



## KWAZULU-NATAL PROVINCE

ECONOMIC DEVELOPMENT, TOURISM  
AND ENVIRONMENTAL AFFAIRS  
REPUBLIC OF SOUTH AFRICA

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Date: 08 June 2021

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Dear Sir

#### **RE: Q/2021/41/MSUND: SIVEST (PTY) LTD: THE PROPOSED ESTABLISHMENT OF A COMMUNITY HALL ON ERF 6069 IN FRANCE TOWNSHIP LOCATED WITHIN MSUNDUZI LOCAL MUNICIPALITY.**

Your inquiry received by the Department of Economic Development, Tourism and Environmental Affairs (herein referred to as "this Department") on 17 May 2021 and additional information on 31 May 2021, refers. This Department has reviewed the information provided and responds below.

#### **Development Proposal:**

- The proposed development entail the establishment of a community hall and associated infrastructure.
- The hall will be fully serviced and will have electrical, water and sewage services connected to the existing municipal supplies located at the boundary of the site. Parking areas will also be provided within the proposed development footprint.
- The property is approximately 6800m<sup>2</sup> (0.68ha) in extent and the extent of the proposed development is approximately 6800m<sup>2</sup> (approximately 0.68ha).
- The approximate central geographical co-ordinates for the site are 29°40'26.80"S and 30°22'5.24"E.
- The site is located approximately 100 metres from the nearest watercourse.
- The Msunduzi Local Municipality (correspondence dated 31 May 2021) confirmed that the site is zoned Educational.
- A Heritage Impact Assessment (compiled by Umlando: Archeological Surveys and Heritage Management dated 3 February 2021) indicated that there no heritage resources affected by the development proposal and has made the recommendation that the proposed project be exempted from further Heritage Impact Assessment requirements.
- The Wetland Identification and Assessment (compiled by Sivest SA (Pty) Ltd and dated February 2021) identified no wetlands or watercourses on or, within 32m of the proposed site. 3 wetland types and riparian areas were however identified within 500m of the proposed development. The wetland to the north of the site is 190m from the site boundary, while the wetland to the south is 180m from the site boundary and the large system to the west is 280m downslope of the site. It is also concluded that the wetlands and riparian areas will not be impacted upon in any way by the developmental proposal.

- The Biodiversity Screening Assessment (compiled by Sivist SA (Pty) Ltd and dated February 2021) indicated that the vegetation type is Vulnerable, the overall area is transformed from a natural state and exhibits a low conservation value. Specialist Assessment of the site has however concluded that the Msunduzi EMF designation of this area is not applicable given that the site is degraded and primarily transformed from its natural state.
- The Department has reviewed the relevant spatial datasets and has established that the site for the proposed development is not located within 5km from a terrestrial protected area identified in terms of the National Environmental Management Protected Areas Act (NEMPAA); but falls within areas that have been identified as being sensitive in terms of the Msunduzi Environmental Management Framework (i.e. High Biodiversity Constraints;) which was adopted by the MEC for Economic Development, Tourism and Environmental Affairs on the 3rd of September 2015 (Provincial Notice 125 of 3 September 2015). However the site vegetation has been historically disturbed based on a review of historical aerial site imagery within the preceding ten years.

The following activities may be applicable to the proposed development:-

**GNR No. 327 Activity Number 27:** "The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation<sup>1</sup>, except where such clearance of indigenous vegetation is required for-

- (i) the undertaking of a linear activity; or
- (ii) maintenance purposes undertaken in accordance with a maintenance management plan."

- The above will not apply as the extent of the proposed development is approximately 6800m<sup>2</sup> (approximately 0.68ha) and well below the legislated thresholds (viz. 1 hectares or more of indigenous vegetation but less than 20 hectares of indigenous vegetation).

**GNR No. 324 Activity Number 4:** "The development of a road wider than 4 metres with a reserve less than 13, 5 metres.

#### **d. KwaZulu-Natal**

- i. in an estuarine functional zone
- ii. Trans-frontier protected areas managed under international conventions;
- iii. Community Conservation Areas;
- iv. Biodiversity Stewardship Programme Biodiversity Agreement areas;
- v. World Heritage sites;
- vi a protected area identified in terms of NEMPAA;
- vii sites or areas identified in terms of an international convention;
- viii. Critically biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;
- ix. Core areas in biosphere reserves;
- x. areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose;
- 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;**
- xii Outside urban areas:
  - (aa) Areas within 10 kilometers from national parks or world heritage sites or 5 kilometers from any terrestrial protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve; or
  - (bb) areas seawards of the development line or within 1 kilometer from the high-water mark of the sea if no such development setback line is determined; or
- xiii. Inside urban areas:**
  - (aa) areas zoned for use as public open space;
  - (bb) seawards of the development setback line or within 100 metres from the high-water mark of the sea if no such development setback line is determined; or
  - (cc) within urban protected areas."

- The proposed development site is located within a Listed Geographical Area (viz. within a sensitive area identified in terms of the Environmental Management Framework) and the above activity will

only apply should the developer construct any new roads wider than 4 metres with a reserve less than 13, 5 metres.

**GNR No. 324 Activity Number 12:** "The clearance of an area of 300 square metres or more of indigenous vegetation<sup>1</sup> except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.

**d. In KwaZulu-Natal:**

- i. Trans-frontier protected areas managed under international conventions;
- ii. Community Conservation Areas;
- iii. Biodiversity Stewardship Programme Biodiversity Agreement areas;
- iv. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;
- v. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;
- vi. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas;
- vii. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning;
- viii. A protected area identified in terms of NEMPAA, excluding conservancies;
- ix. World Heritage Sites;
- x. Sites or areas identified in terms of an international convention;
- xi. Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose;
- 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; or
- xiii. In an estuarine functional zone."

- Although the development of the proposed community hall will entail the clearance of more than 300m<sup>2</sup> of vegetation within a Listed Geographical Area (viz. Sensitive areas as identified in an EMF as contemplated in chapter 5 of the Act and as adopted by the competent authority i.e. high biodiversity), the above activity will not apply as the site vegetation has been historically disturbed based on a review of historical aerial site imagery within the preceding ten years. Specialist Assessment of the site has however concluded that the Msunduzi EMF designation of this area is not applicable given that the site is degraded and primarily transformed from its natural state.

**Decision:**

1. Based on the information provided in your correspondence dated 17 May 2021 and additional information on 31 May 2021, this Department advises as follows: this Department is of the view that this specific project **does not require Environmental Authorisation** in terms of the EIA Regulations 2014 (as amended).
2. Should the developer wish to amend the development parameters or site location; or undertake any other activities on the proposed site for the proposed development, a determination must be made by an Environmental Assessment Practitioner as to whether the amended parameters and/or repositioning of the development requires Environmental Authorisation. The determination must be submitted to this Department for further verification in this regard.
3. All relevant parties, including the applicant, all project managers, contractors and sub-contractors must be made aware of their responsibility for compliance with the provisions for *Duty of Care and remediation of environmental damage* contained in Section 28 of the National Environmental Management Act, Act 107 of 1998.

<sup>1</sup>"indigenous vegetation" refers to vegetation consisting of indigenous plant species occurring naturally in an area, regardless of the level of alien infestation and where the topsoil has not been lawfully disturbed during the preceding ten years;

4. This correspondence does not grant authorisation or exemption from compliance with any other relevant and applicable legislation.
5. This Department retains the right to inspect the property at any time during its development and operation.

Should you have any queries or wish to discuss the points raised above, please do not hesitate to contact the writer.

Yours faithfully



for: Head of Department:

**KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs**





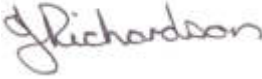
**HN Consulting Engineers (Pty) Ltd**

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**ENVIRONMENTAL SCREENING ASSESSMENT  
FOR FRANCE COMMUNITY HALL, MSUNDUZI  
MUNICIPALITY, KWAZULU-NATAL.**

Issue Date: April 2021  
Revision No.: 0  
Project No.: 16718

**DETAILS OF SPECIALIST CONSULTANT**

<b>Date:</b>	April 2021
<b>Document Title:</b>	Environmental Screening Assessment for France Community Hall, Msunduzi Municipality, Kwazulu-Natal
<b>Author:</b>	<b>John Richardson</b> B.Sc. Geographical Science B.Sc. (Hons) Geography and Environmental Management
<b>Signature:</b>	
<b>Version Number:</b>	0
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<b>Signature:</b>	
<b>Approved:</b>	<b>John Richardson</b>
<b>Signature:</b>	
<b>For:</b>	HN Consulting Engineers (Pty) Ltd

**ENVIRONMENTAL SCREENING ASSESSMENT FOR FRANCE COMMUNITY HALL, MSUNDUZI  
MUNICIPALITY, KWAZULU-NATAL**

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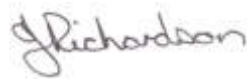
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## EAP DECLARATION

I, **John Richardson** as the appointed independent EAP, in terms of the 2014 EIA Regulations, hereby declare that I:

- act as the independent EAP in this application;
- perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- regard the information contained in this report as it relates to my input/study to be true and correct, and do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2014 and any specific environmental management Act;
- declare that there are no circumstances that may compromise my objectivity in performing such work;
- have expertise in conducting the assessment relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- will comply with the Act, Regulations and all other applicable legislation;
- have no, and will not engage in, conflicting interests in the undertaking of the activity;
- have no vested interest in the proposed activity proceeding;
- undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- all the particulars furnished by me in this study are true and correct; and
- realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Signature of EAP:



Name of EAP: John Richardson  
Date: 26<sup>th</sup> April 2021



## 1. INTRODUCTION

SiVEST SA (Pty) Ltd has been appointed by HN Consulting Engineers (Pty) Ltd to undertake an Environmental Screening Assessment of a proposed community hall located in the township of France, Pietermaritzburg, Msunduzi Local Municipality, uMgungundlovu District, KwaZulu-Natal.

The objective of the Environmental Screening Assessment is to review the details pertaining to the abovementioned project and determine whether or not an Environmental Impact Assessment is required in terms of the National Environmental Management Act (NEMA): Environmental Impact Assessment (EIA) Regulations of 2014, as amended. This Environmental Screening Report contains the findings of the Environmental Assessment Practitioner (EAP) based on information obtained from a site inspection, GIS analysis, and evaluation of the proposed project against the NEMA: EIA Regulations of 2014 (as amended 07 April 2017) and Section 21 of the National Water Act of 1998 (as amended). A site inspection was undertaken by Mr John Richardson (EAP) in the company of Mr Mark Summers (Biodiversity Specialist) and Mr Stephen Burton (Wetland Ecologist) of SiVEST SA (Pty) Ltd on the 26<sup>th</sup> January 2021 to evaluate the site further and determine whether any potential Listed Activities as contained within the NEMA: EIA Regulations of 2014, as amended, or Section 21 of the National Water Act of 1998, as amended, would be triggered by the development proposal.

## 2. PROJECT BACKGROUND AND DEVELOPMENT PROPOSAL

The information provided to the EAP is that the Msunduzi Local Municipality wishes to establish a Community Hall and associated infrastructure on a proposed portion of ERF 6069 located in the Township of France, Pietermaritzburg, Msunduzi Municipality, KwaZulu-Natal. The property is located below the adjacent Umvuzo High School's sports fields and is approximately 6km south of the South Gate Shopping Centre located in Bisley, Pietermaritzburg. A locality, site and layout map are presented in Figure's 1, 2 & 3 below for reference purposes, A3 copies of the maps are provided in Appendix A for reference purposes.

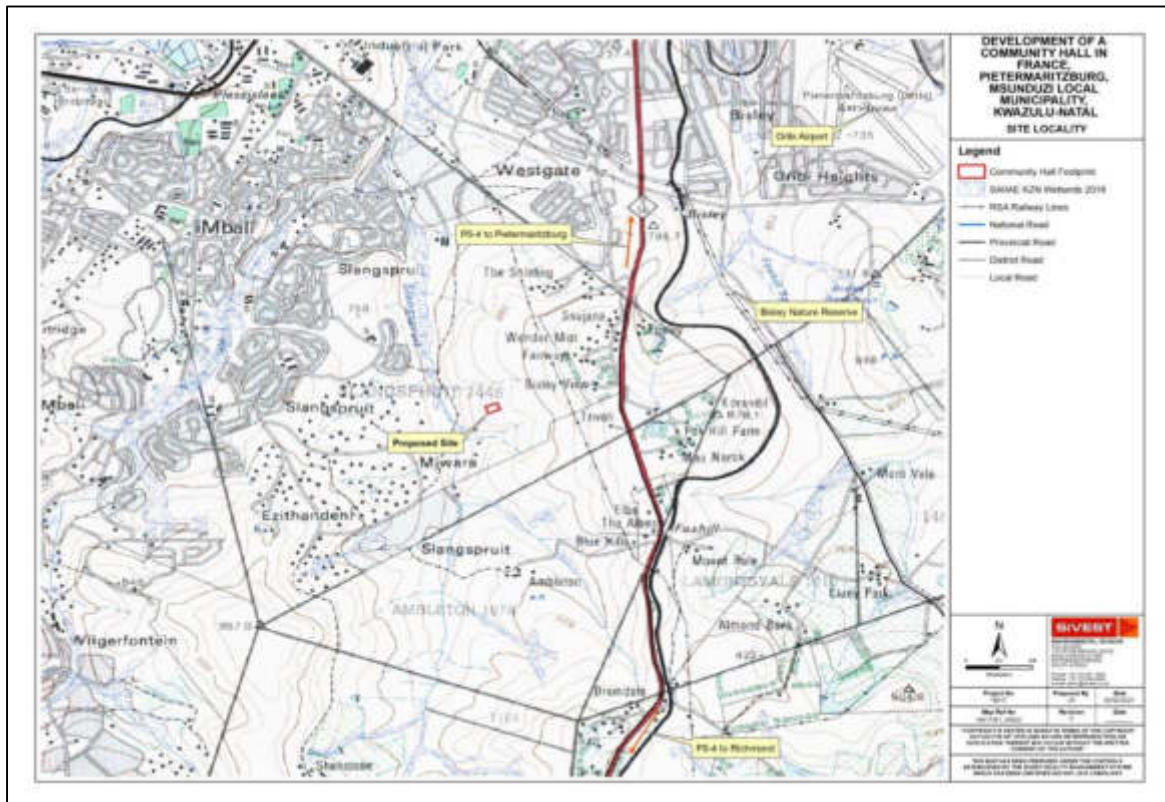


Figure 1: Locality Map of the site.

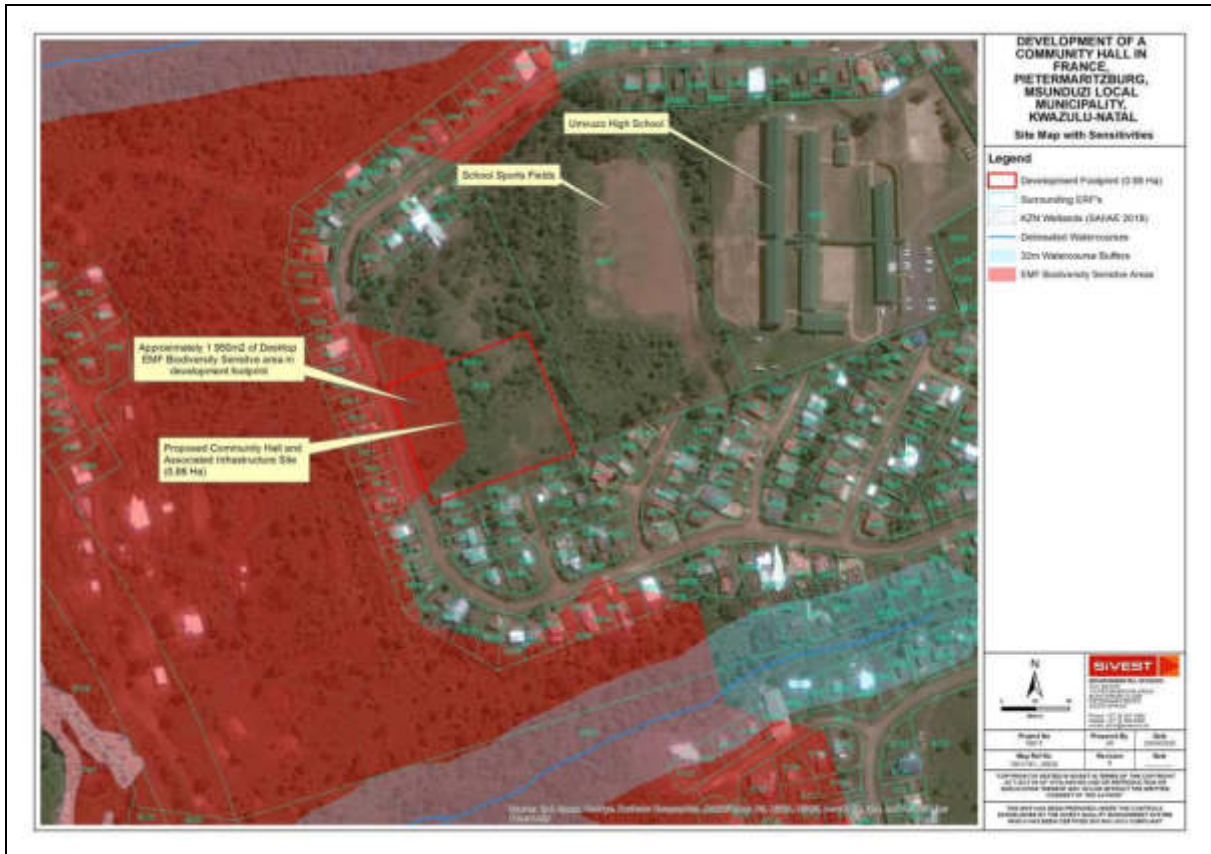


Figure 2: Aerial Map of the site and EMF Desktop Biodiversity and Aquatic sensitivities.

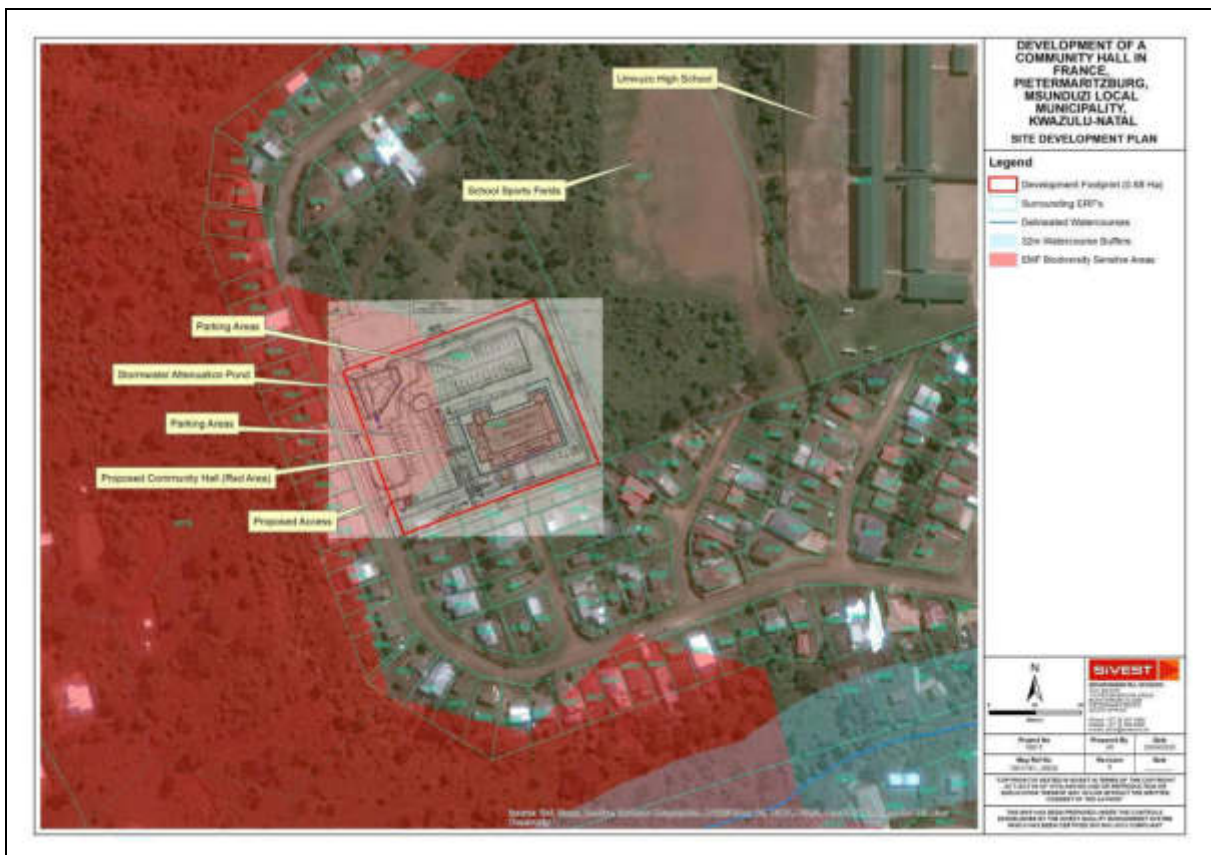


Figure 3: Site Development Plan.

The total Development footprint is approximately **0.68 hectares** (6 800m<sup>2</sup>) in extent and comprises the following key elements:

- Community Hall (+-868.94m<sup>2</sup>)
- Guard House (12.96m<sup>2</sup>)
- Cooking / Braai area (206.42m<sup>2</sup>)
- Parking (+-62 Bays)
- Stormwater Attenuation Pond
- Landscaped areas

A detailed site layout plan provided by the project engineers is provided in Appendix A for reference purposes.

The proposed Community Hall will be fully serviced and so will have electrical, water, and sewage services all of which will be connected to the existing municipal supplies located at the boundary of the site. Parking areas will be provided within the proposed development footprint and general waste from the facility will be disposed of via the municipal waste stream at the New England Road municipal landfill site. Access to site will be off an existing unnamed municipal road. The site (A proposed portion of ERF 6069 France) is approximately 6 800 square meters (0.68 ha) in extent, and the development footprint will cover this entire area. At a desktop database level approximately 1 950m<sup>2</sup> (0.19 ha) of the aforementioned development footprint falls within an area classified as Sensitive Biodiversity Area as defined within the Msunduzi Environmental Management Framework (EMF) C-Plan information as provided by the EDTEA. No wetlands or watercourses are identified either on the site or within 32 metres thereof (**Figures 2 & 3**).

The land is currently zoned as “Educational Use” based on the information which has been received from the HN Consulting Engineers (Pty) Ltd. At present the site is open undeveloped land which shows evidence of historical disturbance, possibly as a result of the establishment of the adjacent school sports fields or other infrastructure associated with surrounding land uses. The majority of the site is bounded by a mix of formal and informal community housing, including the Umvuzo High School to the north east.

The coordinates for the centre of the site are 29°40'26.80"S, 30°22'5.24"E and the location of the property in relation to the Pietermaritzburg is shown in **Figure 1** above.

### **3. CONSIDERATION OF THE PROPOSED PROJECT IN THE CONTEXT OF THE NEMA: EIA REGULATIONS OF 2014 (AS AMENDED 07 APRIL 2017) & NATIONAL WATER ACT OF 1998 (ACT NO. 36 OF 1998 AS AMENDED)**

In evaluating the proposed project against the NEMA: EIA Regulations of 2014, as amended, and associated Listed Activities contained within GN. R. 327, 325 and 324, it is the opinion of the EAP that only one Listed Activity could potentially be triggered by the proposed development. The EAP does however request that the EDTEA reviews the content of this assessment report and provides the Client with formal feedback as to whether or not the identified Listed Activity would, in this specific case, be triggered by the proposed development in terms of their interpretation of the aforementioned regulations and details included within this assessment report and associated specialist assessment. A site inspection can be facilitated by the EAP should this be required by the EDTEA.

#### **3.1. Watercourses, Wetlands, Biodiversity (Flora & Fauna), and Heritage Resource Features**

The below findings are based on information which has been obtained by the EAP through both a site inspection and desktop review of the relevant environmental databases and legislation, and includes the findings of a Heritage Impact Assessment, Biodiversity Assessment (Flora and Fauna), and a Wetland Specialist Assessment, all of which have been included in Appendix B, C and D of this report respectively.

The property is not located within 5km of any Protected Areas proclaimed in terms of the National Environmental Management: Protected Areas Act (NEMPAA), however it is located approximately 1 Kilometre from the Bisley Park Nature Reserve which is a municipal nature reserve owned and managed

by the Msunduzi Municipality. Based on a review of google earth imagery and surrounding landuses identified during the site inspection it is the opinion of the EAP that the site be considered as “Urban” as the property is located within the Township of France and is bounded on all sides by existing development which includes housing and an existing school and sports field.

The desktop vegetation database's maintained by Ezemvelo KZN Wildlife (EKZNW) and Mucina and Rutherford classify the site as falling within the KwaZulu-Natal Hinterland Thornveld (SVs 3) vegetation type which is regarded as Vulnerable in terms of its conservation status. The Biodiversity Specialist confirmed during the site inspection that the site comprised a mix of graminoid species, indigenous shrubs and trees and alien and invasive species. He concluded that the vegetation community is disturbed from its natural state and that it exhibits low species diversity as a result, the species identified on site are common in KZN and collectively do not make up the KwaZulu-Natal Hinterland Thornveld (SVs 3) vegetation type as identified in the desktop databases (see Appendix B). Although the site is disturbed and comprises a certain level of disturbance and alien invasive infestation it must in the opinion of the EAP be considered as indigenous vegetation in terms of the definitions of the NEMA: EIA Regulations of 2014, as amended.

According to the South African National Biodiversity Institute (SANBI) databases, the site does not fall within any critically endangered or endangered ecosystems, or within a Protected Area Expansion Strategy area. The Ezemvelo KZN Wildlife datasets do not highlight the site as being within a Critical Biodiversity Area (CBA). The Msunduzi EMF datasets do however classify approximately 1 950 m<sup>2</sup> of the development footprint on the western boundary of the site as a Sensitive Biodiversity Area (see Figure 2 above). Specialist Assessment of the site has however concluded that the Msunduzi EMF designation of this area is not applicable in his professional opinion given that the site is degraded and primarily transformed from its natural state (see Appendix B). He has also concluded in his report that the site is considered to be of low conservation value and no species of conservation significance are likely to be affected by the development proposal in his professional opinion. Furthermore, it appears on the EAP's evaluation of the EMF dataset that the designation of the site as a Critical Biodiversity Area, is mainly related to the scale of the desktop dataset and associated planning units, given that the dataset extends from an adjacent untransformed area over a developed area and into the proposed site boundary (see Figure 2). The EDTEA in this regard are requested to review the information available and provide their opinion as to whether the said area in their opinion constitutes a “Sensitive Area “in terms of the Msunduzi EMF (Applicable in terms of Listing Notice 3 of the NEMA: EIA Regulations of 2014, as amended) based on the findings of the Biodiversity Specialist's Site Screening Assessment which is provided in Appendix B for reference purposes.

The Wetland Identification and Assessment Specialist Report attached in Appendix C identified no wetlands or watercourses on, or within 32 metres of the proposed site, three wetland and riparian areas were however identified within a 500m radius of the proposed site as detailed in **Figure 4** below. The wetland to the north of the site is 190m from the site boundary, while the wetland to the south is 180m from the site boundary. The large system to the west, and downslope, of the site is 280m from the site boundary. The Wetland Specialist concluded as part of his assessment that the below wetlands and riparian areas will not be impacted upon in any way by the development proposal provided certain mitigation is applied.



**Figure 4: Specialist delineated wetlands and riparian areas surrounding the proposed site.**

Further, and based on the findings of the Wetland Identification, Delineation and Assessment Report, the proposed development does not require a Water Use Licence Application (WULA) submission in terms Section 21 of the National Water Act of 1998 given that the assessment has returned a “no risk” finding. This assessment report and the findings thereof will be submitted to the Department of Water and Sanitation for formal confirmation.

From a Heritage Impact Assessment perspective, the specialist has indicated that there will be no heritage resources affected by the development proposal and has made the recommendation that the proposed project be exempt from further HIA requirements (see Appendix D). The findings of the Heritage Assessment practitioner will be submitted to AMAFA for formal confirmation.

General site photographs of the proposed development site are attached in Appendix E for reference purposes. The outputs of the Department of Forestry, Fisheries and the Environment (DFFE) Screening Tool are included in Appendix F.

### **3.2. Consideration of the NEMA: EIA Regulations of 2014 (as amended 07 April 2017)**

Based on the above information, the EAP, on perusing the NEMA: EIA Listing Notices in the context of the development proposal, considered the following potentially applicable Listed Activities contained within GN. R 327, 325 and 324 of NEMA: EIA Regulations of 2014, as amended.

**Table 1: Potentially applicable Listed Activities in terms of the NEMA: EIA Regulations of 2014, as amended, considered by the EAP.**

<b>The number of the relevant notice:</b>	<b>Activity No (s) (in Terms of the Relevant notice):</b>	<b>Description of the Listed Activity:</b>
GN. R 327  (Listing Notice 1)	9	The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water—

The number of the relevant notice:	Activity No (s) (in Terms of the Relevant notice):	Description of the Listed Activity:
		<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><b>excluding where—</b></p> <p>(b) where such development will occur within an urban area.</p> <p><b>No infrastructure for the transportation of water or stormwater will exceed 1000 metres in length, nor will have an internal diameter of more than 0.36 metres or throughput of more than 120 litres per second. Furthermore, the proposed development is located within an Urban Area.</b></p> <p><b>This Listed Activity is therefore not triggered.</b></p>
GN. R 327 (Listing Notice 1)	10	<p>The development and related operation of infrastructure exceeding 1 000 metres in length for the 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><b>excluding where—</b></p> <p>(b) where such development will occur within an urban area.</p> <p><b>No infrastructure for the transportation of sewage will exceed 1000 metres in length, nor will have an internal diameter of more than 0.36 metres or throughput of more than 120 litres per second. Furthermore, the proposed development is located within an Urban Area.</b></p> <p><b>This Listed Activity is therefore not triggered.</b></p>
GN. R 327 (Listing Notice 1)	12	<p>The development of—</p> <p>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or</p> <p>(ii) infrastructure or structures with a physical footprint of 100 square metres or more;</p> <p>where such development occurs—</p>

The number of the relevant notice:	Activity No (s) (in Terms of the Relevant notice):	Description of the Listed Activity:
		<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><b>No development whatsoever will occur within 32 metres of a watercourse.</b></p> <p><b>This Listed Activity is therefore not triggered.</b></p>
GN. R 327 (Listing Notice 1)	24	<p>The development of a road—</p> <p>(ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres;</p> <p>but excluding a road—</p> <p>(b) where the entire road falls within an urban area;</p> <p><b>Access to the property is via an existing municipal road and no new roads are required for the development proposal. Furthermore, the proposed project is located in an urban area.</b></p> <p><b>This Listed Activity is therefore not triggered.</b></p>
GN. R 327 (Listing Notice 1)	25	<p>The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2 000 cubic metres but less than 15 000 cubic metres.</p> <p><b>The project will be serviced through the existing municipal bulk sewer available at the site, as such no onsite treatment of wastewater or sewer will be required.</b></p> <p><b>This Listed Activity is therefore not triggered.</b></p>
GN. R 327 (Listing Notice 1)	27	<p>The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation.</p> <p><b>A total footprint area of 0.68 hectares will be cleared for the development proposal, including all associated infrastructure.</b></p> <p><b>This Listed Activity is therefore not triggered.</b></p>
GN. R 324 (Listing Notice 3)	4	<p>The development of a road wider than 4 metres with a reserve less than 13,5 metres.</p> <p>d. KwaZulu-Natal</p>

The number of the relevant notice:	Activity No (s) (in Terms of the Relevant notice):	Description of the Listed Activity:
		<p>viii. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</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>xiii. inside urban areas:</p> <p>(aa) Areas zoned for use as public open space;</p> <p>(cc) Within urban protected areas.</p> <p><b>The proposed site does not fall within any Critical Biodiversity Areas according to the EKZNW databases. The Msunduzi EMF has however highlighted a Sensitive Biodiversity Area in the western portion of the site (Figure 2 &amp; 3). <u>Specialist verification has however confirmed that this area is not deemed to be sensitive from a biodiversity (Fauna and Flora) perspective and the EDTEA is requested to confirm whether the abovementioned sensitive area is applicable to the site, as per the Guideline Document published in terms of the Msunduzi EMF which provides opportunity to re-evaluate the sensitivity site based on specialist verification.</u></b></p> <p><b>Furthermore, no roads with a reserve less than 13,5 metres will be constructed as part of the development.</b></p> <p><b>This Listed Activity is therefore not triggered.</b></p>
GN. R 324 (Listing Notice 3)	12	<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>d. KwaZulu-Natal</p> <p>iv. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</p> <p>v. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p> <p>xii. Sensitive areas as identified in an environmental management framework as</p>



The number of the relevant notice:	Activity No (s) (in Terms of the Relevant notice):	Description of the Listed Activity:
		<p>contemplated in chapter 5 of the Act and as adopted by the competent authority.</p> <p><b>The proposed site does not fall within any Threatened Ecosystems or Critical Biodiversity Areas according to the SANBI and EKZNW databases. The Msunduzi EMF has however highlighted a Sensitive Biodiversity Area in the western portion of the site (Figure 2 &amp; 3). <u>Specialist verification has however confirmed that this area is not deemed to be sensitive from a biodiversity (Fauna and Flora) perspective and the EDTEA is requested to confirm whether the abovementioned sensitive area is applicable to the site, as per the Guideline Document published in terms of the Msunduzi EMF which provides opportunity to re-evaluate the sensitivity site based on specialist verification.</u></b></p> <p><b>The EDTEA is to confirm based on the information contained within this submission and associated specialist findings whether his Listed Activity is triggered for the development proposal.</b></p>

### 3.3. Consideration of section 21 of the National Water Act of 1999 (Act 36 of 1998, as amended)

On perusing the National Water Act in the context of the development proposal and GN. R 1199 of 2011, the EAP considered the following potentially applicable activities requiring a Water Use Licence Application submission and authorisation from the Department of Water and Sanitation. It is also noted that the specialist wetland identification, delineation and assessment identified a “no-risk” result with regards to potential impacts on water resources surrounding the site (Appendix C).

**Table 2: Potentially applicable Section 21 activities in terms of the National Water Act of 1999 (Act 36 of 1998, as amended, considered by the EAP.**

Water Use No.	Notice No.	Description of Activity
Section 21 a)	GN 399	<p>Taking of water</p> <p><b>Potable water will be provided from the local municipality via the existing reticulation.</b></p> <p><b>No use identified.</b></p>
Section 21 b)	GN 399	<p>Storage of water</p> <p><b>No use identified.</b></p>
Section 21 c)	GN 398	<p>Impeding or diverting the flow of water in a watercourse</p> <p><b>No use identified.</b></p>

Water Use No.	Notice No.	Description of Activity
Section 21 d)	GN 398	Engaging in stream flow reduction activity  <b>No use is identified.</b>
Section 21 e)	GN 665	Engaging in a controlled activity  <b>No use is identified.</b>
Section 21 f)	GN 665	Discharging of waste or water containing waste in a water resource through a pipe, canal, sewer, sea outfall or other conduit  <b>No use is identified.</b>
Section 21 g)	GN 665	Disposing of waste in a manner which may detrimentally impact on a water resource.  <b>No use is identified.</b>
Section 21 h)	GN 665	Disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process.  <b>No use is identified.</b>
Section 21 i)	GN 398	Altering the bed, banks, course or characteristics of a watercourse.  <b>Although wetlands are located within 500m of the proposed site a wetland specialist has confirmed that the proposed development poses no risk to these systems.</b>  <b>No use is identified.</b>

#### 4. CONCLUSION

Based on the above interpretations of the potentially applicable NEMA: EIA Listed Activities clarity is sought from the EDTEA as to whether or not, based on the information provided within this report and associated Biodiversity Screening Report, the proposed project triggers Listed Activity 12 of GNR 324 of the NEMA: EIA Regulations of 2014 (as amended 07 April 2017). The EAP requests that a formal response is provided by the EDTEA stating whether they deem the project to trigger the aforementioned Listed Activity which requires Environmental Authorisation prior to construction commencing so that this can be provided to the Msunduzi Municipality for consideration. Should the Department be in agreement with the findings of the specialist that the Sensitive Area as contained within the EMF is not applicable then the proposed project in the opinion of the EAP does not constitute any Listed Activities which require Environmental Authorisation for the EDTEA.

The EAP confirms that no activities requiring a Water Use Licence Application were identified based on the findings of the site inspection, specialist assessment, and a review of the available project detail.

Should you have any queries regarding this report then please do not hesitate to contact Mr John Richardson of SiVEST SA (Pty) Ltd on 072 508 0906 or [johnr@sivest.co.za](mailto:johnr@sivest.co.za).

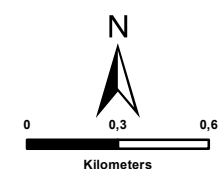
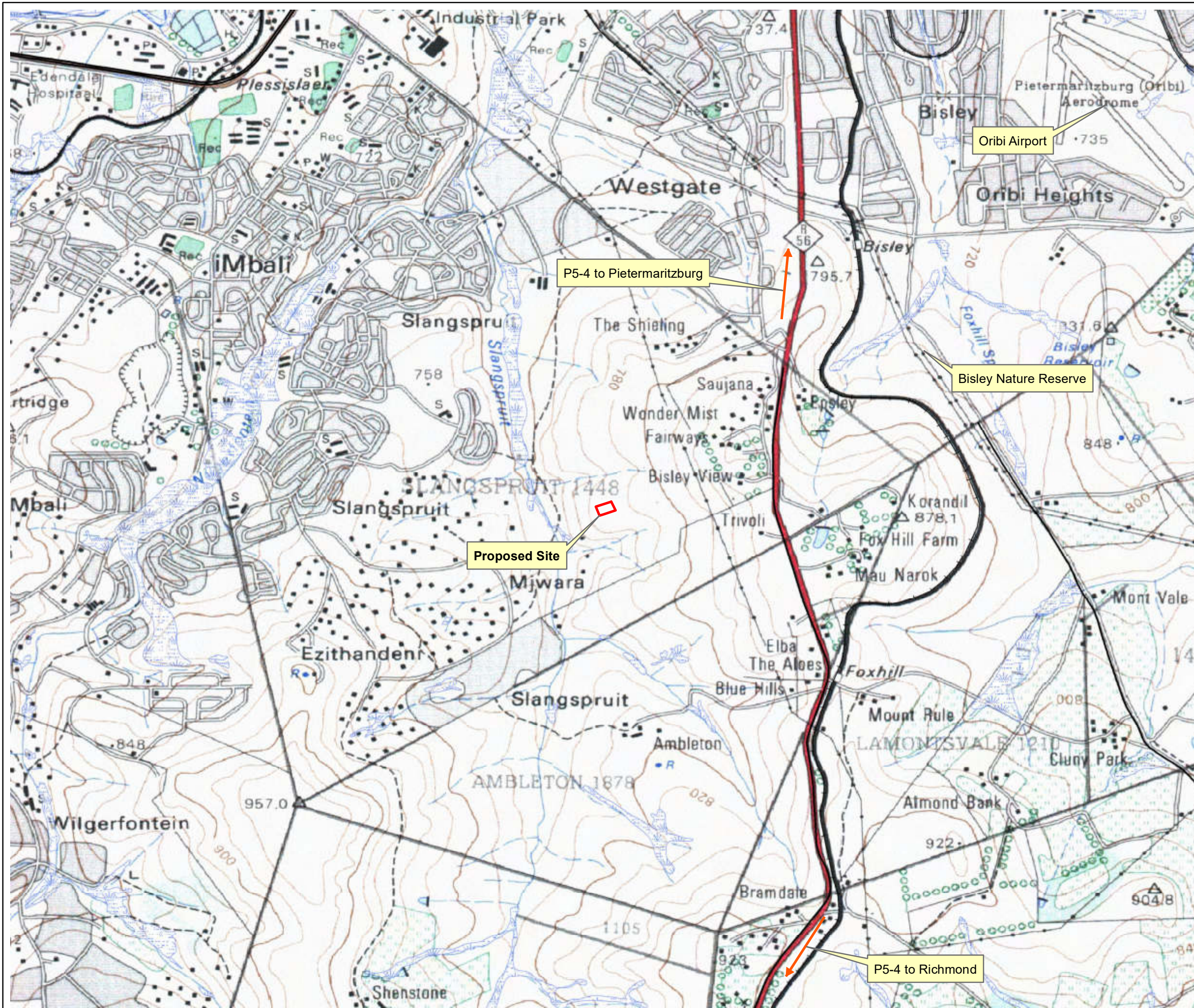


## Appendix A: A3 Maps & Layouts

**DEVELOPMENT OF A  
COMMUNITY HALL IN  
FRANCE,  
PIETERMARITZBURG,  
MSUNDUZI LOCAL  
MUNICIPALITY,  
KWAZULU-NATAL  
SITE LOCALITY**

**Legend**

- Community Hall Footprint
- SAIIAE KZN Wetlands 2018
- RSA Railway Lines
- National Road
- Provincial Road
- District Road
- Local Road



**SIVEST**  
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Project No 16017	Prepared By JR	Date 02/02/2021
Map Ref No 16017/K1_WS02	Revision 0	Date

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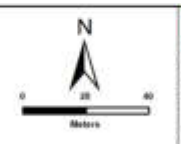
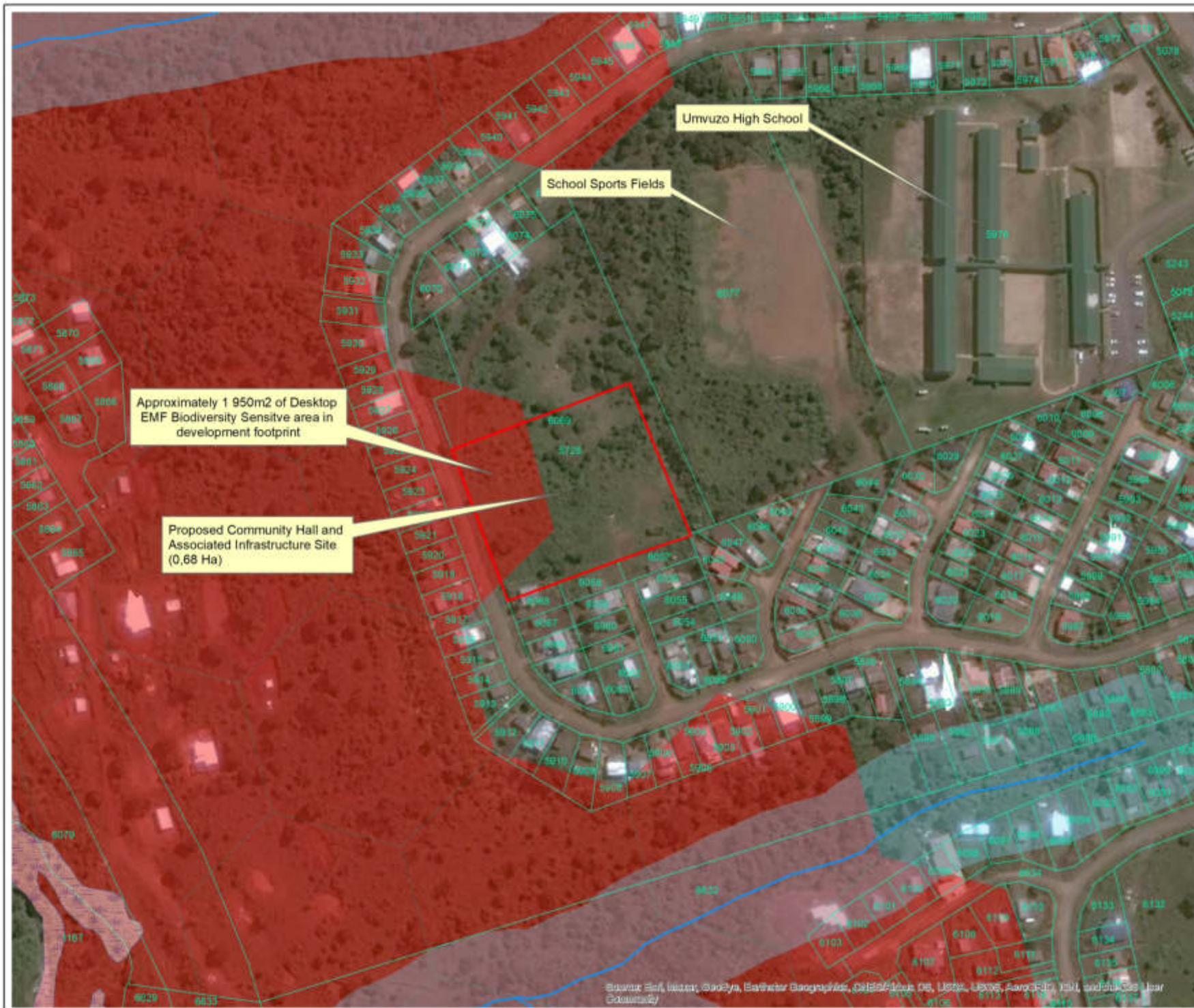
THIS MAP HAS BEEN PREPARED UNDER THE CONTROLS ESTABLISHED BY THE SIVEST QUALITY MANAGEMENT SYSTEM WHICH HAS BEEN CERTIFIED ISO 9001:2015 COMPLIANT

**DEVELOPMENT OF A  
COMMUNITY HALL IN  
FRANCE,  
PIETERMARITZBURG,  
MSUNDUZI LOCAL  
MUNICIPALITY,  
KWAZULU-NATAL**

**Site Map with Sensitivities**

**Legend**

- Development Footprint (0,68 Ha)
- Surrounding ERP's
- KZN Wetlands (SALIAE 2018)
- Delineated Watercourses
- 32m Watercourse Buffers
- EMF Biodiversity Sensitive Areas



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Map Ref No 16017/K1_W002	Revision 0	Date

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**DEVELOPMENT OF A  
COMMUNITY HALL IN  
FRANCE,  
PIETERMARITZBURG,  
MSUNDUZI LOCAL  
MUNICIPALITY,  
KWAZULU-NATAL  
SITE DEVELOPMENT PLAN**

- Legend**
- Development Footprint (0.68 Ha)
  - Surrounding ERF's
  - Delineated Watercourses
  - 32m Watercourse Buffers
  - EMF Biodiversity Sensitive Areas



N

0 20 40  
Meters

**SIVEST**

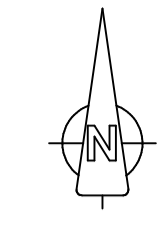
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Source: Esri, DeLorme, GeoEye, (Geo)Satellite-Images, CNES/Airbus DS, USDA, AeroGRID, IGN, and the GIS User Community



Note:  
 1. This is preliminary design, under no circumstances can the plan be used for construction purposes or preparing a contract document.  
 2. No topographical survey, geotechnical investigation and environmental screening was used to prepare the preliminary design.

Owner:	Name:	
	Sign:	
	Date:	
Author:	Name:	
	Sign:	
	Date:	

Occupancy Classification: A1

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Director / Project Manager \_\_\_\_\_ Date \_\_\_\_\_

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 Pietermaritzburg, 3201  
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\_\_\_\_\_ Date \_\_\_\_\_

Surveyed by:	
Designed by:	
Drawn by:	
Checked by:	
Approved on behalf of HN:	Director / Project Manager _____ Date _____


DRAWING NO.	REFERENCE DRAWINGS

REV	DATE	DESCRIPTION	APPROVED
A	01/12/2020	Issued for Municipal Approval	GB
B	05/04/2021	Issued for Municipal Approval	GB

**QUALITY VERIFICATION:**

This drawing has been prepared under the control of the drawing office and is not to be used for any other purpose without the written approval of the drawing office.

Drawn by: \_\_\_\_\_  
 Checked by: \_\_\_\_\_  
 Approved by: \_\_\_\_\_



**CLIENT:**



**THE MSUNDUZI MUNICIPALITY**  
 INFRASTRUCTURE SERVICES & FACILITIES  
 CONSTRUCTION AND RECONSTRUCTION  
 SUB-UNIT

Private Bag X205  
 Pietermaritzburg, 3200  
 Tel: (033) 392 2047  
 Fax: (033) 392 2459

**UNDERGROUND SERVICES CHECKED**

SERVICE	DATE	DESIGNATION	SIGNATURE
S.W Drains			
Sewer			
Water Mains			
G.P.O Cables			
Elec. Cables			
S.A.T.S Cables			
Ekatom Cables			
Oil Pipeline			

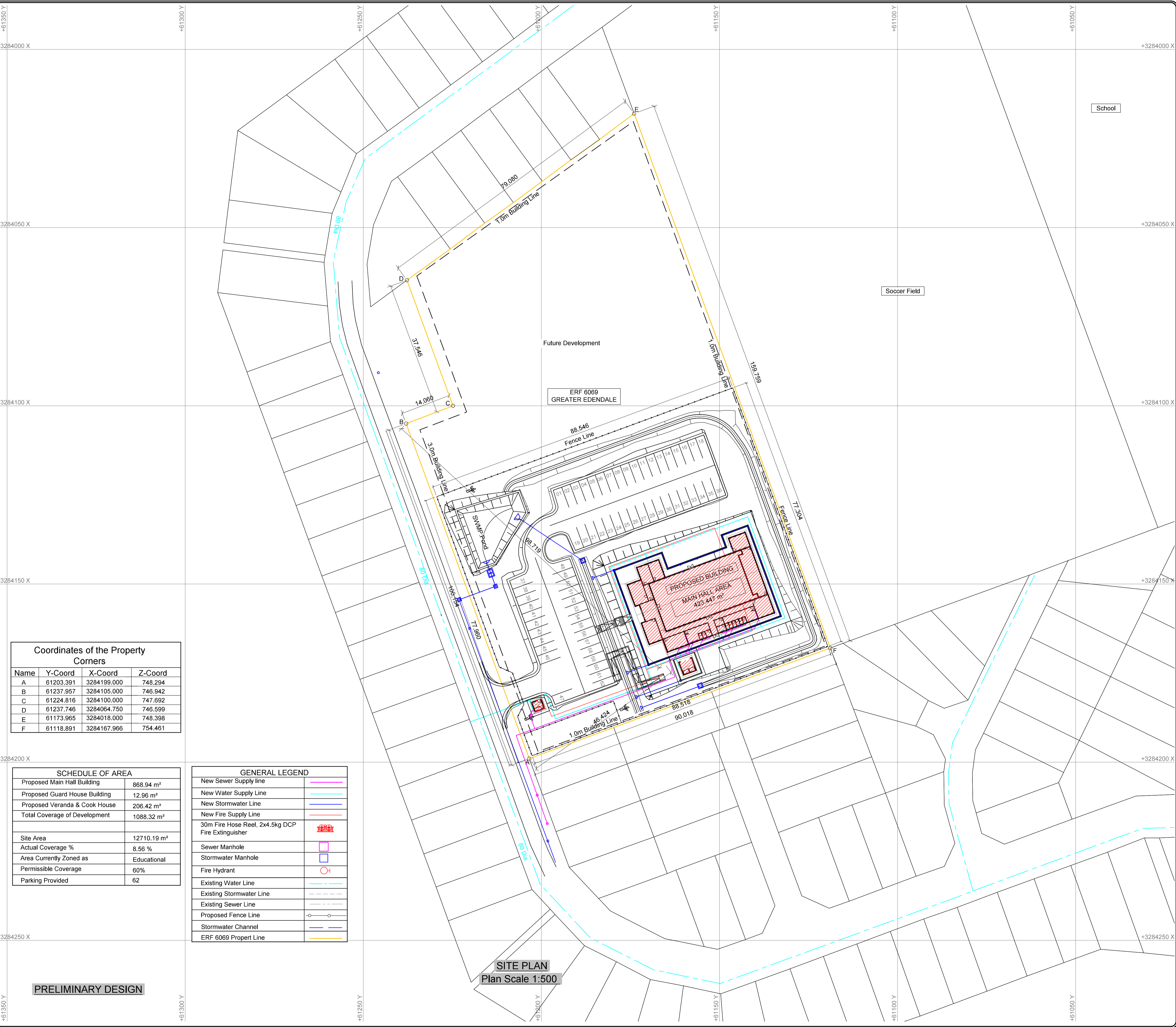
**PROJECT:**

WARD 13  
 FRANCE COMMUNITY HALL

**DRAWING TITLE:**

SITE DEVELOPMENT PLAN

<b>SURVEY INFORMATION:</b>	Projection: Transverse Mercator Datum: WGS 1984 Prime Longitude: 31 Degrees
<b>[SHEET] 1 OF 1</b>	
<b>[SCALE]:</b> AS SHOWN (RELEVANT FOR AN A1 PLOT)	
<b>[CONSULTANT DRG. NO.]:</b> 3111N-FCH-SDP-001	<b>[REVISION]:</b> B
<b>[CLIENT DRG. NO.]:</b>	<b>[REVISION]:</b>



**Coordinates of the Property Corners**

Name	Y-Coord	X-Coord	Z-Coord
A	61203.391	3284199.000	748.294
B	61237.957	3284105.000	746.942
C	61224.816	3284100.000	747.692
D	61237.746	3284064.750	746.599
E	61173.965	3284018.000	748.398
F	61118.891	3284167.966	754.461

**SCHEDULE OF AREA**

Proposed Main Hall Building	868.94 m²
Proposed Guard House Building	12.96 m²
Proposed Veranda & Cook House	206.42 m²
<b>Total Coverage of Development</b>	<b>1088.32 m²</b>
Site Area	12710.19 m²
Actual Coverage %	8,56 %
Area Currently Zoned as	Educational
Permissible Coverage	60%
Parking Provided	62

**GENERAL LEGEND**

New Sewer Supply line	
New Water Supply Line	
New Stormwater Line	
New Fire Supply Line	
30m Fire Hose Reel, 2x4.5kg DCP Fire Extinguisher	
Sewer Manhole	
Stormwater Manhole	
Fire Hydrant	
Existing Water Line	
Existing Stormwater Line	
Existing Sewer Line	
Proposed Fence Line	
Stormwater Channel	
ERF 6069 Propert Line	

**SITE PLAN**  
 Plan Scale 1:500

**PRELIMINARY DESIGN**



## **Appendix B: Biodiversity Screening Assessment Report**







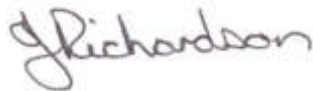
## **HN Consulting Engineers**

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# **BIODIVERSITY SCREENING ASSESSMENT FOR FRANCE COMMUNITY HALL, MSUNDUZI MUNICIPALITY, KWAZULU-NATAL.**

Issue Date: February 2021  
Revision No.: 1  
Project No.: 16718

**DETAILS OF SPECIALIST CONSULTANT**

<b>Date:</b>	February 2021
<b>Document Title:</b>	Biodiversity Screening Assessment for France Community Hall, Msundusi Municipality, Kwazulu-Natal
<b>Author:</b>	<b>Mark Summers (Cand.Sci.Nat)</b> B.Sc. Honours Zoological Science M.Sc. Ecological Science
<b>Signature:</b>	
<b>Version Number:</b>	#1
<b>Checked by:</b>	<b>Stephen Burton (Pr.Sci.Nat)</b> B.Sc. Honours Zoological Science M.Sc. Zoological Science
<b>Signature:</b>	
<b>Approved:</b>	<b>John Richardson</b>
<b>Signature:</b>	
<b>For:</b>	HN Consulting Engineers (Pty) Ltd

**BIODIVERSITY SCREENING ASSESSMENT FOR FRANCE COMMUNITY HALL, MSUNDUZI  
MUNICIPALITY, KWAZULU-NATAL  
DRAFT REPORT**

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## SPECIALISTS DECLARATION

I, Mark Summers as the appointed independent specialist, in terms of the 2014 EIA Regulations, hereby declare that I:

- act as the independent specialist in this application;
- perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- regard the information contained in this report as it relates to my specialist input/study to be true and correct, and do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2014 and any specific environmental management Act;
- declare that there are no circumstances that may compromise my objectivity in performing such work;
- have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- will comply with the Act, Regulations and all other applicable legislation;
- have no, and will not engage in, conflicting interests in the undertaking of the activity;
- have no vested interest in the proposed activity proceeding;
- undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- have ensured that information containing all relevant facts in respect of the specialist input/study was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments on the specialist input/study;
- have ensured that the comments of all interested and affected parties on the specialist input/study were considered, recorded and submitted to the competent authority in respect of the application;
- all the particulars furnished by me in this specialist input/study are true and correct; and
- realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Signature of specialist:



Name of specialist:

Mark Summers

Date:

15<sup>th</sup> February 2021

## SPECIALISTS DECLARATION

I, Stephen Burton as the appointed independent specialist, in terms of the 2014 EIA Regulations, hereby declare that I:

- act as the independent specialist in this application;
- perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- regard the information contained in this report as it relates to my specialist input/study to be true and correct, and do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2014 and any specific environmental management Act;
- declare that there are no circumstances that may compromise my objectivity in performing such work;
- have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- will comply with the Act, Regulations and all other applicable legislation;
- have no, and will not engage in, conflicting interests in the undertaking of the activity;
- have no vested interest in the proposed activity proceeding;
- undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- have ensured that information containing all relevant facts in respect of the specialist input/study was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments on the specialist input/study;
- have ensured that the comments of all interested and affected parties on the specialist input/study were considered, recorded and submitted to the competent authority in respect of the application;
- all the particulars furnished by me in this specialist input/study are true and correct; and
- realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Signature of specialist:



Name of specialist:

Stephen Burton

Date:

15<sup>th</sup> February 2021



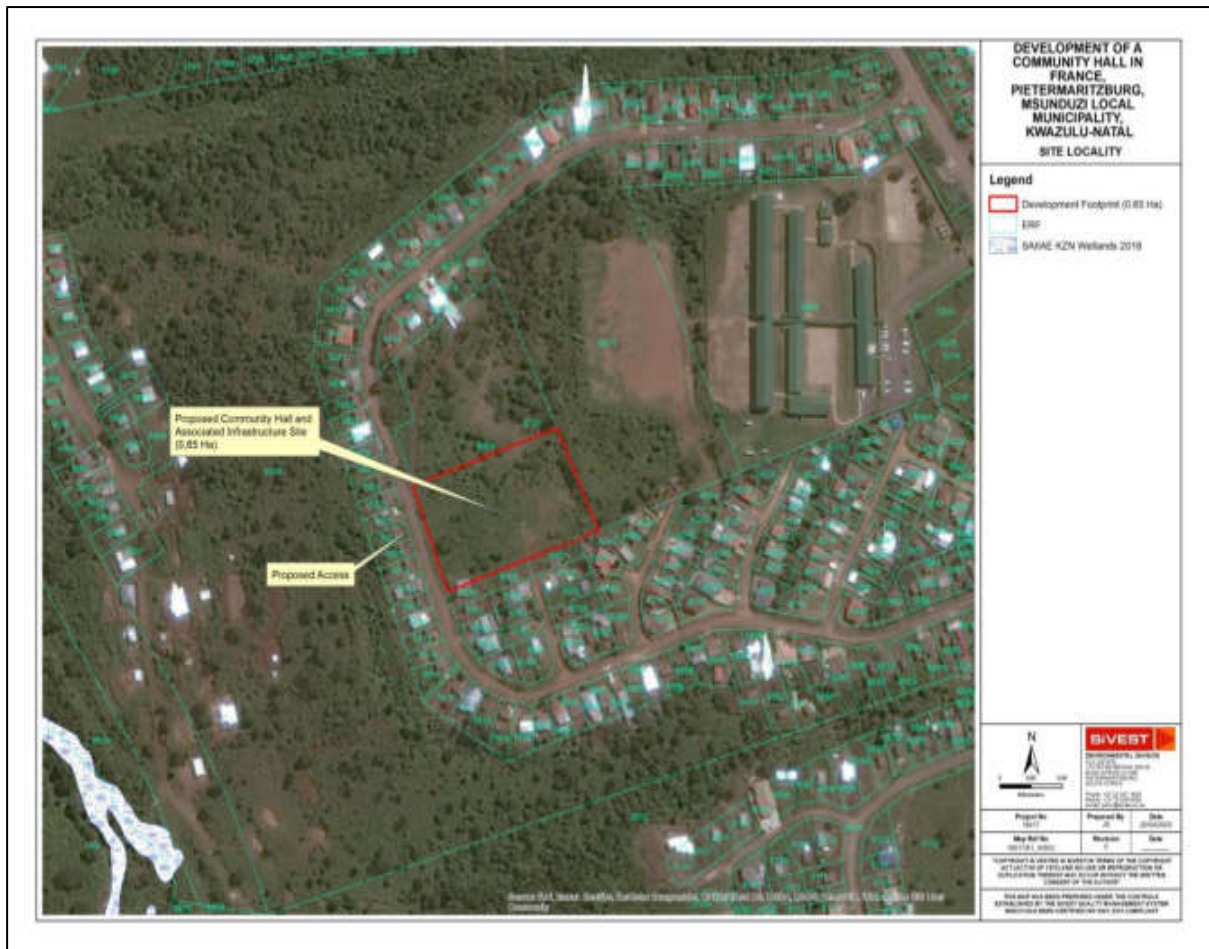


Figure 2: Aerial Map of the site.

## 2. PROJECT BACKGROUND

The hall will be fully serviced and so will have electrical, water, and sewage services all of which will be connected to the existing municipal supplies located at the boundary of the site. Parking areas will be provided within the proposed development footprint and general waste from the facility will be disposed of via the municipal waste stream at the New England Road municipal landfill site. Access to site will be off an existing unnamed municipal road. The site (A proposed portion of ERF 6069 France) is approximately 6 500 square meters (0.65 ha) in extent, and the development footprint will cover this entire area. The land is currently zoned as “Educational Use” based on the information which has been received from the HN Consulting Engineers (Pty) Ltd. At present the site is open undeveloped land which shows evidence of historical disturbance, possibly as a result of the establishment of the adjacent school sports fields or other infrastructure associated with surrounding land uses. The majority of the site is bounded by a mix of formal and informal community housing, including a school to the east.

The coordinates for the centre of the site are 29°40'26.80"S, 30°22'5.24"E and the location of the property in relation to the Pietermaritzburg is shown in **Figure 1** and **Figure 2** above.

## 3. TERMS OF REFERENCE

The study was to adhere to the following:

- Adherence to the content requirements for specialist reports in accordance with Appendix 6 of the EIA Regulations 2014, as amended.



- Adherence to all appropriate best practice guidelines, relevant legislation and authority requirements.
- Provide a thorough overview of all applicable legislation, guidelines.
- Identification of sensitive areas to be avoided.
- Implications of specialist findings for the proposed development (e.g. permits, licenses etc.).
- Specify if any further assessment will be required.
- Include an Impact Statement, concluding whether project can be authorised or not.
- Recommend mitigation measures in order to minimise the impact of the proposed development.

Specific issues to be addressed are as follows:

- Review existing ecological information available;
- Determine the general ecological state of the proposed site, determine the occurrence of any red data and/or vulnerable species, or any sensitive species requiring special attention;
- Provide a detailed description of the baseline environment; and
- Provide mitigation measures to prevent and/or mitigate any environmental impacts that may occur due to the proposed project.

#### 4. SITE VISIT AND SAMPLING METHODOLOGY

The site visit was undertaken on the 26<sup>th</sup> January 2021 by Mark Summers and Stephen Burton.

##### *4.1 Vegetation Sampling*

A random vegetation sampling technique and “hotspot<sup>1</sup>” assessment technique was utilised, which focused the sampling effort on areas with natural vegetation or where the vegetation was dominated by indigenous species (i.e. not comprising a large proportion of alien invasive plant species). Individual plant species observed during the assessment were recorded to give an indication of species diversity and the overall species assemblage.

##### *4.2 Faunal Sampling*

The following methodology was used when sampling.

- Desktop screening of Ezembelo KZN Wildlife’s MINSET database; and the Animal Demographic Unit’s South African Bird Atlas Project, FrogMAP, MammalMAP, and ReptileMap for Species of Conservation Concern (SCC) was undertaken.
- Verification of SCC on site was done with a focus on movement, foraging, and nesting sites.

#### 5. REGULATIONS GOVERNING THIS REPORT & LEGISLATION

The following legislation was consulted:

- National Environmental Management Act, Act No. 107 of 1998 (NEMA)
- National Forests Act (Act No. 84 of 1998)
- Environment Conservation Act No. 73 of 1989, Amendment Notice No. R1183 of 1997
- National Environmental Management: Biodiversity Act (Act No. 10 of 2004)
- Conservation of Agricultural Resources (Act No. 43 of 1983) as amended in 2001
- International Union for Conservation of Nature (IUCN)

#### **Permit / Licence requirements:**

In terms of the National Forests Act, 1998 (Act No. 84 of 1998) and Government Notice 1339 of 6 August 1976 (promulgated under the Forest Act, 1984 (Act No. 122 of 1984) for protected tree species), the

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<sup>1</sup> Hotspot in this context refers to areas in the landscape, such as rocky outcrops and wetlands that supply refugia to plant species that would otherwise not exist in said landscape due to disturbance.

removal, relocation or pruning of any protected plants; or, 3 or more indigenous trees whose crowns are largely contiguous will require a Department of Agriculture, Fisheries and Forestry (DAFF) license.

Protected indigenous plants in general are controlled under the relevant provincial Ordinances or Acts dealing with nature conservation. In KZN the relevant statute is the 1974 Provincial Nature Conservation Ordinance. In terms of this Ordinance, a permit must be obtained from Ezemvelo KZN Wildlife to remove or destroy any plants listed in the Ordinance.

## 6. RESULTS OF THE DESKTOP ASSESSMENT

### 6.1. Desktop vegetation description

#### 6.1.1. C-Plan Biodiversity Features / Species within Project Area

The desktop analysis indicated that the site is classified as 0.05 (i.e. all biodiversity features recorded here are conserved to the target amount, and there is unlikely to be a biodiversity concern with the development of the site) and the Minset analysis mirrors the C-Plan data with the area being deemed as not requiring protection. The CBA Map indicates that the site is Transformed (**Figure 3**).

In terms of the SEA and C-Plan data generated, through the physical characteristics that are present on site, a number of groups have been identified as potentially present on the site, and these groups are wholly significant in terms of conservation significance or parts thereof. The Tables below identify which groups are significant.

A portion of site is highlighted by the Msunduzi EMF as a sensitive biodiversity area (**Figure 4**). This is likely as a result of the EKZNW Minset data intersecting with the Msunduzi EMF. It is however important to note that the scale of hexagon planning units utilised within the Msunduzi EMF are at a different scale to those utilised in the Minset Database, as such the accuracy of this dataset at a site level can in some instances be misleading, especially where the site is located on the boundary of an Msunduzi EMF hexagon planning unit.

**Table 1. SEA Data taken from Ezemvelo KZN Wildlife**

YES	NO
KZN Protected Species	Reptiles
Mammals	Protected Plants
Invertebrates	Medicinal Plants
KZN Protected Landscapes	Birds
KZN Protected Ecosystems and Communities	Grassland
Important Vegetation	Frogs
	Forest
	Wetlands

**Table 2. TSCP Minset Data taken from Ezemvelo KZN Wildlife**

Species name	Type
<i>Camaricoproctus planidens</i>	Millipede
<i>Gnomeskelus spectabilis</i>	Millipede
<i>Gnomeskelus tuberosus urbanus</i>	Millipede
<i>Patinatius bidentatus simulator</i>	Millipede
<i>Spinotarsus destructus</i>	Millipede
<i>Spinotarsus glomeratus</i>	Millipede
<i>Spinotarsus maritzburgensis</i>	Millipede
<i>Gulella euthymia</i>	Mollusc
<i>Gulella separata</i>	Mollusc
<i>Acalypha angustata</i>	Plant
<i>Doratogonus peregrinus</i>	Reptile

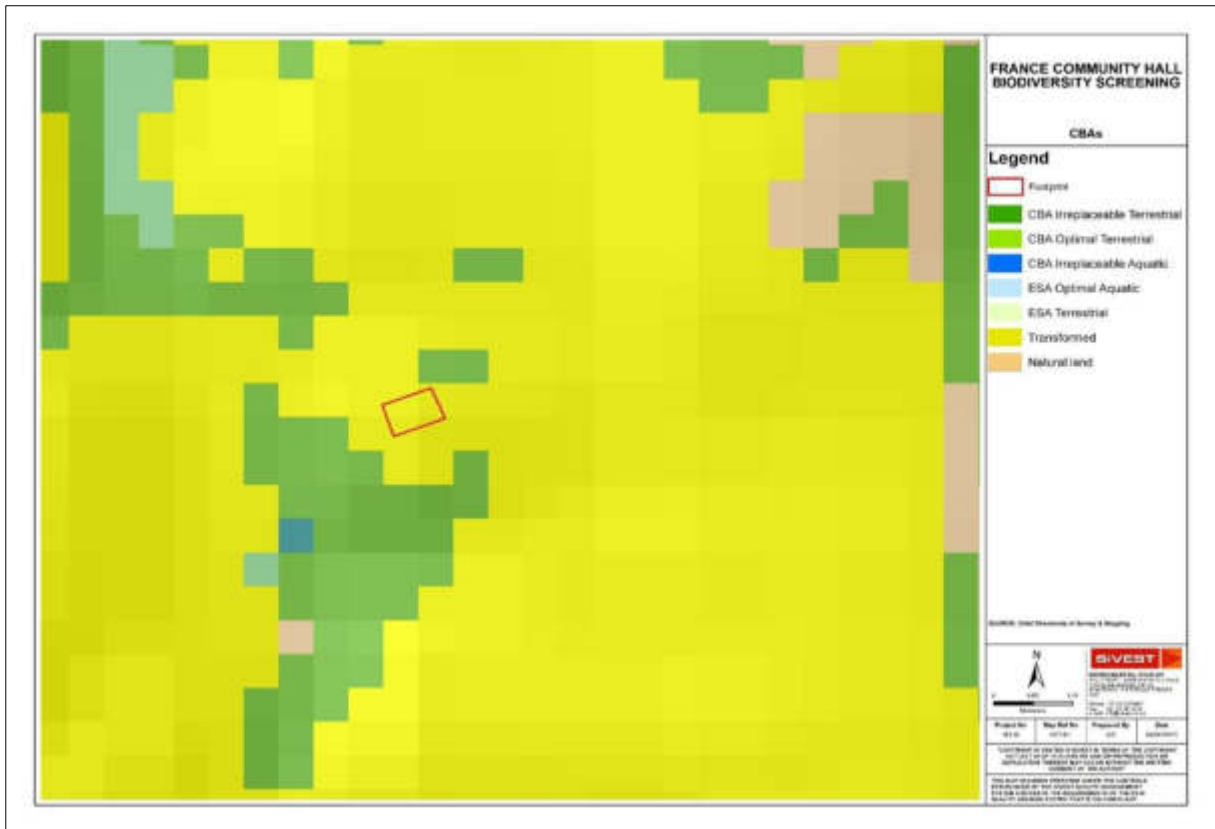


Figure 3: EKZNW CBA Map

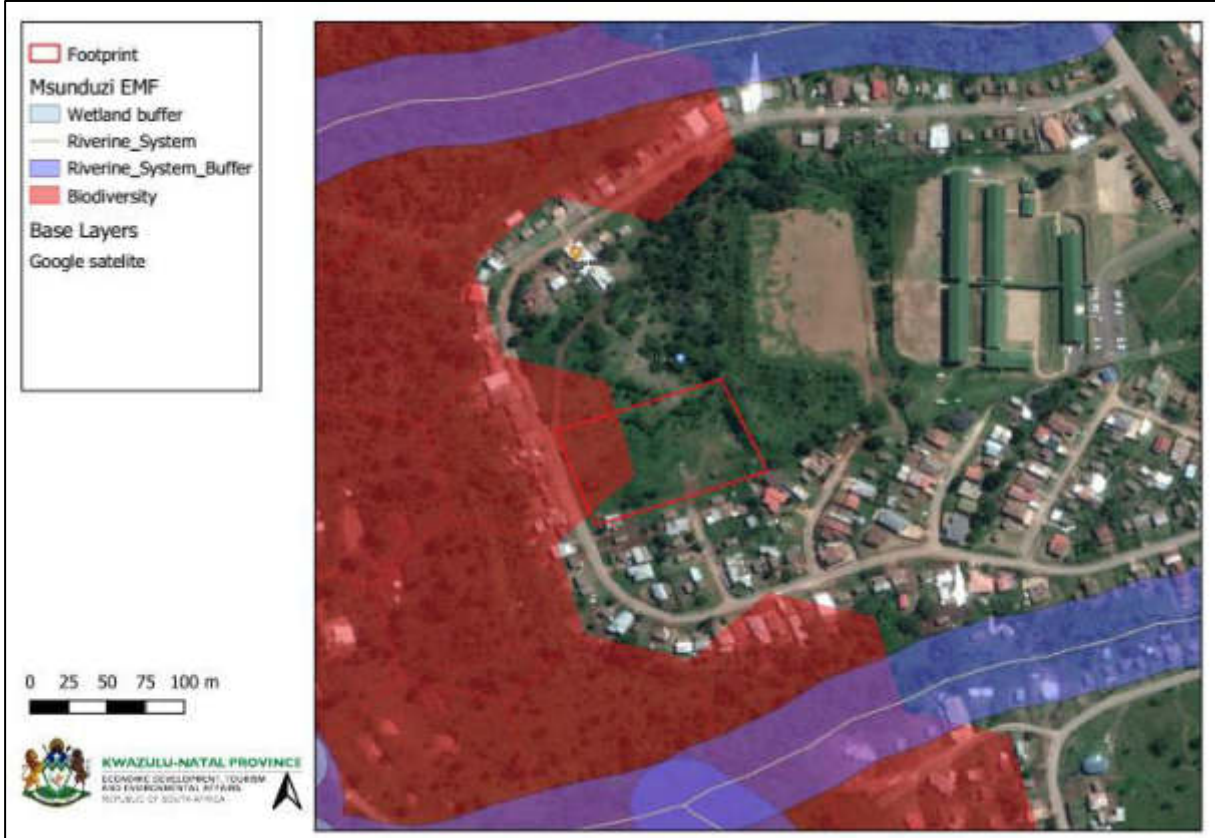


Figure 4: Msunduzi EMF Biodiversity output.

### 6.1.2. Bio Resource Units (BRU)

The Bioresource unit for the site is as follows:

#### **Tub10 – Ukalinga**

Bioresource Group 17: "Coast Hinterland Thornveld".  
BRG Subgroup 17.4a.

**Vegetation pattern:** The vegetation consists of bushed grassland and bushland.

**Indicator Species:** *Aristida junciformis* (Ngongoni Three-awn), *Panicum maximum* (Guinea Grass), *Acacia karroo* (Sweet Thorn), *Acacia nilotica* (Thorn mimosa), *Acacia sieberiana* (Paperbark Thorn), *Lantana camara* (Lantana)

The rainfall average is 738 mm per annum. The mean temperature is 18.4 °C and the climate rating is C5, moderately restricted growing season due to low temperatures, frost and / or moisture stress. The erosion rating for the site is 4.7, which translates to a high risk of erosion.

### 6.1.3. Environmental Potential Atlas

The ENPAT data provides the following information about the geology for the site:  
Shale of the Pietermaritzburg Formation, Ecca Group, tillite of the Dwyka Formation and dolerite.

The ENPAT data provides the following information about the soils for the site:  
Glenrosa and / or Mispha forms (other soils may occur), lime rare or absent in the entire landscape.

### 6.1.4. Mucina and Rutherford's Vegetation and KZN Vegetation Types

The classification of vegetation on site, is made at a very coarse scale, i.e. low resolution and falls within the KwaZulu-Natal Hinterland Thornveld (SVs 3) which is Vulnerable. In this case the KZN Wildlife Vegetation Type is the same.

**Distribution** KwaZulu-Natal Province: Patches, scattered immediately above SVs 6 Eastern Valley Bushveld, at altitudes 450–900 m in river valleys of mainly the Mpisi (in the Thukela River catchment), Mvoti, Umgeni (below the Howick Falls), Mlazi, and Lufafa (vicinity of Ixopo) and Mtungwane (tributaries of the Mkomazi).

**Vegetation & Landscape Features** Vegetation is open thornveld dominated by *Acacia* species on undulating plains found on upper margins of river valleys.

**Important Taxa** Tall Tree: *Acacia robusta*. Small Trees: *Acacia natalitia* (d), *A. nilotica* (d), *Combretum molle* (d), *Ziziphus mucronata* (d), *Brachylaena elliptica*, *Cussonia spicata*, *Erythrina latissima*. Succulent Trees: *Aloe marlothii* subsp. *marlothii*, *Euphorbia ingens*. Tall Shrubs: *Calpurnia aurea*, *Coddia rudis*, *Diospyros dichrophylla*, *Ehretia rigida* subsp. *rigida*, *Grewia occidentalis*, *Gymnosporia buxifolia*, *Hibiscus calyphyllus*, *Rhus pentheri*. Low Shrubs: *Barleria obtusa*, *Chaetacanthus setiger*, *Crossandra greenstockii*, *Justicia flava*. Soft Shrub: *Hypoestes aristata* (d). Woody Climbers: *Jasminum breviflorum*, *Putterlickia verrucosa*, *Tecoma capensis*. Woody Succulent Climber: *Sarcostemma viminalis*. Graminoids: *Aristida junciformis* subsp. *junciformis* (d), *Eragrostis curvula* (d), *Hyparrhenia hirta* (d), *Melinis nerviglumis* (d), *Themeda triandra* (d), *Cymbopogon nardus*, *Eragrostis capensis*, *E. chloromelas*, *E. racemosa*, *E. superba*, *Heteropogon contortus*, *Panicum maximum*, *Sporobolus fimbriatus*, *S. pyramidalis*, *Tristachya leucothrix*. Herbs: *Commelina africana*, *Ruellia patula*. Geophytic Herb: *Sansevieria hyacinthoides*.

**Biogeographically Important Taxon** (Southern distribution limit) Low Shrub: *Barleria elegans*.

**Endemic Taxon** Succulent Herb: *Aloe pruinosa*.

**Conservation** Vulnerable. Target 25%. None conserved in statutory conservation areas. Some 22% already transformed by cultivation and some urban or built-up areas. Erosion is low to very low, with some areas of moderate erosion.

#### *6.1.5. National Freshwater Ecosystem Priority Areas (NFEPA)*

There are no FEPA Rivers or wetlands noted on site.

#### *6.1.6. South African Bird Atlas Project 2*

The South African Bird Atlas Project 2 (SABAP 2) Database was queried to determine which bird species have been recorded within the greater study area. Please note that the data represents a minimum presence ratio, which indicates species that have been recorded in the area. This does not mean that other species do not occur in the pentad. Additionally, Bisley Nature Reserve occurs within the Pentad and therefore has resulted in a number of species predicted to occur on site.

The complete list includes 257 species, with 9 Species of Conservation Concern predicted to occur in the area (see Table 3 for list of species of conservation concern and Probability of Occurrence). Conservation status is given for Red Data Species on a Regional Basis as per the 2015 Eskom Red Data Book of Birds of South Africa (Taylor, 2015). No SCC were noted on site, although some of these species have previously been identified at Bisley Nature Reserve. Species such as Martial Eagles and Lanner Falcons may fly over site, it is highly unlikely that these species will occupy site itself due to the patch size and disconnectivity to surrounding natural vegetation.

The Important Bird Areas Map has indicated that site falls within 10km (6.2km from site) of a region of conservation importance, that being KwaZulu-Natal Mistbelt Grassland. The isolated and transformed nature of site will not have a negative effect on the Important Bird Areas classification.

#### *6.1.7. Animal Demographic Unit databases*

The Animal Demographic Unit's (ADU) ReptileMAP predicts that 60 reptile species occur within the greater study area. No species were seen during the assessment. Six reptile species of conservation concern have been identified to potentially occur within the study area and their Probability of Occurrence can be found in Table 3.

The ADU's FrogMAP predicts that 30 species of amphibians occur within the greater study area. No amphibians were noted during the site visit. One frog species of conservation concern has been identified to potentially occur within the study area and their Probability of Occurrence can be found in Table 3.

The ADU's MammalMAP predicts that 81 species of mammal occur within the study area. No mammal species were seen. Thirteen mammal species of conservation concern have been identified to potentially occur within the study area and their Probability of Occurrence can be found in Table 3.

## **7. RESULTS OF FIELD ASSESSMENT**

The study site is surrounded by formal and informal housing within the suburb of France. Earthworks (borrow material) and some form of construction associated with the creation of a sports field between Umvuzo High School and site has resulted in shallow rocky soils and the establishment of annual species and species associated with disturbance. A mix of graminoid species, indigenous shrubs and trees and alien and invasive species make up the vegetation community.

Leaf litter and the base of bushes were checked for the presence of millipedes and snails. Searches yielded no results for these species due to the shallow soils (as per Wetland Screening report associated with this submission). No reptile, amphibian or mammal species were seen on site, however bird species

were noted. Habitat for fauna is available (**Figure 5**), however the drainage line associated with the slangspruit (to the west of site) is likely to act as the home range for the majority of the species. The coarse scale of the mapping does not reflect the state of the site and is therefore unlikely that the species highlighted in Minset are representative of the Msunduzi EMF Map.

According to Mucina and Rutherford 2006, the site is classified as KwaZulu-Natal Hinterland Thornveld (SVs 3) which is a Vulnerable vegetation type. Upon undertaking the groundtruthing exercise it was found that the site has been disturbed and exhibits a low species diversity, although some species occur in line with the SVs3 vegetation type, such as *Vachellia nilotica*, *Ziziphus mucronata*, *Eragrostis curvula*, *hyparrhenia hirta*, *Panicum maximum*, and *Sporobolus africanus* (see **Figure 6** for some indigenous species seen on site). These species are common throughout KZN and collectively do not make up the SVs 3 vegetation type.

A total of 24 plant species were recorded during the field survey, of which 12 were alien (see **Figure 7** for some alien and invasive species seen on site). The high level of alien and invasive species further highlights the disturbed nature of site, with an even distribution of these species between graminoid species. No protected plants were identified during the site inspection, however a clump of *Ziziphus mucronata* (up to 2m in height) was noted on the northern portion of site. *Vachellia nilotica* and *Vachellia siberiana* tree size varied from saplings to approximately 2m in height.



**Figure 5: Habitat available on site looking south, with rocky soils visible in foreground.**



**Figure 6: Indigenous species from top left to bottom right; *Digitaria eriantha*, *Melinis repens*, *Cordia rudis*, *Vachellia nilotica*, *Vachellia siberiana* and *Ziziphus mucronata*.**



**Figure 7: Alien and invasive species from top left to bottom right; *Gomphocarpus fruticosus*, *Lantana camara*, *Solanum elaeagnifolium*, *Solanum mauritianum*, *Ricinus communis* and *Verbena bonariensis*.**



## 8. Probability of Occurrence

### POC Assessment for SCC Summary

The potential occurrence of SCC for the study area were highlighted at a desktop level by investigating:

- 1) Biodiversity features for the study area highlighted in the Provincial Terrestrial Systematic Conservation Plan or CPLAN (EKZNW, 2010);
- 2) Species records found in the South African Bird Atlas Project 2 (SABAP2) database;
- 3) Available species records (ADU, 2020); and
- 4) Professional experience regarding rare/threatened amphibian species, reptiles and small mammals and their habitat requirements in KZN.

The findings of the desktop POC assessment have been summarised in terms of potential plants, mammals, avifauna (birds), amphibians, reptiles and invertebrates of conservation concern (i.e. Red-Dated Listed Species: CR: Critically Endangered, EN: Endangered, VU: Vulnerable, NT: Near Threatened). Note that species of Least Concern (LC), endemic species and species with restricted ranges have been excluded from the assessment, with the focus being on Red-Data Listed (threatened) species.

Table 3: Probability of occurrence.

Group	Scientific Name	Common Name	Threat Status (regional, global)	Full Protocol / No. of Records	Last Recorded	Habitat Requirements / Preferences (IUCN, 2017)	Habitat Requirements Met	POC
Birds	<i>Balearica regulorum</i>	Grey Crowned Crane	EN, EN	0.8065	2017/01/14	Wetlands such as marshes, pans and dams with tall emergent vegetation, riverbanks, open riverine woodland, shallowly flooded plains and temporary pools with adjacent grasslands, open savannas, croplands, pastures, fallow fields and irrigated areas	No - habitat type not representative	Unlikely
	<i>Aquila rapax</i>	Tawny Eagle	EN, LC	0.8065	2015/12/26	The species occupies dry open habitats from sea level to 3000m, and will occupy both woodland and wooded savannah	No - habitat type not representative	Unlikely - surrounded by to much development
	<i>Polemaetus bellicosus</i>	Martial Eagle	EN, VU	8.0645	2017/12/30	It inhabits open woodland, wooded savanna, bushy grassland, thornbush and, in southern Africa, more open country and even subdesert, from sea level to 3,000 m	Yes - bushy grassland present	Unlikely - surrounded by to much development
	<i>Monticola explorator</i>	Sentinel Rock Thrush	LC, NT	0.8065	2016/08/20	Species occurs in high altitude grassland and heathland associated with stones, including rocky areas and felled areas containing exposed rocks	No - habitat type not representative	Unlikely
	<i>Coracias garrulus</i>	European Roller	NT, LC	5.6452	2016/12/10	Open woodlands, perching on open dead branches, on telephone poles and powerlines	Yes - habitat present	Unlikely - surrounded by to much development
	<i>Falco biarmicus</i>	Lanner Falcon	VU, LC	12.9032	2020/11/21	Forest, Savanna, Shrubland, Grassland, Rocky areas (eg. inland cliffs, mountain peaks), Desert, Artificial/Terrestrial	Yes - shrubland and grassland surrounded by artificial environment.	Likely - flying or hunting over the area
	<i>Neotis denhami</i>	Denham's Bustard	VU, NT	0.8065	2016/06/26	Inhabits grasslands, grassy Acacia-studded dunes, fairly dense shrubland, light woodland, farmland, crops, dried marsh and arid scrub plains, high rainfall sour grassveld, planted pastures and cereal croplands in fynbos in South Africa	Yes - Dense shrubland and grassland present	Unlikely due to patch size and isolation from natural areas
	<i>Stephanoaetus coronatus</i>	Crowned Eagle	VU, NT	1.6129	2012/07/22	It inhabits forest, woodland, savanna and shrubland, as well as some modified habitats, such as plantations and secondary growth, and can persist in small forest fragments including urban greenspace forests	No - habitat type not representative	Unlikely
	<i>Sagittarius serpentarius</i>	Secretarybird	VU, VU	4.0323	2017/07/22	The species inhabits grasslands, ranging from open plains to lightly wooded savanna, but is also found in agricultural areas and sub-desert. It ranges from sea-level to 3,000 m	No - habitat not open enough	Unlikely
Amphibians	<i>Natalobatrachus bonebergi</i>	Kloof Frog	Endangered	1	-	Inhabiting rocky streams in dense scarp and gallery forests, where it is usually found close to water, and does not occur in open areas.	No - habitat type not representative	Unlikely
Mammals	<i>Ourebia ourebi</i>	Oribi	Endangered	9	2019/08/09	Savanna woodlands, floodplains and other open grasslands, from around sea level to about 2,000 m asl.	No - habitat not present	Unlikely
	<i>Crocidura mariquensis</i>	Swamp Musk Shrew	Near Threatened	8	1978/04/14	Occurs in close proximity to open water, has a distinct preference for marshy ponds, and also needs riverine and semi-aquatic vegetation such as reed beds.	No - habitat not present	Unlikely
	<i>Poecilogale albinucha</i>	African Striped Weasel	Near Threatened	25	2003/07/19	Savanna, although this species probably has a wide habitat tolerance and has been recorded from lowland rainforest, semi-desert grassland, fynbos and pine plantations	Yes - habitat present around site	Unlikely due to patch size and isolation from natural areas
	<i>Aonyx capensis</i>	African Clawless Otter	Near Threatened (2016)	2	2006/05/14	Freshwater rivers, streams and dams	No - habitat not present	Unlikely
	<i>Leptailurus serval</i>	Serval	Near Threatened (2016)	2	2000/02/15	Associated with mesic grasslands and wetlands within alpine, montane and sub-montane regions, typically occurring in dense vegetation in close proximity to water.	No - habitat not present	Unlikely
	<i>Otomys auratus</i>	Southern African Vlei Rat	Near Threatened (2016)	6	2007/05/15	Associated with mesic grasslands and wetlands within alpine, montane and sub-montane regions, typically occurring in dense vegetation in close proximity to water	No - habitat not present	Unlikely
	<i>Chrysospalax villosus</i>	Rough-haired Golden Mole	Vulnerable	2	1974/05/17	Found on sandy soils in grasslands, meadows and along edges of marshes in Savanna and Grassland biomes of South Africa	No - habitat not present	Unlikely - soil type not present
	<i>Panthera pardus</i>	Leopard	Vulnerable	8	2006/06/22	Forest, Savanna, Shrubland, Grassland, Rocky areas (eg. inland cliffs, mountain peaks), Desert	Yes - habitat present	Unlikely due to patch size and isolation from natural areas
	<i>Philantomba monticola</i>	Blue Duiker	Vulnerable	5	2008/03/01	Forest, riverine forest and plantation	No - habitat not present	Unlikely
	<i>Myosorex cafer</i>	Dark-footed Mouse Shrew	Vulnerable (2016)	20	1997/08/19	Found near water in subtropical swamps, coastal forests, grassland, wetland and reedbed habitats.	No - habitat not present	Unlikely
	<i>Mystromys albicaudatus</i>	African White-tailed Rat	Vulnerable (2016)	1	1980/01/15	They are often associated with calcrete soils within grasslands. They are never found on soft, sandy substrate, rocks, wetlands or river banks. Further records show that they can occur in disturbed areas (heavily grazed) and in sparse grasslands; for example, on shallow limestone substrate	No - habitat not present	Unlikely
	<i>Rhinolophus swinnyi</i>	Swinny's Horseshoe Bat	Vulnerable (2016)	2	-	Forest, Savanna, Caves and Subterranean Habitats	Yes - habitats present and possible caves to the NE of site	Unlikely due to a lack of recent recordings in the QDS
	<i>Scotophilus nigrita</i>	Giant House Bat	Near Threatened (2016)	2	1974/01/12	Recorded from a variety of habitats, ranging from lowland tropical moist forest, to both moist and dry savanna	Yes - variety of habitats met	Unlikely as this species has a patchy distribution
Reptiles	<i>Bradypodion melanocephalum</i>	KwaZulu Dwarf Chameleon	Vulnerable (SARCA 2014)	82	2016/04/01	Grassland, bushland, thicket, trees and roadside verges	Yes - patch of ecotonal vegetation present	Unlikely due to disturbance and isolation of patch to drainage line

Group	Scientific Name	Common Name	Threat Status (regional, global)	Full Protocol / No. of Records	Last Recorded	Habitat Requirements / Preferences (IUCN, 2017)	Habitat Requirements Met	POC
	<i>Bradypodion thamnobates</i>	Natal Midlands Dwarf Chameleon	Endangered	15	2011/06/17	Found in remaining fragments of Southern Mistbelt Forest, in well-vegetated gardens, and along road verges. The species can inhabit small patches of thick, structured vegetation, even if this comprises exotic plant species.	Yes - patch of ecotonal vegetation present	Unlikely due to disturbance and isolation of patch to drainage line
	<i>Chamaesaura macrolepis</i>	Large-scaled Grass Lizard	Near Threatened (SARCA 2014)	4	1919/07/10	Occurs in the savanna, Indian Ocean Coastal Belt and Grassland Biomes in dry, open, sandy grasslands near the coast and on the Lebombo Mountains	No - sandy soils not present	Unlikely
	<i>Homoroselaps dorsalis</i>	Striped Harlequin Snake	Near Threatened (SARCA 2014)	2	1984/07/21	Partially fossorial and known to inhabit old termitaria in grassland habitat. Most of its range is at moderately high altitudes, reaching 1,800 m in Mpumalanga and Swaziland, but it is also found at elevations as low as about 100 m in KwaZulu-Natal	No - habitat not present	Unlikely
	<i>Macrelaps microlepidotus</i>	Natal Black Snake	Near Threatened (SARCA 2014)	6	2005/11/20	A semi-fossorial species with an affinity for forests, where it tends to frequent moist leaf litter and humic soil. In coastal bush, it is associated with damp localities near water.	No - habitat not present	Unlikely
Millepedes	<i>Camaricoproctus planidens</i>	Flat-toothed shagreened millipede	No information	No information	No information	Leaf litter, often at base of trees, may also be in top 30cm of soil.	Yes - leaf litter present underneath shrubs	Unlikely - species sensitive to fine scale changes in habitat characteristics and disturbance has previously occurred
	<i>Doratogonus peregrinus</i>	Wandering Black Millipede	Not evaluated	No information	No information	No information	No information	No information
	<i>Gnomeskelus spectabilis</i>	Visible keeled millipede	No information	No information	No information	No information	No information	No information
	<i>Gnomeskelus tuberosus urbanus</i>	Urban lumpy keeled millipede	No information	No information	No information	In rotting logs, under rocks or logs, in leaf litter	Yes – leaf litter present under shrubs and low bushes	Unlikely due to shallow soils
	<i>Patinatus bidentatus simulator</i>	Resembling two-toothed slender spined millipede	No information	No information	No information	No information	No information	No information
	<i>Spinotarsus destructus</i>	Destructive slender spined millipede	No information	No information	No information	Under rocks and cattle dung	Yes – rocks from previous construction activities present on site	Unlikely due to shallow soils
	<i>Spinotarsus glomeratus</i>	Glomerate slender spined millipede	Not evaluated	No information	No information	No information	No information	No information
	<i>Spinotarsus maritzburgensis</i>	Maritzburg slender spined millipede	No information	No information	No information	Under rocks, in leaf litter or top 30cm of soil	Yes – rocks and leaf litter present	Unlikely due to shallow soils
Molluscs	<i>Gulella euthymia</i>	Warty hunter snail	KZN Endemic	No information	No information	No information	No information	No information
	<i>Gulella separata</i>	Jigsaw-piece hunter snail	KZN Endemic	No information	No information	No information	No information	No information
Plant	<i>Acalypha angustata</i>	Copper Leaf	Near Threatened	No information	No information	Savanna. Open Woodland in the transition to Mistbelt Grassland	No - Site overgrowth with shrubs	Unlikely - very rare

## 9. IMPACT STATEMENT

Although the development will result in the loss of approximately 0.65 ha of vegetation. Almost half of the vegetation component comprises of established alien and invasive vegetation, with the indigenous component comprising of common grass and tree species. Historical imagery suggest that this area was used to borrow material for the construction of an adjacent sportsfield. This has resulted in a shallow soil surface and a plant species composition associated with disturbance, which in turn reduces the likelihood of faunal species of conservation concern (as noted in POC and Minset) occurring on site. It is therefore the opinion of the specialist that the Msunduzi EMF designation is not applicable to this site, and that no NEMA Listing Notice 3 activities should be triggered.

Impacts associated with loss of biodiversity is therefore deemed to be low. Nonetheless, conditions to be included in the EMP are as follows:

- DAFF permits for removal of 3 or more indigenous trees whose canopies are largely contiguous, need to be obtained prior to construction commencing (see **Appendix 1** for species list). Strictly no removing of any tree species without the valid permits in place.
- Where possible, indigenous vegetation needs to be retained.
- Clearance for construction should be done in a phased approach, and rehabilitation should be done as soon as construction work has been concluded on the site.
- The contractor should implement an alien invasive control programme, particularly in areas where soil disturbance occurs.

## 10. CONCLUSIONS

Although the vegetation type is Vulnerable, the overall area is transformed from natural and exhibits a low conservation value.

From a faunal perspective, the study area has a low conservation value. This is based on the potential for this site to harbour some species of conservation importance, however the heavily transformed nature of the site reduces the likelihood of these species occurring. No species of conservation importance were noted. Habitat for foraging is present, however fauna being mobile, will result in faunal species moving to adjacent areas during construction. This is unlikely to affect the status of species of conservation concern. It is not anticipated that the proposed construction will have a long term negative effect on the fauna of the area. The fauna of the site is directly dependent on the vegetation of the site, and the careful management of the vegetation (and soil) will benefit the fauna of the area. The terrestrial Biodiversity on the site is considered to be low.

It is therefore the opinion of the Specialist that the Msunduzi EMF designation is not applicable to this site, and that no NEMA Listing Notice 3 activities should be triggered. The Specialist has no objection to the development provided mitigation measures mentioned in Section 9 are included in the EMP.

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## Appendix 1 Species list

Scientific Name	Common Name	Origin	Growth Form	Status	Permitting requirements
<i>Bidens pilosa</i> L.	Black jack	Alien	herb		
<i>Cannabis sativa</i> L. var. <i>sativa</i>	Dagga	Alien	Herb		
<i>Gomphocarpus fruticosus</i> (L.) Aiton f. subsp. <i>fruticosus</i>	Cotton Milkweed	Alien	Herb		
<i>Ipomoea purpurea</i> (L.) Roth	Common Morning Glory	Alien	Creeper	1b	
<i>Lantana camara</i> L.	Tick berry	Alien	Shrub	1b	
<i>Physalis angulata</i> L.	Wild Gooseberry	Alien	Herb		
<i>Ricinus communis</i> L. var. <i>communis</i>	Castor oil plant	Alien	Shrub	2	
<i>Senna septemtrionalis</i> (Viv.) H.S.Irwin & Barneby	Arsenic Bush	Alien	Shrub	1b	
<i>Solanum elaeagnifolium</i> Cav.	Silverleaf Nightshade	Alien	Herb	1b	
<i>Solanum mauritianum</i> Scop.	Bugweed	Alien	Tree	1b	
<i>Tagetes minuta</i> L.	Khakibos	Alien	Herb		
<i>Verbena bonariensis</i> L.	Purpletop vervain	Alien	Herb	1b	
<i>Berkheya onopordifolia</i> (DC.) O.Hoffm. ex Burt Davy		Indigenous	Herb		
<i>Ceratotheca triloba</i> ( Bernh.) Hook.f.	Wild foxglove	Indigenous	Herb		
<i>Cordia alliodora</i> (L.) DC.	Small Bone-apple	Indigenous	Shrub		
<i>Digitaria eriantha</i> Steud.	Pongola grass	Indigenous	Grass		
<i>Eragrostis curvula</i> (Schrad.) Nees	African Love Grass	Indigenous	Grass		
<i>Melinis repens</i> (Willd.) Zizka	Natal red top	Indigenous	Grass		
<i>Panicum maximum</i> Jacq	Guinea grass	Indigenous	Grass		
<i>Setaria sphacelata</i> (Schumach.) Stapf & C.E.Hubb. ex M.B.Moss var. <i>sphacelata</i>	Common Bristle Grass	Indigenous	Grass		
<i>Sporobolus africanus</i> (Poir.) Robyns & Tourn.	Ratstail Dropseed	Indigenous	Grass		
<i>Sporobolus pyramidalis</i> P.Beauv.	Cat's Tail Dropseed	Indigenous	Grass		
<i>Vachellia nilotica</i> (L.) P.J.H.Hurter & Mabb. subsp. <i>kraussiana</i> (Benth.) Kyal. & Boatwr.	Scented Thorn	Indigenous	Tree		DAFF
<i>Vachellia sieberiana</i> (DC.) Kyal. & Boatwr. var. <i>woodii</i> (Burt Davy) Kyal. & Boatwr.	Paper-bark Thorn	Indigenous	Tree		DAFF
<i>Ziziphus mucronata</i> Willd. subsp. <i>mucronata</i>	Buffalo thorn	Indigenous	Tree		DAFF



## **Appendix C: Wetland Identification and Assessment Specialist Report**







**HN Consulting Engineers (Pty) Ltd**

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**IDENTIFICATION OF WETLAND AND WATERCOURSES ASSOCIATED WITH THE PROPOSED FRANCE COMMUNITY HALL, PIETERMARITZBURG**

**Issue Date:** February 2021  
**Revision No.:** 1.0  
**Project No.:** 16718

**DETAILS OF SPECIALIST CONSULTANT**

<b>Date:</b>	February 2021
<b>Document Title:</b>	Identification of Wetland and Watercourses for France Community Hall, Msunduzi Municipality, Kwazulu-Natal
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<b>Version Number:</b>	#1
<b>Checked by:</b>	<b>Mark Summers (Cand.Sci.Nat)</b> B.Sc. Honours Zoological Science M.Sc. Ecological Science
<b>Signature:</b>	
<b>Approved:</b>	<b>John Richardson</b>
<b>Signature:</b>	
<b>For:</b>	HN Consulting Engineers (Pty) Ltd

**IDENTIFICATION OF WETLAND AND WATERCOURSES FOR FRANCE COMMUNITY HALL,  
MSUNDUSI MUNICIPALITY, KWAZULU-NATAL  
DRAFT REPORT**

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## SPECIALISTS DECLARATION

I, Stephen Burton as the appointed independent specialist, in terms of the 2014 EIA Regulations, hereby declare that I:

- act as the independent specialist in this application;
- perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- regard the information contained in this report as it relates to my specialist input/study to be true and correct, and do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2014 and any specific environmental management Act;
- declare that there are no circumstances that may compromise my objectivity in performing such work;
- have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- will comply with the Act, Regulations and all other applicable legislation;
- have no, and will not engage in, conflicting interests in the undertaking of the activity;
- have no vested interest in the proposed activity proceeding;
- undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- have ensured that information containing all relevant facts in respect of the specialist input/study was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments on the specialist input/study;
- have ensured that the comments of all interested and affected parties on the specialist input/study were considered, recorded and submitted to the competent authority in respect of the application;
- all the particulars furnished by me in this specialist input/study are true and correct; and
- realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Signature of specialist:



Name of specialist:

Stephen Burton

Date:

8<sup>th</sup> February 2021

## SPECIALISTS DECLARATION

I, Mark Summers as the appointed independent specialist, in terms of the 2014 EIA Regulations, hereby declare that I:

- act as the independent specialist in this application;
- perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- regard the information contained in this report as it relates to my specialist input/study to be true and correct, and do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2014 and any specific environmental management Act;
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- have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
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- have no vested interest in the proposed activity proceeding;
- undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
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- have ensured that the comments of all interested and affected parties on the specialist input/study were considered, recorded and submitted to the competent authority in respect of the application;
- all the particulars furnished by me in this specialist input/study are true and correct; and
- realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Signature of specialist:



Name of specialist:

Mark Summers

Date:

8<sup>th</sup> February 2021

# IDENTIFICATION OF WETLAND AND WATERCOURSES FOR FRANCE COMMUNITY HALL, MSUNDUZI MUNICIPALITY, KWAZULU-NATAL DRAFT REPORT

## 1 INTRODUCTION

SiVEST SA (Pty) Ltd has been appointed by HN Consulting Engineers (Pty) Ltd to undertake a screening assessment and associated specialist studies. The Msunduzi Municipality wishes to establish a Community Hall and associated infrastructure on a proposed portion of ERF 6069 located in the Township of France, Msunduzi Municipality, KwaZulu-Natal. The property is located below the adjacent school's sports fields and is approximately 6km south of the South Gate Shopping Centre located in Bisley, Pietermaritzburg. A locality and site map is included in Figures 1 & 2 below respectively.

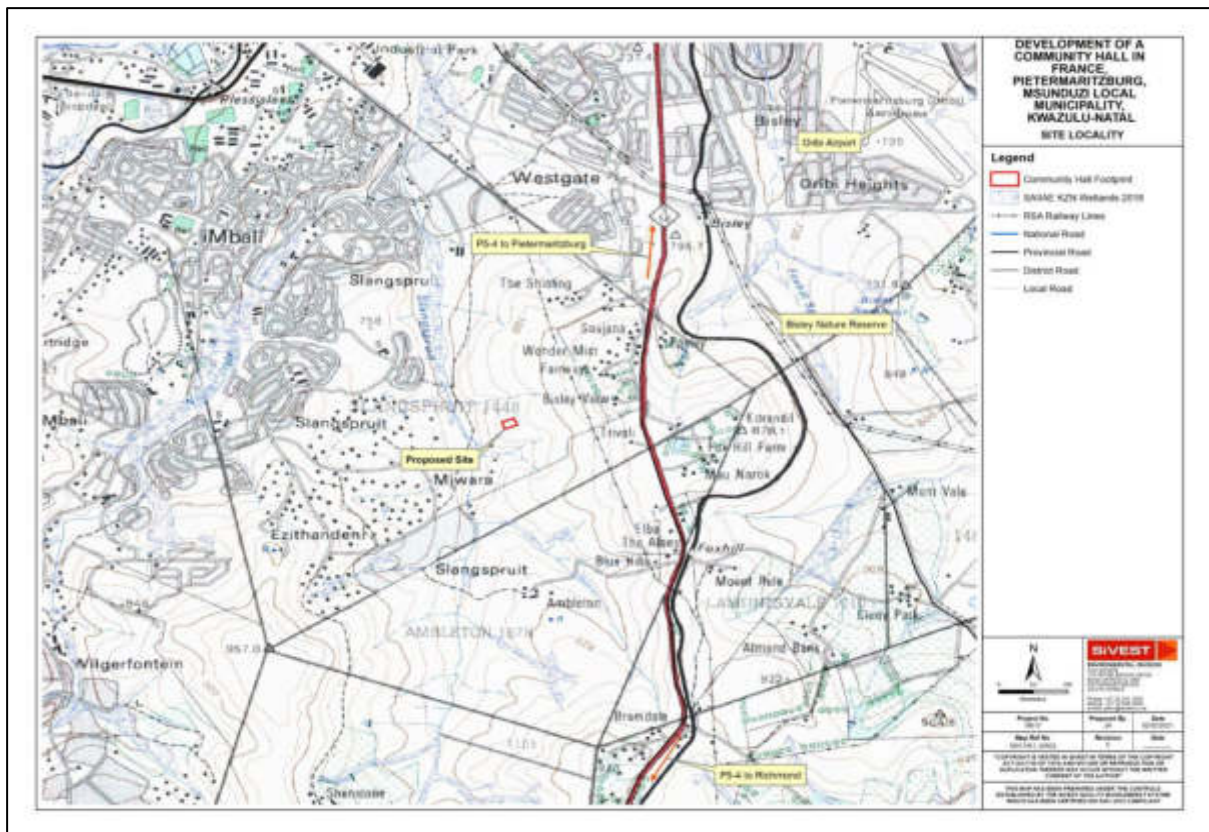


Figure 1: Locality Map of the site.

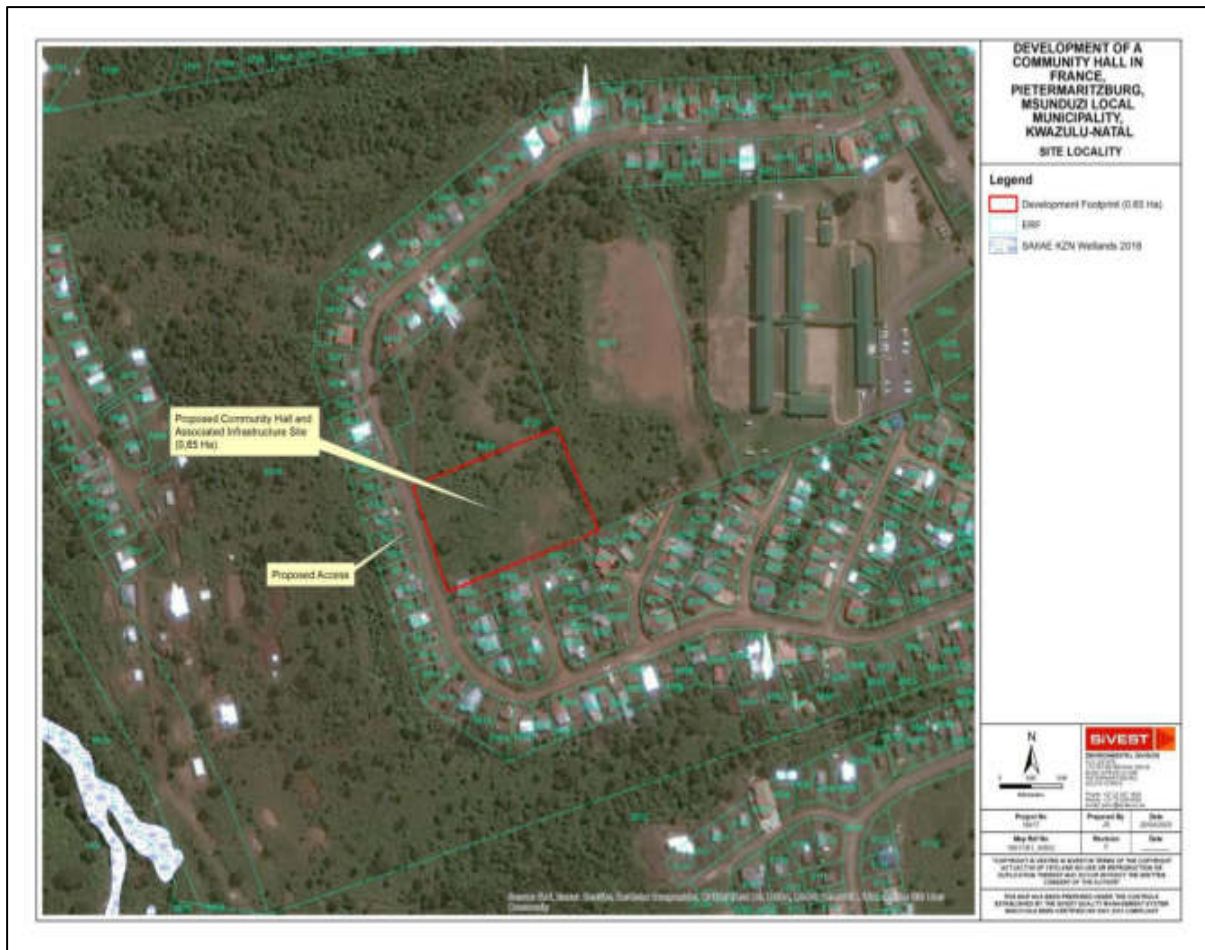


Figure 2: Aerial Map of the site.

## 2 PROJECT BACKGROUND

The hall will be fully serviced and so will have electrical, water, and sewage services all of which will be connected to the existing municipal supplies located at the boundary of the site. Parking areas will be provided within the proposed development footprint and general waste from the facility will be disposed of via the municipal waste stream at the New England Road municipal landfill site. Access to site will be off an existing unnamed municipal road. The site (A proposed portion of ERF 6069 France) is approximately 6 500 square meters (0.65 ha) in extent, and the development footprint will cover this entire area. The land is currently zoned as “Educational Use” based on the information which has been received from the HN Consulting Engineers (Pty) Ltd. At present the site is open undeveloped land which shows evidence of historical disturbance, possibly as a result of the establishment of the adjacent school sports fields or other infrastructure associated with surrounding land uses. The majority of the site is bounded by a mix of formal and informal community housing, including a school to the east.

The coordinates for the centre of the site are 29°40'26.80"S, 30°22'5.24"E and the location of the property in relation to the Pietermaritzburg is shown in **Figure 1** and **Figure 2** above.

## 3 TERMS OF REFERENCE

The study was to adhere to the following:

- Adherence to the content requirements for specialist reports in accordance with Appendix 6 of the EIA Regulations 2014, as amended.
- Adherence to all appropriate best practice guidelines, relevant legislation and authority requirements.
- Provide a thorough overview of all applicable legislation, guidelines.

- Identification of sensitive areas to be avoided.
- Implications of specialist findings for the proposed development (e.g. permits, licenses etc.).
- Specify if any further assessment will be required.
- Include an Impact Statement, concluding whether project can be authorised or not.
- Recommend mitigation measures in order to minimise the impact of the proposed development.

## 4 METHODOLOGY

### 4.1 Wetland Delineation

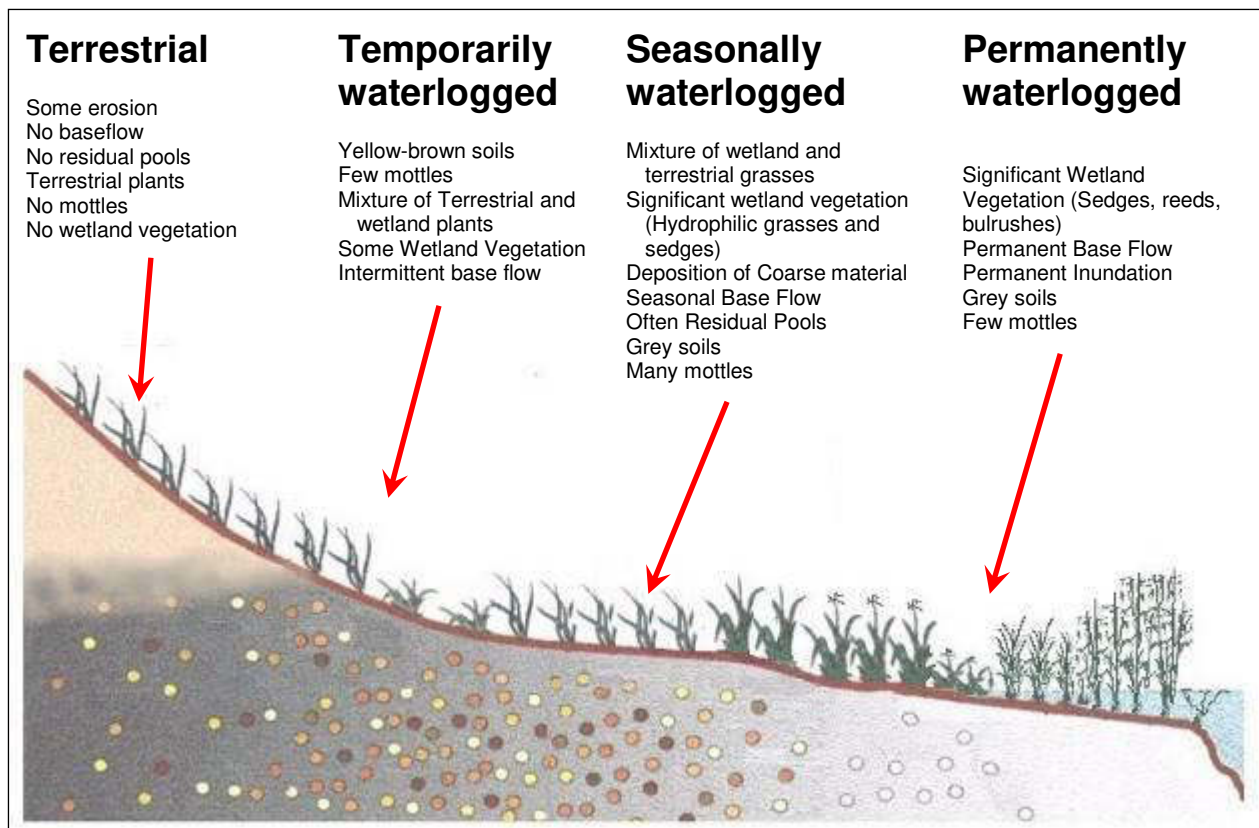
The initial wetland identification process was conducted at a desktop level during which available GIS databases were interrogated to determine the presence of any wetland areas that have been determined in the past. The key database in that was interrogated was the National Freshwater Ecosystem Priority Area (NFEPA) as managed and updated by the South African National Biodiversity Institute (SANBI).

In keeping with the requirements of the National Water Act the study area for the investigation was expanded by a 500 m wide surrounding strip. The delineations of any wetland areas were to be conducted in accordance with the Department of Water Affairs and Forestry guideline document (DWAf, 2005).

This field guide makes use of four specific indicators which show the presence and the boundaries of wetlands. The presence of the following indicators was used during the identification and delineation of the site:

- **Terrain Unit Indicator** – Identification of the part of the landscape where wetlands are more likely to occur;
- **Soil Form Indicator** – Identification of the soil types which are associated with prolonged and frequent saturation;
- **Soil Wetness Indicator** – Identification of the morphological signatures that develop in soil profiles as a result of prolonged and frequent saturation; and
- **Vegetation Indicator** – Identification of the hydrophilic vegetation associated with frequently saturated soil.





**Figure 3: Cross section through a wetland, indicating how the soil wetness and vegetation indicators change along a gradient of decreasing wetness, from the middle to the edge of the wetland. (Reproduced from Kotze (1996), DWAf Guidelines).**

## 4.2 Wetland Classification

Any features meeting the criteria above within the study area will be delineated and classified using the Classification System for Wetlands and other Aquatic Ecosystems in South Africa. User Manual: Inland systems hereafter referred to as the “Classification System” (Ollis et. al., 2013).

Level 4 HGM types (which is commonly used to describe a specific wetland type) have been divided into 8 units. These are described as follows:

- **Channel** (river, including the banks) - an open conduit with clearly defined margins that (i) continuously or periodically contains flowing water. Dominant water sources include concentrated surface flow from upstream channels and tributaries, diffuse surface flow or interflow, and/or groundwater flow.
- **Channelled valley-bottom wetland** - a mostly flat valley-bottom wetland dissected by and typically elevated above a channel (see channel). Dominant water inputs to these areas are typically from the channel, either as surface flow resulting from overtopping of the channel bank/s or as interflow, or from adjacent valley-side slopes (as overland flow or interflow).
- **Unchannelled valley-bottom wetland** - a mostly flat valley-bottom wetland area without a major channel running through it, characterised by an absence of distinct channel banks and the prevalence of diffuse flows, even during and after high rainfall events.
- **Floodplain wetland** - the mostly flat or gently sloping wetland area adjacent to and formed by a Lowland or Upland Floodplain river, and subject to periodic inundation by overtopping of the channel bank.
- **Depression** - a landform with closed elevation contours that increases in depth from the perimeter to a central area of greatest depth, and within which water typically accumulates. Dominant water sources are precipitation, ground water discharge, interflow and (diffuse or concentrated) overland flow.
- **Flat** - a near-level wetland area (i.e. with little or no relief) with little or no gradient, situated on a plain or a bench in terms of landscape setting. The primary source of water is precipitation.

- **Hillslope seep** - a wetland area located on (gentle to steep) sloping land, which is dominated by the colluvial (i.e. gravity-driven), unidirectional movement of material down-slope.
- **Valley head seep** - a gently-sloping, typically concave wetland area located on a valley floor at the head of a drainage line, with water inputs mainly from subsurface flow.

Any of the above mentioned wetland forms may occur within the study area. The types of wetlands identified by the study are addressed later in the report.

### 4.3 Wetland Health Assessment

The current (pre-development) and post-development health of the affected wetland systems was determined using the *WET-Health* tool developed by **Macfarlane et al. (2009)**. A Level 1 assessment was utilised in accordance with the requirements set out by DWA.

**Table 1: Impact scores and categories of Present State used by WET-Health for describing the integrity of wetlands (Source: Macfarlane et al., 2009)**

Description	Impact Score Range	PES Category
<b>Unmodified</b> , natural.	<b>0-0.9</b>	<b>A</b>
<b>Largely natural</b> with few modifications. A slight change in ecosystem processes is discernible and a small loss of natural habitats and biota may have taken place.	<b>1-1.9</b>	<b>B</b>
<b>Moderately modified</b> . A moderate change in ecosystem processes and loss of natural habitats has taken place but the natural habitat remains predominantly intact.	<b>2-3.9</b>	<b>C</b>
<b>Largely modified</b> . A large change in ecosystem processes and loss of natural habitat and biota and has occurred.	<b>4-5.9</b>	<b>D</b>
<b>Seriously modified</b> . The change in ecosystem processes and loss of natural habitat and biota is great but some remaining natural habitat features are still recognizable.	<b>6-7.9</b>	<b>E</b>
<b>Critically modified</b> . Modifications have reached a critical level and the ecosystem processes have been modified completely with an almost complete loss of natural habitat and biota.	<b>8-10</b>	<b>F</b>

## 5 RESULTS

### 5.1 Desktop Study

The Msunduzi EMF indicated the potential presence of a number of watercourses within the study area (**Figure 4** below). In addition, the valley bottom downslope of the project site was predicted to include an alluvial wetland system. No NFEPA rivers or wetlands were identified for the site.

Examination of Google Earth Imagery indicates the presence of potential wetland habitat in the areas identified as river system in the Msunduzi EMF database, as well as potential wetland habitat within the valley bottom to the east of the site, also as identified by the Msunduzi EMF database.

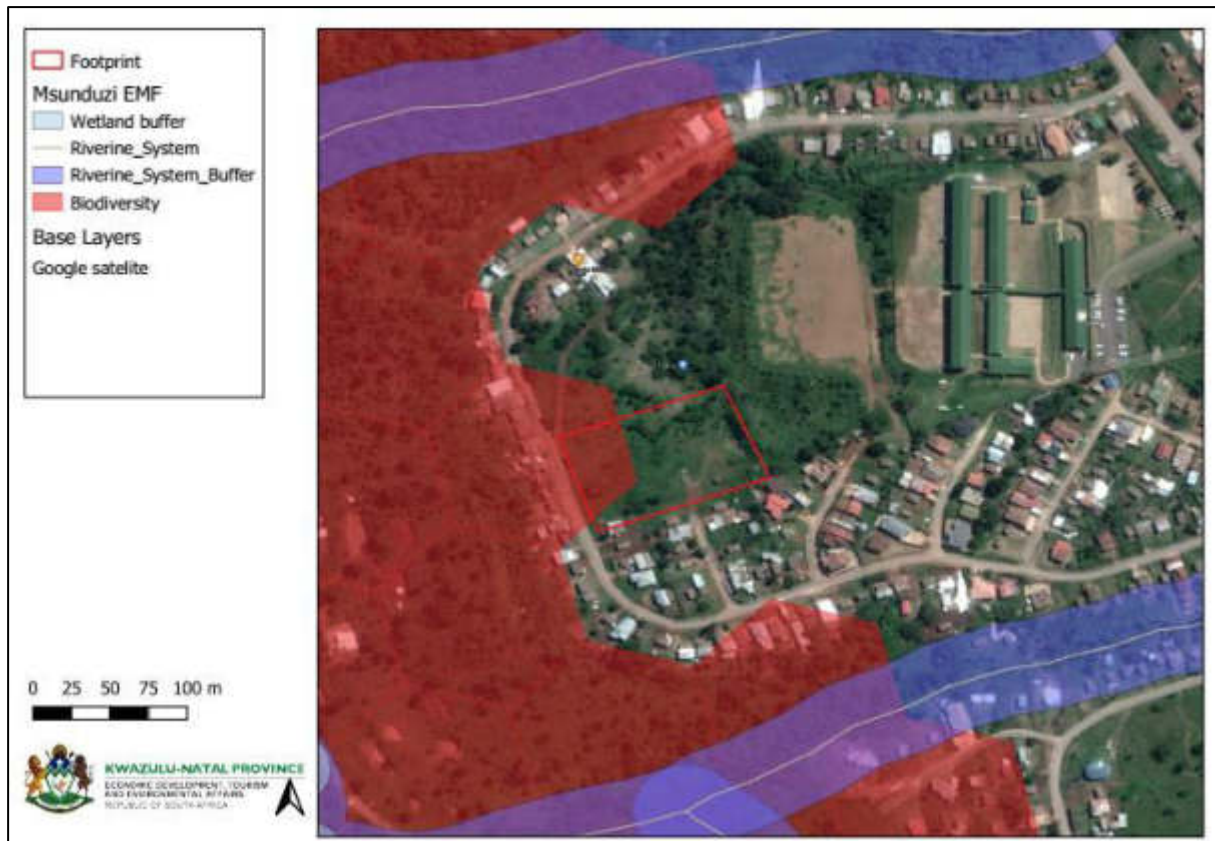


Figure 4: Msunduzi EMF Biodiversity output.

## 5.2 Site Study

The site visit was undertaken on the 26<sup>th</sup> January 2021 by Mark Summers and Stephen Burton. The areas noted as riparian systems to the north and south of the site were noted to include wetland soils and vegetation, and the valley bottom to the west of the site was noted to include a valley bottom wetland system (**Figure 5** below). No wetlands were identified within the footprint area, or the adjacent vacant land. The wetland to the north of the site is 190m from the site boundary, while the wetland to the south is 180m from the site boundary. The large system to the west, and downslope, of the site is 280m from the site boundary. The various wetland systems are visible in **Figures 6 & 7** below.



**Figure 5: Wetlands delineated within 500m of the footprint area**



**Figure 6: View of the wetlands to the south and west of the study site.**



**Figure 7: View of the wetlands to the north and west of the study site.**

### 5.3 Wetland Unit Identification

All three wetland systems identified can be classified as Unchannelled Valley Bottom Wetlands.

### 5.4 Wetland Ecological Functional Assessment

All three systems noted on site fall into Class E, seriously modified, and their ecological functioning and service delivery has been severely impaired. The unchannelled valley bottom systems have been impacted upon by the clearing of the wetlands and catchments for informal and formal housing, subsistence, and commercial crop production. The geomorphology has been significantly altered by erosion of the systems through increased peak flow inputs and overgrazing and clearance of natural vegetation.

### 5.5 Risk Assessment

In order to determine the risks posed to the water resources as a result of the construction of the community hall, the Department of Water and Sanitation Risk-based Assessment Matrix (DWAS, 2014) should be applied. The potential risks originating from the proposed development of the community hall are listed in Table 2.

**Table 2: Risks posed to the wetland as a result of the development of the community hall**

Impacted System	Potential Impacts	Risk Level
Unchannelled Valley Bottom Wetland North and South of Site	NO impacts. The flow direction of any impact from the site will flow downslope to the west.	<b>No Risk Incurred</b>

Unchannelled Valley Bottom System West of Site	Very minor impacts. Stormwater from the proposed hall will flow downslope in a westerly direction, but will be intersected by the unnamed road, and will therefore enter the municipal stormwater system. In addition, three rows of houses, and two additional unnamed roads fall between the community hall site, and the wetland system to the west of the site.	<b>No Risk Incurred</b>
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Based on the above, the Department of Water and Sanitation Risk-based Assessment Matrix was not applied to this project.

## 6 CONCLUSION AND RECOMMENDATIONS

The wetland and watercourse identification and delineation assessment has identified the presence of three wetland systems, and associated watercourses, within 500m of the proposed France community hall.

It is considered that the wetlands will not be impacted upon in any way by the development. Therefore, the Risk Assessment Matrix was not applied. Despite this, the following generic recommendations should be included in the Environmental Management Programme, to ensure that the identified water resources are protected.

1. Waste management practices must make provision for the collect of all construction and domestic waste from the site and storing it in a designated area within the site camp. This collected waste are to be removed from site on a weekly basis and disposed of at the municipal landfill site.
2. The site agent must ensure that erosion control measures are maintained around the site during the construction phase, and silt traps should be used to reduce soil loss from the site through storm events.

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## **Appendix D: Heritage Impact Assessment Report**

**A DESKTOP LETTER OF EXEMPTION FOR A  
COMMUNITY HALL IN FRANCE, MSUNDUZI  
MUNICIPALITY, KWAZULU-NATAL**

**FOR SIVERST (PTY) LTD**

**DATE: 3 FEBRUARY 2021**

**By Gavin Anderson**

**Umlando: Archaeological Surveys and Heritage  
Management**

**PO Box 10153, Meerensee, 3901**

**Phone: 035-7531785      Cell: 0836585362**

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## Abbreviations

HP	Historical Period
IIA	Indeterminate Iron Age
LIA	Late Iron Age
EIA	Early Iron Age
ISA	Indeterminate Stone Age
ESA	Early Stone Age
MSA	Middle Stone Age
LSA	Late Stone Age
HIA	Heritage Impact Assessment
PIA	Palaeontological Impact Assessment

DRAFT

## INTRODUCTION

The information which has been provided to SiVEST SA (Pty) Ltd is that the Msunduzi Municipality wishes to establish a Community Hall and associated infrastructure on a proposed portion of ERF 6069 located in the Township of France, Msunduzi Municipality, KwaZulu-Natal. The property is located below the adjacent schools sports fields and is approximately 6km south of the South Gate Shopping Centre located in Bisley, Pietermaritzburg.

The hall will be fully serviced and so will have electrical, water, and sewage services all of which will be connected to the existing municipal supplies located at the boundary of the site. Parking areas will be provided within the proposed development footprint and general waste from the facility will be disposed of via the municipal waste stream at the New England Road municipal landfill site. Access to site will be off an existing unnamed municipal road. The site (A proposed portion of ERF 6069 France) is approximately 6 500 square meters (0.65 ha) in extent, and the development footprint will cover this entire area. The land is currently zoned as "Educational Use" based on the information which has been received from the HN Consulting Engineers (Pty) Ltd. At present the site is open undeveloped land which shows evidence of historical disturbance, possibly as a result of the establishment of the adjacent school sports fields or other infrastructure associated with surrounding land uses. The majority of the site is bounded by a mix of formal and informal community housing, including a school to the east.

Umlando was requested to assist in the HIA and suggested that it be exempt from further HIA. Figures 1 – 4 show the location of the site.

FIG. 1: GENERAL LOCATION OF THE STUDY AREA

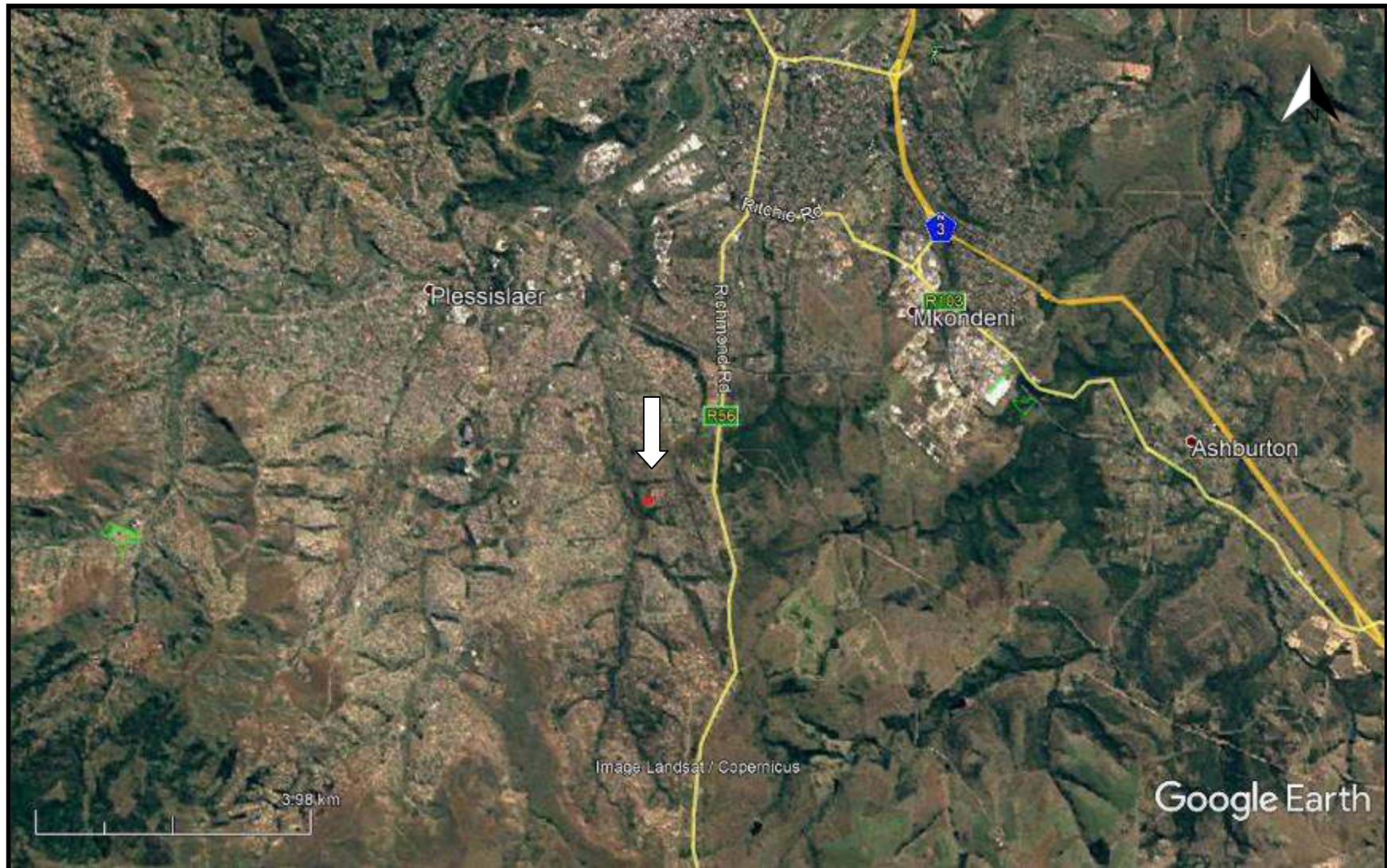


FIG. 2: AERIAL OVERVIEW OF THE STUDY AREA



FIG. 3: TOPOGRAPHICAL OVERVIEW OF THE EASTERN STUDY AREA (1996)

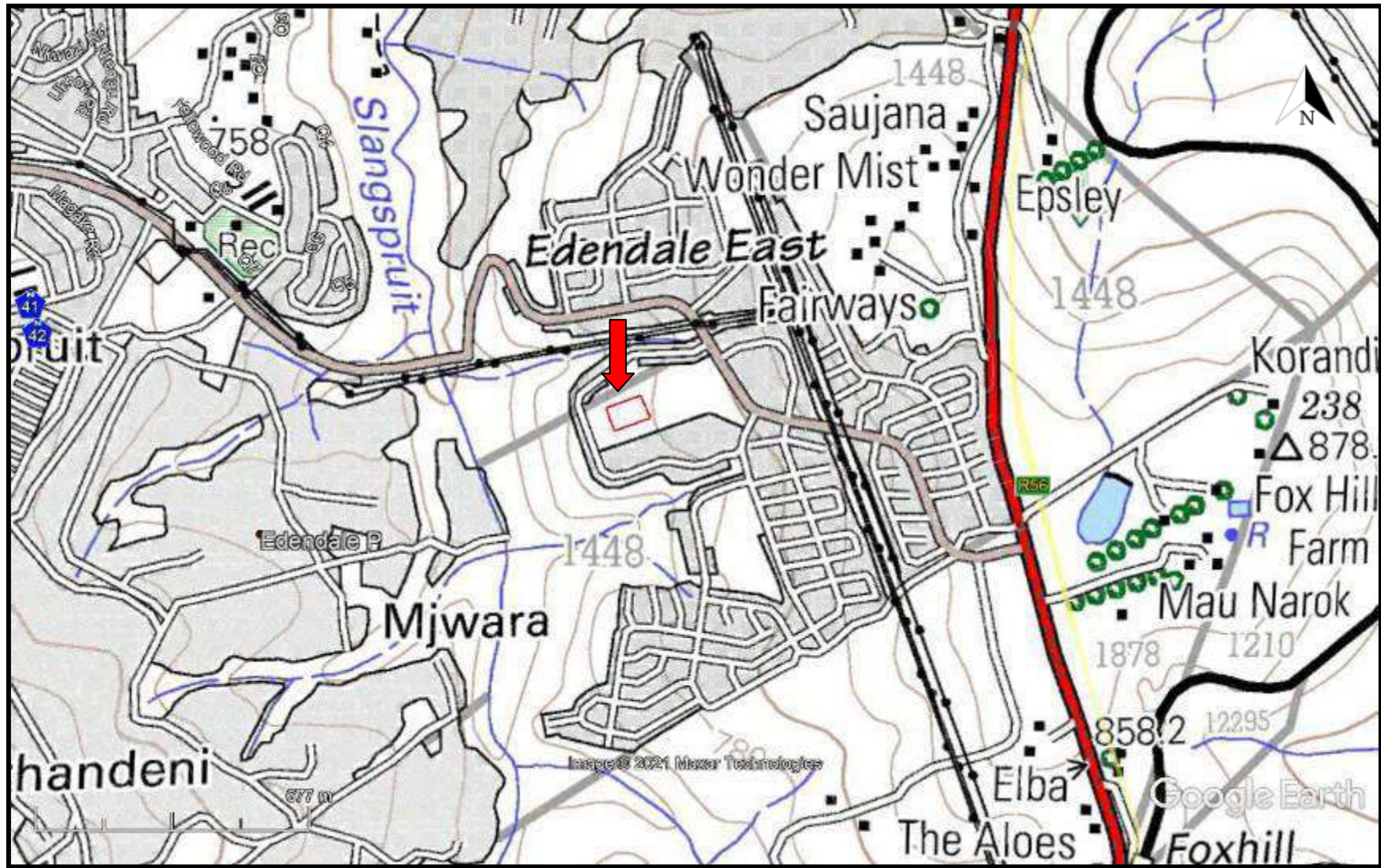


FIG. 4; SCENIC VIEWS OF THE SITE





The desktop study consisted of analysing various maps for evidence of prior habitation in the study area, as well as for previous archaeological surveys. The archaeological database indicates that there are archaeological sites in the general area (fig. 5). These sites include all types of Stone Age and Iron Age sites. No sites occur in the study area. The high density of development in the area has resulted in any archaeological sites being destroyed.

No national monuments, battlefields, or historical cemeteries are known to occur in the study area.

The 1937 (fig. 6) and 1944 (fig. 7) maps indicate that the area was previously grassland. There is a possible structure on the 1937 aerial photograph, but it is not shown on the 1968 map.

The 2006 Google Earth imagery indicates that there are no buildings in the study area (fig. 8).

The study area is of no palaeontological sensitivity (fig. 9).

The proposed community hall should be exempt from further HIA studies.

FIG. 5: LOCATION OF KNOWN HERITAGE SITES NEAR THE STUDY AREA

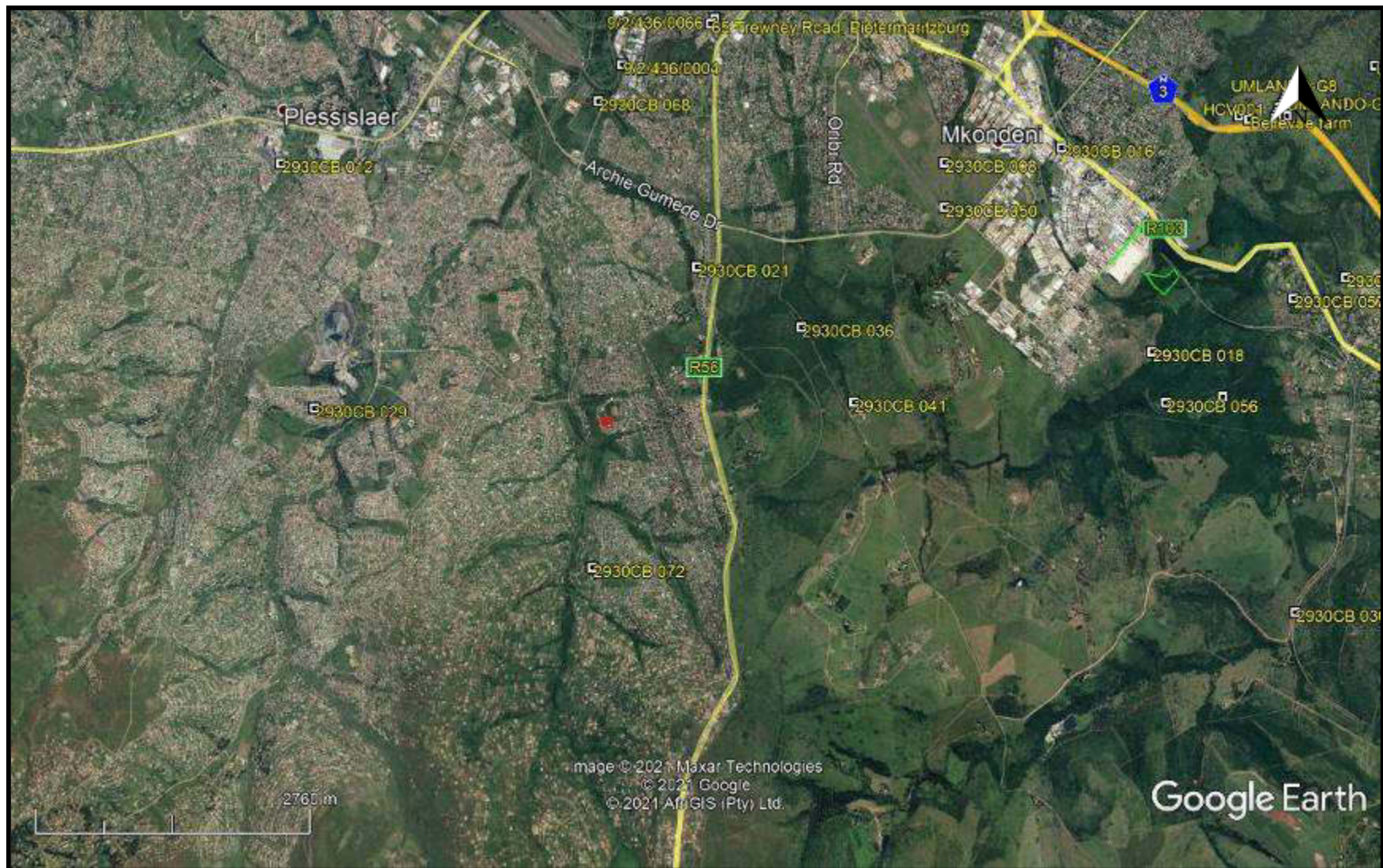


FIG. 6: STUDY AREA IN 1937



FIG. 7: STUDY AREA IN 1968

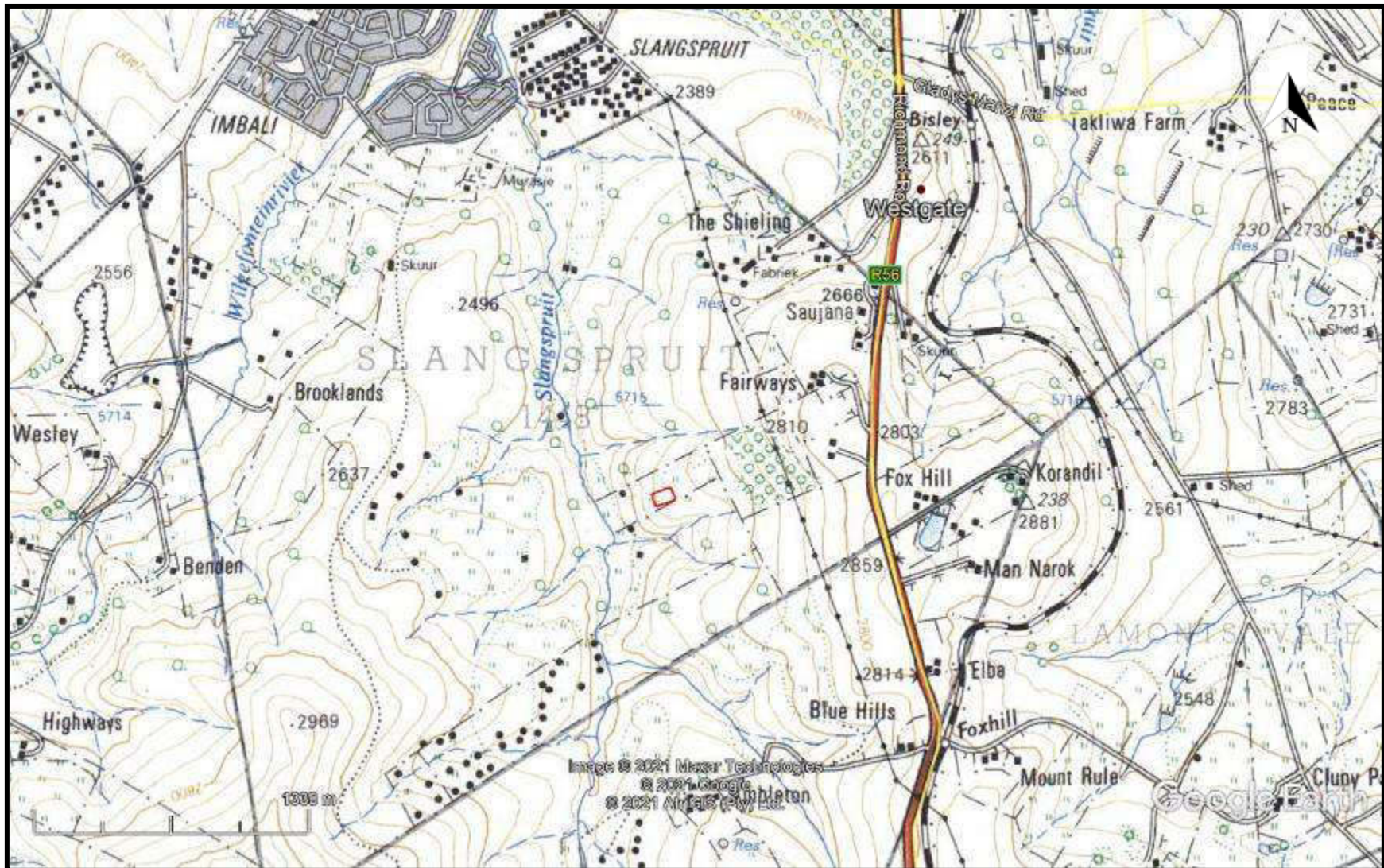
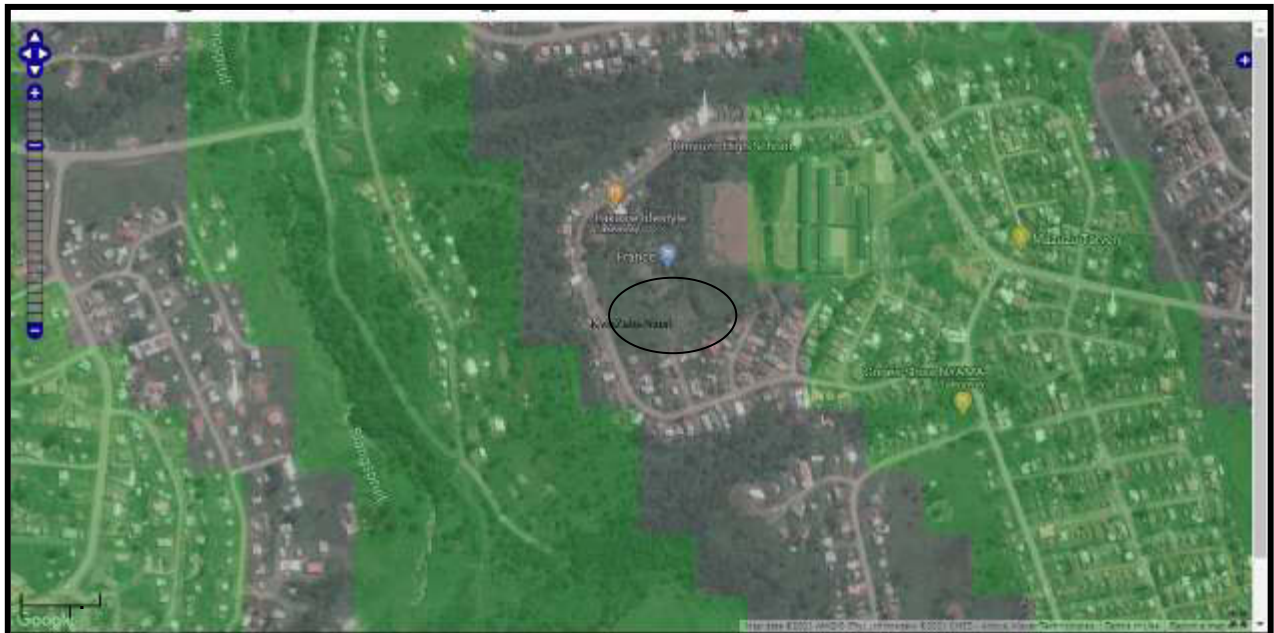


FIG. 8: 2006 GOOGLE IMAGERY OF THE STUDY AREA



FIG. 9: PALAEOLOGICAL SENSITIVITY



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

### **EXPERIENCE OF THE HERITAGE CONSULTANT**

Gavin Anderson has a M. Phil (in archaeology and social psychology) degree from the University of Cape Town. Gavin has been working as a professional archaeologist and heritage impact assessor since 1995. He joined the Association of Professional Archaeologists of Southern Africa in 1998 when it was formed. Gavin is rated as a Principle Investigator with expertise status in Rock Art, Stone Age and Iron Age studies. In addition to this, he was worked on both West and East Coast shell middens, Anglo-Boer War sites, and Historical Period sites.

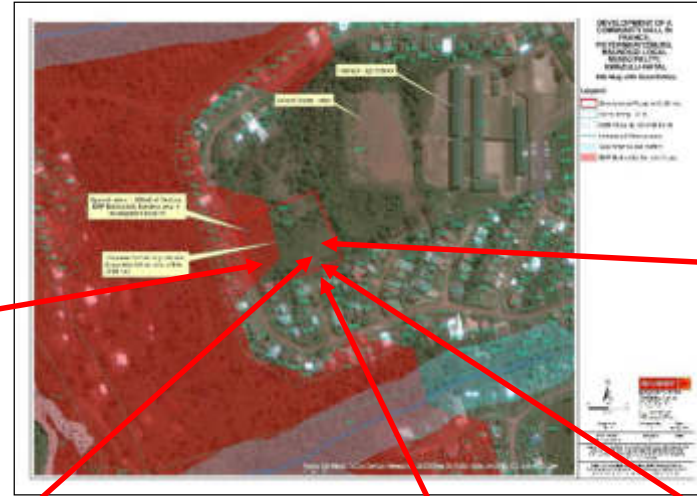
### **DECLARATION OF INDEPENDENCE**

I, Gavin Anderson, declare that I am an independent specialist consultant and have no financial, personal or other interest in the proposed development, nor the developers or any of their subsidiaries, apart from fair remuneration for work performed in the delivery of heritage assessment services. There are no circumstances that compromise the objectivity of my performing such work.



Gavin Anderson  
Archaeologist/Heritage Impact Assessor

## Appendix E: General Site Photographs







## Appendix F: DFFE Screening Tool Outputs

**SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS  
REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE  
ENVIRONMENTAL SENSITIVITY**

**EIA Reference number:** N/A

**Project name:** France Community Hall

**Project title:** Proposed Community Hall, France Township, Msunduzi Local Municipality

**Date screening report generated:** 26/04/2021 14:10:53

**Applicant:** Msunduzi Municipality

**Compiler:** J Richardson

**Compiler signature:**  
.....

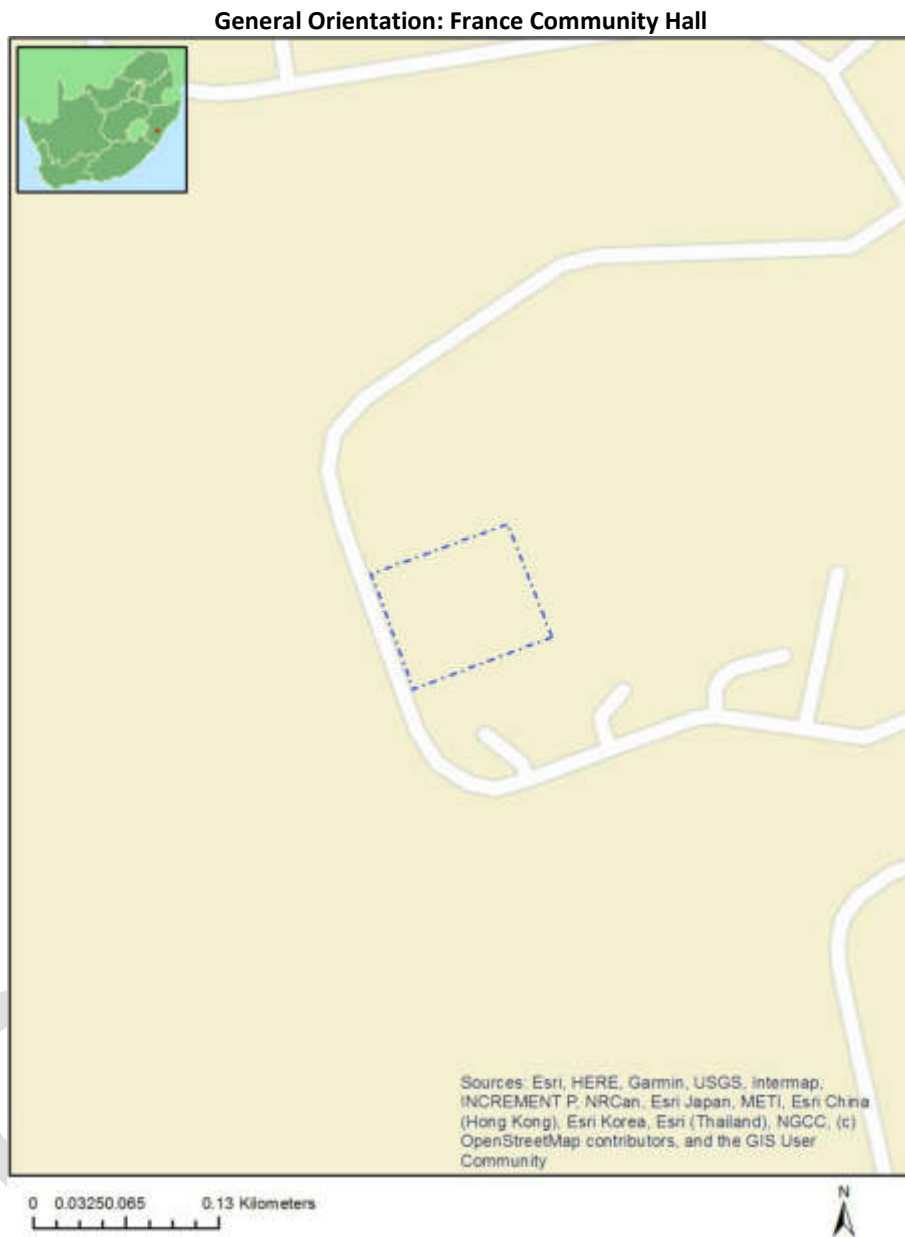
**Application Category:** Transformation of land | Indigenous vegetation

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# Proposed Project Location

## Orientation map 1: General location



## Map of proposed site and relevant area(s)



### Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	PIETERMARITZBURG	5728	0	29°40'23.44S	30°22'2.69E	Erven
2	PIETERMARITZBURG	6069	0	29°40'25.16S	30°22'4.79E	Erven

Development footprint<sup>1</sup> vertices:  
No development footprint(s) specified.

### Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No nearby wind or solar developments found.

---

<sup>1</sup> “development footprint”, means the area within the site on which the development will take place and includes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

## Environmental Management Frameworks relevant to the application



<b>Environmental Management Framework</b>	<b>LINK</b>
The Msunduzi EMF	<a href="https://screening.environment.gov.za/ScreeningDownloads/EMF/376998_DraftEMF_100304.pdf">https://screening.environment.gov.za/ScreeningDownloads/EMF/376998_DraftEMF_100304.pdf</a>

## Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is:

**Transformation of land | Indigenous vegetation.**

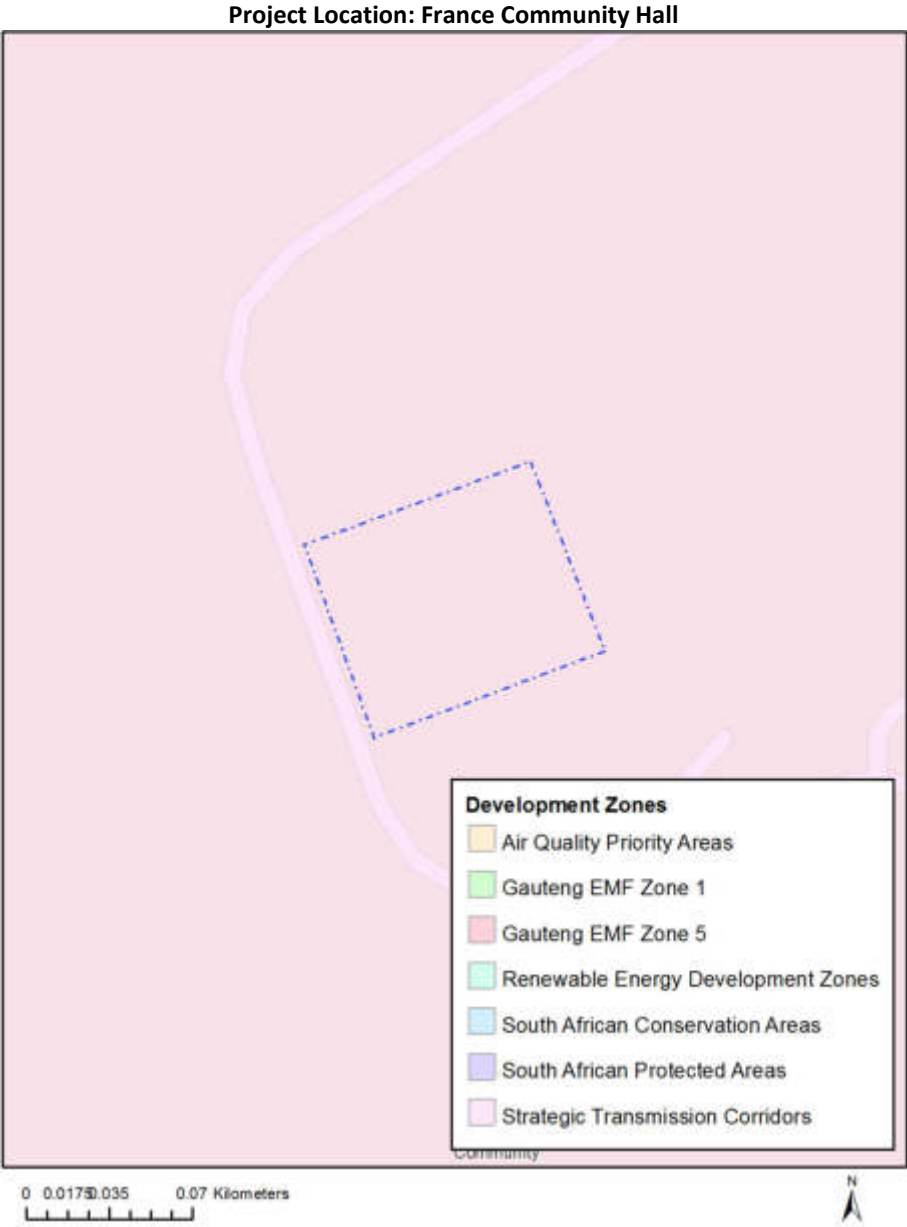
### Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

<b>Incentive, restriction or prohibition</b>	<b>Implication</b>
Strategic Transmission Corridor-	<a href="https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/GN11316February2018.pdf">https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/GN11316February2018.pdf</a>

Eastern corridor	
------------------	--

Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones



**Proposed Development Area Environmental Sensitivity**

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High	High	Medium	Low
-------	-----------	------	--------	-----

	sensitivity	sensitivity	sensitivity	sensitivity
Agriculture Theme		X		
Animal Species Theme			X	
Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme		X		
Defence Theme				X
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

### Specialist assessments identified

Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

N o	Special ist assess ment	Assessment Protocol
1	Landscape/Visual Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
2	Archaeological and Cultural Heritage Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
3	Palaeontology Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
4	Terrestrial Biodiversity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf</a>
5	Aquatic Biodiversity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf</a>
6	Avian Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Avifauna_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Avifauna_Assessment_Protocols.pdf</a>



7	Socio-Economic Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
8	Plant Species Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf</a>
9	Animal Species Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf</a>

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## Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

### MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

#### Sensitivity Features:

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

## MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at [eiadatarequests@sanbi.org.za](mailto:eiadatarequests@sanbi.org.za) listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

### Sensitivity Features:

Sensitivity	Feature(s)
Medium	Mammalia-Dendrohyrax arboreus
Medium	Reptilia-Kinixys natalensis
Medium	Sensitive species 5

## MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

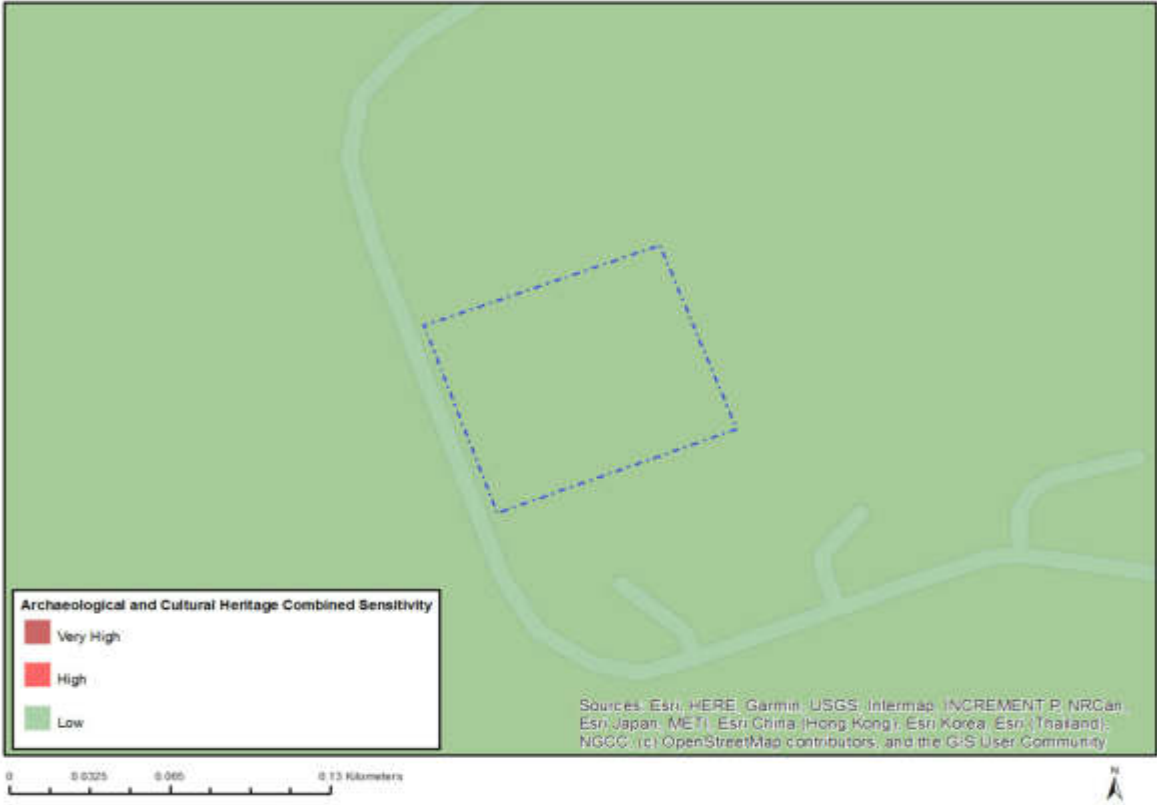


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

### Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Within 8 km of other civil aviation aerodrome
Medium	Within 5 km of an air traffic control or navigation site

MAP OF RELATIVE DEFENCE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

## MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at [eiadatarequests@sanbi.org.za](mailto:eiadatarequests@sanbi.org.za) listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

### Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Medium	Hermannia sandersonii
Medium	Hydrostachys polymorpha
Medium	Sensitive species 461
Medium	Sensitive species 1260
Medium	Asclepias bicuspis
Medium	Woodia verruculosa
Medium	Cineraria atriplicifolia
Medium	Helichrysum pannosum
Medium	Sensitive species 1076
Medium	Sensitive species 1251
Medium	Sensitive species 313
Medium	Sensitive species 649
Medium	Disperis woodii
Medium	Sensitive species 944



Medium	Thunbergia venosa
--------	-------------------

### MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

#### Sensitivity Features:

Sensitivity	Feature(s)
Very High	Critical Biodiversity Area