive	High	Medium	Medium
Can the impact be reversed?	Yes						



Will impact cause irreplaceable loss or resources?	No.
Can impact be avoided, managed or mitigated?	Yes
Mitigation measures	
<ul style="list-style-type: none"> <li>• Use and support of local businesses / suppliers / contractors</li> </ul>	
<b>Cumulative Impact</b>	Positive cumulative effect on the local economy

## 12.1. Specialist inputs/studies, Findings and Recommendations

Provide a summary of the findings and impact management measures identified in any specialist report and an indication of how these findings and recommendations have been included in the BAR.

### Heritage Impact Assessment

The study areas, located on Eshowe 8739, were investigated during a field visit and through archival studies.

The study area no.'s 1 to 7 were found to be devoid of any heritage sites with significance.

Study area 8 contained one area with obvious demarcation with hedges and one line of fencing. It is a small square area of around 5400m<sup>2</sup> and it contains a dilapidated building in the centre. The site strongly resembles a Muslim cemetery, and the remains of the building is painted in the light blue and white characteristic of other Muslim structures in the area. The site has also been specifically avoided during the sugarcane farming. Since Muslim graves are not marked on the surface this possibility could not be confirmed, however it is still recommended that the site undergoes a second phase of investigation before any development on it commences.

It is recommended that obscured, subterranean sites be managed, if they are encountered. Some key features were located outside the boundaries of the study areas (3 respective cemeteries, Cetshwayo's Grave, forts and ruins). These will not be affected by the proposed development.



### **Ecological Impact Assessment**

Impact assessment for the project was undertaken as part of the project scope and consideration of the current integrity and sensitivity of ecological habitats with respects to the nature of the project. Key impacts were identified as: loss of faunal habitat and ecological structure; spread of alien vegetation; reduced landscape connectivity; and direct loss of faunal and avifaunal species.

Impacts from construction and operational phases of the housing development will have a long-term cumulative effect on sensitive ecological habitats.

Without mitigation, the proposed housing project will likely have a high to very high impacts on the ecological habitats. However, should the prescribed mitigation measures be implemented for the project, the associated risks are expected to reduce from High to low impact significance.

### **Wetland Impact Assessment**

The wetlands located within and/or at close proximity of the proposed housing development and associated infrastructure area have been impacted upon to some degree with the specific mention of the historic and current land uses related to agricultural activities. It was noted that the water impoundments structures within the wetland area and cultivation have encroached on the CVB wetland boundaries, resulting in the alteration of the natural vegetation and soil morphological characteristics to some degree. The construction of farm roads traversing the wetland area have also resulted in wetland degradation to a certain extent.

The proposed housing and related infrastructure will not only result in impacting on the portions of the wetlands in which they are located but will additionally result in the exposure of soil, increased surface runoff, and the risk of erosion and increased movement of sediment into remaining wetland areas. The deposition of sediments within the wetlands will likely impact on the geomorphological processes and thus change in wetland vegetation structure and composition. Increased turbidity and suspended solid loads are likely to result in deterioration of water quality, which may



have a negative impact on aquatic biota. Other impacts on water quality, including increased loads of salts and chemical constituents of concern are possible and the risk of an altered pH regime must also be considered. Thus, it is anticipated that the proposed development will result in an overall reduction in the extent, ecological integrity and service provision of the wetlands that will receive direct impact from the proposed housing development and related infrastructure.

Based on the findings of the wetland impact assessment, it is the opinion of the wetland specialist that the proposed housing development and related infrastructure will pose both direct and indirect risks to the CVB wetlands located within and/or close proximity of the project areas associated with proposed development, as some portions of the CVB wetlands will be impacted as a result of the proposed housing development and related infrastructure. Adherence to cogent, well-conceived and ecologically sensitive site development plans, and the mitigation measures provided in this report as well as general good construction practice, is essential if the significance of perceived impacts is to be reduced. In addition, it is recommended that the proponent consider, in consultation with the relevant authorities, the possibility of implementing a wetland rehabilitation intervention of the impact wetlands to enhance the wetland functionality and the provision of the ecological services provided the wetland habitat. It must also be noted that in its current condition the delineated wetlands have been severely disturbed and this project may potentially provide an opportunity to rehabilitate the impacted areas in an integrated manner thus potentially leading to a net improvement in the condition of the wetland habitat to be rehabilitated.

All impacts (including) residual impacts must be managed in line with the mitigation hierarchy as advocated by the DEA et al. (2013) and rehabilitation must be overseen and signed off by a suitably qualified wetland specialist.

## **ENVIRONMENTAL IMPACT STATEMENT**

**Provide an environmental impact statement of the following:**



Potential environmental impacts [biophysical and social] associated with the proposed Mpushini Park Subsidised Housing Development, in KwaZulu-Natal, have been identified herein.

This BA assesses and addresses all potentially significant environmental issues in order to provide the KZN EDTEA with sufficient information to make an informed decision regarding the proposed project.

Key findings of the impact assessment contained in the BAR are included below:

Construction phase impacts identified by the Basic Assessment Process include:

- Potential for Soil Erosion;
- Loss of or damage to Vegetation;
- Impact of litter/waste pollution from the activities and construction workers on site on the surrounding environment;
- Job creation;
- Wind-blown dust;
- Impact of construction activities on surrounding roads and traffic flows;
- Impact of construction activities on visual aesthetics of the surrounding environment;
- Noise Impacts; and
- Impact on cultural heritage aspects.

Operational phase impacts identified by the Basic Assessment Process include:

- Impact of potential soil erosion;
- Impact of the proposed development on visual aesthetics of the surrounding environment;
- Job creation; and
- Impact of increased revenue to the local economy.

The proposed development will result in no unacceptable biophysical and socio-economic impacts, after mitigation. No (post mitigation) impacts of high negative significance will occur as a result of the implementation of the proposed activity during either the construction or operational phase.



Negative impacts on the socio-economic environment are mainly limited to the construction phase and will be of low to very low negative significance with mitigation measures. The proposed development has positive socio-economic impacts of low significance in the construction phase, in terms of job creation, and positive impacts of very low significance in terms of increased revenue into the local economy as well as to the national fiscus during the operational phase.

The implementation of the “No-Go” alternative would have a negative impact of very low significance in terms of the opportunity cost of lost increased revenue to local economy and national fiscus, as well as a low negative impact of job losses.

Construction phase impacts identified by the Basic Assessment Process include:

- Potential for Soil Erosion;
- Loss of or damage to Vegetation;
- Impact of litter/waste pollution from the activities and construction workers on site on the surrounding environment;
- Job creation;
- Wind-blown dust;
- Impact of construction activities on surrounding roads and traffic flows;
- Impact of construction activities on visual aesthetics of the surrounding environment;
- Noise Impacts; and
- Impact on cultural heritage aspects.

Operational phase impacts identified by the Basic Assessment Process include:

- Impact of potential soil erosion;
- Impact of the proposed development on visual aesthetics of the surrounding environment;
- Job creation; and
- Impact of increased revenue to the local economy.

## **IMPACT MANAGEMENT, MITIGATION AND MONITORING MEASURES**



**(a) Based on the assessment, describe the impact management, mitigation and monitoring measures as well as the impact management objectives and impact management outcomes included in the EMPr. The EMPr must be attached to this report as Appendix F.**

The EMPr addresses the environmental impacts identified in this report, associated with the proposed development. The objectives of the EMPr is to provide detailed information that will advise the planning of the proposed development in order to avoid and reduce potential impacts during construction. The following management objectives are recommended:

- Search, rescue and relocate indigenous vegetation. A specialist must be appointed to undertake this, prior to the start of any construction.
- Design of the houses should take into consideration the surrounding existing community and infrastructure, and should be in line with what is currently there.
- Monitor and prevent contamination of the natural environment
- Promote health and safety of workers
- Limit noise and visual impacts during construction.
- Limit dust and ensure use of dust suppression.

**(b) Describe any assumptions, uncertainties, and gaps in knowledge which relate to the impact management, mitigation and monitoring measures proposed.**

Uncertainties form part of any proposed development with regards to the actual degree of impact that the development will have. Any actual and/or site-specific results will only be determined once construction of the development has commenced and the effectiveness of the measures and realised.



### 13. SECTION H: RECOMMENDATIONS OF THE EAP AND SPECIALISTS

(a) In my view as the appointed EAP, the information contained in this BAR and the documentation attached hereto is sufficient to make a decision in respect of the listed activity(ies) applied for.	<b>Yes</b>	
If the documentation attached hereto is sufficient to make a decision, please indicate below whether, in your opinion, the listed activity(ies) should or should not be authorised:		
<b>Listed activity(ies) should be authorised:</b>	<b>Yes</b>	
<b>Provide reasons for your opinion</b>		
<p>The proposed development will result in no unacceptable biophysical and socio-economic impacts, after mitigation.</p> <p>The proposed development (through providing permanent housing) will not compromise the integrity of the existing IDP and SDF, but should benefit the municipality via contributions into the local town economy. The proposed project addresses a local need. "The need and desirability for the housing development is of high priority for the Municipality due to the lack of availability of developed residential erven with reference to demand and uMlalazi Local municipal community needs, taking into account budgetary constraints. The municipality is also in need of funding that is this created by the sale of land. Jobs will be created with the proposed development in the area of Mpushini park during the installation of services and building of house, thus unlocking the potential for economic growth and development".</p>		
<b>If you are of the opinion that the activity should be authorised, please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an environmental authorisation.</b>		
All mitigation measures and management actions as contained in the EMPr must be implemented during the construction of the proposed development.		





## 14. SECTION I: APPENDICES

APPENDIX		Confirm that Appendix is attached
Appendix A:	Locality map Sensitivity Maps	✓
Appendix B:	Photographs	✓
Appendix C:	Site development plan(s)	✓
Appendix D:	Specialist Reports	✓
Appendix E:	Public participation information: including a copy of the register of I&APs, the comments and responses report, proof of notices, advertisements and any other public participation information as is required	✓
Appendix F:	EMPr	✓
Appendix G:	Qualifications of EAP	✓
Appendix H	Other Information	✓

## 15. SECTION J: DECLARATIONS

I .....Kudakwashe M Zhandire ....., as the appointed EAP hereby declare/affirm:

- the correctness of the information provided as part of this Report;
- that all the comments and inputs from stakeholders and I&APs have been included in this Report;
- that all the inputs and recommendations from the specialist reports, if specialist reports were produced, have been included in this Report;
- any information provided by me to I&APs and any responses by me to the comments or inputs made by I&APs;
- that I have maintained my independence throughout this EIA process, or if not independent, that the review EAP has reviewed my work (Note: a declaration by the review EAP must be submitted);
- that I have throughout this EIA process met all of the general requirements of EAPs as set out in Regulation 13;
- I have throughout this EIA process disclosed to the applicant, the specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared as part of the application;
- have ensured that information containing all relevant facts in respect of the application was distributed or was made available to I&APs and that participation by I&APs was facilitated in such a manner that all I&APs were provided with a reasonable opportunity to participate and to provide comments;
- have ensured that the comments of all I&APs were considered, recorded and submitted to the Department in respect of the application;
- have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, if specialist inputs and recommendations were produced;
- have kept a register of all I&APs that participated during the PPP; and
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

**Signature of the EAP:**

**Name of Company:**

Draft Basic Assessment Report

Mpushini Park Subsidised Housing Development, Umlalazi Local Municipality,  
Kwazulu-Natal

**Date:**



***baboloki geohub***

*Advancement Through Sustainability*