

# HOLLINGWOOD INTEGRATED HOUSING DEVELOPMENT

## DRAFT SCOPING REPORT

DC22/0019/2021



AUGUST 2021

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**Qualifications:**

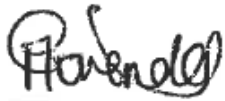
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**Independence:**

I, Prisantha Govender declare that this report has been prepared independently of any influence or prejudice as may be specified by the KwaZulu- Natal Department of Economic Development, Tourism and Environmental Affairs. I hereby confirm that all comments received from I&APs will be included into the Comments and Response Report. I also undertake that the Plan of Study for the Environmental Impact Report will be implemented, and the findings will be presented in the Environmental Impact Report.



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Ms Prisantha Govender  
K2M Environmental (Pty) Ltd  
Environmental Assessment  
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August 2021

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Date

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**Independence:**

I, Gert Watson declare that this report has been prepared independently of any influence or prejudice as may be specified by the Department of Economic Development, Tourism and Environmental Affairs. I hereby confirm that all comments received from I&APs will be included into the Comments and Response Report. I also undertake that the Plan of Study for the Environmental Impact Report will be implemented, and the findings will be presented in the Environmental Impact Report



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Mr. Gert Watson

K2M Environmental (Pty) Ltd

Director

August 2021

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Date

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## **GLOSSARY**

AMAFA	Heritage KZN
BID	Background Information Document
CA	Competent Authority
CBA	Critical Biodiversity Area
DEDTEA	Department of Economic Development, Tourism and Environmental Affairs
DMR	National Department of Mineral Resources
DOT	Department of Transport
IDP	Integrated Development Plan
dSR	Draft Scoping Report
NEMA	National Environmental Management Act (Act 107 of 1998)
NFEPA	National Freshwater Ecosystems Protected Areas
NWA	National Water Act (Act No. 36 of 1998)
EMPr	Environmental Management Programme
S&EIR	Scoping and Environmental Impact Report
SAHRA	South African Heritage Resources Agency
WULA	Water Use License Application
WWTW	Waste Water Treatment Works



## **LIST OF APPENDIXES**

- Appendix A: Locality Map
- Appendix B1: Application Form
- Appendix B2: Acknowledgement Letter from DEDTEA
- Appendix C: Draft Development Layout Plan
- Appendix D1: Wording of English Advert
- Appendix D2: Wording of isiZulu Advert
- Appendix D3: Site Notice Boards
- Appendix D4: Background Information Document
- Appendix E: Comments and Response Report (DC22/0022/2015)
- Appendix F: Comments and Response Report (DC22/0017/2016)
- Appendix G: Comments Received (DC22/0021/2019)
- Appendix H: CV of Prisantha Govender
- Appendix I: CV of Gert Watson

# 1 BACKGROUND INFORMATION

## 1.1 INTRODUCTION AND BACKGROUND

The Msunduzi Local Municipality has, through its IDP process, and extensive consultation with respective beneficiary communities residing within the Municipality, identified the need to provide suitable housing in its area of jurisdiction. This process was initiated as a means to address the municipality's housing need and in doing so improve the living conditions and quality of life of its communities.

The Proposed Hollingwood Integrated Housing Development has been initiated by the Msunduzi Local Municipality together with the Department of Human Settlements. The proposed project area is approximately 60.25 hectares and is a Greenfield development located within Ward 35 of the Msunduzi Local Municipality.

An application for Environmental Authorisation (EA) was initially applied for in June 2015 under the reference number DC22/0022/2015. The Scoping Report (SR) was submitted to the Department of Economic Development, Tourism and Environmental Affairs (DEDTEA) for review and was accepted on the 19th of August 2015. Despite the Scoping Report been accepted, the Environmental Impact Assessment (EIA) application was withdrawn as the Environmental Impact Report (EIR) could not be submitted within the stipulated timeframe due to the lack of funding to undertake the Tier 1 Human Health and Ecological Risk Evaluation (HHERE).

A second EA application was applied for in March 2016 under the reference number DC22/0017/2016. The SR which included the Environmental Site Assessment and Quantitative Health Risk Assessment (Tier 1 HHERE) was submitted to DEDTEA on the 6th of May 2016 and was accepted on the 20th of June 2016. One of the recommendations from the Environmental Site Assessment and Quantitative Health Risk Assessment (Tier 1 HHERE) was to undertake a more detailed Toxicological Assessment (Tier 2 HHERE) as the results from Tier 1 indicated that there is a potential human health risk. The reason for the detailed Toxicological Assessment was to determine whether the elevated levels of a number of detriments identified in Tier 1 do indeed pose a human health risk. There was no clarity given to K2M Environmental as to who would undertake the Toxicological Assessment (Tier 2 HHERE) as this study was expensive and there were a few

specialists that could undertake this type work. The application was therefore withdrawn because the EIA timeframes could not be met, as the Toxicological Assessment needed to be included into the EIR.

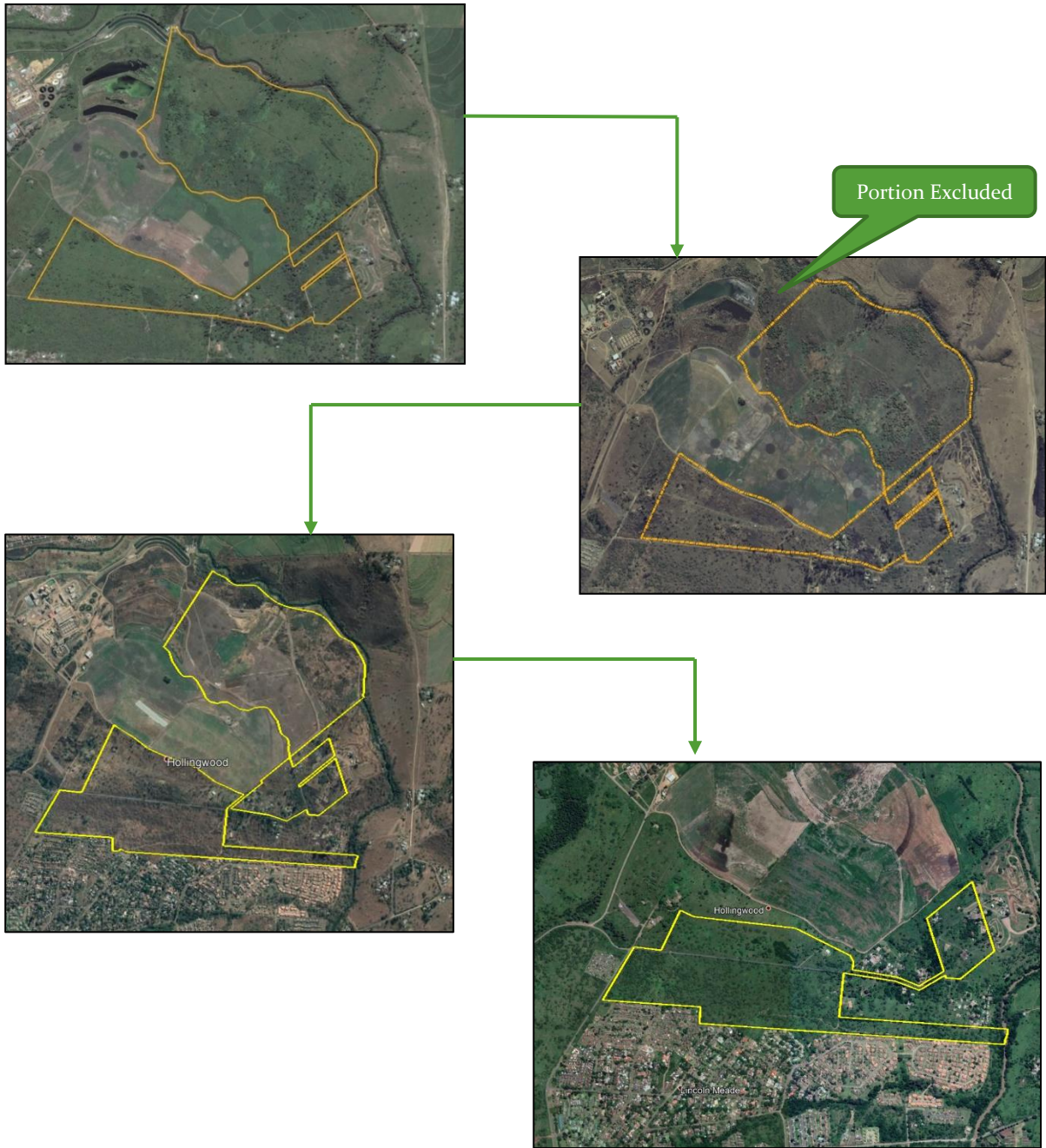
A third EA application form for Proposed Hollingwood Integrated Housing Development was submitted to DEDTEA on the 9th of October 2019 under the Reference Number DC22/0021/2019. The Draft Scoping Report was sent out for public comment. However, the Final Scoping Report was not submitted to DEDTEA, and the application was withdrawn due to payment delays with the Tier 2 Toxicological Assessment. Since then, the matter has been resolved.

A fourth EA application form for Proposed Hollingwood Integrated Housing Development was submitted to DEDTEA on the 18 August 2021 (see **Appendix B1** for Application Form). The current application has now been allocated with Reference Number DC22/0019/2021 (see **Appendix B2** for DEDTEA Receipt of Acknowledgement for Application Form).

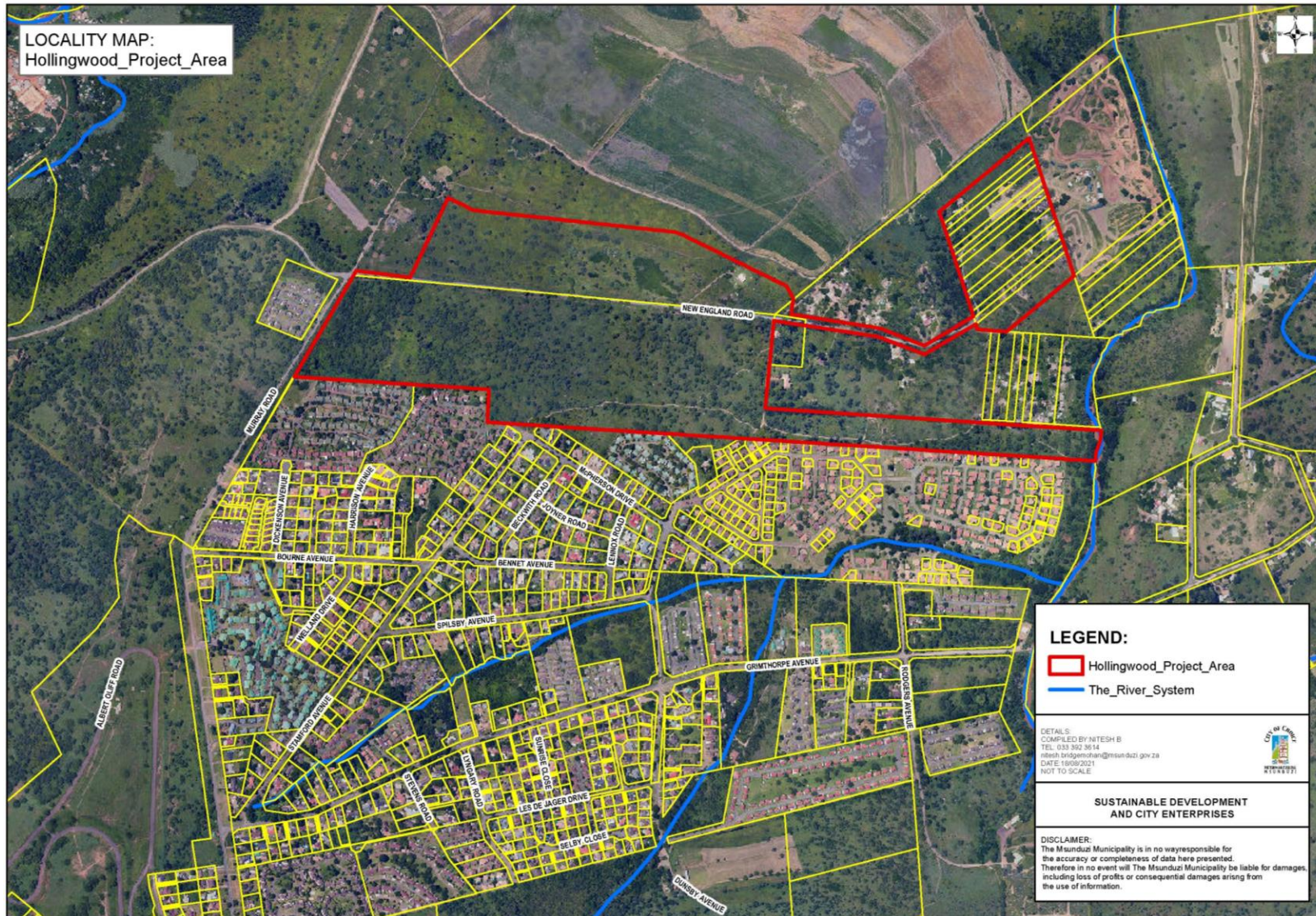
As illustrated in Figure 1.1, the project area was initially 115.45Ha, however, in consultation with Umgeni Water, a portion of the site was being leased to Umgeni Water, hence the project area reduced in size from 115.45Ha to 108.35Ha. At first, the project area only covered the Hollingwood area, however, it was expanded to include a portion of Lincoln Meade area. The northern portion of the site (as included in the previous application) has now been excluded from the project due to land contamination as well as to enable expansion of the sludge disposal area. It is important to note that the Tier 2 Detailed Toxicological Assessment (Human Health and Ecological Risk Evaluation) which was undertaken indicated that there is no risk to human health of future residents of the proposed development. The Tier 2 Detailed Toxicological Assessment will be discussed in detail in the EIR.

The proposed project area (as illustrated in Map 1.1 and **Appendix A**) is now, approximately 60.25 hectares in extent.

**Figure 1.1: Change in project area**



Map 1.1: Locality Map



The proposed Hollingwood Integrated Housing Development will entail the removal of indigenous vegetation for the construction of the following:

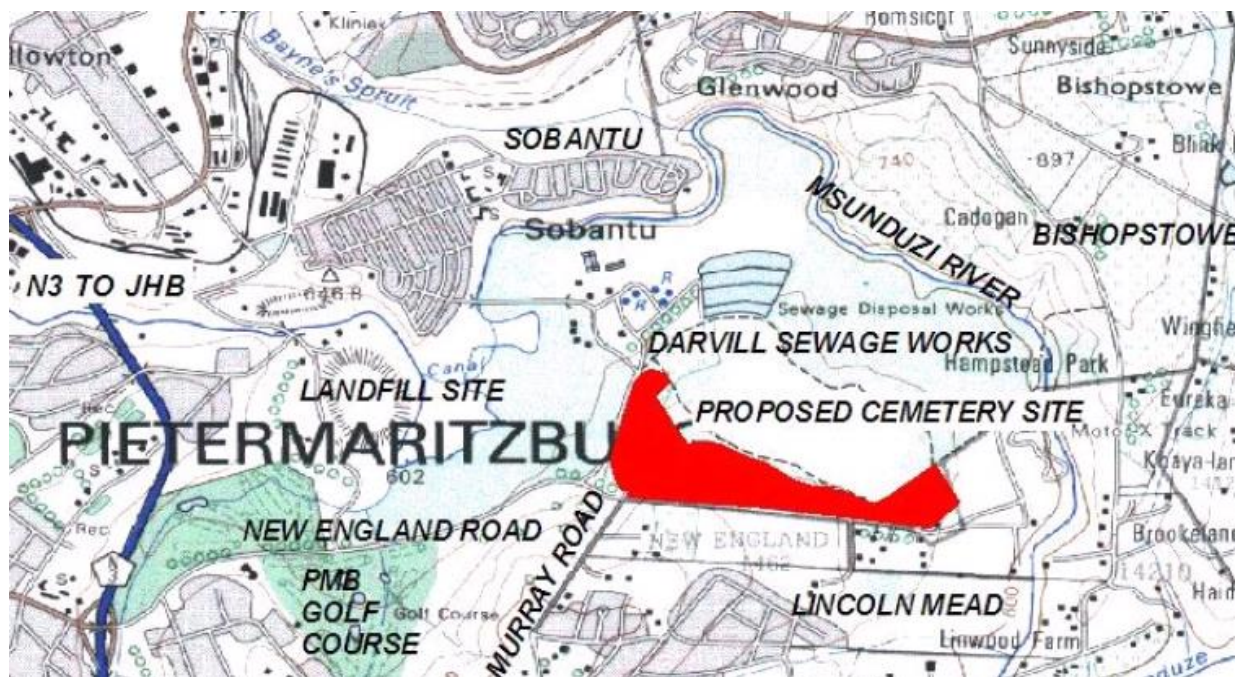
- **Approximately 570 Breaking New Ground (BNG) Housing Units**  
BNG Housing is government subsidy housing that will be built by the government and given to qualifying beneficiaries (low -income families).
- **Approximately 245 GAP Housing Units**  
Gap housing is aimed at households that fall into an income bracket too high to qualify for a subsidised house and too low to afford a mortgaged property bought on the open market. Households earning between R3 501 and R15 000 a month are eligible for GAP housing.
- **Approximately 256 Serviced Sites**  
Serviced Sites are vacant plot of land that contain the necessary infrastructure for services such as water, sewage and electricity. These sites are ready for construction of a top structure upon purchase by the beneficiary.
- **Installation of pipelines for the transportation of water supply and waterborne sewage** (design and specifications of infrastructure will be confirmed during the EIA Process)
- **Construction of internal roads and stormwater infrastructure** (design and specifications of infrastructure will be confirmed during the EIA Process)
- Erven will be set aside for active open space, conservation, creche, education and worship land uses.

The following specialist studies that were undertaken as part of the previous application, will be utilised in this EIA Process and will be updated where necessary:

- Aquatic Assessment
- Biodiversity Assessment (Faunal and Vegetation)
- Heritage Impact Assessment
- Wetlands Assessment
- Environmental Site Assessment and Quantitative Health Risk Assessment (Tier 1 HHERE)
- Geotechnical Investigation Report

It should also be noted that an EIA Process for a municipal cemetery was undertaken by SRK Consulting during 2007. An Environmental Authorisation was granted for the municipal cemetery on Erf 1853 on 28th of February 2008. In a telephonic conversation with SRK Consulting, SRK Consulting indicated that the size for the proposed cemetery has decreased. Despite the decrease in size, a portion of the cemetery still falls within the Hollingswood project area as indicated in Figure 1.2 below.

**Figure 1.2: Locality Map of Proposed Cemetery**



Source: SRK Consulting

## 1.2 ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS

The 2014 Environmental Impact Assessment Regulations (as amended) promulgated in terms of Section 24(5) of the National Environmental Management Act, (Act No. 107 of 1998) as amended, requires Environmental Authorization from the competent authority which is the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (DEDTEA) for activities listed in Government Notices R327, R325 and R324. Table 1.1 below identifies the activity triggered.

**Table 1.1: Triggered Listed Activity**

Activity	Activity Description (in terms of relevant notice)	Description of listed activity as per project description
Activity 9 of GN.R 327	<p>The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water and stormwater –</p> <p>(i) with an internal diameter of 0.36 metres or more; or</p> <p>(ii) with a peak throughput of 120 litres per second or more;</p> <p>excluding where –</p> <p>(a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or</p> <p>(b) where such development will occur within an urban area.</p>	<p>The proposed development may entail the construction of pipes for the bulk transportation of water and stormwater. This activity will be confirmed in the EIR Phase.</p>
Activity 10 of GN.R 327	<p>The development and related operation of infrastructure exceeding 1000 metres in length for bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes –</p> <p>(i) with an internal diameter of 0.36 metres or more; or</p> <p>(ii) with a peak throughput of 120 litres per second or more;</p> <p>excluding where –</p> <p>(a) such infrastructure is for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve or railway line reserve; or</p> <p>(b) where such development will occur within an urban area.</p>	<p>The proposed development may entail the construction of pipes for the bulk transportation of wastewater and effluent. This activity will be confirmed in the EIR Phase.</p>



<p>Activity 12 of GN.R. 327</p>	<p>The development of –</p> <p>(ii) infrastructure or structures with a physical footprint of 100 square metres or more;</p> <p>Where such development occurs –</p> <p>(a) within a watercourse</p> <p>(c) if no development setback exists, within 32 metres of a watercourse; -</p> <p>excluding –</p> <p>(aa) the development of infrastructure or structures within existing ports or harbours</p> <p>(bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;</p> <p>(cc) activities listed 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;</p> <p>(dd) where such development occurs within an urban area;</p> <p>(ee) where such development occurs within existing roads, road reserves or railway line reserves; or</p> <p>(ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.</p>	<p>The proposed development may entail the construction of infrastructure or structures with a physical footprint of 100 square metres or more within 32m of a watercourse. This activity will be confirmed in the EIR Phase.</p>
<p>Activity 19 of GN.R 327</p>	<p>The infilling or depositing of any material of more than 10 cubic metres into, or the dredging of, excavation, removal of soil, sand, shells, shell grit, pebbles or rocks of more than 10 cubic metres from a watercourse: but excluding where such infilling, depositing, dredging, excavation, removal or moving –</p> <p>(a) will occur behind a development setback;</p>	<p>The proposed development may entail the infill of potential seepage areas within the site. This activity will be confirmed in the EIR Phase.</p>

	<p>(b) is for maintenance purposes undertaken in accordance with a maintenance management plan; or</p> <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; 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>	
Activity 15 of GN.R 325	<p>The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for –</p> <p>(i) the undertaking of a linear activity; or</p> <p>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	The proposed development may entail the removal of more than 20 ha of indigenous vegetation.
Activity 4 of GN.R 324	<p>The development of a road wider than 4 metres with a reserves less than 13,5 metres.</p> <p><b><u>(d) In Kwazulu-Natal:</u></b></p> <p>viii. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p> <p>xi. Areas designated for conservation in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purposes</p> <p>xi. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</p> <p>xii. Outside urban areas:</p> <p>(aa) Areas within 10km from national parks or world heritage sites or 5km from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve;</p>	<p>The proposed development may entail the construction of roads wider than 4m with a reserve less than 13,5m within:</p> <ul style="list-style-type: none"> <li>• CBA Irreplaceable areas</li> <li>• Areas demarcated as MOSS (Metropolitan Open Space System) as per the Municipal SDF.</li> <li>• Sensitive areas identified in the Msunduzi EMF</li> <li>• 5km of the Mpushini Protected Area.</li> </ul>

<p>Activity 12 of GN.R 324</p>	<p>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p><b><u>(d) In KwaZulu-Natal:</u></b></p> <p>v. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p> <p>xi. Areas designated for conservation in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose;</p> <p>xii. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority</p>	<p>The proposed development may entail the clearance of indigenous vegetation within:</p> <ul style="list-style-type: none"> <li>• CBA Irreplaceable areas</li> <li>• Areas demarcated as MOSS (Metropolitan Open Space System) as per the Municipal SDF.</li> <li>• Sensitive areas identified in the Msunduzi EMF</li> </ul>
<p>Activity 14 of GN.R 324</p>	<p>The development of –</p> <p>(ii) infrastructure or structures with a physical footprint of 10 square metres or more;</p> <p>where such development occurs –</p> <p>(a) within a watercourse;</p> <p>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;</p> <p>excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.</p> <p><b><u>(d) In KwaZulu-Natal:</u></b></p>	<p>The proposed development may entail the construction of housing units within 32m of a watercourse within:</p> <ul style="list-style-type: none"> <li>• CBA Irreplaceable areas</li> <li>• Areas demarcated as MOSS (Metropolitan Open Space System) as per the Municipal SDF.</li> <li>• Sensitive areas identified in the Msunduzi EMF</li> <li>• 5km of the Mpushini Protected Area.</li> </ul>

	<p>vii. Critical biodiversity areas or ecological support as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p> <p>viii. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</p> <p>x. Outside urban areas:</p> <p>(aa) Areas within 10km from national parks or world heritage sites or 5km from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve; or</p> <p>xi. In urban areas:</p> <p>bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, zoned for a conservation purpose; o</p>	
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### 1.3 TERMS OF REFERENCE

Regulation 15 (1) of the Environmental Impact Assessment Regulations of 2014 (as amended) states that it is the duty of the EAP to identify whether a Basic Assessment or Scoping and Environmental Impact Report is required. For this particular project a Scoping and Environmental Impact Report is required. K2M Environmental (Pty) Ltd has been appointed as the independent Environmental Assessment Practitioner (EAP) by the applicant and will therefore be responsible for the Scoping and Environmental Impact Report concerned with the proposed development as specified in Sections 21 to 23 of Government Notice R326.

The competent authority with regards to providing the required environmental authorisation is the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (DEDTEA). K2M Environmental has submitted the completed Application for Environmental Authorisation to DEDTEA (**Appendix B1**). DEDTEA has registered the project and allocated the Reference Number **DC22/0019/2021**, in their letter dated 23 August 2021 (**Appendix B2**).

This Scoping Report has been prepared in response to Section 21 (1) of Government Notice R326 and includes information as specified in Appendix 2 of the 2014 EIA Regulations. Appendix 2 of Government Notice R326 states that the objective of the Scoping Process is to:

- a. Identify the relevant policies and legislation relevant to the activity;
- b. Motivate the need and desirability of the proposed activity, including the need and desirability the activity in the context of the preferred location;
- c. Identify and confirm the preferred activity and technology alternative through an identification of impacts and risks and ranking process of such impacts and risks;
- d. Identify and confirm the preferred site, through a detailed site selection process, which includes an identification of impacts and risks inclusive of identification of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
- e. Identify the key issues to be addressed in the assessment phase;
- f. Agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and
- g. Identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

## 1.4 APPROACH AND METHODOLOGY

The overall approach to the scoping process includes the following activities:

- ✚ A description of the development and an overview of the environmental features applicable to the study area. It includes an overview of the key aspects relating to both the biophysical and socio-economic characteristics of the study area.
- ✚ The identification of possible environmental impacts and evaluation of their significance.
- ✚ A description of the public participation process undertaken as part of the scoping phase.

The sources of information that were utilized for the purpose of this study included a combination of different desktop data sources, including reports and relevant databases, findings of site visits to the project area, and inputs from studies conducted by other members of the professional team.

## 1.5 REPORT STRUCTURE

The report is structured as follows:

- ✚ **Section 2** consists of a summary **description of the proposed activity**.
- ✚ **Section 3** provides a **description of the environment that may be affected** by the activity.
- ✚ **Section 4** consists of a summary of the potential **impacts of the proposed activity** on the environment.
- ✚ **Section 5** provides describes the **public participation** process conducted during the scoping phase.
- ✚ **Section 6** summarizes the **plan of study for environmental impact assessment** phase of the project

Appendix 2 of Government Notice R326 requires specific content to be addressed in the Scoping Report. Table 1.2 has been included to assist the reader to find the relevant section in the report.

**Table 1.2: NEMA Requirements for Scoping Report**

Section in Appendix 2	Requirement for Scoping Report	Sections in Report
2(a)	Details of:	
(i)	The EAP who prepared the report; and	Just after cover page and Section 1.9
(ii)	The expertise of the EAP, including a curriculum vitae;	Just after cover page and <b>Appendix H</b> and <b>I</b>
2(b)	The location of the activity:	Section 2.2 and Figure 2.1
(i)	The 21 digit Surveyor General code of each cadastral land parcel;	Table 2.2
(ii)	Where available, the physical address and farm name;	Section 2.2
(iii)	Where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;	Table 2.1
2(c)	A plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is:	Section 2.2 and <b>Appendix C</b>
(i)	A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or	N/A
(ii)	On land where the property has not been defined, the coordinates within which the activity is to be undertaken;	N/A

<b>2(d)</b>	A description of the scope of the proposed activity, including:	
<b>(i)</b>	All listed and specified activities triggered;	Table 1.1
<b>(ii)</b>	A description of the activities to be undertaken, including associated structures and infrastructure;	Section 2.3
<b>2(e)</b>	A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process;	Table 1.3
<b>2(f)</b>	A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location;	Section 2.7
<b>2(h)</b>	A full description of the process followed to reach the proposed preferred activity, site an location within the site, including:	
<b>(i)</b>	Details of all the alternatives considered;	Section 2.4
<b>(ii)</b>	Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;	Section 5
<b>(iii)</b>	A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;	This is a Draft Scoping Report and comments have not been received as yet.
<b>(iv)</b>	The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	Section 3
<b>(v)</b>	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- (a) can be reversed; (b) may cause irreplaceable loss of resources; and (c) can be avoided, managed or mitigated;	Section 4
<b>(vi)</b>	The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;	Section 4.2
<b>(vii)</b>	positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	Section 3.6
<b>(viii)</b>	The possible mitigation measures that could be applied and level of residual risk;	Section 3.7
<b>(ix)</b>	The outcome of the site selection matrix;	Section 2.4.2
<b>(x)</b>	If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such and	Section 2.4.2
<b>(xi)</b>	A concluding statement indicating the preferred alternatives, including preferred location of the activity;	Section 2.4.2
<b>2(i)</b>	A plan of study for undertaking the environmental impact assessment process to be undertaken, including:	
<b>(i)</b>	A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity;	Section 2.4.6 and 2.4.7

(ii)	A description of the aspects to be assessed as part of the environmental impact assessment process;	Section 6.2
(iii)	Aspects to be assessed by specialists;	Section 6.2
(iv)	A description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists;	Section 6.3.1
(v)	A description of the proposed method of assessing duration and significance;	Section 6.3.2
(vi)	An indication of the stages at which the competent authority will be consulted;	Section 6.1 and 6.5
(vii)	Particulars of the public participation process that will be conducted during the environmental impact assessment process;	Section 6.4
(viii)	A description of the tasks that will be undertaken as part of the environmental impact assessment process;	Section 6.2
(ix)	Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.	Section 4.4.2
2(j)	An undertaking under oath or affirmation by the EAP in relation to:	
(i)	The correctness of the information provided in the report;	Just after cover page
(ii)	The inclusion of comments and inputs from stakeholders and interested and affected parties;	This is a Draft Scoping Report and comments have not been received as yet.
(iii)	Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties;	This is a Draft Scoping Report and comments have not been received as yet.
2(k)	An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment;	Just after cover page
2(l)	Where applicable, any specific information required by the competent authority;	N/A
2(m)	Any other matter required in terms of section 24(4)(a) and (b) of the Act.	N/A

## 1.6 ASSUMPTIONS AND LIMITATIONS

### 1.6.1 Project Stage

The Draft Scoping Report has been compiled during the conceptual design and planning stages of the development.



### 1.6.2 Baseline Information

Sufficient baseline information for the scoping phase of the study was available from a variety of desktop data sources, reports and relevant data bases. This was supplemented by site visits to the project area and inputs from other professionals involved in the project.

### 1.6.3 Time Constraints

There were no time constraints associated with the scoping phase and sufficient time was available for the scoping process.

## 1.7 APPLICABLE LEGISLATION, POLICIES AND GUIDELINES

In addition to the Environmental Impact Assessment Regulations of 2014, the following legislation and guidelines identified in Table 1.3 have been considered in the preparation of this Scoping Report.

**Table 1.3: Applicable Legislation and Policies**

Legislation	Relevance to the development
National Water Act (No. 36 of 1998)	A Water Use License Application will be required for the proposed development, as watercourses have been identified within the proposed project area.
National Environmental Management Act (No. 107 of 1998)	This development requires a full Scoping and Environmental Impact Report to be conducted as per the 2014 EIA Regulations (as amended), in terms of Chapter 5, Section 24(5), 24M and Section 44 of the National Environmental Management Act.
KwaZulu-Natal Heritage Act (No. 4 of 2008)	Documentation was submitted to AMAFA, as the proposed development is larger than 10 000 m <sup>2</sup> . In their final comment dated June 2015, AMAFA indicated that they have no objection to the proposed development within limits of the prescribed mitigation measures and recommendations. An updated letter will be requested from AMAFA.

National Environmental Management: Biodiversity Act (No. 10 of 2004)	A Biodiversity Assessment (Faunal and Vegetation) was undertaken as part of the previous application to identify sensitive areas within the project area and mitigation measures were recommended by the Specialist. However, the Report will be updated.
Occupational Health and Safety Act (No. 85 of 1993)	The contractor needs to manage his/her staff and crew in strict accordance with the Occupational Health and Safety Act in order to prevent injuries to staff.
Provincial Growth and Development Plan	The proposed development is aligned with the PGDP as it addresses the first goal of the PGDP which is that of job creation, which will take place during the construction phase and operational phase.
Constitution of the Republic of South Africa (Act No. 108 of 1006)	The proposed development will assist in providing basic housing and services to the beneficiaries that will occupy the houses.
Agricultural Land Act (Act 70 of 1970)	The land for the proposed development belongs to the Msunduzi Local Municipality; therefore, Act 70 of 1970 does not apply to this project.
Polluters Pay Principal	The Polluters Pay Principal will be included into the preparation the EMPr.
Msunduzi Municipal Spatial Development Framework	As per the Municipal SDF, the proposed land uses for the site include “New Housing Opportunities and “Agriculture”. The site also contains Metropolitan Open Space System.
Msunduzi Final Draft Environmental Services Plan (ESP)	The ESP identifies the proposed site as key areas and a small portion as Riparian and Public Open Space.
Msunduzi Conservation Plan (C-Plan)	Majority of the site is regarded as being totally irreplaceable as the Municipal C-plan.
Climate Change Policy for the Msunduzi Municipality	The proposed project area is located adjacent to the Darvill Sludge Disposal site and in close proximity to the New England Landfill Site.
Msunduzi Environmental Management Framework	The Msunduzi EMF identifies majority of the site as having high biodiversity constraints and a small eastern portion of the site is identified as having a high wetland development constraint.

<p>Guidelines for the Utilisation and disposal of wastewater sludge Volume 1 of 5 and Volume 2 of 5</p>	<p>Specific attention needs to be given to the Guidelines for the Utilisation and disposal of wastewater sludge page 17 of Volume 2 of 5 which states that “To protect the community from possible vectors and odours, sludge should not be applied to land within 500m from dwellings.” The project area is within 500m of the sludge disposal, hence, the HHERE were required to be undertaken.</p>
<p>Msunduzi Municipal IDP (2020/21)</p>	<p>The Municipal IDP indicated that the Hollingwood Project is pending withdrawal from the IDP due to environmental constraints. It should however be noted that the project area boundary has since being amended to exclude the northern portion, which was proposed in the 2019 application, to enable expansion of the sludge disposal area. In addition to this the Tier 2 Detailed Toxicological Assessment (Human Health and Ecological Risk Evaluation) indicated that there is no risk to human health of future residents of the proposed development. Furthermore, the proposed project as well as the Lincoln Meade Project have been amalgamated into a single project.</p>

## 1.8 THE APPLICANT

The details of the applicant are as follows:

Applicant name : Msunduzi Local Municipality  
 Contact Person : Mr Simphiwe Mbanjwa (Senior Manager (A): Human Settlements Sub- Unit  
 Tel : 033 392 2508  
 Email : [Simphiwe.Mbanjwa@msunduzi.gov.za](mailto:Simphiwe.Mbanjwa@msunduzi.gov.za)  
 Address : 4th Floor, Gallwey Building, 19 Gallwey Lane, Pietermaritzburg

## 1.9 THE INDEPENDENT ENVIRONMENTAL ASSESSMENT PRACTITIONER

K2M Environmental (Pty) Ltd was appointed as the Independent EAP responsible for the following tasks:

- ✚ Processes, information, plans and reports produced in complying with the Regulations
- ✚ Ensuring that the relevant authority has access to all information
- ✚ Public participation process

The contact details of the independent Environmental Assessment Practitioner are as follows:

Name : K2M Environmental (Pty) Ltd  
Contact Person : Mr Gert Watson  
Telephone : 031 – 764 6743  
Fax : 031 – 764 2354  
E-mail : [gert@k2m.co.za](mailto:gert@k2m.co.za)  
Postal Address : PostNet Suite #509, Private Bag X4, Kloof, 3640

## 2 DESCRIPTION OF PROPOSED ACTIVITY

### 2.1 ACTIVITY INTRODUCTION

As outlined in Section 1, the primary purpose of the EIA process is to provide adequate and appropriate information about the potential positive and negative impacts of the proposed development and associated management actions to enable DEDTEA to reach an informed decision in terms of NEMA for the proposed construction of the Hollingswood Integrated Housing Development.

### 2.2 PROJECT LOCATION

The proposed development site is located approximately 4km east of Pietermaritzburg. The project area is situated within Ward 35 of the Msunduzi Local Municipality, which is one of seven local municipalities making up the Umgungundlovu District Municipality of KwaZulu-Natal. The Msunduzi River is adjacent to the eastern boundary of the site and the Lincoln Meade residential suburbs is located to the south of the site.

#### 2.2.1 Geographical co-ordinates

The geographical co-ordinates for the proposed development are illustrated in Table 2.1 below.

**Table 2.1: Geographical co-ordinates**

Latitude /Longitude	Degrees/Minutes/Seconds
South	29° 36' 40.68
East	30° 26' 12.30"

### 2.2.2 Surveyor- General

The 21-digit surveyor general reference number for the properties making up the project area proposed are indicated in Table 2.2 below.

**Table 2.2: 21 Digit Surveyor General Reference Number**

Erf Number	Township	21 Digit Code
Erf 21	New England	NoFT0400000002100000
Erf 294	New England	NoFT04000000029400000
Erf 31	New England	NoFT0400000003100000
Erf 19	New England	NoFT0400000001900000
Erf 18	New England	NoFT0400000001800000
Erf 53	Hollingwood	NoFT01450000005300000
Erf 52	Hollingwood	NoFT01450000005200000
Erf 51	Hollingwood	NoFT01450000005100000
Erf 50	Hollingwood	NoFT01450000005000000
Erf 49	Hollingwood	NoFT01450000004900000
Erf 48	Hollingwood	NoFT01450000004800000
Erf 47	Hollingwood	NoFT01450000004700000
Erf 46	Hollingwood	NoFT01450000004600000
Erf 45	Hollingwood	NoFT01450000004500000
Erf 44	Hollingwood	NoFT01450000004400000
Erf 43	Hollingwood	NoFT01450000004300000
Erf 42	Hollingwood	NoFT01450000004200000
Erf 41	Hollingwood	NoFT01450000004100000
Erf 40	Hollingwood	NoFT01450000004000000
Portion of the Remaining Extent of Erf 1853	Pietermaritzburg	NoFT02580000185300000

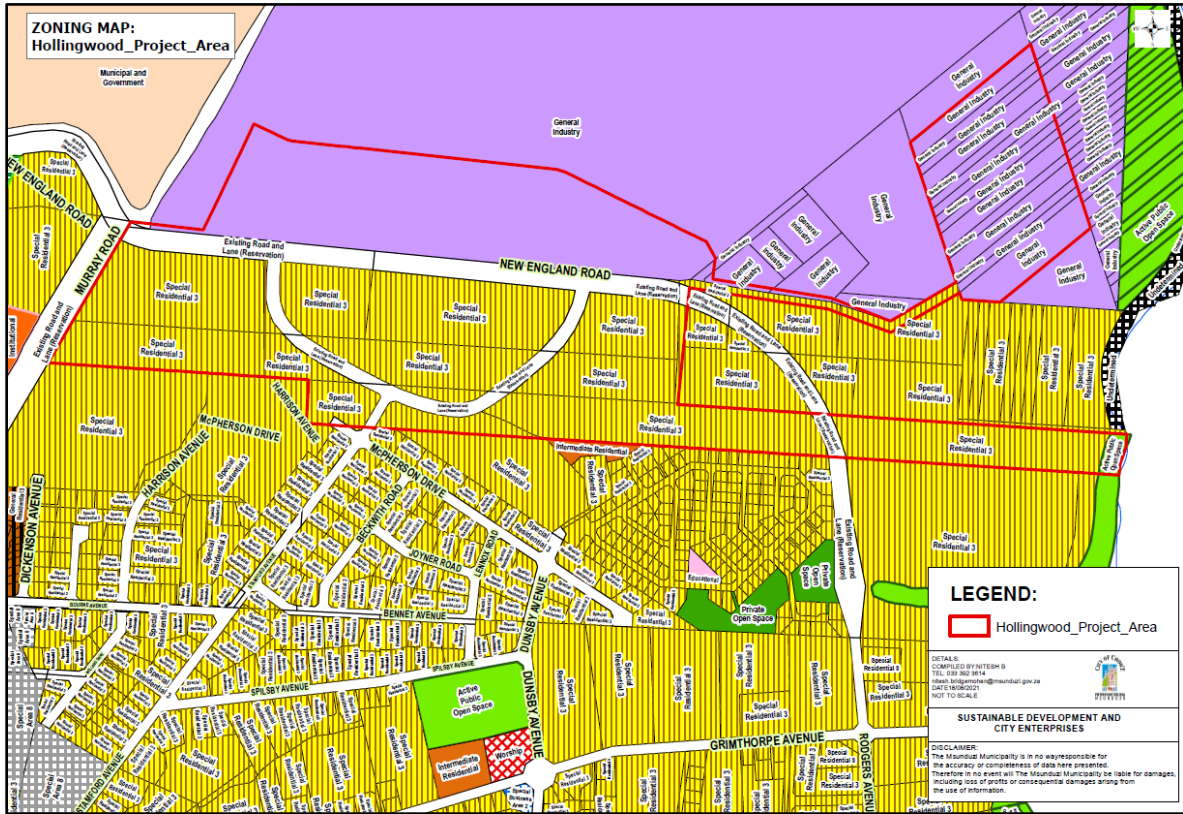
### 2.2.3 Zoning of Property (LUMS)

The zoning of the properties that make up the project area, as per the Msunduzi Land Use Scheme 2018, is tabulated in Table 2.3 below and is graphically depicted in Figure 2.1 below.

**Table 2.3: Zoning of Property**

Erf Number	Township	Zoning
Erf 21	New England	Special Residential 3 and Existing Road and Land (Reservation)
Erf 294	New England	Existing Road and Land (Reservation)
Erf 31	New England	Special Residential 3 and Existing Road and Land (Reservation)
Erf 19	New England	Special Residential 3 and Existing Road and Land (Reservation)
Erf 18	New England	Special Residential 3 and Existing Road and Land (Reservation)
Portion of the Remaining Extent of Erf 1853	Pietermaritzburg	General Industry
Erf 53	Hollingwood	General Industry
Erf 52	Hollingwood	General Industry
Erf 51	Hollingwood	General Industry
Erf 50	Hollingwood	General Industry
Erf 49	Hollingwood	General Industry
Erf 48	Hollingwood	General Industry
Erf 47	Hollingwood	General Industry
Erf 46	Hollingwood	General Industry
Erf 45	Hollingwood	General Industry
Erf 44	Hollingwood	General Industry
Erf 43	Hollingwood	General Industry
Erf 42	Hollingwood	General Industry
Erf 41	Hollingwood	General Industry
Erf 40	Hollingwood	General Industry

Figure 2.1: Msunduzi Land Use Scheme, 2018



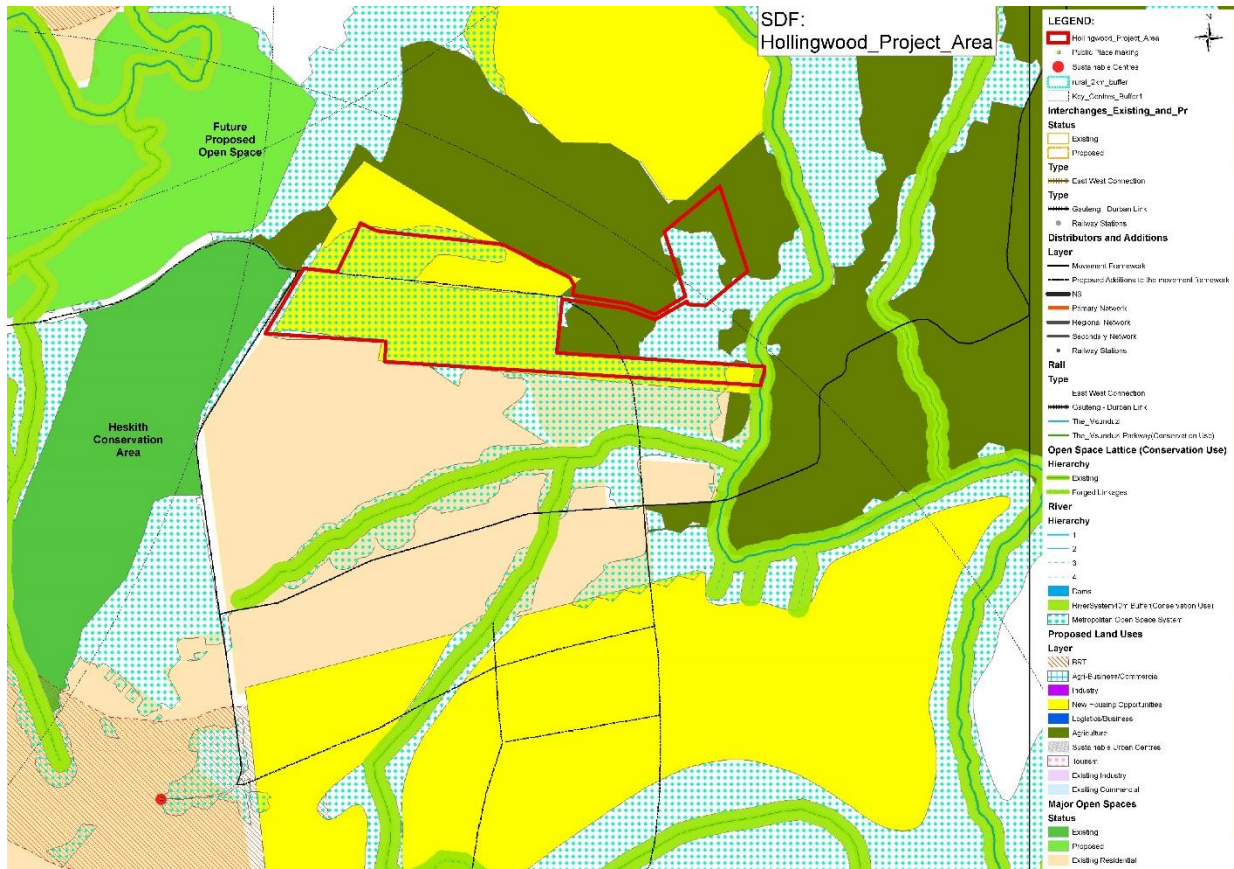
Source: Msunduzi Local Municipality, 2021

### 2.2.4 Municipal Spatial Development Framework

As per the Municipal SDF, the proposed land uses for the site include “New Housing Opportunities and “Agriculture”. The site also contains MOSS (Metropolitan Open Space System) as per the SDF. The site also contains Metropolitan Open Space System. Figure 2.2 below illustrates the project area and the proposed Municipal SDF land uses.



Figure 2.2: Municipal SDF



Source: Msunduzi Local Municipality, 2021

## 2.3 ACTIVITY DESCRIPTION

### 2.3.1 Extent of development

The properties making up the project area has a total extent of approximately 60.26 hectares with a development footprint of approximately 59.58 hectares. The draft development layout was prepared by K2M Technologies in March 2021 and is attached as **Appendix C** and depicted in Figure 2.2 below. The area of each of the proposed land uses are tabulated in Table 2.5 below.

**Table 2.4: Proposed Land Uses**

Land Use	Erven	Units	Area (Ha)	Percentage (%)
Active Open Space	7	N/A	0.44	0.72%
Conservation Area	1	N/A	0.28	0.46%
Creche	2	N/A	0.12	0.20%
Education	1	N/A	2.92	4.84%
BNG Housing	570	570	16.74	27.77%
GAP Housing	245	245	12.05	19.98%
Serviced Sites	256	262	12.14	20.13%
Road Network	43	N/A	15.44	25.61%
Worship	2	N/A	0.17	0.28%
<b>Total</b>	<b>1127</b>	<b>1077</b>	<b>60.30</b>	<b>100%</b>

### 2.3.2 Description of the proposed activity

The Proposed Hollingwood Integrated Housing Development has been initiated by the Msunduzi Local Municipality together with the Department of Human Settlements. The proposed project area is approximately 60.25 hectares and is a Greenfield development located within Ward 35 of the Msunduzi Local Municipality. The proposed Hollingwood Integrated Housing Development will entail the removal of indigenous vegetation for the construction of the following:

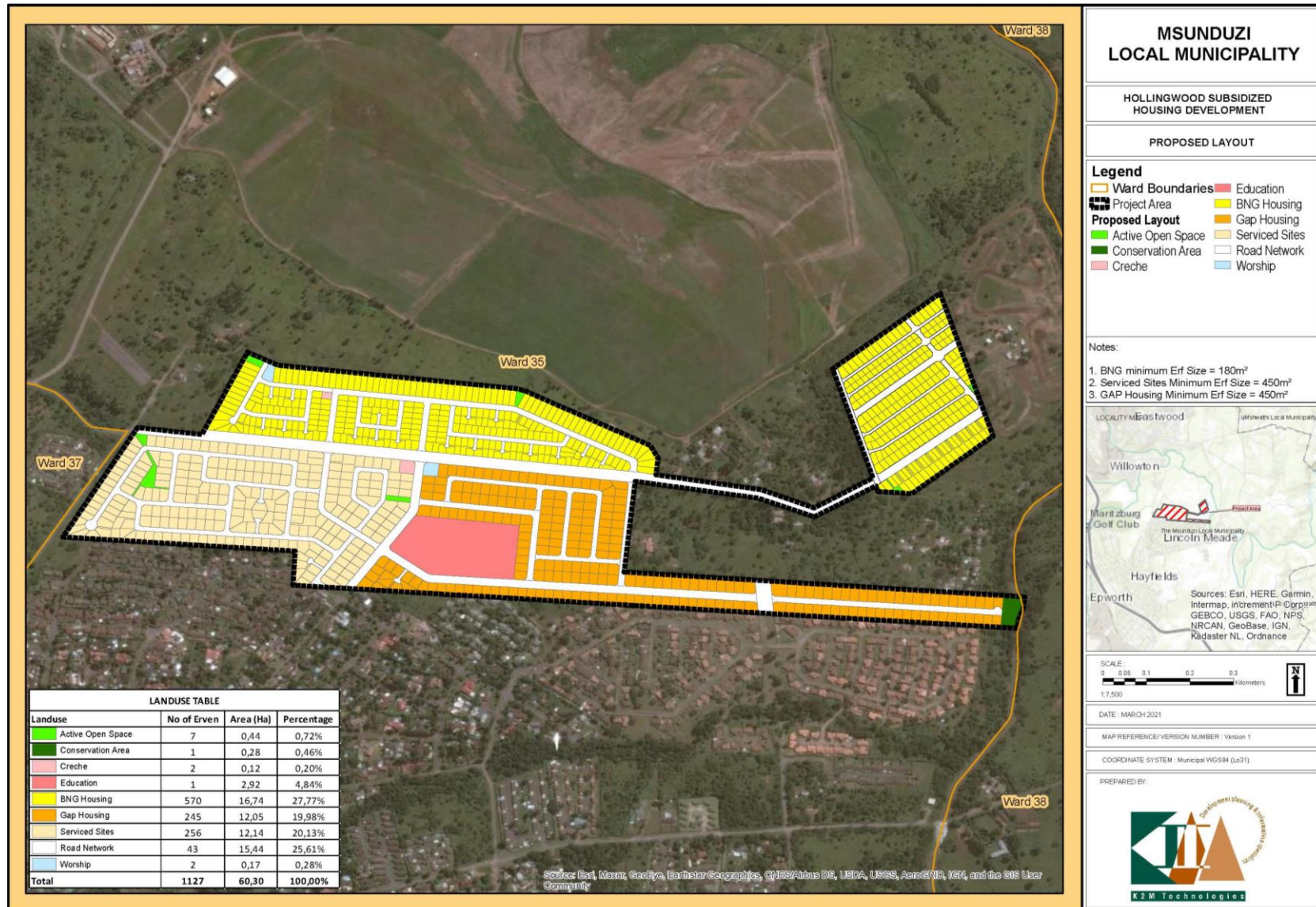
- Approximately 570 Breaking New Ground (BNG) Housing Units**

BNG Housing is government subsidy housing that will be built by the government and given to qualifying beneficiaries (low -income families).
- Approximately 245 GAP Housing Units**

Gap housing is aimed at households that fall into an income bracket too high to qualify for a subsidised house and too low to afford a mortgaged property bought on the open market. Households earning between R3 501 and R15 000 a month are eligible for GAP housing.

- **Approximately 256 Serviced Sites**  
Serviced Sites are vacant plot of land that contain the necessary infrastructure for services such as water, sewage and electricity. These sites are ready for construction of a top structure upon purchase by the beneficiary.
- **Installation of pipelines for the transportation of water supply and waterborne sewage** (design and specifications of infrastructure will be confirmed during the EIA Process)
- **Construction of internal roads and stormwater infrastructure** (design and specifications of infrastructure will be confirmed during the EIA Process)
- Erven will be set aside for active open space, conservation, creche, education and worship land uses.

Figure 2.3: Draft Development Layout





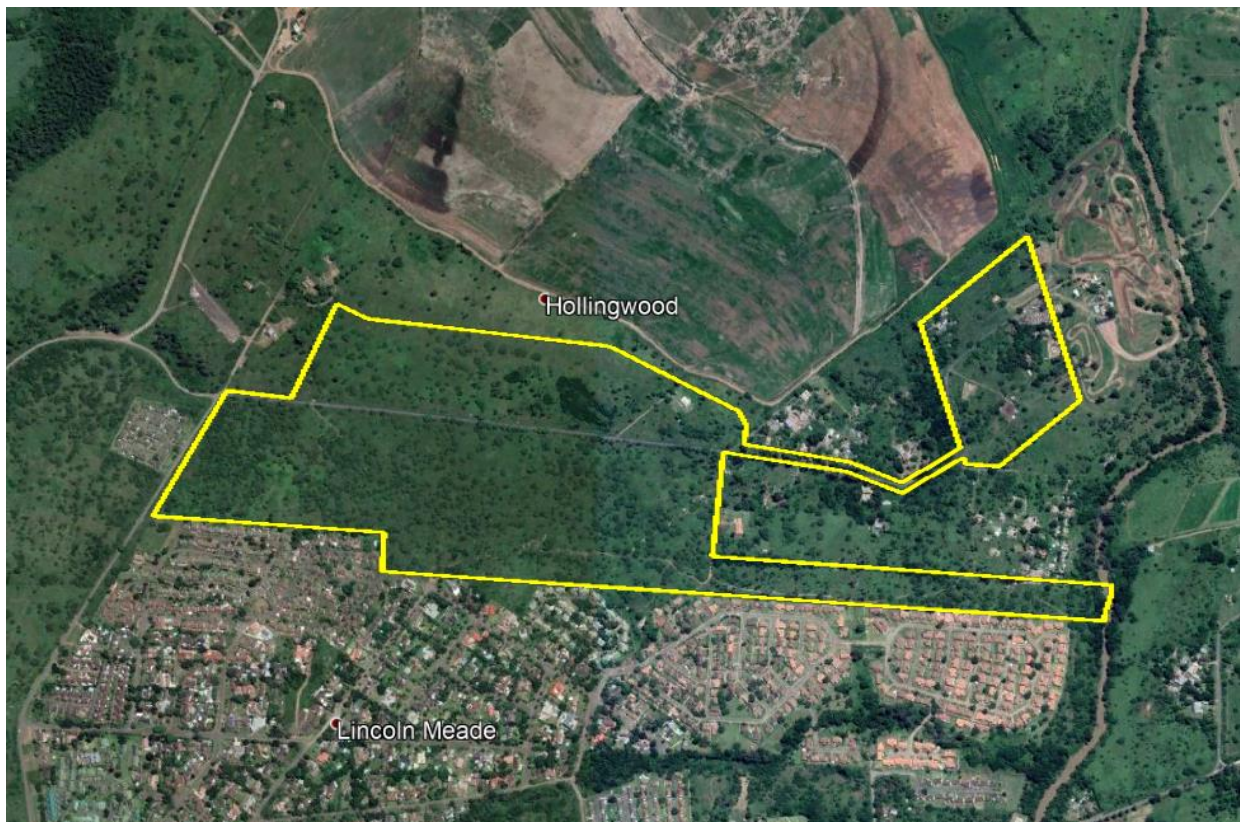
### 2.3.3 Access to the proposed development

Travel on the N3 towards Pietermaritzburg and take exit 77 towards R56/New England Road. Turn right onto New England Road/R56 and continue on the same road. Go through the roundabout and take the first exit and then continue on the New England Road which will take you straight to the site after approximately 1.8m.

### 2.3.4 Existing/Current Situation

As depicted in Figure 2.4, majority of the site is currently vacant with a few scattered informal structures located in the eastern portion of the site. The Msunduzi River is adjacent to the eastern site boundary.

**Figure 2.4: Existing Situation and Surrounding Land Uses**



Source: Google Earth, 2021

### 2.3.5 Project phasing and construction program

The construction of the project is scheduled to commence as soon as all the processes to comply with applicable legislation are completed.

## 2.4 CONSIDERATION OF ALTERNATIVES

The identification and consideration of alternatives is recognised as required practice in environmental assessment procedures globally. The 2014 EIA Regulations (as amended) requires that alternatives be considered during the EIA process. The Scoping phase therefore screens alternatives to derive a list of reasonable and feasible alternatives that needs to be assessed in further detail during the EIA phase.

Alternatives are seen as different means of meeting the general purpose and need of a proposed activity. Alternatives could include, amongst others, the following:

- Activity Alternatives: This requires a change in the nature of the proposed activity. This alternative is most appropriate at a strategic decision-making level.
- Location Alternatives: Alternative locations for the entire project proposal, or for components of the project proposal.
- Layout Alternatives: This alternative allows different spatial configurations of an activity on a specific site.
- Scheduling Alternatives: Also refer to alternative phasing options for the development. This alternative considers different phasing options during the implementation of the development.
- Infrastructure/ Input Alternatives: Also referred to as technological or equipment alternatives. This option considers various alternatives that will result in the same end result.

Layout and Infrastructure (technology) alternatives are the most pertinent to this EIA process, however all the above-mentioned alternatives are briefly explored in the subsections below as well as the alternative of maintaining the status quo, commonly known as the “no-go” option.

#### 2.4.1 Activity alternatives

Activity alternatives refer to the consideration of alternatives requiring a change in the nature of the proposed activity to be undertaken. Due to the high demand for formal housing within the Msunduzi Local Municipality, the preferred activity is to construct housing units, together with supporting facilities and infrastructure (such as water and sewerage pipelines). Should the preferred activity not be granted, the housing demand will remain high within the municipality. One alternative is to leave the site vacant, however this would not be feasible as it will leave the site vulnerable to illegal occupancy, land invasions and dumping.

#### 2.4.2 Location alternatives

The location for the proposed Hollingwood Integrated Housing Development has been identified by the Msunduzi Local Municipality (Applicant) as it is a municipal project which is funded by the Department of Human Settlements. Location alternatives will be discussed in detail in the EIR.

#### 2.4.3 Layout Alternatives

The layout alternatives will be investigated in detail in the EIR. However, a draft conceptual layout has been included as **Appendix C**.

#### 2.4.4 Scheduling alternatives

The detailed time frame for implementation and completion of the proposed residential development is not currently available. However, given the housing backlog within the Msunduzi Local Municipality, it is anticipated that construction will commence as soon as approval of necessary statutory processes and authorizations (including environmental authorization) is obtained. No scheduling alternatives were therefore considered.



#### 2.4.5 Input alternatives

Various types of materials can potentially be utilized during the construction phase of the project for both infrastructure and top structure purposes. This may include different material types (e.g. brick types, roof types and furnishings). Details regarding material and appearance of individual housing structures are thus not currently available during the planning phase.

#### 2.4.6 Infrastructure alternatives

Infrastructure related alternatives will be considered during the EIR phase of the project. The subsections below summarises the various options to be considered in terms of sanitation.

##### 2.4.6.1 Sanitation

For the purposes of this project two potential sanitation levels of services will be considered, such as:

- Onsite septic tanks, or
- Waterborne sewage system

A brief description has been provided.

##### **Onsite Septic Tanks (Alternative Option)**

The option of an onsite septic tank to treat sewage on site was considered as an option. However, the disadvantage of a septic system is that it poses the risk of ground water contamination especially at the density proposed on the draft conceptual layout plan. Furthermore, once the tank has reached the end of its life cycle the sludge needs to be pumped out or a new system needs to be constructed.

##### **Waterborne Sewage System (Preferred Option)**

Just as 'the in-home connection is viewed as the ultimate goal for water supply planners, utilities and households, the private sewer connection represents the highest level of service for household sanitation. Waste moves from the household toilet into sewers laid underground, then is discharged into a treatment facility and thereafter to the environment and classified as stream save.

The preferred option in terms of sanitation will be that of waterborne sewerage connected to the Darville Waste Water Treatment Works. Consultation with Umgeni Water will be undertaken to ensure that the Darville WWTW would still be able to accommodate for the effluent as indicated from earlier

correspondance. The Darville WWTW is presently being upgraded to increase its current capacity from 65MI/day to 100 MI/day (peak flow capacity 120MI/day).

#### 2.4.6.2 Housing Structure

Due to the nature of the proposed project being an integrated housing development, there are different housing typologies that are being proposed as part of this development, namely: Gap Housing, Breaking New Ground (BNG) Housing, Serviced sites.

#### 2.4.7 “No-go” alternative

The “no-go” alternative should in all instances be considered as part of the EIA process. It assumes that the activity does not proceed, implying a continuation of the current situation of status quo. Should this development not go through, the following will apply:

- The housing demand will remain the same within the municipality.
- The vacant piece of land will be left vulnerable to illegal occupation and dumping.
- Indigenous vegetation will not be removed.
- No soil erosion or pollution.
- Environmentally sensitive areas will be left undisturbed.

## 2.5 MUNICIPAL SERVICES

The development site is located approximately 4km east of Pietermaritzburg within the Msunduzi Local Municipality; as such, certain bulk services to the proposed development will be provided by the Municipality. Kantey and Templer Consulting Engineers (Pty) Ltd had undertaken the Bulk and Internal Services Engineering Report for the previous application. The report will be revised and be included in the EIR.

This section of the report briefly summarises the specific services currently being considered for the development site, as well as the implications for the development proposal as advised by the respective consulting engineers.

## 2.5.1 Water Supply Infrastructure

Guidelines issued by the Department of Water and Sanitation allow for a water usage of 60l/person/day. However, the figure of 650l per unit per day was used for the Bulk and Internal Services Engineering Report.

### 2.5.1.1 Bulk Water Supply

Kantey and Templer (Pty) Ltd have been informed by the Water Authority that there is insufficient capacity at the existing Reservoir (off Gladys Manazi Road just to the South of Murray Road) to supply the proposed project and thus a new reservoir would need to be constructed to accommodate the project.

Bulk water from the new reservoir will need to be supplied from a new gravity bulk water supply line. The supply line will be approximately 3.1km long and comprise of 160mm diameter PVC Pipe. The internal reticulation water network which will be funded by the Department of Human Settlements Project and will tie into this new bulk supply line on the western boundary of the project.

## 2.5.2 Sanitation Infrastructure

### 2.5.2.1 Bulk Sewage

Due to the topography of the site and the valley line in the north, the project would require two new pump stations to be constructed. The pump stations will pump the effluent via a new rising main and discharge into an existing outfall sewer which will gravitate to the existing Darville Waste Treatment Works.

## 2.5.3 Roads and Stormwater

### 2.5.3.1 Roads

Access to the site can be obtained through the New England Road that links the Hollingswood project area with the N3 National Road. The N3 is situated approximately 2.7km west of the project area. The north-eastern section of the project area is linked to the southern section through a local access road from the New

England Road. A Traffic Impact Assessment for the proposed development will be undertaken and included in the Environmental Impact Report.

The New England Road will serve as the collector road with a width of 20m and the proposed access roads will have a width of 13m. The proposed collector road provides access to the project area through the southern section.

### 2.5.3.2 Stormwater

The traditional design of storm water drainage systems has been to collect and convey storm water runoff as rapidly as possible to a suitable location where it can be discharged. This traditional design can however result in drainage and flooding problems downstream.

The objective of a storm water management plan should be to manage the storm water resources of the collective watersheds to:

- Prevent flood damage
- Preserve the natural and beneficial functions of the natural drainage system
- Preserve and enhance storm water quality

Local on-site detention, grass-lined swales, storm water infiltration systems undulations, landscaping etc. can all be utilized, individually or in combination to attenuate peak flood discharges to the required peak discharge rate and to improve storm water quality.

The proposed storm water management strategy will be to manage and collect storm water and surface runoff, from the residential properties, pass it through a detention tank/structure system before discharging the water into the onsite natural drainage systems.

A Stormwater Management Plan will be undertaken and included into the EIR.

#### 2.5.4 Electricity

The Msunduzi Municipality is the services authority that is responsible for the planning, supply and network distribution of electricity within the proposed development area. The provision of any future electricity supply, area lighting and metered reticulation to the proposed housing development will rest with Eskom who are the Services Authority responsible for the planning, supply and network distribution for the area.

#### 2.5.5 Solid Waste Removal

The Msunduzi Local Municipality is the services authority responsible for the planning and operationalization of a functional solid waste removal and disposal system/service within the proposed development area. Depending on circumstances at the time when the services will be required, the Local Authority may consider sub-contracting the collection and removal of solid waste out to a private Contractor. As far as the available land fill sites are concerned, this is an element that is continually being reviewed and managed by the Local Municipality together with their appointed Services Provider in order to ensure that this service can be provided on a sustainable basis.

### 2.6 PROJECT PHASING AND CONSTRUCTION PROGRAM

The construction of the project is scheduled to commence as soon as all the processes to comply with applicable legislation are completed and will be undertaken in one phase.

### 2.7 NEED AND DESIRABILITY

The implementation of the housing development will assist in reducing the housing backlog within the municipality as well mitigate the establishment of potential informal settlements. Table 2.7 below was adapted from the 2014 BAR Template of the Department of Environmental Affairs. This table was inserted to motivate for the need and desirability of the proposed development.

**Table 2.5: Needs and Desirability**

<b>1. Is the activity permitted in terms of the property's existing land use rights?</b>	YES	
The proposed development is permitted in terms of the existing land use rights as majority of the properties making up the project area are zoned as special residential 3.		
<b>2. Will the activity be in line with the following?</b>		
<b>(a) Provincial Spatial Development Framework (PSDF)</b>	YES	
The proposed development addresses two spatial principles, namely the Principal of Sustainable Communities and the Principal of Spatial Concentration. The proposed development will provide approximately 1071 residential opportunities together with supporting infrastructure such as water and sanitation.		
<b>(b) Urban edge / Edge of Built environment for the area</b>	YES	
The proposed development is adjacent to the existing Lincoln Mede suburb which is located to the south of the site.		
<b>(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).</b>	YES	
The Municipal IDP indicated that the Hollingwood Project is pending withdrawal from the IDP due to environmental constraints. It should however be noted that the project area boundary has since being amended to exclude the northern portion, which was proposed in the 2019 application, to enable expansion of the sludge disposal area. In addition to this the Tier 2 Detailed Toxicological Assessment (Human Health and Ecological Risk Evaluation) indicated that there is no risk to human health of future residents of the proposed development. Furthermore, the proposed project will form a portion of the Lincoln Meade Project. The Municipal SDF has identified the site for proposed new housing opportunities and agriculture.		
<b>(d) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)</b>		NO
As per the Msunduzi Environmental Management Framework (EMF), majority of the site has been identified as an area with high biodiversity constraint and a small eastern portion of the site was identified as having a high wetland development constraint. This will however be confirmed and further investigated by specialist studies which will be discussed in the EIR.		
<b>3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?</b>	YES	
Please see above (2c).		
<b>4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)?</b>	YES	
The implementation of the housing development will assist in reducing the establishment of informal settlements and housing backlog within the municipality. The proposed development will also include the construction of water networks and proper sanitation infrastructure.		
<b>5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development?</b>		NO
The site is currently vacant and will need to be provided with adequate services. This will be assessed as part of the updated Engineering Services Report and will be addressed in the EIR.		

<p><b>6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)?</b></p>	<p>YES</p>	
<p>The Municipal IDP indicated that the Hollingwood Project is pending withdrawal from the IDP due to environmental constraints. It should however be noted that the project area boundary has since being amended to exclude the northern portion, which was proposed in the 2019 application, to enable expansion of the sludge disposal area. In addition to this the Tier 2 Detailed Toxicological Assessment (Human Health and Ecological Risk Evaluation) indicated that there is no risk to human health of future residents of the proposed development. Furthermore, the proposed project will form a portion of the Lincoln Meade Project.</p>		
<p><b>7. Is this project part of a national programme to address an issue of national concern or importance?</b></p>	<p>YES</p>	
<p>Throughout the country, there are many people who lack proper housing structures and access to basic services. There is a huge housing backlog and the Department of Human Settlements are attempting to reduce this by funding subsidised housing developments. The implementation of this housing development will assist in reducing the housing backlog within the municipality as well as in the country as a whole.</p>		
<p><b>8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)</b></p>	<p>YES</p>	
<p>The proposed site is currently vacant. Furthermore, the proposed development lies approximately 4km east of Pietermaritzburg, which means that individuals can seek employment in the CBD or surrounding areas.</p> <p>It should be noted that the proposed site is adjacent to the Darville Sludge Disposal area to the north. However, as per the findings from the Tier 2 Detailed Toxicological Assessment (Human Health and Ecological Risk Evaluation), there is no risk to human health for future residents of the proposed development. However, this will be discussed in further detail in the EIR.</p>		
<p><b>9. Will the benefits of the proposed land use/development outweigh the negative impacts of it?</b></p>	<p>YES</p>	
<p>The purpose of this development is to address the municipality's housing backlog. This will contribute positively to the communities and the municipality.</p>		
<p><b>10. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?</b></p>	<p>YES</p>	
<p>There are many other proposed housing developments in the municipality.</p>		
<p><b>11. Will any person's rights be negatively affected by the proposed activity/ies?</b></p>		<p>NO</p>
<p>This development will not infringe on any person's rights, as the proposed development will entail the construction of various housing typologies such as BNG, GAP and serviced sites.</p>		

**12. What will the benefits be to society in general and to the local communities?**

- Access to municipal services such as water and sanitation
- Provision of formal housings to suitable beneficiaries
- Optimal development of the site
- Provision of educational facilities
- Job creation during the construction phase
- Prevent illegal occupation of the land which will affect the surrounding communities
- Prevention of illegal dumping

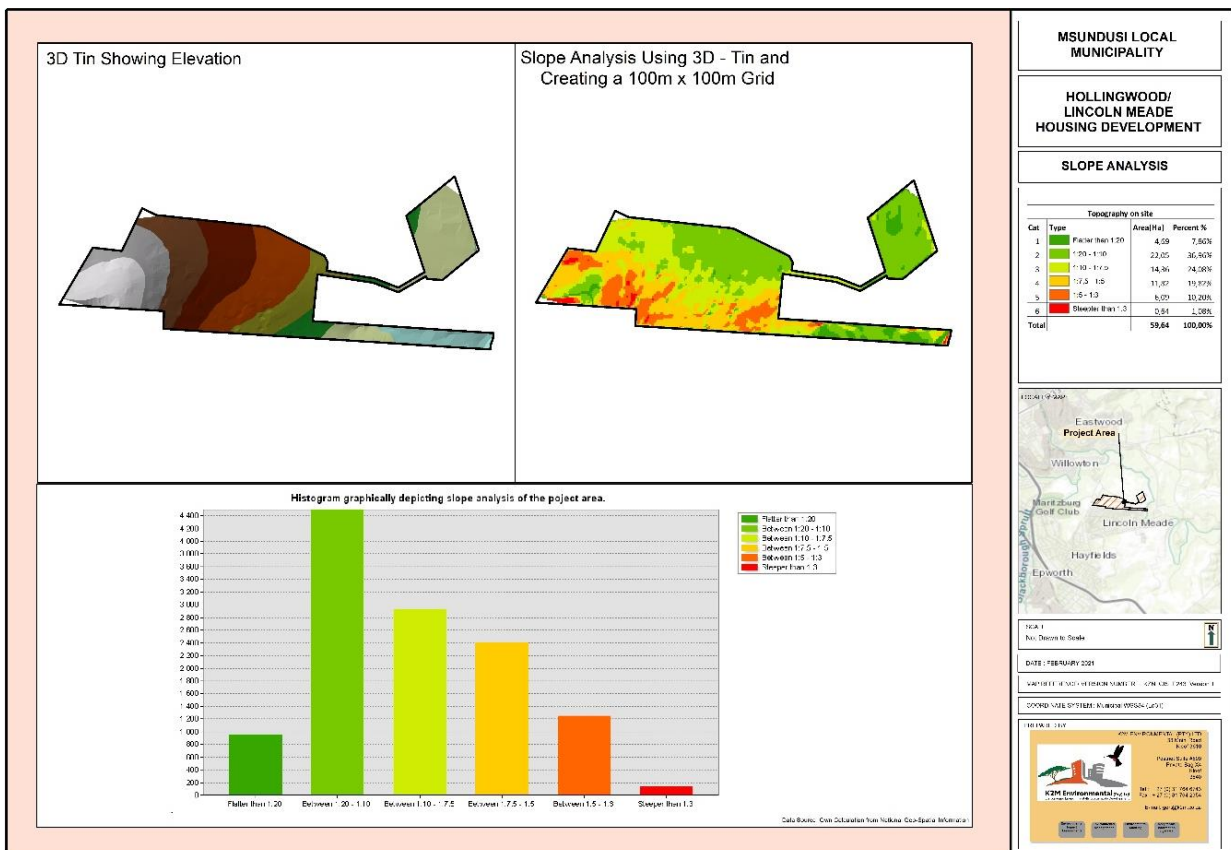


### 3 SITUATION ASSESSMENT OF PROJECT AREA AND AFFECTED ENVIRONMENT

#### 3.1 PHYSICAL AND LANDSCAPE CHARACTERISTICS OF THE SITE

The overall topography of the study area is graphically depicted in Figure 3.1 below. The slope analysis study indicates that the majority of the project area (36.96%) is characterized by slopes “Between 1:20 – 1:10”, 24.08% of the area’s topography has a slope character “Between 1:10 – 1:7.5” and 19.82% has a slope character “Between 1:7.5 – 1:5” while 10.20% has a slope of “Between 1:5 – 1:3”.

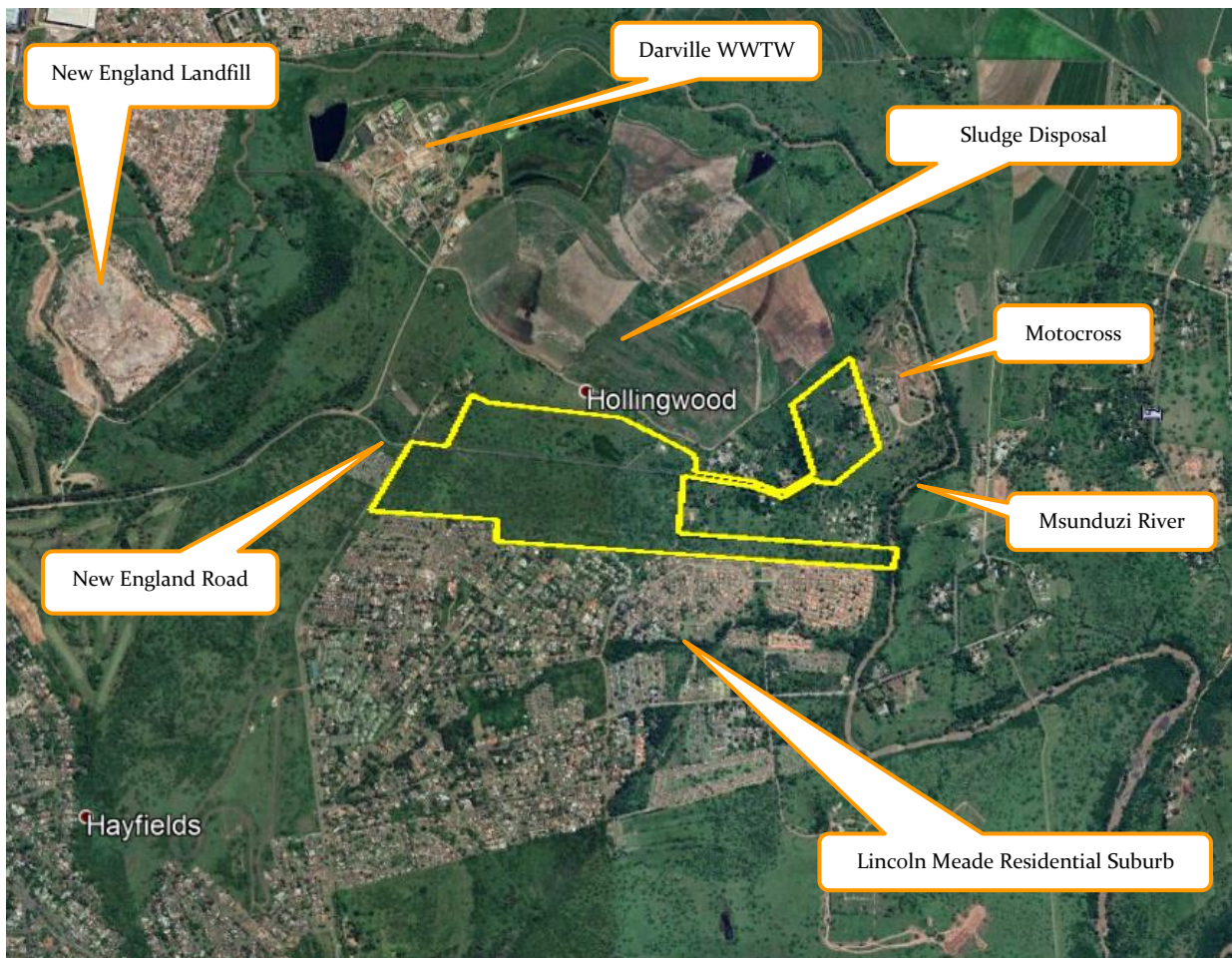
Figure 3.1: Slope Analysis



### 3.2 SURROUNDING LAND USE

As illustrated in Figure 3.2 below, the proposed site is adjacent to the Lincoln Meade Residential Suburb to the south, the Motocross track (dirt bike and quad bikes) to the northeast, the sludge disposal area to the north. The Msunduzi River is adjacent to the eastern site boundary.

**Figure 3.2: Surrounding Land Use**



Source: Google, 2021

### 3.3 PHOTOGRAPHIC OVERVIEW OF SITE



### 3.4 BIOPHYSICAL ENVIRONMENT

#### 3.4.1 Environmental Site Assessment and Quantitative Health Risk Assessment

A Tier 1 Environmental Site Assessment and Quantitative Health Risk Assessment was undertaken as part of the previous application for the proposed development due to its proximity to the Darville Waste Water Treatment Works. The Environmental Site Assessment and Health Risk Assessment, which was conducted by Geomeasure Group in 2016, indicated that there is a potential human health risk for both the current land use and for the proposed residential development. It was therefore recommended that the findings of the site investigations and results of the sample analysis be utilised to undertake a more detailed Tier 2 Detailed Toxicological Assessment (Human Health and Ecological Risk Evaluation) of the potential impacts of

compounds of concern identified by this assessment on the human health, prior to further assessments/investigations for the proposed development being undertaken. The Tier 2 Detailed Toxicological Assessment (Human Health and Ecological Risk Evaluation) was undertaken by Infotox (Pty) Ltd in 2020 and the findings from the assessment indicated that there is no risk to human health for future residents of the proposed development. The Tier 2 Detailed Toxicological Assessment (Human Health and Ecological Risk Evaluation) will be discussed in detail in the Environmental Impact Report.

### 3.4.2 Fauna and Flora

#### 3.4.2.1 Msunduzi Environmental Management Framework

As per the Msunduzi Environmental Management Framework (EMF), majority of the site has been identified as an area with high biodiversity constraint and a small eastern portion of the site was identified as having a high wetland development constraint. The Msunduzi EMF states that prior to development commencing, biodiversity resources on-site should be identified and the impact of the proposed development on these resources must be assessed.

**Figure 3.3: Msunduzi Environmental Management Framework**

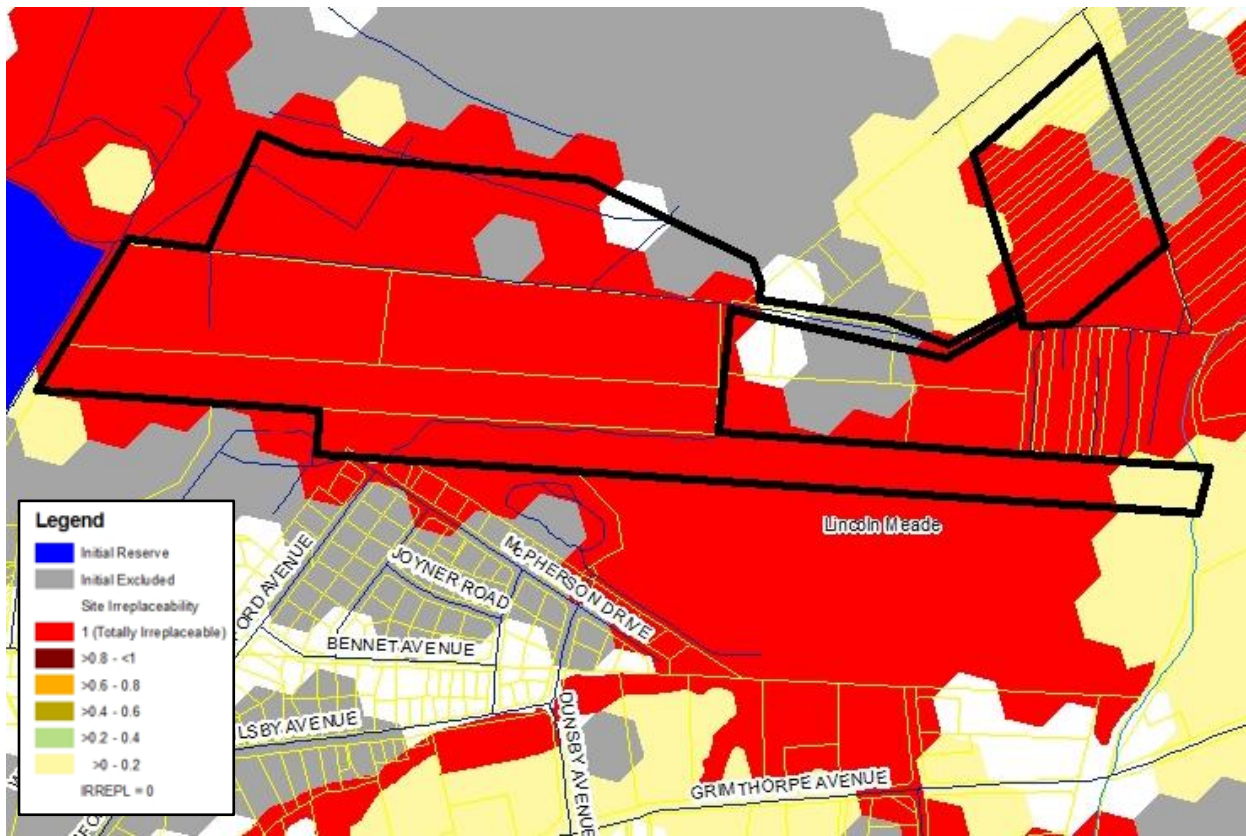


Source: Msunduzi Local Municipality

### 3.4.2.2 Msunduzi Conservation Plan and Ecosystem Services Plan (ESP)

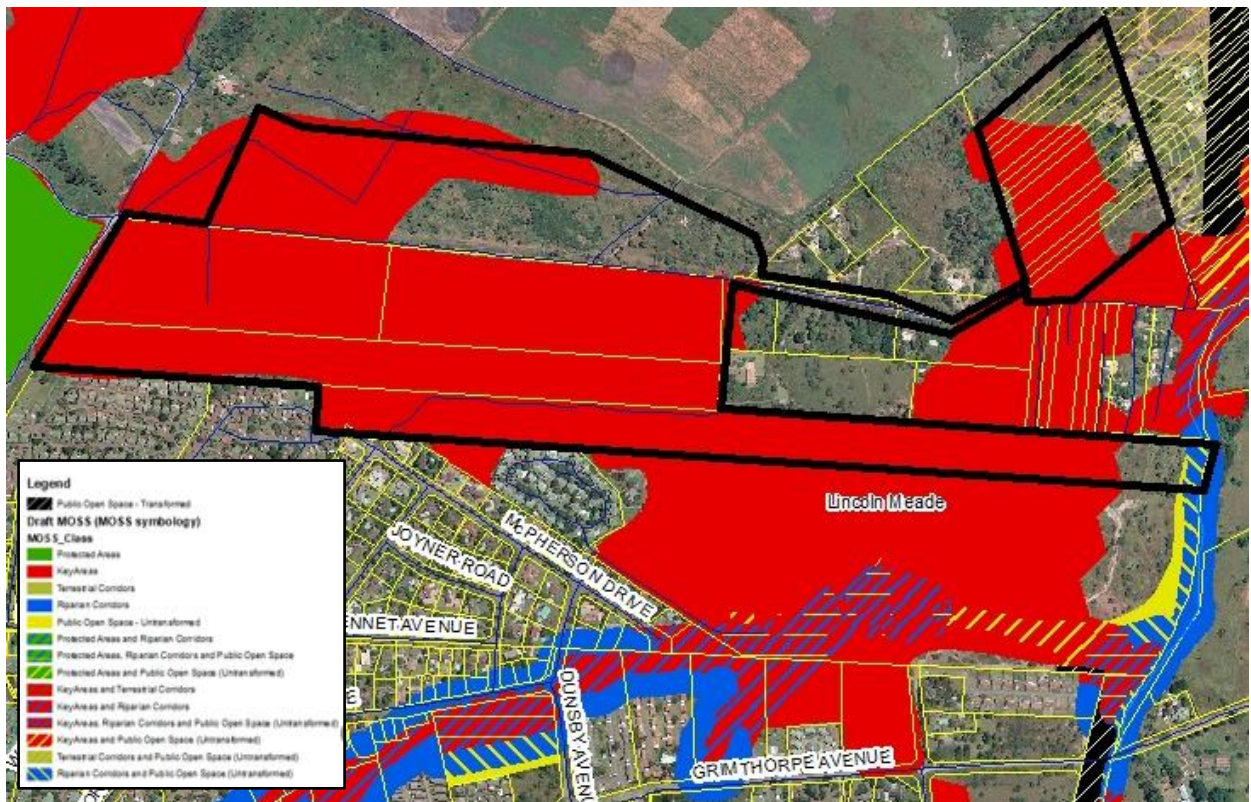
As illustrated in Figure 3.4, majority of the site is regarded as being totally irreplaceable as the Municipal C-plan. The ESP identifies the proposed site as key areas and a small portion as Riparian and Public Open Space (see Figure 3.5).

**Figure 3.4: Msunduzi C-plan**



Source: Msunduzi Municipality

**Figure 3.5: Msunduzi Ecosystem Services Plan**



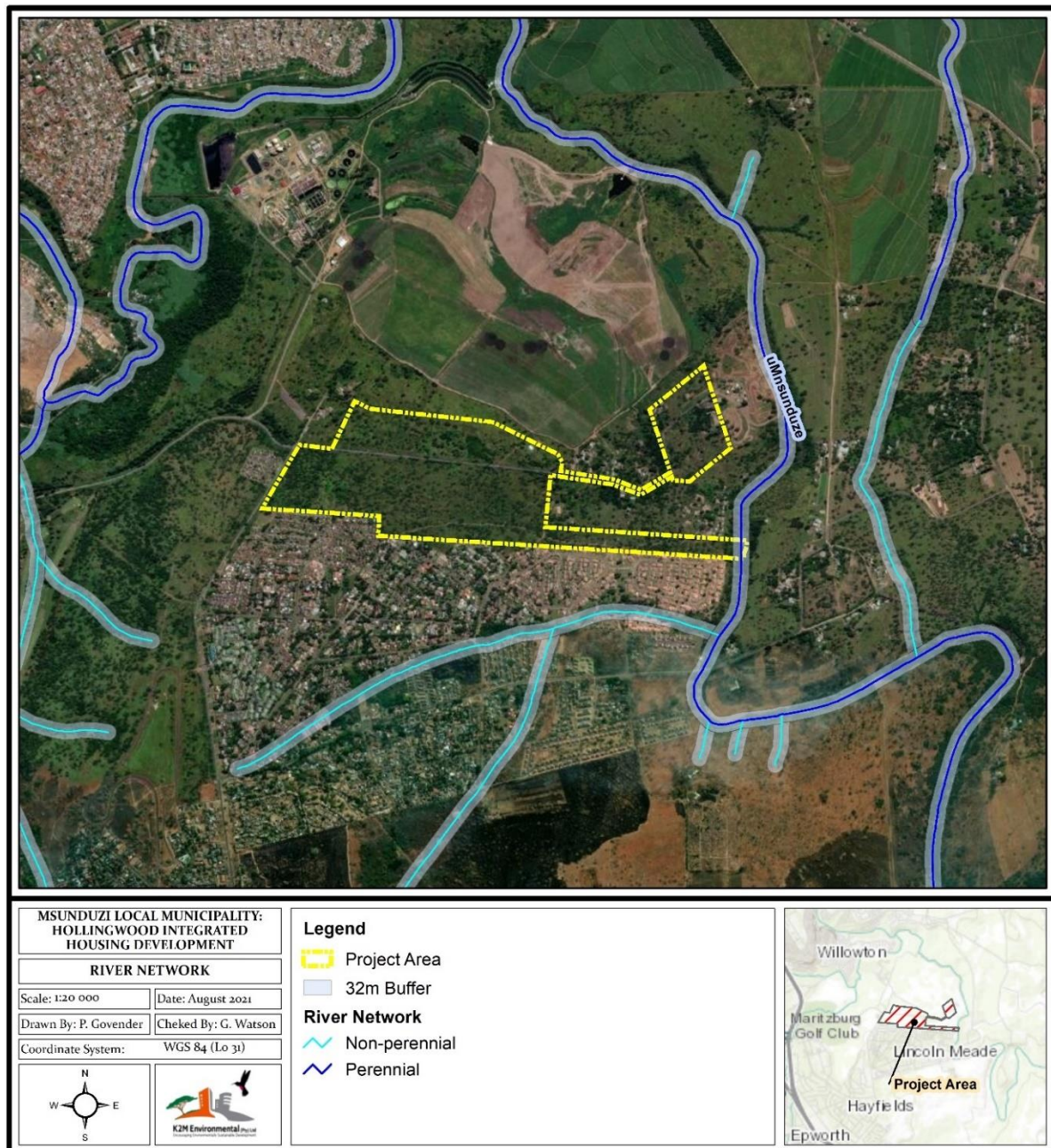
Source: Msunduzi Municipality

It should be noted that a Faunal, Vegetation and Wetland Assessment was undertaken by Afzelia Environmental Consultants as part of the previous application. These reports will be updated and include in the EIR.

### 3.4.3 Floodline and Drainage

As illustrated in Map 3.1 below, the Msunduzi River forms the eastern boundary of the southern section of the project area. An Aquatic Assessment was undertaken in 2015 by The Biodiversity Company. This report will be updated and discussed in the EIR.

**Map 3.1: River Network**



#### 3.4.4 Wetland System

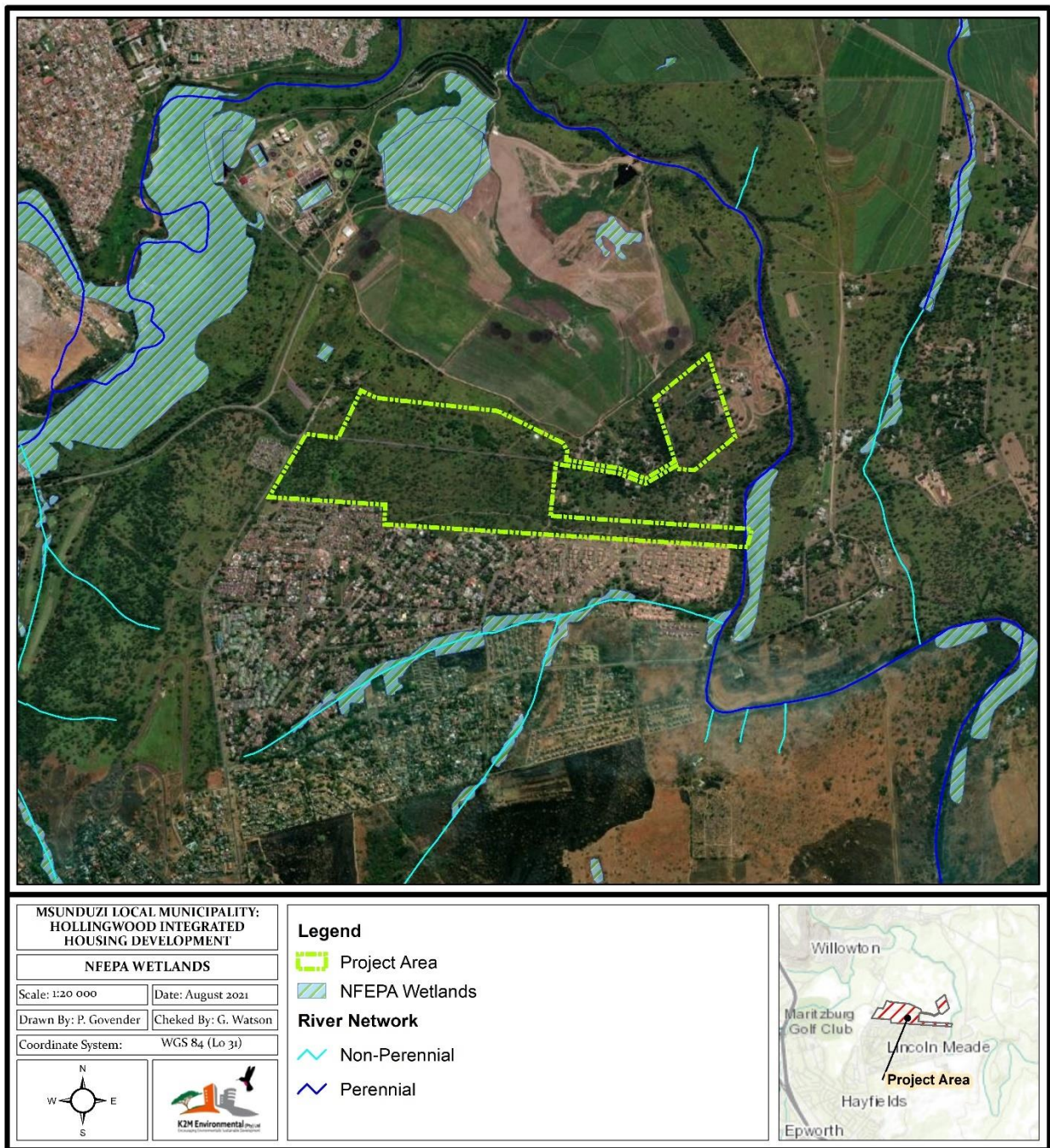
Freshwater Ecosystem Protected Areas (FEPA's) according to the Water Research Council are strategic spatial priorities for conserving freshwater ecosystems and supporting sustainable use of water resources. Freshwater ecosystems refer to all inland water bodies whether fresh or saline, including rivers, lakes, wetlands, sub-surface waters and estuaries. FEPAs are often tributaries and wetlands that support hard-working large rivers and are an essential part of an equitable and sustainable water resource strategy. FEPAs need to stay in a good condition to manage and conserve freshwater ecosystems, and to protect water resources for human use (Water Research Council). A FEPA Wetland has been identified in a small eastern portion of the site as indicated in Map 3.2.

Furthermore, as per the Msunduzi Environmental Management Framework (EMF) (Figure 3.3 above), the above-mentioned eastern portion of the project area is located in an area that is considered to have a high wetland development constraint.

A Wetland Delineation and Functional Assessment Report was undertaken by Afzelia Environmental Consultants which will need to be updated. A copy of the report will be included as part of the EIR.



**Map 3.2: NFEPA Wetlands**



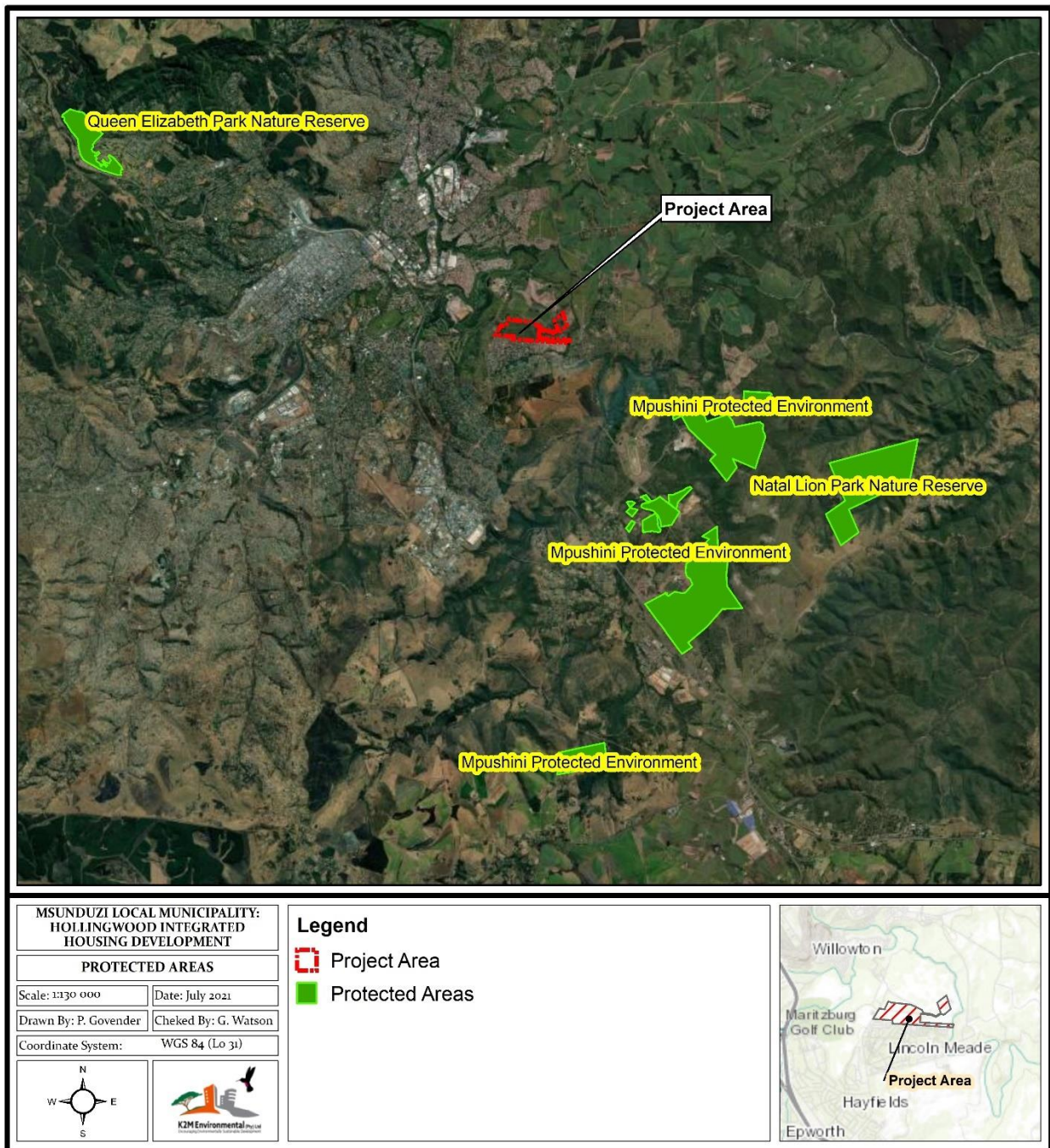
### 3.4.5 Protected Areas

According to the Protected Areas Act (57 of 2003), protected areas are:

- a. special nature reserves, national parks, nature reserves (including wilderness areas) and protected environments;
- b. world heritage sites;
- c. marine protected areas;
- d. specially protected forest areas, forest nature reserves and forest wilderness areas declared in terms of the National Forests Act, 1998 (Act No. 84 of 1998); and
- e. mountain catchment areas declared in terms of the Mountain Catchment Areas Act, 1970 (Act No. 63 of 1970).

As illustrated in Map 3.3, there are no protected areas within the project area. The closest is Mpushini Protected Environment, located approximately 4.5km south east of the project area.

**Map 3.3: Protected Areas**



Source: KZN Wildlife, 2019

### 3.4.6 Geology and Subsoil conditions

A geotechnical investigation of the proposed development area was undertaken by Davies Lynn & Partners (Pty) Ltd in 2014. The site is generally underlain by colluvial soils overlying ferruginised gravel and gravelly clays, which in turn overlie residual soils and bedrock. The bedrock comprises shale of the Pietermaritzburg Formation, which occurs over the western part of the site, and tillite of the Dwyka Formation, occurring over the remainder of the site. The Geotechnical Assessment will be included as part of the Environmental Impact Report.

### 3.4.7 Mineral Deposits

No known mineral deposits were identified within the project area.

### 3.4.8 Archaeological Interest

A Heritage Impact Assessment was conducted by Umlando: Archaeological Surveys and Heritage Management in 2015 and was submitted to KZN AMAFA. Ten heritage sites were noted during the survey and these consisted mostly of houses dating from the 1850s to the 1970s. Three of these houses are red flags and should not be damaged by the proposed development. A large cemetery possibly predating 1937 was recorded outside of the project boundary and was also regarded as a red flag.

The Heritage Impact Assessment was submitted to AMAFA for comments and AMAFA indicated, in their final comment date 2015, that they had no objection to the proposed development, however, should there be removal or disturbance to the landmarks, a permit will be required.

The Heritage Impact Assessment will be revised and included into the EIR.

## 3.5 SOCIO ECONOMIC ENVIRONMENT

Socio-economic figures illustrated below were prepared from the Census 2011 data and present a socio-economic overview of the surrounding communities of the study area. This is largely due to the project being a Greenfield Development.

### 3.5.1 Age Profile

Approximately 25.02% of the total population, of people in the surrounding areas are younger than 19 years, while a total of 23.65% are between the ages of 19 and 34 years. As much as 40% of the population fall into the age category of 35 – 64 years whilst 11.32% are older than the age of 65 years.

### 3.5.2 Gender Profile

According to the 2011 census information as much as 53.06% of the total population of people in the surrounding area is female and 46.9% are male.

### 3.5.3 Education Profile

These following figures illustrate the education levels of persons over the age of 20 years and therefore falling into the economically active categories of the population. The figures suggest relatively high education and literacy levels within the surrounding communities with as much as 46.03% of the population having undergone a form of higher/tertiary education whilst 35.46% of the population completed matric.

### 3.5.4 Employment

These figures illustrate the employment profiles of persons over the age of 20 years and therefore falling into the economically active categories of the population. As much as 92.41% of the active population in the surrounding communities indicated that they are employed, whilst only 5.25% of the economically active population indicated that they were unemployed.

## 3.6 IMPACT OF THE PROPOSED ACTIVITY ON THE ENVIRONMENT

### 3.6.1 Geographical and Physical

The proposed activity has been identified as an area for new housing projects which in turn provides a means to address the housing backlog of municipality. The development will therefore contribute positively to area as it will prevent illegal occupation of the land, prevent the establishment of informal settlements as well as prevent illegal dumping.

### 3.6.2 Biophysical

The Msunduzi River forms the eastern boundary of the project area however no development will occur within 32m of the river. Cognisance will need to be taken of the Msunduzi's strategic documents such as the Municipal Environmental Management Framework as majority of the site was identified as having high biodiversity constraints and a small eastern portion as having high wetland development constraints.

### 3.6.3 Socio-economic

The proposed activity will have both a negative and positive impact in terms of the socio-economic environment. The activity itself will ideally reduce the housing backlog in the Msunduzi Municipality which will reduce the establishment of informal housing and in turn improve the living conditions of those living in informal settlements. It will also contribute to job creation during the construction phase of the development.

Given that this is an integrated housing development, communities from the surrounding areas may not welcome the project. They may feel that the low-income houses will depreciate the value of their homes as well as contribute to criminal activities.

## 3.7 MITIGATION MEASURES

A list of mitigation measures is briefly listed below. Mitigation measures will be addressed in detail in the draft Environmental Management Programme which will accompany the Environmental Impact Report. Specific mitigation measures will be addressed and included into the EIR, once the specialist studies have been undertaken and/or updated accordingly.

### 3.7.1 Cultural and Heritage Aspects

- Before construction starts, all staff must be informed of what possible archaeological, historical or paleontological objects (e.g. tools, human remains, fossils, etc.) of value look like, and must notify the engineer or contractors should such an item be uncovered
- All work should cease immediately if any archaeological, historical or paleontological remains are discovered during development and AMAFA should be notified.

### 3.7.2 Stormwater

- Plan and install appropriate stormwater control measures.
- Increase in storm water run-off resulting from construction activities must be estimated and the drainage system assessed accordingly.
- If vegetation is to be removed, it must be done in phases to ensure that a minimum area of soil is exposed to potential erosion at any one time.
- Temporary cut off drains, grassed or rock-pitched diversion ditches and berms may be required to capture storm-water and promote infiltration or to divert run-off away from exposed soil or construction areas.
- Contractors must not in any way modify nor damage the banks or beds of streams or rivers, wetlands, other open water bodies and drainage lines adjacent to or within the designated area.
- Earth, stone and rubble is to be properly disposed of to prevent obstruction of natural water pathways over the site. These materials must not be placed in storm-water channels, drainage lines or rivers.
- Storm-water outfalls should be designed to reduce flow velocity and avoid stream bank and soil erosion.

### 3.7.3 Ecological Aspects

- No vegetation may be cleared without prior permission from the engineer, ECO, or ecological specialists if required.
- No trees are to be cleared unless they are exotic invaders which must be verified by the ECO.
- All dumping of waste material, especially bricks and contaminated materials or soils, into the environment must be prevented. Solid waste is to be disposed legally off-site in the relevant waste disposal manner.
- Staff should be educated about the sensitivity of faunal species (if any) and measures should be put in place to deal with any species that may be encountered during the construction process.
- The intentional killing of any animals including snakes, lizards, birds or other animals should be strictly prohibited.

### 3.7.4 Water Quality

- No development should occur within 32m of a watercourse such as rivers, streams and wetlands.
- The ECO must approve the location and storage of any chemicals and hazardous substances on site.
- The contractors used for the construction should have spill kits available prior to construction to ensure that any fuel, oil or hazardous substance spills are cleaned-up and discarded correctly.
- It is deemed important that the all wetland areas be demarcated as sensitive areas, and no construction activity, laydown yards, camps or dumping of construction material are to be permitted within the sensitive zones (where possible).
- Mixing or decanting of all chemicals and hazardous substances must take place either on a tray or on an impermeable surface. Waste from these operations must be disposed of at a suitable DWS-certified waste facility for which a waybill must be shown to the engineer and ECO.
- All machinery and equipment should be inspected regularly for faults and possible leaks, these should be serviced off-site.



## 4 IMPACT ASSESSMENT

### 4.1 INTRODUCTION

The impact assessment aims at identifying potential environmental impacts (both positive and negative impacts) and evaluating these impacts in terms of its significance. This assessment is provided in the form of a systematic analysis framework to evaluate the nature, extent, duration, intensity, probability and significance of the various impacts. The significance of the impacts is considered both without and with mitigation and management measures. The mitigation and management measures relating to the potential impacts identified as potentially significant will be addressed in detail in the Environmental Impact Assessment report and Environmental Management Programme.

### 4.2 IMPACT ASSESSMENT CRITERIA

The assessment of the potential impacts of the envisaged development is undertaken in accordance with the broad criteria required by the integrated environmental management procedure and includes the following:

- Nature of Impact
- Extent/Scale
- Duration
- Intensity
- Probability

#### 4.2.1.1 Nature of impact

A brief description of the type of impact the proposed development will have on the affected environment.

#### 4.2.1.2 Extent/Scale

The physical extent of the impact.

i. Footprint

The impacted area extends only as far as the actual footprint of the activity.

ii. Site

The impact will affect the entire or substantial portion of the site/property.

iii. Local

The impact could affect the area including neighboring properties and transport routes.

iv. Regional

Impact could be widespread with regional implication.

v. National

Impact could have a widespread national level implication.

4.2.1.3 Duration

The duration of the impact.

i. Short term

The impact is quickly reversible within a period of one year, or limited to the construction phase.

ii. Medium term

The impact will have a medium term lifespan (project lifespan 1 – 10 years).

iii. Long term

The impact will have a long term lifespan (project lifespan > 10 years).

iv. Permanent

The impact will be permanent beyond the lifespan of the development.

4.2.1.4 Intensity

This criteria evaluates intensity of the impact and are rated as follows:

i. Minor

The activity will only have a minor impact on the affected environment in such a way that the natural processes or functions are not affected.

ii. Low

The activity will have a low impact on the affected environment.

iii. Medium

The activity will have a medium impact on the affected environment, but function and process continue, albeit in a modified way.

iv. High

The activity will have a high impact on the affected environment which may be disturbed to the extent where it temporarily or permanently ceases.

v. Very high

The activity will have a very high impact on the affected environment which may be disturbed to the extent where it temporarily or permanently ceases.

4.2.1.5 Probability

This describes the likelihood of the impacts actually occurring.

i. Improbable

The possibility of the impact occurring is highly improbable (less than 5% of impact occurring).

ii. Low

The possibility of the impact occurring is very low, due either to the circumstances, design or experience (between 5% to 20% of impact occurring).

iii. Medium

There is a possibility that the impact will occur to the extent that provision must be made therefore (between 20% to 80% of impact occurring).

iv. High

There is a high possibility that the impact will occur to the extent that provision must be made therefore (between 80% to 95% of impact occurring).

v. Definite

The impact will definitely take place regardless of any prevention plans, and there can only be relied on mitigatory actions or contingency plans to contain the effect (between 95% to 100% of impact occurring).

#### 4.2.1.6 Determination of significance

Significance is determined through a synthesis of the various impact characteristics and represents the combined effect of the extent, duration, intensity and probability of the impacts.

i. No significance

The impact is not substantial and does not require any mitigatory action.

ii. Low

The impact is of little importance but may require limited mitigation.

iii. Medium

The impact is of importance and therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.

iv. High

The impact is of great importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation and management is essential.

## 4.2.2 Assessment of Potential Impacts

### 4.2.2.1 Physical and landscape characteristics

Nature	Phase	Type	Extent	Duration	Intensity	Probability	Significance	
							(WOM*)	(WM*)
1. Impact of development on natural drainage patterns, caused by surface clearance and associated decrease of vegetation cover, leading to increased surface runoff and erosion.	C/O	Negative	Local	Short	Medium	Medium	Medium	Low
2. Alteration of unique landscape characteristics	C/O	Negative	Site	Permanent	Low	High	Medium	Low

\* WOM: Without Mitigation

\* WM: With Mitigation

### 4.2.2.2 Ecological characteristics

Nature	Phase	Type	Extent	Duration	Intensity	Probability	Significance	
							(WOM)	(WM)
1. Removal of natural vegetation as a result of the site development activities	C	Negative	Site	Long	Very High	Definite	High	Low
2. Spread of Invasive Alien Plants into disturbed areas	C/O	Negative	Local	Long	High	High	Medium	Low
3. Continued encroachment into disturbed areas	O	Negative	Local	Permanent	Very high	Definite	High	Low
4. Introduction of pest species as a result of the increase in waste and new habitats that are created in the area	O	Negative	Local	Long	High	Definite	Medium	Low
5. Impact on surrounding vegetation during construction (e.g. collection of firewood, veld fires, etc.)	C	Negative	Local	Short	Medium	Low	Medium	Low

### 4.2.2.3 Current and potential land uses of development area

Nature	Phase	Type	Extent	Duration	Intensity	Probability	Significance	
							(WOM)	(WM)
1. Impact on surrounding property values	O	Negative/ Positive	Local	Long	Low	Low	Low	Low

#### 4.2.2.4 Soil characteristics and geology

Nature	Phase	Type	Extent	Duration	Intensity	Probability	Significance	
							(WOM)	(WM)
1. Soil pollution (cement powder, diesel, oil etc.) during construction	C	Negative	Site	Short	Medium	Medium	Medium	Low
2. Soil erosion resulting from site clearance activities (removal of vegetation cover) during construction	C/O	Negative	Site	Short	Medium	Medium	Medium	Low
3. Impact on building structures and/or building cost due to soil/geotechnical characteristics	C/O	Negative	Footprint	Permanent	Medium	Medium	Medium	Low
4. Soil erosion during the operation phase resulting from increase stormwater runoff and velocity	O	Negative	Local	Long	Low	Low	Medium	Low

#### 4.2.2.5 Fauna

Nature	Phase	Type	Extent	Duration	Intensity	Probability	Significance	
							(WOM)	(WM)
1. Impact of faunal activity on surrounding properties during construction (eg. trapping of animals, construction vehicles, etc).	C	Negative	Local	Short	Medium	High	High	Low
2. Potential impact of development on nesting birds.	C/O	Negative	Site	Long	Low	Low	Low	Low

#### 4.2.2.6 Climate

Nature	Phase	Type	Extent	Duration	Intensity	Probability	Significance	
							(WOM)	(WM)
1. Soil erosion due to heavy rainfall during thunderstorms in summer, especially during construction phase.	C	Negative	Site	Short	Medium	Medium	Medium	Low

#### 4.2.2.7 Ground and surface water

Nature	Phase	Type	Extent	Duration	Intensity	Probability	Significance	
							(WOM)	(WM)
1. Potential impact on wetland/river and associated buffer	C	Negative	Local	Short	Medium	Medium	Medium	Low

2. Pollution of groundwater/ surface water during construction phase with typical construction related pollutants such as oil and diesel, and enterobacteria/viruses and plant nutrients if sanitation for construction workers is not properly managed.	C	Negative	Local	Short	Medium	Medium	Low	Low
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#### 4.2.2.8 Archaeological, historical and cultural significance

Nature	Phase	Type	Extent	Duration	Intensity	Probability	Significance	
							(WOM)	(WM)
1. Impact on sites with valuable archaeological, history and cultural significance	C	Negative	Site	Permanent	Minor	Improbable	Low	No significance

#### 4.2.2.9 Socio-economic impacts

Nature	Phase	Type	Extent	Duration	Intensity	Probability	Significance	
							(WOM)	(WM)
1. Direct employment creation, including construction workers, architects, draughtsmen, land surveyors, plumbers, electricians etc.	C	Positive	Regional	Short	Medium	High	Medium	Medium (Positive)
2. Indirect job creation (e.g. building suppliers) and induced job creation (broader local economy).	C/O	Positive	Regional	Short	Medium	Medium	Medium	Medium (positive)
3. Job creation during operation phase (domestic workers, maintenance, etc.).	O	Positive	Local	Long	Medium	Medium	Medium	Medium (positive)
4. Security (reduced sense of security accompanied by the presence of construction workers)	C	Negative	Local	Short	Medium	Medium	Low	Low

#### 4.2.2.10 Engineering Services

Nature	Phase	Type	Extent	Duration	Intensity	Probability	Significance	
							WOM	WM
1. Capacity of road network to handle additional traffic generated from the proposed development.	C/O	Negative	Local	Permanent	High	Definite	High	Medium
2. Possibility of increased number of road accidents due to increased traffic volumes. Accident risk may	C/O	Negative	Local	Long	Medium	Low	Medium	Low

be highest at the point where the site is accessed from.									
3. The area will be covered with impermeable surfaces, leading to an increase in stormwater volume and intensification of stormwater peak flow.	C/O	Negative	Local	Permanent	Medium	Medium	Medium	Medium	Low
4. Increased soil erosion due to increased quantity and flood peak intensity of stormwater flow, most significantly at stormwater outlets.	C/O	Negative	Site	Long	Medium	Medium	Medium	Medium	Low
5. Adequacy and capacity of bulk water supply infrastructure to supply potable water.	C/O	Negative	Regional	Permanent	Medium	Medium	Medium	Medium	Low
6. Capacity of existing municipal sewage system to deal with increased load.	O	Negative	Regional	Long	Medium	High	High	High	Low
7. Capacity of power grid to supply electricity to the proposed development.	O	Negative	Regional	Long	Medium	Medium	Medium	Medium	Low
8. Capacity of existing landfill sites to accommodate additional waste generated by the proposed development (note that this is a cumulative impact caused by all waste generating activities throughout the region).	C/O	Negative	Regional	Long	Medium	Medium	Medium	Medium	Low
9. Impact of waste generated and risk of illegal dumping and littering on water resources, especially the Msunduzi River.	C/O	Negative	Local	Long	Low	Low	Low	Low	Low
10. Impact of access road on surrounding properties.	C/O	Negative	Local	Long	Low	Low	Low	Low	Low

#### 4.2.2.11 Potential Environmental Pollution

Nature	Phase	Type	Extent	Duration	Intensity	Probability	Significance	
							(WOM)	(WM)
1. Increase in air pollution (dust) during construction (e.g. construction vehicles, excavation, earthworks, burning of waste products etc.).	C	Negative	Local	Short	Medium	High	Medium	Low
2. Increase in ambient noise level affecting surrounding properties.	C/O	Negative	Local	Long	Low	Low	Low	Low
3. Visual impact of development on landscape ("sense of place").	O	Negative	Local	Long	Medium	Medium	Medium	Low
4. Some phases of construction may cause odors that are detectable over some distance (e.g. burning of plastic containers and bags).	C	Negative	Local	Short	Low	Medium	Low	Low
5. Impact on the ambient air quality due to vehicle tailpipe emissions from increased traffic volumes.	C/O	Negative	Local	Long	Low	High	Low	Low



6. Impact of lighting on surrounding properties, including light trespass and over-illumination. Apart from being a visual impact, over-illumination is also a waste of energy.	C/O	Negative	Local	Long	Medium	Low	Low	Low
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## 5 PUBLIC PARTICIPATION

### 5.1 INTRODUCTION

The aim of the Scoping Study is to collect the issues, concerns and queries of interested and affected parties (I&APs) and determine the scope of the following phase of the EIA. The main objective of the Scoping Study is to:

- ✚ Inform the stakeholders about the proposed project and the environmental assessment process to be followed;
- ✚ Provide ample opportunity to all parties to exchange information and express their views and concerns;
- ✚ Obtain contributions from stakeholders (including the client, consultants, relevant authorities and the public) and ensure that all issues, concerns and queries raised are fully documented;
- ✚ Evaluate the issues raised and identify the significant issues; and
- ✚ Provide comment on how these issues are to be assessed as part of the Environmental Impact Assessment Process.

The public scoping processes undertaken are in accordance with the required EIA procedures prescribed within national legislation.

### 5.2 REQUIREMENTS OF THE 2014 ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS

According to Section 41 of the Environmental Impact Assessment Regulations, the following is required for the public participation process:

- (a) Fixing a notice board at a place conspicuous to the public at the boundary or on the fence of
  - (i) the site where the activity to which the application relates is or is to be undertaken; and
  - (ii) any alternative site;
  
- (b) Giving written notice in any of the manners provided for in section 47D of the Act, to-
  - (i) the occupiers of the site and, if the proponent or 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;

- (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;
  - (iii) the municipal councilor of the ward in which the site or alternative site is situated and any organization of ratepayers that represent the community in the area;
  - (iv) the municipality which has jurisdiction in the area;
  - (v) any organ of state having jurisdiction in respect of any aspect of the activity; and
  - (vi) any other party as required by the competent authority;
- (c) Placing an advertisement in –
- (i) one local newspaper; or
  - (ii) any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) Placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official Gazette referred to in paragraph (c)(ii); and
- (e) Using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to-
- (i) illiteracy;
  - (ii) disability; or
  - (iii) any other disadvantage.

### 5.2.1 Submission of EIA application forms

The appropriate EIA application forms were completed and submitted to DEDTEA on the 18<sup>th</sup> August 2021 as required by the EIA regulations. **Reference Number DC22/0019/2021** was allocated to the proposed development.

### 5.2.2 Newspaper Advertisements and Site Notices

The EIA regulations require that the proposed project be advertised. The EIA process will be advertised in the Maritzburg Sun in English and isiZulu (see **Appendix D1 and D2** for wording of English and isiZulu Advert wording, respectively) Advert) on the 03 September 2021. Notice boards were also placed at various

locations along the site boundary to ensure that the site notice is visible and accessible (see **Appendix D3** for a copy of the site notice). The purpose of the advertisements and site notice's is to notify I&APs of the EIA process for the proposed development and to invite them to register as I&APs.

In addition to the site notices and newspaper adverts, background information documents (**Appendix D4**) were distributed to the surrounding complexes and households.

### 5.2.3 Register of interested and affected parties

According to the Environmental Impact Assessment Regulations of 2014 (as amended), a register of interested and affected parties must be kept during the scoping process. A copy of the register will be included into the Environmental Impact Report.

### 5.2.4 Information sharing meeting

A public meeting will be held should there be a number of concerns from Registered Interested and Affected Parties. The purpose of the meeting will be to address any issues and queries. Copies of the meetings and minutes will be included as part of the Environmental Impact Report, if any.

### 5.2.5 Compilation of a Scoping Report and its availability for comment

This Scoping Report includes a Plan of Study for the Environmental Impact Report, which sets out the proposed approach to the environmental impact assessment process of the application. All government departments, NGO's and I&AP's receiving copies of the Scoping Report or who have been notified of the availability of the Scoping Report for comment, must either forward comment or a letter stating that they do not wish to make comment, to K2M Environmental within 30 days of being notified of the availability of this report for comment. Those stakeholders who are unable to make comment within the designated timeframes for whatever reason are to notify the MEC, detailing the reasons for not being able to meet the timeframes for comment and are to copy K2M Environmental with this correspondence.

The following governmental and non-governmental authorities will be provided with a copy of the Draft Scoping report for comment:

- Department of Economic Development, Tourism and Environmental Affairs
- Department of Transport
- Department of Agriculture and Rural Development

- Department of Water and Sanitation
- Department of Health
- Department of Mineral Resources
- Department of Education
- Msunduzi Local Municipality
- uMgungundlovu District Municipality
- Ezemvelo KZN Wildlife
- KZN AMAFA and Research Institute
- Ward 35 Councillor
- Msunduzi Municipal Library
- Umgeni Water
- Mpushini Trust
- Duzi Umngeni Conservation Trust (DUCT)
- All registered interested and affected parties as part of the previous application

#### 5.2.6 Comments and Response Report

The Draft Comments and Response Report from the previous EIA applications have been attached as **Appendix E and F**, respectively. The comments received in for the 2019 application have been included as **Appendix G**. The comments received from the previous EIAs will be addressed in the EIR. The registered I&APs have also been notified of the new application that was submitted via email.

## 6 PLAN OF STUDY FOR ENVIRONMENTAL IMPACT ASSESSMENT

### 6.1 EVALUATION OF SCOPING REPORT BY DEDTEA

According to Section 22 of the Environmental Impact Assessment Regulations of 4<sup>th</sup> December 2014 the competent authority must, within 43 days of receipt of a scoping report-

- a) accept the scoping report, with or without conditions, and advise the applicant to proceed or continue with the tasks contemplated in the plan of study for environmental impact assessment;  
or
- b) refuse environmental authorisation if-
  - (i) the proposed activity is in conflict with a prohibition contained in legislation; or
  - (ii) if the scoping report does not substantially comply with Appendix 2 to these Regulations and the applicant is unwilling or unable to ensure compliance with these requirements within the prescribed timeframe.

### 6.2 DESCRIPTION OF TASKS TO BE UNDERTAKEN IN THE ENVIRONMENTAL IMPACT ASSESSMENT PHASE

If the Scoping Report is approved by DEDTEA, the following activities will be undertaken as part of the Environmental Impact Report Phase:

- Assessment of Infrastructure alternatives.
- Assessment of Layout alternatives.
- Assessment of the impacts if the development does not proceed (No-go alternative)
- Assessment of the Msunduzi Municipality's' Environmental Policies and the impact the development will have thereof.
- Provide recommendation on materials from the Green Building Guideline of Msunduzi Municipality

Aspects to be addressed by specialists and included in the Environmental Impact Report are listed below:

- Stormwater Management Plan
- Tier 2, Toxicological Assessment (Human Health and Ecological Risk Evaluation)
- Municipal Services
- Traffic Impact Assessment

- Preliminary Engineering Report
- Preliminary Geotechnical Report
- Heritage Impact Assessment
- Wetland Assessment
- Biodiversity Assessment
- Aquatic Assessment
- Floodline Delineation

The methodology that will be applied in assessing the environmental impacts and alternatives is described in Section 6.3. The mitigation and management measures to ensure the “significant of impacts with mitigation” identified in Section 4 will be described in the draft EMPr.

The findings of the impact assessment referred to above will be utilized to inform the preparation of a draft Environmental Management Programme (EMPr). The following information will be included:

- Potential environmental impacts of the proposed development.
- Details of mitigation measures and management actions.
- Parties responsible for implementing mitigation measures and management recommendations.
- Frequency for monitoring and auditing of compliance.

## **6.3 PROPOSED APPROACH FOR EVALUATING ENVIRONMENTAL ISSUES AND ALTERNATIVES**

The impact assessment aims at identifying potential environmental impacts (both positive and negative impacts) and evaluating these impacts in terms of its significance. This assessment will be undertaken in the form of a systematic analysis framework to evaluate the nature, extent, duration, intensity, probability and significance of the various impacts as outlined below.

### **6.3.1 Impact Assessment Criteria**

The assessment of the potential impacts of the envisaged development with or without mitigation will be undertaken in accordance with the following criteria:

- **Nature of impact**

A brief description of the type of impact (positive or negative) the proposed development will have on the affected environment.

- **Extent/Scale of impact**

The physical extent of the impact.

- Footprint

The impacted area extends only as far as the actual footprint of the activity.

- Site

The impact will affect the entire or substantial portion of the site/property.

- Local

The impact could affect the area including the neighbouring farms, properties and transport routes.

- Regional

Impact could be widespread with regional implication.

- National

Impact could have a widespread national level implication.

- **Duration**

- Short term

The impact is quickly reversible within a period of one year, or limited to the construction phase.

- Medium term

The impact will have a medium term lifespan (project lifespan 1 – 10 years).

- Long term

The impact will have a long term lifespan (project lifespan > 10 years).

- Permanent



The impact will be permanent beyond the lifespan of the development.

- **Intensity**

This criteria evaluates intensity of the impact and are rated as follows:

- Minor

The activity will only have a minor impact on the affected environment in such a way that the natural processes or functions are not affected.

- Low

The activity will have a low impact on the affected environment

- Medium

The activity will have a medium impact on the affected environment, but function and process continue, albeit in a modified way.

- High

The activity will have a high impact on the affected environment which may be disturbed to the extent where it temporarily or permanently ceases.

- Very high

The activity will have a very high impact on the affected environment which may be disturbed to the extent where it temporarily or permanently ceases.

- **Probability**

This describes the likelihood of the impacts actually occurring.

- Improbable

The possibility of the impact occurring is highly improbable

- Low

The possibility of the impact occurring is very low, due either to the circumstances, design or experience.

- Medium

There is a possibility that the impact will occur to the extent that provision must be made therefore.

- High  
There is a high possibility that the impact will occur to the extent that provision must be made therefore.
- Definite  
The impact will definitely take place regardless of any prevention plans, and there can only be relied on mitigatory actions or contingency plans to contain the effect.

### 6.3.2 Significance Rating

Significance is determined through a synthesis of the various impact characteristics and represents the combined effect of the extent, duration, intensity and probability of the impacts.

- No significance  
The impact is not substantial and does not require any mitigatory action.
- Low  
The impact is of little importance, but may require limited mitigation.
- Medium  
The impact is of importance and therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.
- High  
The impact is of great importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation and management is essential

The following assessment scale will be used to determine the significance of the impact on the environment

**Significance = (probability + duration + extent) x intensity**

Probability: 1 – 5

Extent: 1 – 5

Duration: 1 – 4

Intensity: 1 – 10

#### Significance rating criteria

>75	High environmental significance
50 – 75	Medium environmental significance
<50	Low environmental significance

## 6.4 PUBLIC PARTICIPATION PROCESS DURING ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

All who had responded in any way during the scoping process will be notified in writing (e-mail or letter) or telephonically (if no postal or e-mail address was provided) of the availability of the EIR for review and comment. The following governmental and non-governmental authorities will be provided with a copy of the Environmental Impact Assessment Report for comment:

- Department of Economic Development, Tourism and Environmental Affairs
- Department of Transport
- Department of Agriculture and Rural Development
- Department of Water and Sanitation
- Department of Health
- Department of Mineral Resources
- Department of Education
- Msunduzi Local Municipality
- uMgungundlovu District Municipality
- Ezemvelo KZN Wildlife
- KZN AMAFA and Research Institute
- Ward 35 Councillor
- Msunduzi Municipal Library
- Umgeni Water
- Mpushini Trust
- Duzi Umngeni Conservation Trust (DUCT)
- All registered interested and affected parties as part of the previous application

All I&APs will be informed of the availability of the EIR and will be requested to provide comment within 30 days of receiving the EIR, or notification of it.

## 6.5 CONSULTATION WITH DEDTEA

The independent environmental practitioner will request a site visit with the designated official from DEDTEA after evaluation of the Scoping Report and prior to the finalisation of the Environmental Impact Assessment report and draft EMPr. The purpose of this site visit and meeting will be to provide first hand and site specific information to the designated project official and to discuss any specific issues that need to be addressed in the environmental impact assessment phase.