July 2022

FINAL BASIC ASSESSMENT REPORT FOR THE PROPOSED CONSTRUCTION OF A FAMILY HOMESTEAD (LATHLEKA) AND THE UPGRADE OF AN EXISTING RIVER CROSSING, ON THE REMAINING EXTENT 2 OF THE FARM SCHOONGEZIGHT 66 KU.

Compiled for:
Alric G Wiggill

PROJECT DETAILS

FILE REFERENCE NUMBER:	**12/1/9/3 – M54**
TITLE:	Proposed construction of a family homestead (Lathleka) and the upgrade of an existing river crossing, on the Remaining Extent 2 of the Farm Schoongezight 66 KU
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PROJECT NAME:	Proposed construction of a family homestead (Lathleka) and the upgrade of an existing river crossing, on the Remaining Extent 2 of the Farm Schoongezight 66 KU
REPORT STATUS:	Final
REPORT NUMBER:	01
SUBMISSION DATE:	**July 2022**

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STEVEN HENWOOD

(Nature Conservation Diploma)

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

BASIC ASSESSMENT REPORT - EIA REGULATIONS, 2014

Basic Assessment report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

File Reference Number:	12/1/9/3 – M54
	(For official use only)
NEAS Reference Number:	
Date Received:	
Due date for acknowledgement:	
Due date for acceptance:	
Due date for decision	

Kindly note that:

1. The report must be compiled by an independent Environmental Assessment Practitioner.

2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.

3. Where applicable **tick** the boxes that are applicable in the report.

4. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the Department of Economic Development, Environment and Tourism as the competent authority (Department) for assessing the application, it may result in the rejection of the application as provided for in the regulations.

5. An incomplete report may be returned to the applicant for revision.

6. Unless protected by law, all information in the report will become public information on receipt by the department. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

7. The Act means the National Environmental Management Act (No. 107 of 1998) as amended.

8. Regulations refer to Environmental Impact Assessment (EIA) Regulations of 2014.

9. The Department may require that for specified types of activities in defined situations only parts of this report need to be completed. No faxed or e-mailed reports will be accepted.

10. This application form must be handed in at the offices of the Department of Economic Development, Environment and Tourism:-

Postal Address:	**Physical Address**:
Central Administration Office Environmental Impact Management P. O. Box 55464 **POLOKWANE** 0700	Central Administration Office Environmental Affairs Building 20 Hans Van Rensburg Street / 19 Biccard Street **POLOKWANE** 0699

Queries should be directed to the Central Administration Office: Environmental Impact Management:-

For attention: Mr E. V. Maluleke
Mobile: 082 947 7755
Email: malulekeev@ledet.gov.za

View the Department's website at http://www.ledet.gov.za/ for the latest version of the documents.

EXECUTIVE SUMMARY

INTRODUCTION

Henwood Environmental Solutions (Pty) Ltd. (HES), as an independent environmental consultant and impact assessor, has been appointed by Alric G Wiggill, to conduct the environmental impact assessment for the proposed construction of a family homestead (Lathleka) and the upgrade of an existing river crossing, on the Remaining Extent 2 of the Farm Schoongezight 66 KU. (See the locality map as attached).

PREFERRED ALTERNATIVE FOR THE FAMILY HOMESTEAD

LATITUDE (S):			**LONGITUDE (E):**		
24°	18’	22.37”	31°	14’	53.60”

PREFERRED ALTERNATIVE FOR THE STREAM CROSSING

LATITUDE (S):			**LONGITUDE (E):**		
24°	20’	41.89”	31°	9’	21.39”

PROJECT BACKGROUND & MOTIVATION

The owners of the Remaining Extent 2 of the Farm Schoongezight 66 KU (Lathleka), would like to develop a family homestead, as well as upgrade an existing river crossing. In this regard the homestead is to consist of:

- A central main farmhouse with,
    - Braai area;
    - Swimming pool; and
    - Garage facilities.
- 4 family homes.

All of this will be developed within a 5 ha area.

The proposed upgrade to an existing river crossing is to take place at 24°20' 41.89"S 31° 9' 21.39"E. A vented ford with 50 cm culverts is proposed.

ENVIRONMENTAL IMPACT ASSESSMENT REQUIREMENTS

The proposed development involves listed activities, as defined by the National Environmental Management Act: NEMA, 1998 (Act no. 107 of 1998) as amended and the Environmental Impact Assessment Regulations, 2014. Listed activities are activities, which may have potentially detrimental impacts on the environment and therefore require environmental authorization from the competent authority (CA). The competent authority for this project is The Limpopo Department of Economic Development Environment and Tourism (LEDET).

The proposed Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing is subject to a Basic Assessment process as prescribed in GN 983 and GN 985.

This document, duly completed, constitutes the Final Basic Assessment Report (FBAR). It has been compiled as a result of the findings, from the specialist study, and various inputs from I&AP's and Authorities during the public participation stage of the process. This FBAR will be presented to Interested and Affected Parties (I&AP's) for comment. These comments will be included in the final submission to LEDET for consideration.

The purpose of a BAR is to present an objective evaluation of the anticipated environmental impacts of the proposed development.

The structure of this FBAR has been informed by the DEA's EIR guidelines (DEA, 2006), and the need for a clear and succinct document to facilitate informed decision-making by the proponent and environmental authorities. The FBAR contains the following information:

- A summary description of the feasible alternatives and potential impacts identified during the planning phase. It should be noted that the alternatives have been refined/ augmented due to requirements and available information;
- Information on the affected environment;
- A description and assessment of the potential impacts associated with the various feasible alternatives as well as an indication of potential mitigation measures;
- A conclusion and various recommendations with regard to the way forward; and
- A series of Appendices containing relevant information, including the various specialist studies.

After completion of the Final Basic Assessment (FBAR) and incorporation of comment on the FBAR, the Competent Authority (LEDET) will consider the FBAR report for compliance with the provisions of the EIA regulations.

LEDET will also consider the findings and recommendations compiled by the EIA practitioner, as well as representations made by Interested and Affected Parties and commenting Authorities before making a decision on whether to authorize the activity.

LEDET will then advise whether it is satisfied with:

- The contents of the BA Report
- The findings of the BA Report
- The recommendations of the BA Report and Environmental Management Programme (EMPr)

Should LEDET be satisfied with the above items it will finalise Environmental Authorisation.

PUBLIC PARTICIPATION PROCESS

The level of public participation was determined by taking into account the scale of the anticipated impacts of the proposed project, the sensitivity of the affected environment and the degree of controversy of the project, and the characteristics of the potentially affected parties. Based on the findings of the aforementioned consideration, there was no reason to elaborate on the minimum requirements of the public participation process outlined in the EIA Regulations, 2010 and 2014 or use reasonable alternative methods for people desiring of but unable to participate in the process due to illiteracy, disability or any other disadvantage. Thus, the decision was taken to circulate a detailed Background Information Document and that this, with additional input from I&AP's, would be adequate in terms of engaging with the public and affected parties[1].

Potentially interested and affected parties were notified of the proposed application by:

- Fixing a notice board at a place conspicuous to the public, specifically at the Reserve main gate (APPENDIX E, Annexure A & B). There was no reasonable alternative site (Section D 5).
- Giving written notice to owners and occupiers of land adjacent to Remaining Extent 2 of the Farm Schoongezight 66 KU, and organs of state having jurisdiction in respect of the proposed activity.
- A Background Information Document (BID) was prepared and distributed via email (APPENDIX E, Annexure C). Also see table below.
- Placing an advertisement in a local newspaper, the Lowvelder (APPENDIX E, Annexure D & E). No official Gazette existed at the time of the application. The proposed activity shall not have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it will be undertaken.
- Lodging copies of the Draft Basic Assessment Report, for public review and comment, as well as sending all registered I&AP's who requested a hard copy the document. This was done from the 01 June 2022.
- Comments received on the BID and initial public consultation have been included and reflected in this Draft Basic Assessment Report.

[1] DEA (2010), Public Participation 2010, Integrated Environmental Management Guideline Series 7, Department of Environmental Affairs, Pretoria, South Africa.

Table 1: List of Stakeholders

The owner or person in control of that land if the applicant is not the owner or person in control of the land: *The applicant is the owner or person in control of the land.* *Alric Wiggill (awiggi@comcast.net)*
The occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken: *The applicant occupies the site where the activity is to be undertaken* *Alric Wiggill (awiggi@comcast.net)*
Owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken: **Neighbouring Properties** De Vos (Schoongezicht 66 KU Ptn 13) vosstoff@mweb.co.za Dukes (Schoongezicht 66 KU Ptn 15) info@ndabushi.co.za Howard Walker (Schoongezicht 66 KU) howard.b.walker@gmail.com Nini info@baobabridge.com Wolfgang Burre wolfgang.burre@gmail.com Carl Vd Berg carl@ntsiri.co.za **Klaserie Private Nature Reserve** Colin Rowles (manager@klaseriereserve.co.za) Hennie Jacobs (admin@klaseriereserve.co.za)
The municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area: The site is not designated a ward.
The municipality which has jurisdiction in the area: **Mopani District Municipality (MDM)** tim@mopani.gov.za 015 811 6300 Maruleng Local Municipality ramothwalar@maruleng.gov.za Maruleng Local Municipality nchabelengj@maruleng.gov.za

Any organ of state having jurisdiction in respect of any aspect of the activity: ***Limpopo Department of Economic Development, Environment and Tourism (LEDET)*** VisagieC@ledet.gov.za maland@golimpopo.com
Additional Stakeholders: Timbavati Private Nature Reserve Edwin Pierce: warden@timbavati.co.za Almero Bosch: almero@timbavati.co.za Endangered Wildlife Trust David Mills: DavidM@ewt.org.za Kruger to Canyon Wehncke vd Merwe bufferzone@kruger2canyons.org SANParks Marisa Coetzee: Marisa.Coetzee@sanparks.org BirdLife SA Melissa Whitecross: melissa.whitecross@birdlife.org.za

In terms of regulation 55(1), all organs of state which have jurisdiction in respect of the proposed activity and all persons who submitted written comments or requested, in writing, to be registered were placed on the register.

A summary of the issues raised (APPENDIX E, Annexure J) -

KEY ENVIRONMENTAL ISSUES

The assessed impacts were identified in the planning phase and have been subjected to detailed investigation and assessment. These impacts include potential biophysical and social impacts that may arise during the operational phase of the proposed activities (i.e. long-term impacts) and construction phase impacts (i.e. short-term impacts).

The methodology was developed by HES and has been continually refined and improved based on our experience in applying it to many EIA processes. The methodology is broadly consistent to that described in the NEMA EIA Regulations and in the DEA Guideline Document for these regulations (DEA, 2010)[2].

Each issue identified for the proposed study area was taken into consideration in order to ascertain the most suitable layout that has the least possible impacts, or the most manageable impacts, on the environment.

The following table summarises the significance of the identified potential impacts (i) before mitigation; and (ii) once recommended mitigation measures are in place.

[2] DEA&DP (2010) Guideline on Alternatives, EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning (DEA&DP).

Summary impacts

Construction phase impacts

IMPACT	Without mitigations (positive & negative)			With mitigation (positive & negative)		
	HIGH	MODERATE	LOW	HIGH	MODERATE	LOW
Change to Physical Topography		✘				✘
Ecological Sensitivity • Habitat loss (Fauna and Flora) • Barriers to dispersal and migration of fauna and flora		✘				✘
Aquatic Sensitivity		✘				✘
Erosion and Sedimentation		✘				✘
Ground and Surface Water Impact		✘				✘
Heritage			✘			✘
Solid Waste Removal		✘				✘
Noise disturbance		✘				✘
"Sense of Place" - Visual		✘				✘
Windblown Dust		✘				✘
Litter and Waste		✘				✘
Safety		✘				✘
Traffic		✘				✘
Socio-Economic ▪ Employment			✘		✓	

IMPACT	Without mitigations (positive & negative)			With mitigation (positive & negative)		
	HIGH	MODERATE	LOW	HIGH	MODERATE	LOW
Opportunities (short-term) ▪ Influx of aliens		x				x

Operation phase impacts

	Without mitigations			With mitigation		
	HIGH	MODERATE	LOW	HIGH	MODERATE	LOW
Erosion and Siltation		x				x
Safety		x				x
Visual – "sense of place"		x				x

RECOMMENDED MANAGEMENT ACTIONS

A variety of mitigation measures have been identified that could mitigate the scale, intensity, duration or significance of the impacts. These measures, which have been informed by the specialist study/s conducted[3], are included in this Final Basic Assessment Report (FBAR) and in the Draft EMPr (attached). The FBAR and Draft EMPr also includes guidelines to be applied during the construction and operational phases of the project.

Should the proposed activity be authorised, the most important mitigation measures, which should be stipulated as requirements in any authorisation include the following:

- The Construction Phase EMPr that addresses, inter alia, the issues discussed under Construction Phase impacts, viz. Ecological sensitivity, erosion and sedimentation, deterioration of water quality, heritage impact, noise disturbance and socio-economic impacts, traffic, windblown dust, litter/waste and safety should be effectively implemented for the duration of the project.

- A suitably qualified professional should be appointed to act as the ECO and oversee the implementation of the EMPr during construction.

- A conservation buffer of 25 m from the Full Supply Level of Dam A and 5 m from ephemeral drainage lines, must be implimented.

- If any human remains are discovered during earth moving activities, excavations must stop at the location of these findings, and these must be treated with respect. The South African Heritage Resources Agency must be notified immediately. An archaeologist may be required to remove the remains at the expense of the developer.

[3] DEAT (2002) Specialist Studies, Information Series 4, Department of Environmental Affairs and Tourism (DEAT), Pretoria.

- Effective design of all stormwater outlet areas to prevent erosion.

- Appropriate landscaping and rehabilitation of indigenous vegetation should be included in the development of the site.

- Construction should be planned so that the unnecessary clearing of vegetation is avoided.

- Measures are taken to ensure that personnel and the general public are safe at all times.

CONCLUSIONS

Development, by its very nature, implies impact. The EIA process identifies and quantifies these impacts. Where possible these impacts are avoided through planning revision. In other cases, mitigation is proposed to reduce the severity and significance of the impacts.

The FBAR provides a summary description of the feasible alternatives and potential impacts identified during the FBAR Phase; a description and assessment of the potential impacts associated with the various feasible alternatives as well as an indication of potential mitigation measures; conclusions and various recommendations with regard to the way forward; and a series of Appendices containing relevant information.

The Draft EMPr provides much more detailed mitigation measures, and should all proposed mitigation measures be instituted it is not envisaged that the proposed development poses any negative impacts of high significance which cannot be mitigated.

It is the final considered opinion of the Environmental Assessment Practitioner (Henwood Environmental Solutions (Pty) Ltd.) that the construction of the proposed tented camp will not have a detrimental negative impact on the surrounding environment if all mitigation measures are implemented.

This investigation has not identified any potential impacts on the biophysical or social environments that are so severe as to suggest that the proposed activity should not proceed. The design has taken cognisance of the various environmental considerations and accordingly, incorporates remedial measures aimed at curtailing the significance of the potential negative environmental impacts associated with the proposed development, as well as enhancing the potential positive environmental (including Socio-economic) impacts.

It is therefore the EAP's recommendation that authorisation be granted provided that good environmental practices be implemented; and that this will include environmentally sensitive planning and design of all structures.

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SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?	YES✓	NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" or appointment of a specialist for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail[4]:

The owners of the Remaining Extent 2 of the Farm Schoongezight 66 KU (Lathleka), would like to develop a family homestead, as well as upgrade an existing river crossing. In this regard the homestead is to consist of:

- A central main farmhouse with,
  - Braai area;
  - Swimming pool; and
- Garage facilities.
  - 4 family homes.

All of this will be developed within a 5 ha area.

The proposed upgrade to an existing river crossing is to take place at 24°20' 41.89"S 31° 9' 21.39"E. A vented ford with 50 cm culverts is proposed.

[4] Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice but should be a brief description of activities to be undertaken as per the project description.

2. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;

(b) the type of activity to be undertaken;

(c) the design or layout of the activity;

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

(e) the operational aspects of the activity; and

(f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the Department may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Legislative Background
The very consideration of a development in terms of EIA is about the consideration of alternatives related to the development. The NEMA prescribes that all environmental impact assessments, which are to be utilised in informing an application for environmental authorisation, must identify and investigate the alternatives to the activity on the environment (Sections 24(4)(b)(i) and 24(4A) of NEMA) and include a description and comparative assessment of the advantages and disadvantages that the proposed activity and feasible and reasonable alternatives will have on the environment and on the community that may be affected by the activity.

Definition of Alternatives
"Alternatives", in relation to a proposed activity, means different means of meeting the general purposes and requirements of the activity, which may include the following types of alternatives:

The property/ies on which, or location where, it is proposed to undertake the activity;

- Refers to both properties as well as alternative sites on the same property.
- The type of activity to be undertaken;
    - For example - Provision of public transport rather than increasing the capacity of roads.

- The design or layout of the activity;
    - Different architectural and or engineering designs.
    - Consideration of different spatial configurations of an activity on a particular site (Site Layout)
- The technology to be used in the activity;
    - Option of achieving the same goal by using a different method or process.
- The operational aspects of the activity;
- Demand
    - When a demand for a certain product or service can be met by some alternative means, i.e. the demand for electricity/storm water controls could be met by supplying more energy or using energy more efficiently by managing demand.
- Input
    - Input alternatives for projects that may use different raw materials or energy sources in their processes.

- Routing
    - Alternative routes generally applies to linear developments (pipeline routes).
- Scheduling and Timing
    - Where a number of measures might play a part in an overall programme, but the order in which they are scheduled will contribute to the overall effectiveness of the end result.
- Scale and Magnitude
    - Activities that can be broken down into smaller units and can be undertaken on different scales, i.e. for a housing development there could be the option 10, 15 or 20 housing units.
- The option of not implementing the activity (no-go option).
    - The no-go option is taken to be the existing rights on the property, and this includes all the duty of care and other legal responsibilities that apply to the owner of the property. All the applicable permits must be in place for a land use to be an existing right.

The key criteria when identifying and investigating alternatives are that they should be "feasible" and "reasonable". The "feasibility" and "reasonability" of and the need for alternatives must be determined by considering, *inter alia*, (a) the general purpose and requirements of the activity, (b) need and desirability, (c) opportunity costs, (d) the need to avoid negative impact altogether, (e) the need to minimise unavoidable negative impacts, (f) the need to maximise benefits, and (g) the need for equitable distributional consequences. The (development) alternatives must be socially, environmentally and economically sustainable. They must also aim to address the key significant impacts of the proposed residential development by maximising benefits and avoiding or minimising the negative impacts.

Identification and Investigation of Alternatives Including Motivations

Given the aforementioned definition and description of alternatives, alternatives for investigation in this assessment were first identified by considering whether the different types of alternatives could meet the general purposes and requirements of the existing infrastructure and status quo, and subsequently constitute a comparable activity. Thereafter, the need for an alternative was assessed to determine whether it warranted further investigation. Certain

alternatives could not be considered as legitimate alternatives for comparable assessment from the onset of the assessment process because they apply to aspects/parts of the proposed activity. Consequently, they were considered throughout the assessment process to address site-specific impacts when the need for mitigation was identified by the relevant specialist studies.

Purpose and Requirements for the construction of a family homestead (Lathleka) and the upgrade of an existing river crossing.

The purpose of the proposed activity, including the construction of a family homestead (Lathleka) and the upgrade of an existing river crossing (a right that the Owner has), would be to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm. The homestead facilities would be utilised by the proponent and his guests for recreation.

The Lathleka Property is in the process of being incorporated into the Timbavati Private Nature Reserve (TPNR). The location of the proposed development within the TPNR, requires that the aforementioned activities be restricted and in line with the Constitution and Policies governing conservation area. The TPNR constitution provides an overarching constitution.

Alternative No. 1: Property and Location

Purpose and Requirements

The purpose of the proposed activity, including the construction of a family homestead (Lathleka) and the upgrade of an existing river crossing, so as to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm (fundamentally a right held by the owners) and at the same time conserving the ecology and integrity of the land, can, in terms of land ownership, only occur within the boundaries of property owned by the land owner. Ecologically the sites chosen (if mitigation measures are properly implemented), are well suited for the construction of the said owner's accommodation and the refurbishment of the existing causeway, as it is a historically disturbed footprint. Further to this and given that operational efficiency is required, to suggest an alternative sites in an area that may exhibit a higher ecological sensitivity would be unreasonable.

Methodology

NA

Criteria used to investigate and assess alternatives

NA

Reasoned explanation why an alternative was or was not found to be reasonable or feasible.

It would be ***unreasonable*** to propose an alternative location in terms of neighbouring properties due to ownership of the land. Furthermore, due to logistical issues the homestead and causeway to be refurbished must be located close to existing infrastructure, such as

electricity and water sources. In addition, ecologically, the sites chosen are well suited for the Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing as this site is disturbed and evidently secondary in nature with historic anthropogenic impacts evident in and around the sites. To suggest an alternative site in an ecologically sensitive area would be ***unreasonable***.

Alternative No. 2: Type of Activity

Purpose and Requirements

The specific nature of this activity, construction of a family homestead (Lathleka) and the upgrade of an existing river crossing so as to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm, does **not** afford alternative types of activities that can meet the same purposes or requirements, specifically providing accommodation and access.

Methodology

NA

Criteria used to investigate and assess alternatives.

NA

Reasoned explanation why an alternative was or was not found to be reasonable or feasible.

The purpose and requirements of constructing a family homestead (Lathleka) and upgrading an existing river crossing, so as to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm and at the same time conserving the ecology and integrity of the land, cannot be achieved by using an alternative type of activity. Consequently, this type of alternative is not applicable.

Alternative No. 3: Design and Layout

Purpose and Requirements

The purpose and requirements of constructing a family homestead (Lathleka) and upgrading an existing river crossing, so as to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm, can be achieved using different architectural and or engineering designs, and by considering different spatial configurations of the development on the particular site/s (Site Layout).

Methodology

Specialist studies were undertaken during the assessment process to identify potential impacts on the environment, community and neighbours, and recommend appropriate mitigations to avoid or minimise negative impacts or enhance beneficial impacts. Those mitigations informed the final and preferred Site Layout (Appendix A, Annexure B).

Criteria used to investigate and assess alternatives.

The Site Layout/s were designed to take cognisance of and address specific impacts. The assessment of the specific impacts associated with the Site Layout/s included a study of the nature of the impact, the extent and duration of the impact, the probability of the impact occurring, the degree to which the impact can be reversed, the degree to which the impact may cause irreplaceable loss of resources, and the degree to which the impact can be mitigated (Section D 6).

Reasoned explanation why an alternative was or was not found to be reasonable or feasible.

Whilst alternative designs and or site layouts are reasonable, particularly given the need to avoid negative impacts or to minimise unavoidable negative impacts, the extent of those changes is restricted by the site itself and surrounding ecological sensitivities. Furthermore, the changes are informed by the findings contained in the relevant specialist studies. Consequently, this type of alternative had to be considered throughout the assessment process and evolve incrementally as and when the impacts were identified by the relevant specialist studies. The final and preferred site layout is an outcome of the aforementioned process or the 'end result'. The fact that it could not be predicted from the onset of the assessment process made it impossible to propose as an alternative for assessment.

Alternative No. 4: Technology

Purpose and Requirements

The purpose and requirements of constructing a family homestead (Lathleka) and upgrading an existing river crossing, so as to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm **can** be met by this type of alternative, specifically by using different technologies (methods or processes during the construction)

Methodology

Various technologies and methods available for the development of the homestead and watercourse crossing upgrade were evaluated by the project team. Specialist studies were undertaken during the assessment process to identify potential impacts on the environment and community, and recommend appropriate mitigations to avoid or minimise negative impacts or enhance beneficial impacts. Those mitigations informed the final and preferred technologies

and materials to be used.

Criteria used to investigate and assess alternatives.

Recommendations made regarding the utilisation of proper and suitable technologies to provide accommodation and maintain easy unhindered access to various portions of the farm were undertaken to address specific impacts. The assessment of the specific impacts associated with the site layout included a comparison of the nature of the impact, the extent and duration of the impact, the probability of the impact occurring, the degree to which the impact can be reversed, the degree to which the impact may cause irreplaceable loss of resources, and the degree to which the impact can be mitigated.

Reasoned explanation why an alternative was or was not found to be reasonable or feasible.

The purpose and requirements of the proposed construction ***can*** be achieved by using this type of alternative, 'technology'. Consequently, this type of alternative is applicable. In addition, alternative technologies were sought throughout the assessment process to address specific impacts identified by the specialist studies, in the manner described in the above-mentioned alternative for 'Design and Layout (Alternative No. 3).

Alternative No. 5: Operational Aspects

Purpose and Requirements

Alternative operational aspects (procedures) ***cannot*** meet the purpose for providing purpose built accommodation for the owners and their guests nor to provide unhindered access to the property.

Methodology

NA

Criteria used to investigate and assess alternatives.

NA

Reasoned explanation why an alternative was or was not found to be reasonable or feasible.

Comparative assessment of alternative operational aspects (procedures) of utilising existing infrastructure within the old Lathleka compound, against the construction of a new family homestead highlight that alternative operational procedures could not reasonably achieve the same operational efficiency requirements that the construction of new accommodation would.

Alternative No. 6: Demand

Purpose and Requirements

The purpose and requirements of constructing a family homestead (Lathleka) and upgrading an existing river crossing, so as to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm **cannot** be met by this type of alternative, specifically by reducing the demand (or need) for the proposed activity. The family should be allowed access to and the opportunity to stay on their property (within reason) and accommodation for the owners and their guests **cannot** be unreasonably withheld.

Methodology

NA

Criteria used to investigate and assess alternatives.

NA

Reasoned explanation why an alternative was or was not found to be reasonable or feasible.

The purpose of constructing a family homestead (Lathleka) and upgrading an existing river crossing so as to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm **cannot** be achieved by using this type of alternative, 'demand'. Consequently, this type of alternative is not applicable. Nevertheless, alternative means were sought throughout the assessment process to address specific impacts identified by the specialist studies, in the manner described in the above mentioned alternative for 'Design and Layout (Alternative No. 3). For example, ways of reducing the demand for electricity were suggested by using energy saving devices.

Alternative No. 7: Input

Purpose and Requirements

The purpose and requirements of constructing a family homestead (Lathleka) and upgrading an existing river crossing so as to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm **can** be met using different raw materials or energy sources.

Methodology

NA

Criteria used to investigate and assess alternatives.

NA

Reasoned explanation why an alternative was or was not found to be reasonable or feasible.

However, the need for alternative inputs (to address site-specific impacts) cannot be predicted at the onset of the assessment process and is, therefore, not reasonable. However, alternative raw materials or energy sources were sought throughout the assessment process to address specific impacts identified by the specialist studies, in the manner described in the above-mentioned alternative for 'Design and Layout (Alternative No. 3).

Alternative No. 8: Routing

Purpose and Requirements

The purpose and requirements of constructing a family homestead (Lathleka) and upgrading an existing river crossing so as to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm **cannot** be met using an alternative route. This specific type of alternative generally applies to linear developments, such as pipeline routes. However, a number of access routes to the site have been evaluated.

Methodology

NA

Criteria used to investigate and assess alternatives.

NA

Reasoned explanation why an alternative was or was not found to be reasonable or feasible.

This type of alternative, 'Routing', is not applicable. Nevertheless, alternative routes for internal services were sought throughout the assessment process to address specific impacts identified by the specialist studies, in the manner described in the above-mentioned alternative for 'Design and Layout (Alternative No. 3).

Alternative No. 9: Scheduling and Timing

Purpose and Requirements

The purpose and requirements of constructing a family homestead (Lathleka) and upgrading an existing river crossing so as to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm **can** be met using alternative scheduling and timing, specifically changing

the order in which activities are scheduled to contribute to the overall effectiveness of the end result.

Methodology

NA

Criteria used to investigate and assess alternatives.

NA

Reasoned explanation why an alternative was or was not found to be reasonable or feasible.

However, the need for alternative scheduling or timing (to address site-specific impacts) cannot be predicted at the onset of the assessment process and is, therefore, not reasonable. However, alternative scheduling or timing was sought throughout the assessment process to address specific impacts identified by the specialist studies, in the manner described in the above-mentioned alternative for 'Design and Layout (Alternative No. 3). For example, rehabilitation should not be left until the end of construction, etc.

Alternative No. 10: Scale and Magnitude

Purpose and Requirements

The purpose and requirements of constructing a family homestead (Lathleka) and upgrading an existing river crossing so as to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm **cannot** be met using an alternative scale or magnitude, specifically a smaller physical footprint.

Methodology

NA

Criteria used to investigate and assess alternatives.

NA

Reasoned explanation why an alternative was or was not found to be reasonable or feasible.

This type of alternative, 'Scale and Magnitude', is not applicable. The provision of accommodation for the landowner and guests as well as the fact that the proposed size of the units is minimal, such that they **cannot** be reasonably reduced without compromising the required conditions that are sought by the owners is limiting and cannot be marginalised.

Alternative No. 11: No-go Option

The option of not implementing the activity (no-go option), was used as the benchmark against which all impacts associated with the proposed development were assessed.

Conclusion

Some types of alternatives were not applicable to the nature of the proposed activity, including its purpose or requirements ('Type of Activity', 'Technology', 'Demand', 'Routing' and 'Scale and Magnitude'). A range of different types of alternatives did exist, but not all warranted investigation ('Property and Location', 'Design and Layout', 'Input', 'Scheduling and Timing'). Based on the findings of the investigation that was undertaken (of 'Operational Aspects') and reasoned motivation there was no verifiable evidence for the existence of any reasonable and feasible alternative(s) other than the preferred option and the no-go option, at the time of this environmental impact assessment process. Consequently, no reasonable and feasible alternatives other than the preferred option and the no-go option were identified, described and assessed. Having said that, alternatives, specifically modifications and changes to activities in order to prevent and/or mitigate environmental impacts, were considered throughout the assessment process. The development proposal was amended in an incremental manner throughout the EIA process to address impacts and issues, as and when the need for mitigation was identified.

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

3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the Hartebeeshoek 94 WGS84 spheroid in a national or local projection.

Preferred Alternative for the Family Homestead

Latitude (S):			**Longitude (E):**		
24°	18'	22.37"	31°	14'	53.60"

Preferred Alternative for the Stream Crossing

LATITUDE (S):			**LONGITUDE (E):**		
24°	20'	41.89"	31°	9'	21.39"

In the case of linear activities:

Alternative:	**Latitude (S):**			**Longitude (E):**		
Alternative S1 (preferred or only route alternative)						
• Starting point of the activity	°	'	"	°	'	"
• Middle/Additional point of the activity	°	'	"	°	'	"
• End point of the activity	°	'	"	°	'	"
Alternative S2 (if any)						
• Starting point of the activity	°	'	"	°	'	"
• Middle/Additional point of the activity	°	'	"	°	'	"
• End point of the activity	°	'	"	°	'	"
Alternative S3 (if any)						
• Starting point of the activity	°	'	"	°	'	"
• Middle/Additional point of the activity	°	'	"	°	'	"
• End point of the activity	°	'	"	°	'	"

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

4. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:	**Size of the activity:**
Alternative A1[5] (preferred activity alternative)	***Lathleka Homestead*** *Combined size of infrastructure to be built* ***1 320 m²*** ***Lathleka Crossing*** *Total surface area of* ***100m²***
Alternative A2 (if any)	m²
Alternative A3 (if any)	m²

or,

for linear activities:

Alternative:	**Length of the activity:**
Alternative A1 (preferred activity alternative)	m
Alternative A2 (if any)	m
Alternative A3 (if any)	m

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

	Size of the

[5] "Alternative A.." refer to activity, process, technology or other alternatives.

Alternative:	site/servitude:
Alternative A1 (preferred activity alternative)	m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

5. SITE ACCESS

Does ready access to the site exist?	**YES✓**	**NO**
If NO, what is the distance over which a new access road will be built		m

Describe the type of access road planned:

Access will be via existing roads. In this regard, please see the insert below.

Figure 1: Figure indicating access road.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

6. SITE OR PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

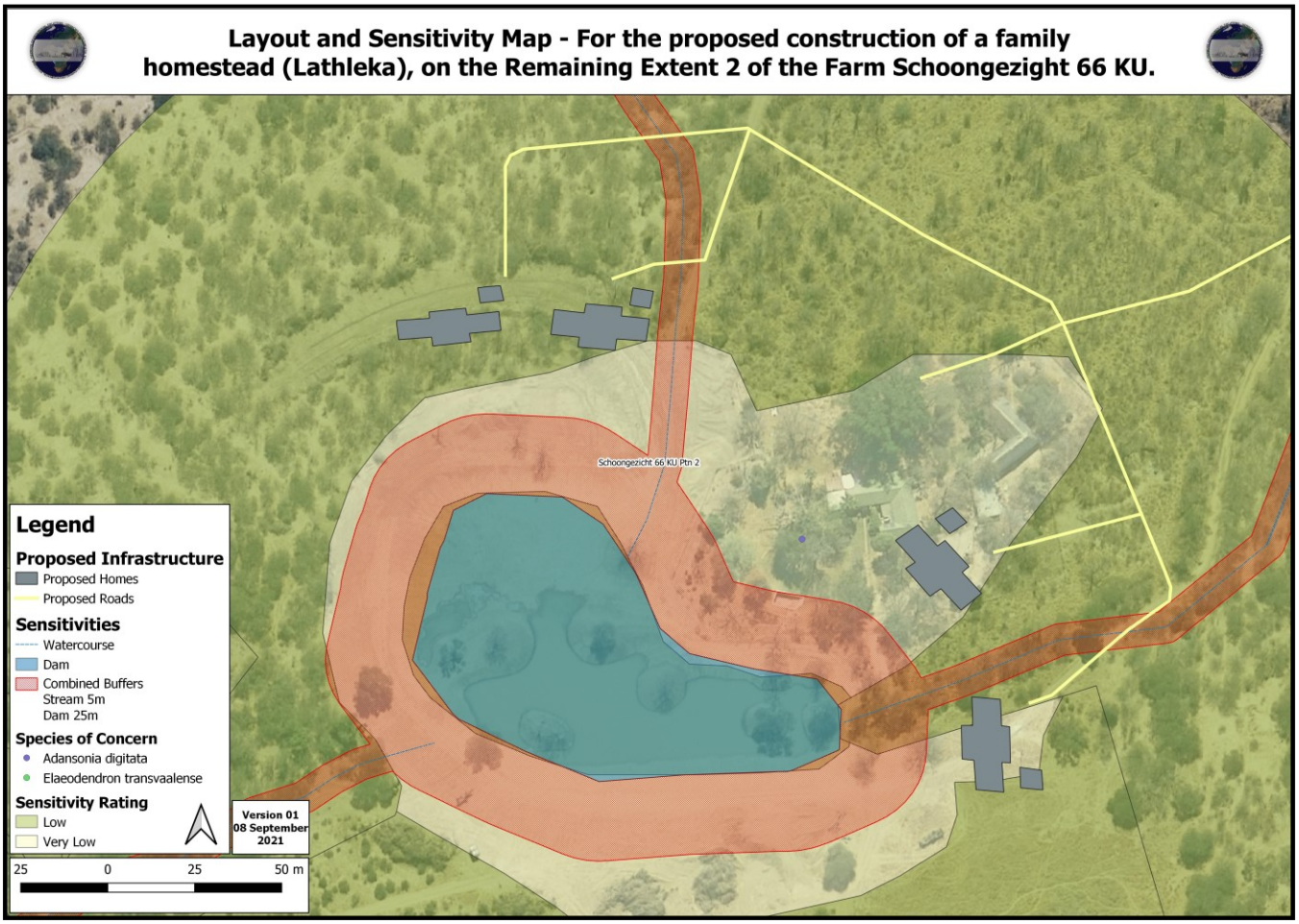

Figure 2: Proposed Layout and Sensitivity Map for the Homestead

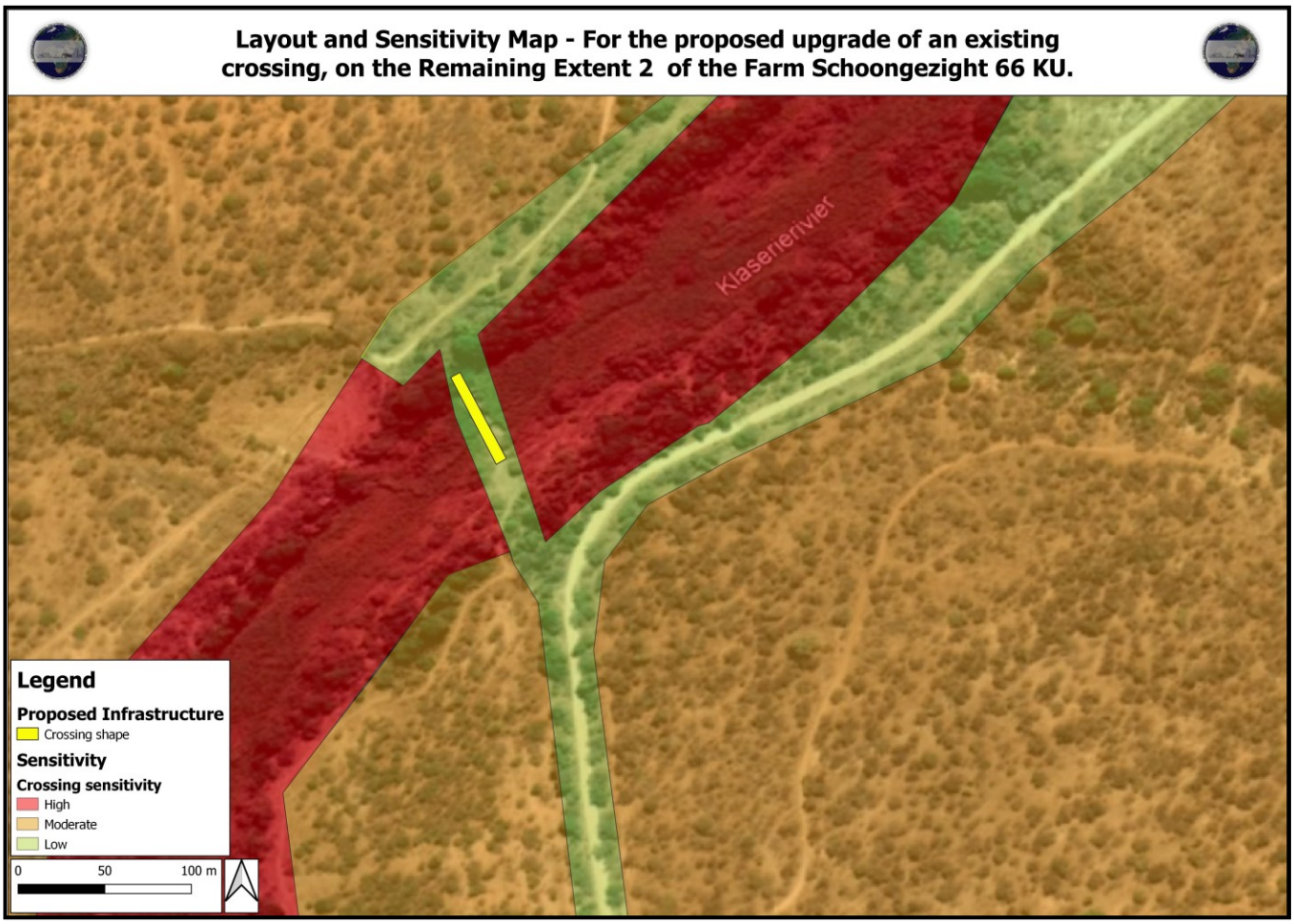

Figure 3: Proposed Layout and Sensitivity Map for the Crossing Upgrade.

7. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this form**.** It must be supplemented with additional photographs of relevant features on the site, if applicable.

8. FACILITY ILLUSTRATION

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

9 ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R6 million	
What is the expected yearly income that will be generated by or as a result of the activity?	Nil as this is expansion is not for commercial use	
Will the activity contribute to service infrastructure?	YES	NO✓
Is the activity a public amenity?	YES	NO✓
How many new employment opportunities will be created in the development phase of the activity?	17	
What is the expected value of the employment opportunities during the development phase?	R6 million	
What percentage of this will accrue to previously disadvantaged individuals?	100%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	3	
What is the expected current value of the employment opportunities during the first 10 years?	R10 000 per month	
What percentage of this will accrue to previously disadvantaged individuals?	100%	

9(b) Need and desirability of the activity

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

Legislative Background and Strategic Context

The National Environmental Management Principles of NEMA, 1998, which guide the interpretation, administration and implementation of NEMA, 1998 (and the EIA Regulations, 2010) specifically inter alia, require that environmental management must place people and their needs at the forefront of its concern (Section 2(2)). The latter refers to the broader societal/community needs and interests, and is put into effect through the EIA Regulations, 2010, which require environmental impact assessments to specifically consider 'need and desirability' in order to ensure that the 'best practicable environmental option' is pursued, and that development more equitably serves broader societal needs now and in the future. Furthermore, it ensures that the proposed actions of individuals are measured against the long-term public interest.

What is needed and desired for a specific area must be strategically and democratically determined (DEA&DP (2010) Guideline on Need and Desirability). The strategic context for informing need and desirability is best addressed and determined during the formulation of the sustainable development vision, goals and objectives of Integrated Development Plans ('IDPs') and Spatial Development Frameworks ('SDFs') during which collaborative and participative processes play an integral part, and are given effect to, in the democratic processes at local government level (DEA&DP (2010) Guideline on Need and Desirability). The need and desirability must therefore be measured against the contents of the credible IDP, SDF and EMF for the area, and the sustainable development vision, goals and objectives formulated in, and the desired spatial form and pattern of land use reflected in, the area's IDP and SDF (DEA&DP (2010) Guideline on Need and Desirability). Integrated Development Planning (and the SDF process) effectively maps the desired route and destination, whilst the project-level EIA decision-making finds the alternative that will achieve the desired goal (DEA&DP (2010) Guideline on Need and Desirability). However, inadequate planning or the absence of a credible IDP and SDF means that the EIA has to address the broader need and desirability considerations. Consequently, 'need and desirability' is determined by considering the broader community's needs and interests as reflected in a credible IDP, SDF and EMF for the area, and as determined in the EIA decision-making process.

Furthermore, the Constitution calls for justifiable economic development. The specific needs of the broader community must therefore be considered together with the opportunity costs and distributional consequences in order to determine whether or not the development is 'justified'.

The general meaning of need and desirability refers to time and place, respectively, i.e. is this the right time and is it the right place for locating the proposed activity. The need and desirability of this application has been addressed below:

The purpose of the proposed activity, including the construction of a family homestead (Lathleka) and the upgrade of an existing river crossing, so as to afford the owners of Lathleka

comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm (fundamentally a right held by the owners) and at the same time conserving the ecology and integrity of the land.

This proposed site/s were chosen:

- As they are, to an extent already disturbed.
- This homestead site is on relatively flat ground and has good access to the existing access road, Eskom Power and existing water facilities. The crossing site is well suited and the additional impact of installing a more permanent crossing will be negligible.
- The site/s are partly degraded, and the vegetation is evidently secondary in nature with historic anthropogenic impacts evident in and around the site/s.
- The site/s received a Moderate Biodiversity value rating due to low species diversity and an absence of any plant SCC.

In terms of alignment with the greater Associated Private Nature Reserve's governing policy, the proposed development falls neatly within the ambit of these. See the following extracts in support of the construction of the homestead and crossing:

"APNR

Conservation objectives can be defined in different ways depending on the main emphasis placed on the area. The APNR was not originally formed with the main objective of conserving a tract of pristine country and its natural biodiversity. Rather, the objective has been one of setting aside a natural area for the enjoyment and benefit of its Owners.

The primary objective of the Private Nature Reserves that constitute the APNR and the APNR itself is to provide for ecologically and aesthetically sustainable (non-consumptive and consumptive) use of the area for its owners, based on wildlife focused recreation, tourism and hunting."

NEED:			
i.	Was the relevant municipality involved in the application?	YES✓	NO
ii.	Does the proposed land use fall within the municipal Integrated Development Plan?	YES✓	NO
iii.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:		

DESIRABILITY:			
i.	Does the proposed land use / development fit the surrounding area?	YES✓	NO
ii.	Does the proposed land use / development conform to the relevant structure plans, Spatial development Framework, Land Use Management Scheme, and planning visions for the area?	YES✓	NO
iii.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES✓	NO
iv.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
v.	Will the proposed land use / development impact on the sense of place?	YES	NO✓
vi.	Will the proposed land use / development set a precedent?	YES	NO✓
vii.	Will any person's rights be affected by the proposed land use / development?	YES	NO✓
viii.	Will the proposed land use / development compromise the "urban edge"?	YES	NO✓
ix.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		

BENEFITS:

i.	Will the land use / development have any benefits for society in general?	YES✓	NO
ii.	Explain:		
	The proposed development will benefit general society, but only indirectly, by ensuring continued and proper management of the Lathleka property. This would be achieved through payment of levies and employment of the TPNR management to maintain the Timbavati Private Nature Reserve. In this regard the proposed activity is isolated, from a social perspective. Apart from the management authority of the Timbavati Private Nature Reserve (TPNR) and landowners who have been granted traversing rights, there are no direct social aspects that may be affected by the proposed activity. Both the aforementioned I&AP's were consulted during the public participation process. The proposed activity is located on privately owned land with restricted access and is intended for the sole benefit of the landowner, his partners, his employees and guests. The site is discreetly located to conceal the structures from vehicular traffic and the accommodation of neighbouring owners or occupiers is far removed. The affected site/s and the proposed homestead and crossing will be privately owned and thus does not have any form of turnover. The operation will however employ additional permanent staff, while the building of the proposed development will employ at least 17 temporary staff members. The development of the homestead residences residence will improve operational efficiency, ecological sustainability as well as live-in conditions, respectively.		
iii.	Will the land use / development have any benefits for the local communities where it will be located?	YES✓	NO
iv.	Explain:		
	As above.		

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:	Administering authority:	Date:
Associated Private Nature Reserves: Management Plan (2009)	Associated Private Nature Reserves	2009
Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983), as amended.	Department of Agriculture	1983
National Heritage Resources Act (Act No. 25 Of 1999)	South African Heritage Resources Agency	1999
Timbavati Private Nature Reserve Constitution (as amended on the 5 July 2008)	Timbavati Private Nature Reserve	2008
DEA (2010), Public Participation 2010, Integrated Environmental Management Guideline Series 7, Department of Environmental Affairs, Pretoria, South Africa.	Department of Environmental Affairs	2010
DEA&DP (2010) Guideline on Alternatives, EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning (DEA&DP).	Department of Environmental Affairs & Development Planning	2010
DEAT (2002) Specialist Studies, Information Series 4, Department of Environmental Affairs and Tourism (DEAT), Pretoria.	Department of Environmental Affairs and Tourism	2002
DWA (2007), Guideline for Developments within a Floodline (Edition 1), Department of Water Affairs and Forestry, Pretoria, South Africa.	Department of Water Affairs	2007
Ferrar, A.A. & Lotter, M.C. 2007. Mpumalanga Biodiversity Conservation Plan Handbook. Mpumalanga Tourism & Parks Agency, Nelspruit.	Mpumalanga Tourism & Parks Agency	2007
Government Notice No. R. 543, R. 544, R. 545, R. 546 and R. 547 in Government Gazette No. 33306 of 18 June 2010.	Limpopo Department of Economic Development, Environment and Tourism	2010
National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA").	National Department of Environmental Affairs & Limpopo Department of Economic Development, Environment and Tourism	1998
National Environmental Management: Biodiversity Act (Act 10 of 2004)		2004
National Environmental Management: Protected Areas Act (Act 57 of 2003)		2003
National Water Act 36 of 1998	Department of Water Affairs	1998

Atmospheric Pollution Prevention Act 45 of 1965		1965
Hazardous Substances Act 85 of 1993		1993
Fire Services Act 99 of 1956		1956
Occupational Health and Safety Act 85 of 1993		1993
Environmental Planning Act (Act No. 88 of 1967)		1967
Forest and Veld Conservation Act (Act No. 13 of 1941)		1941
Land Survey Act (Act No. 9 of 1921)		1921
Soil Conservation Act (Act No. 76 of 1969)		1969
Relevant building codes (e.g. SABS 089)		
Provincial and Local Government Ordinances and Bylaws		
Regional Development Frameworks		
Land Use Planning Policies.		
Rational Assessment of Development in Sensitive Environments (*Ref: ENPLCRIT*).	Haydorn, A.E.F.	2006

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	YES✓	NO
If yes, what estimated quantity will be produced per month?	50m^3	

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

Non-hazardous construction waste will be separated on site, stored until viable amounts have been accumulated and then removed from the development site. The waste will be disposed of at a registered municipal non-hazardous dumping site.

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

Non-hazardous construction waste will be separated on site, stored until viable amounts have been accumulated and then removed from the development site. The waste will be disposed of at a registered municipal non-hazardous dumping site.

Will the activity produce solid waste during its operational phase?	YES✓	NO
If yes, what estimated quantity will be produced per month?	Estimated monthly quantity 2m^3	

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

Solid waste will be collected on site at an internal refuse sorting point. Domestic waste will form the bulk of waste generated on site. The waste will be sorted into various categories, recyclables, hazardous, bio-degradable and non-bio-degradable. Recyclable waste will be removed from site for recycling. Hazardous waste will be removed and taken to a registered hazardous waste disposal facility.

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

N/A

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the department to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?	YES	NO✓

If yes, inform the department and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?	YES	NO✓

If yes, then the applicant should consult with the Department to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	NO✓
If yes, what estimated quantity will be produced per month?		m^3
Will the activity produce any effluent that will be treated and/or disposed of on site?	Yes✓	NO

If yes, the applicant should consult with the Department to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	YES	NO✓

If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

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

Construction phase:
During the initial phase of the construction period chemical toilets will be provided for all contraction staff. A registered service provider will be engaged to ensure that there is compliance with all relevant health and safety standards both in terms of operation and disposal. Chemical toilets will be regularly serviced, and the effluent removed from site to a registered disposal facility.

The installation of a sanitation system is programmed to commence early in the construction phase. It is anticipated that sanitation during the greater part of the construction phase will be handled by the permanent sanitation system that will be used during the operational phase.

Operational phase:
Numerous alternatives have been investigated with regards to the treatment and disposal of effluent. Refer to Appendix G; Annexure A and B for an evaluation of alternatives regarding sewerage and wastewater treatment for the Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing development.

Sanitation and Waste:
Sanitation and waste related activities will be carried out in full compliance with surrounding APNR associated reserve guidelines. In this regard the following management actions apply and will be implemented:

Contractors will dispose of all waste and litter and will clean up building sites to the satisfaction of the ECO. Waste must be properly disposed of. Production of solid waste should be minimized.

Management Action	How this will be adhered to and carried out.
The Integrated Environmental Management (IEM) process must be followed before waste disposal methods are implemented or disposal sites commissioned on the Reserve;	***Waste management practice that are in line with the surrounding APNR waste management protocol will be implemented and adhered to. No formal waste disposal or permanent storage sites will be created on site.***
Production of solid waste should be minimized, and recycling maximized.	***Solid waste produced will be minimal and that which is produced will be removed from site regularly and in alignment with the surrounding APNR waste management protocol.***
Waste must be split at source, rather than having to be sorted later;	***Small scale waste separation and sorting, with the intention of recycling will be carried out on site.***
Rubbish bins must be regularly emptied, and surrounding areas must be tidied up;	***Waste receptacles located out of doors, will be animal proof. Waste bins will be located throughout the site. These will be emptied regularly and in keeping with the surrounding APNR waste management protocol.***
If it is realistic to do so, all solid and chemical waste should be removed from the Reserve to an	***Noted. This will be carried out as and when necessary and if practical.***

authorized landfill;	
A proactive attitude towards waste management will be promoted amongst staff and visitors;	***A proactive attitude will be promoted. Guests will be informed of waste management and pollution control issues.***
Waste derived from catering facilities can possibly be recycled as pigswill and the use of this should be investigated (although veterinary regulations may prohibit this;	***N/A.*** ***The proposed camp is not large enough to produce viable quantities of such waste.***
Grey water from large tourist developments should be kept separate from sewerage and recycled where possible;	***See section on sewerage treatment to be implemented on site below.***
Staff and contractors will dispose of chemicals in the approved manner. No cleaning of containers will be allowed in and along water courses;	***This will be guided and monitored through implementation of the EMPr as well as through the Environmental Monitoring Process. See EMPr attached to this document for further reference.*** ***No pollution of this type will be accepted on site.***
Spillage of oil and/or fuel from water pumps into the streams must be prevented through adequate construction, operational and maintenance procedures and staff training;	***Noted. This will be implemented.***
Sewage disposal systems must be located at the legally and environmentally required distance from streams;	***See section on sewerage treatment to be implemented on site below.***
The use of French drains and septic tanks will only be allowed for smaller systems where reed beds or other waste systems are not feasible;	***No French drains and/or associated soakaways will be used.*** ***See section on sewerage treatment to be implemented on site below.***
Staff and visitors may not wash themselves or do their laundry in the streams and rivers. In the event of wilderness hikes, any washing must be done away from the river using a basin;	***Noted. This will be implemented.***

SEWERAGE TREATMENT

Three technology alternatives have been investigated for this development in response to concerns and issues raised during the design process. Through an evaluative assessment of possible treatment alternatives it has been recommended that the Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing install a prefabricated treatment plant. See further details regarding the alternatives and their assessment below.

The initial departure point was the ***need for effluent produced to be managed in the most ecologically, economically and healthy manner available***. The Department of Water Affairs & Forestry's "PROTOCOL TO MANAGE THE POTENTIAL OF GROUNDWATER CONTAMINATION FROM ON SITE SANITATION, National Sanitation Co-ordination Office, Directorate of Geohydrology, Edition 1, 1997" was used to evaluate the risk of groundwater contamination from onsite sanitation.

Initial input from various sources has indicated that traditional septic tanks and soak ways are either not acceptable or not viable. This has led to further investigation of the potential technologies for sewerage treatment.

Additional disposal systems investigated are:

- The storage of sewerage containing wastewater on site in conservancy tanks for subsequent transportation to the local municipal treatment works for disposal. NOT SUITABLE.
- The installation of a small pre-fabricated wastewater treatment plant capable of treating wastewater to standards acceptable for its release into a soakaway. MOST SUITABLE.
- A combination of the various systems POSSIBL ALTERNATIVE.

See Appendix G; Annexure A and B for a detailed assessment of potential sewerage treatment alternatives.

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	Yes✓	NO
If yes, is it controlled by any legislation of any sphere of government?	YES	NO✓

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.
If no, describe the emissions in terms of type and concentration:

Emissions will be limited to those from construction machines. Mitigation measures will; be put into place so as to minimise these.

11(d) Generation of noise

Will the activity generate noise?	Yes✓	NO
If yes, is it controlled by any legislation of any sphere of government?	YES	NO✓

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.
If no, describe the noise in terms of type and level:

Construction phase:
Construction machinery graders, concrete mixers

Noise will be limited to vehicles and machinery needed during the construction phase. This impact is temporary and with proper mitigation measures in place, negligible.

Operational phase:
Motor vehicles

During operation the activity will create minimal noise pollution as the proposed camp is centred around conservation ethics and most activities on the property will ensure that it retains its remote natural appeal.

Activities will focus on the opportunities of the natural environment and the unique botanical value of the area. Quietness and tranquillity will be held in high regard. Noise levels will be well below the limits suggested by SANS 10103:2004 for Rural dwelling areas.

12. WATER USE

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

municipal	water board	groundwater✓	river, stream, dam or lake	other	the activity will not use water

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month: 2500 litres/month

Does the activity require a water use permit from the Department of Water Affairs? YES | NO✓

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

The total volume of water that will be abstracted from the borehole is <2.5m3/day. Consequently, the borehole is not registered and does not need to be registered because it falls below the threshold of taking more than 10 cubic metres from groundwater on any given day or exceeding the limit prescribed in Table 1.2 (75 cubic metres per ha per annum) of General Authorisation No. 399 dated 26 March 2004.

13. ENERGY EFFICIENCY

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

Energy is available nearby from the national electricity grid. This is traditionally viewed as the cheapest most reliable form of energy, however in the light of the current energy crisis and the ecologically sensitive approach of the development, energy efficiency is an important design criteria. Further to this, the intention of the preferred alternative is to ensure that the development is not dependant on electricity supplied from external sources such as ESKOM.

Alternatives investigated:

⇒ Link to existing ESKOM distribution. There is an existing transformer, that supplies the existing homestead and camp. The use of solar (PV) power to run lights and low current appliances will be promoted, as will the installation of solar water heating.

These alternatives have been considered based on evaluation of potential impacts. Given that the design of the buildings is based on sympathising with the natural environment, minimal amount of development related to electricity infrastructure is encouraged to reduce the impact on the environment.

To this end the preferred alternative is a combination of linkage to the current ESKOM supply and the development of an electricity generation unit within the camp. The final design of this unit is still to be advised; however systems are expected to have the following components:

- Water heating will be done using solar geyser technology (Heat capture) as well as heat pumps being installed.
- Lighting and low current appliances will be powered by a battery system charged using Solar Panels (PV)
- Appliances that draw large amounts of current cannot be easily operated on a solar/battery system and will require a more robust energy supply. ESKOM will supply this.

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

Solar Power

- Solar panels that make use of basic photovoltaic cells to convert sunlight energy to electricity current which is stored into heavy duty batteries to provide lighting and power light appliances
- Solar water heaters or hybrid systems to be used in place of electric geysers
- Units will be designed to allow for passive heating and cooling to reduce the need for air conditioners and heaters.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc.) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No. (e.g. A): [ ]

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

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

YES	NO✓

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

Property description/physical address:

Remaining Extent 2 of the Farm Schoongezight 66 KU

Family Homestead
24° 18' 22.37" S, 31° 14' 53.60" E
Stream Crossing
24° 20' 41.89" S 31° 9' 21.39" E.

T0KU00000000006600002

(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.

In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use zoning:

Conservation.

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

Is a change of land-use or a consent use application required?	YES	NO✓
Must a building plan be submitted to the local authority?	YES✓	NO

Locality map:

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

- an indication of the project site position as well as the positions of the alternative sites, if any;
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection)

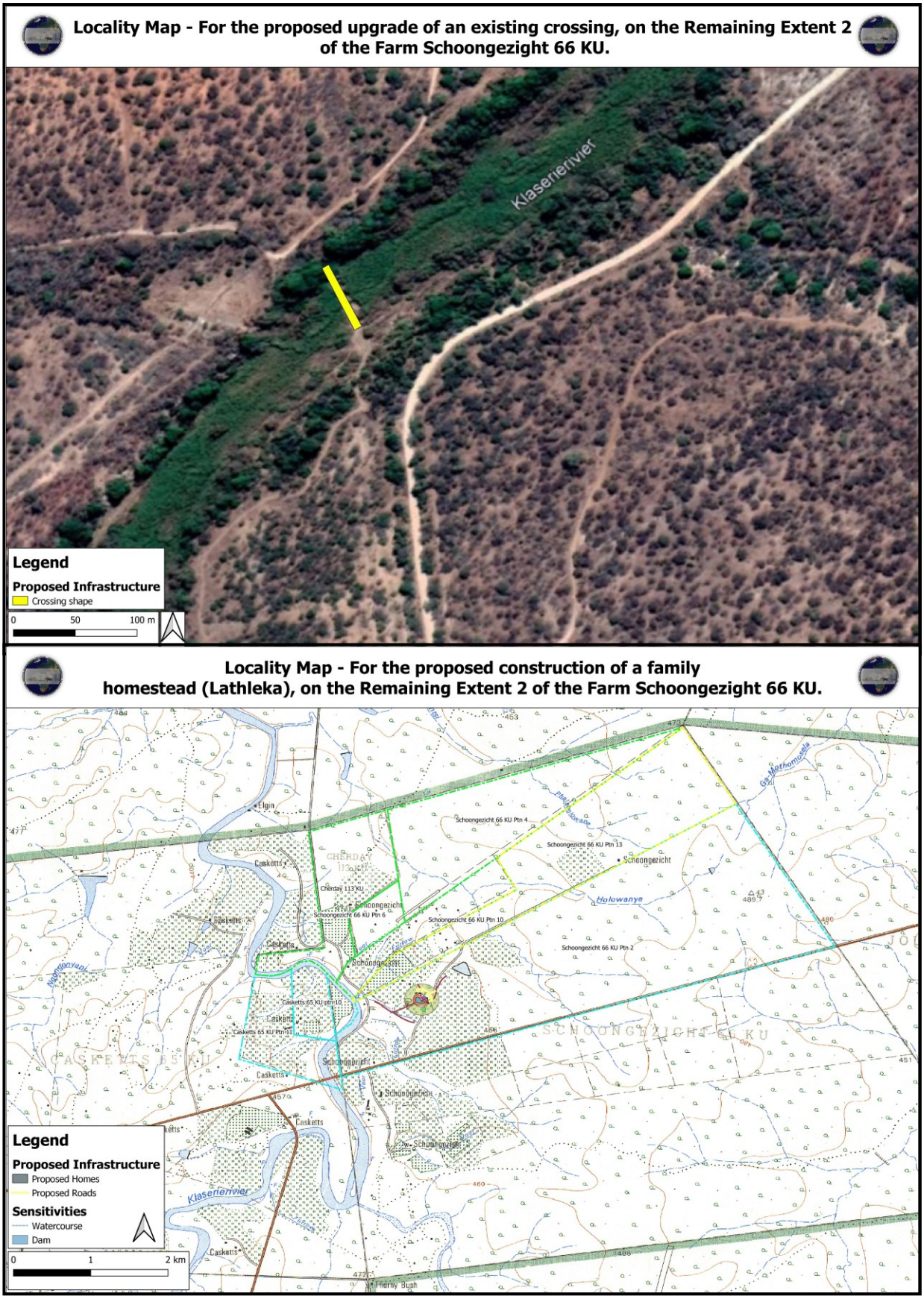

Figure 4: Locality Map.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat✓	1:50 – 1:20✓	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

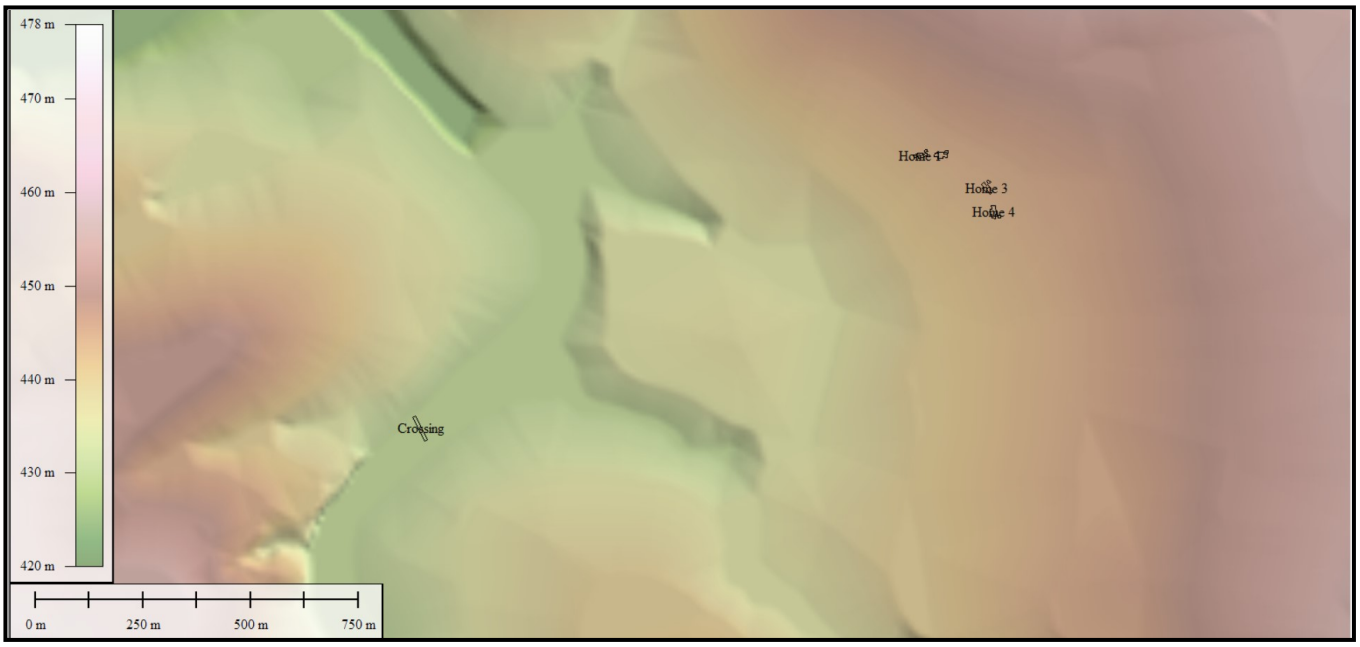

Figure 5: Topography of the Homestead and Crossing sites and surrounding area. Note that it is relatively flat and situated at approximately 475m above sea level.

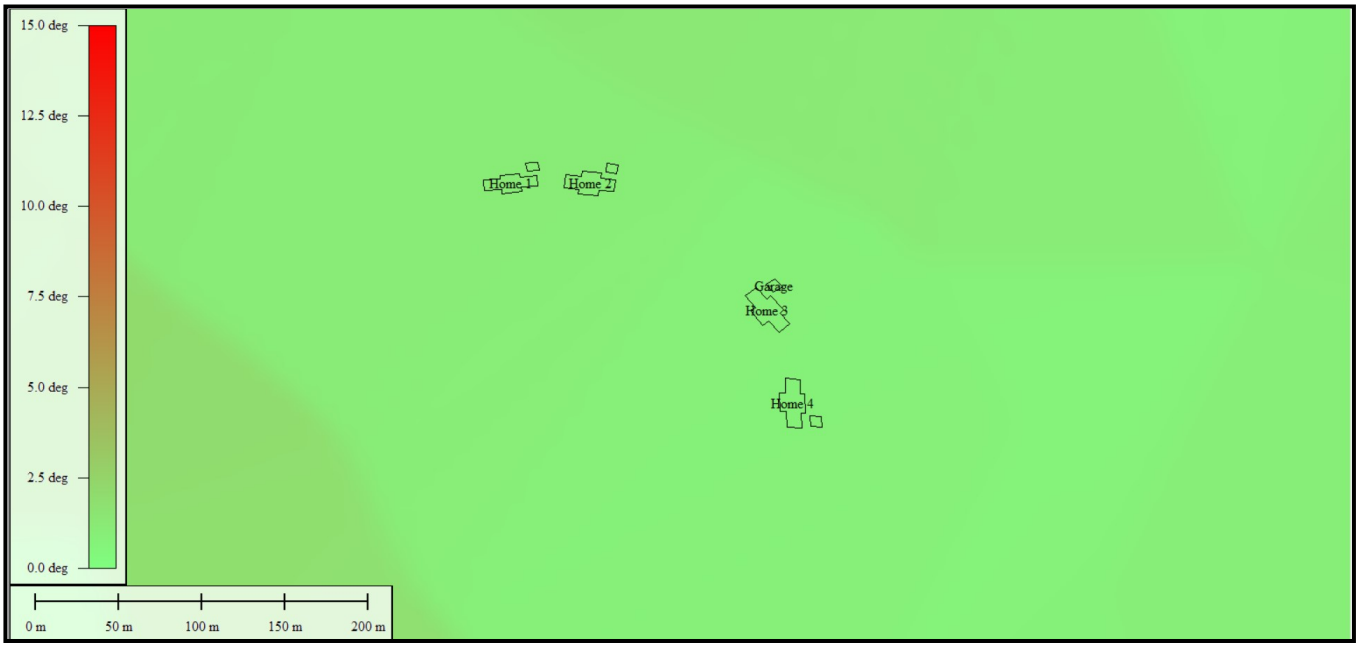

Figure 6: The gradient of the homestead site.

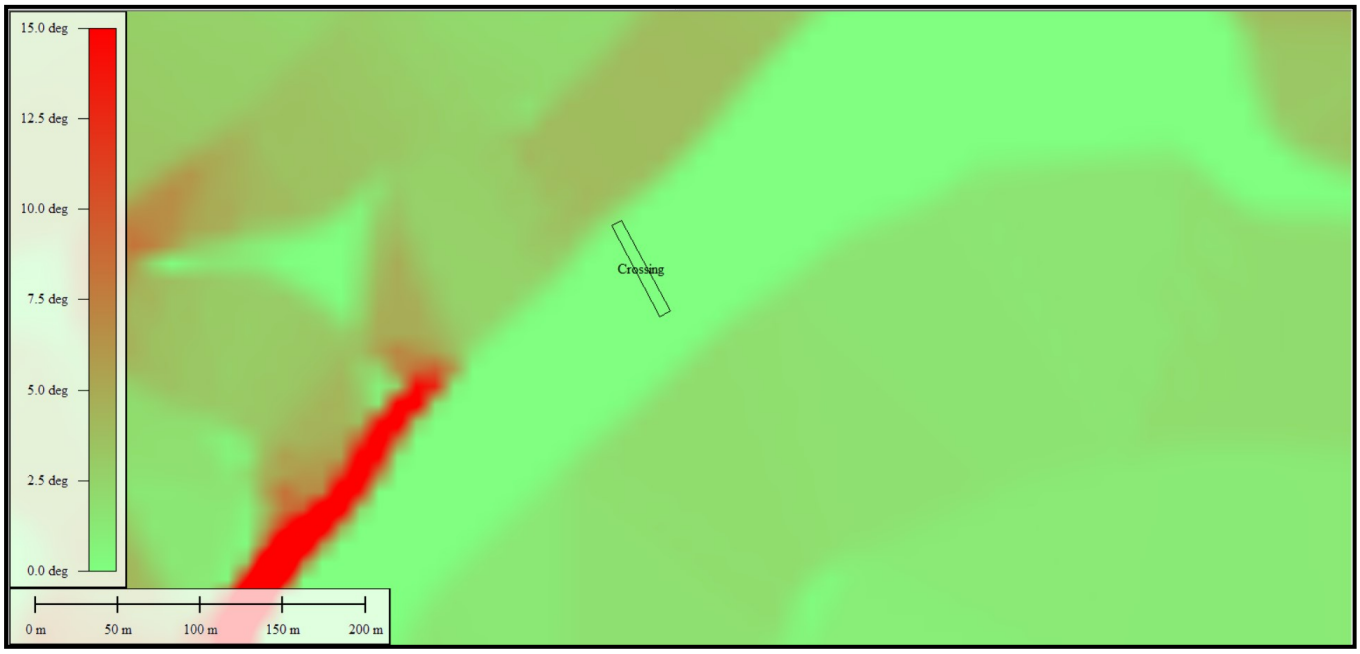

Figure 7: The gradient of the crossing site.

2. LOCATION IN LANDSCAPE

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

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

The proposed homestead development and watercourse crossing upgrade is situated on Remaining Extent 2 of the Farm Schoongezight 66 KU, which is to become part of the Timbavati Private Nature Reserve (TPNR), adjacent to the town of Hoedspruit in the Mopani District of the Limpopo Province (Figure 1).

The study area is situated on gently undulating terrain.

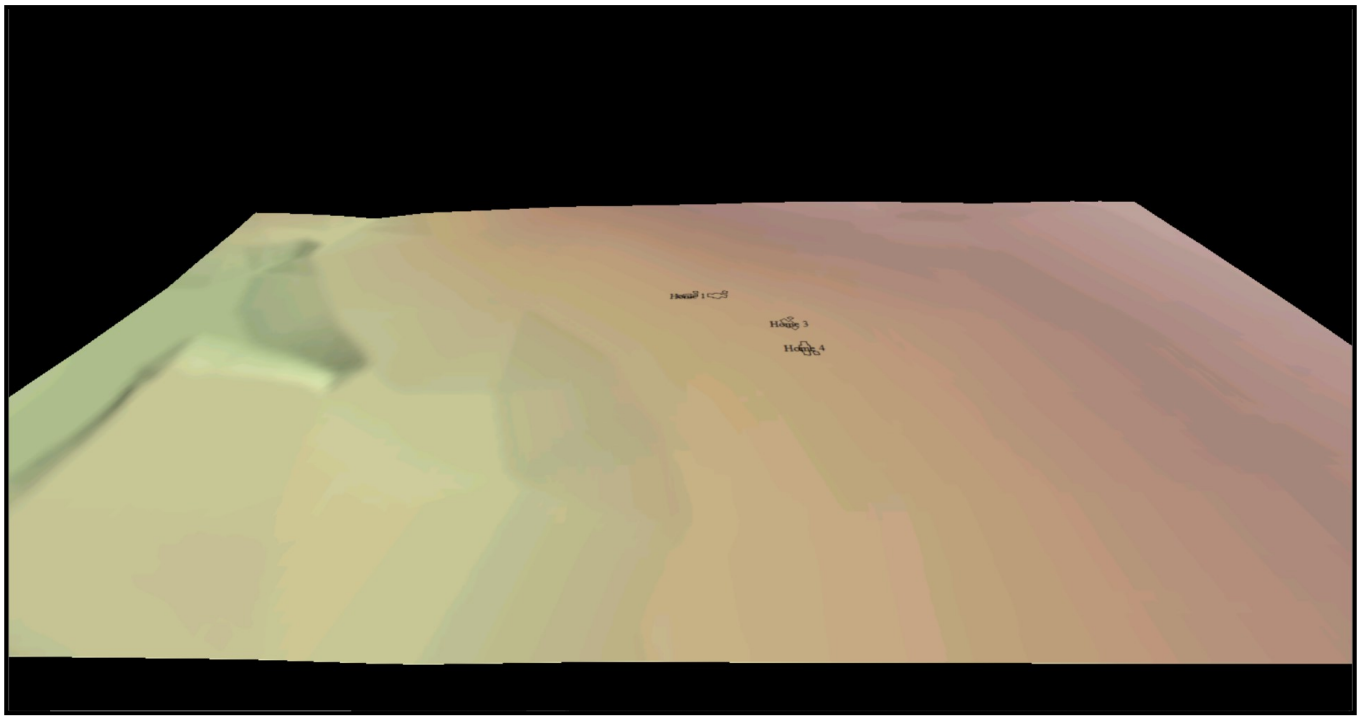

Figure 8: 3D model of the homestead site within the surrounding landscape

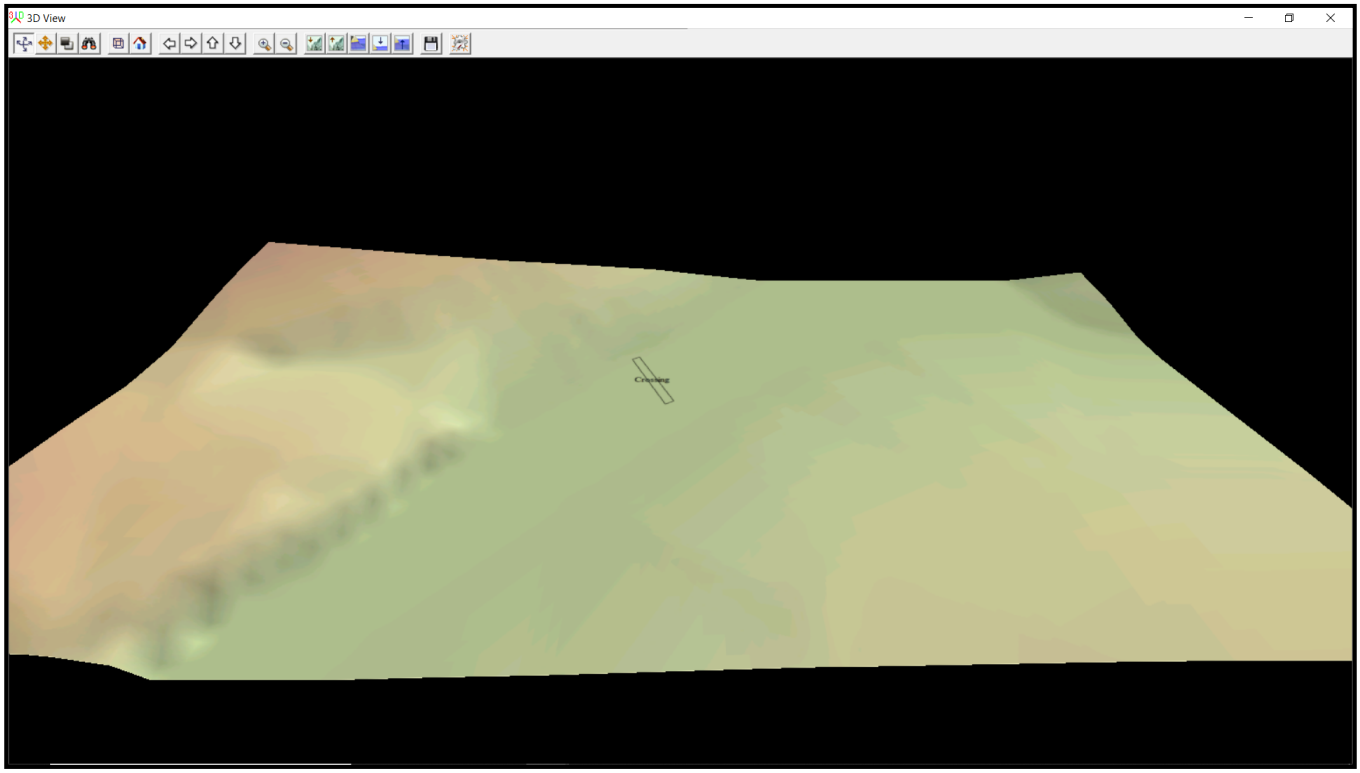

Figure 9: 3D model of the crossing site within the surrounding landscape

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

Geology and soils

Many varieties of gneiss and granite underlie the Lowveld areas in the Timbavati region. Amongst others, these rocks include the gneisses of the undifferentiated Swazian basement complex to the east, as well as a number of younger intrusive granites.

Lithology

In terms of the 1:250,000 scale published geological map of the area (Pilgrims Rest 2430), recharge to the granitic gneiss aquifers was estimated during previous studies to be in the order of 3% of the mean annual precipitation (MAP). The annual groundwater recharge of the area is low and was estimated between 12mm and 20mm per annum for the entire area.

Makhutswi Gneiss (Zbg)

The oldest rocks in the immediate vicinity of the Camp are the Makhutswi Gneiss's. They are characterized by their homogeneity and lack of xenoliths and migmatitic textures. This litho-type is often described as white to grey, massive, equigranular, medium- to fine-grained rock consisting of quartz, plagioclase and biotite with small amounts of sphene and microcline and occasionally pyrite (Walraven, 1989).

Migmatite & Gneiss (Zm)

A second rock type of the basement complex is migmatite and gneiss (or Basement Gneiss) *which is the dominant lithology located on site*. A variable suite of rocks is present, but the predominant type is a light-grey, medium-grained, biotite-rich gneiss with white, coarse-grained (pegmatitic in places), quartz feldspar leucosomes. The main minerals include quartz, plagioclase and biotite. Layering and folding are common features in the migmatite as well as boudins and schlierin defined by mafic minerals. These rocks have undergone multiple deformations and partial melting. Amphibolite bodies are common as well as muscovite-pegmatite veins (Walraven, 1989).

Timbavati Gabbro (Mt)

The Timbavati gabbro is intrusive and therefore younger than the Swazian basement rocks described above. Recent mapping has established the sill-like nature of the gabbro body. These rocks are best described as basic to ultrabasic rocks that range in colour from blue-grey to greenish and consist mostly of plagioclase feldspar, orthopyroxene, clinopyroxene and olivine (Walraven, 1989).

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

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

Natural veld - good condition[E]✓	Natural veld with scattered aliens[E]	Natural veld with heavy alien infestation[E]	Veld dominated by alien species[E]	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an "[E] "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

According to the current National Vegetation Map (SANBI, 2018), the vegetation type present within the study area is Granite Lowveld. This occurs in a narrow strip from Phongola in northern KwaZulu-Natal in the south, through central Swaziland, and to Giyani in Limpopo Province in the north. Granite Lowveld originally covered about 19 838 km2, of which 21% has been transformed, mostly through agriculture and urbanisation. Mucina & Rutherford (2006) assessed this community to be Vulnerable (VU), but it is not situated within any Threatened Ecosystems as listed in Government Gazette No. 34809 of 9 December 2011 (DEAT, 2011).

Three secondary vegetation communities were identified within the study area on the basis of distinctive vegetation structure (grassland, woodland, thicket, etc.), floristic composition (dominant and diagnostic species) and position in the landscape (mid-slopes, terrace, crest, etc.), in addition to transformed areas. The extensive garden around the old homestead was not sampled intensely as it contains many plant species not native to the area These communities are floristically described below. Representative photographs of the vegetation communities are displayed in Figure 2 of the ecology report. Alien plant species are indicated in the text below by an asterisk.

***Vachellia tortilis - Senegalia erubescens* Secondary Woodland**

This vegetation community occurs over the northern portion of the study area (Figure 10), on historical agricultural lands. Vegetation structure is mostly Low Closed Woodland (sensu Edwards, 1983). This vegetation community covers approximately 8 ha, or 53% of the area surveyed. A low diversity of savanna-adapted trees, including pioneer species, dominate the low canopy and include *Vachellia tortilis, V. nilotica, Senegalia erubescens, Dichrostachys cinerea* subsp. *africana, Combretum apiculatum, Peltophorum africanum* and *Ziziphus mucronata*. The ground layer is dominated by grasses such as *Panicum maximum, Aristida adscensionis, Brachiaria serrata* and *Eragrostis lehmanniana*, as well as the dwarf shrubs and herbs *Gossypium herbaceum, Abutilon austro-africanum, Justicia flava, Waltheria indica* and * *Achyranthes aspera*.

A total of 47 species (56% of the entire list) was recorded from *Vachellia tortilis – Senegalia erubescens* Secondary Woodland, the highest species list of the three communities present. Species fidelity, which is closely linked to community uniqueness, is very high with 29 species (62% of the community list) occurring nowhere else in the study area.

Dichrostachys cinerea - Aristida adscensionis Secondary Shrubland

Secondary shrubland, which represents recovering old lands, is situated in the southern portion of the study area (Figure 10). It is characterised by a sparse canopy layer and dense ground layer dominated by pioneer species. Vegetation structure is mostly Low to Short Closed Shrubland (*sensu* Edwards, 1983). Secondary Shrubland covers approximately 4 ha, or 27% of the area surveyed. The trees *Dichrostachys cinerea* subsp*. africana* and *Vachellia tortilis* dominate in shrub growth form, along with the dwarf shrubs *Gossypium herbaceum, Sida dregei, Solanum campylacanthum* and *Waltheria indica*. Grasses are well represented, and include *Aristida adscensionis, A. congesta* subsp*. barbicollis, Brachiaria serrata, Eragrostis lehmanniana, Panicum maximum* and *Urochloa mosambicensis*. Herbs located include *Amaranthus thunbergii, Ocimum americanum, * Alternanthera pungens* and *Dicoma tomentosa*. A total of 35 species (42% of the entire list) was recorded from Secondary Shrubland, the second highest species list of the three vegetation communities present. Species fidelity, which is closely linked to community uniqueness, is high, with 16 species (46% of the community list) occurring nowhere else in the study area.

Eriochloa meyeriana - Schoenoplectus corymbosus Secondary Wetland

This vegetation community occurs around the dam in the central portion of the study area (Figure 10). Vegetation structure is Low to Short Sparse Grassland (Edwards, 1983). This vegetation community covers approximately 0.3 ha or 2% of the total area surveyed. The dominant plants found in this community are the grass *Eriochloa meyeriana*, the sedge *Schoenoplectus corymbosus* and the herb *Sphaeranthus peduncularis*. Additional species found in the sparsely vegetated shoreline of the dam and adjacent drainage lines are the dwarf shrub *Aeschynomene indica*, the sedges *Cyperus denudatus* and *Cyperus sexangularis* and the herbs *Heliotropium ovalifolium* and *Ludwigia adscendens*.

A total of 23 species (27% of the entire list) was recorded from Secondary Wetland (Appendix 1), the lowest species list of the three vegetation communities present. Species fidelity is very high, with 20 species (87% of the community list) occurring nowhere else in the study area. Transformed areas, including the area around the small dam and homestead, measures approximately 2.7 ha, or just under 20% of the area surveyed.

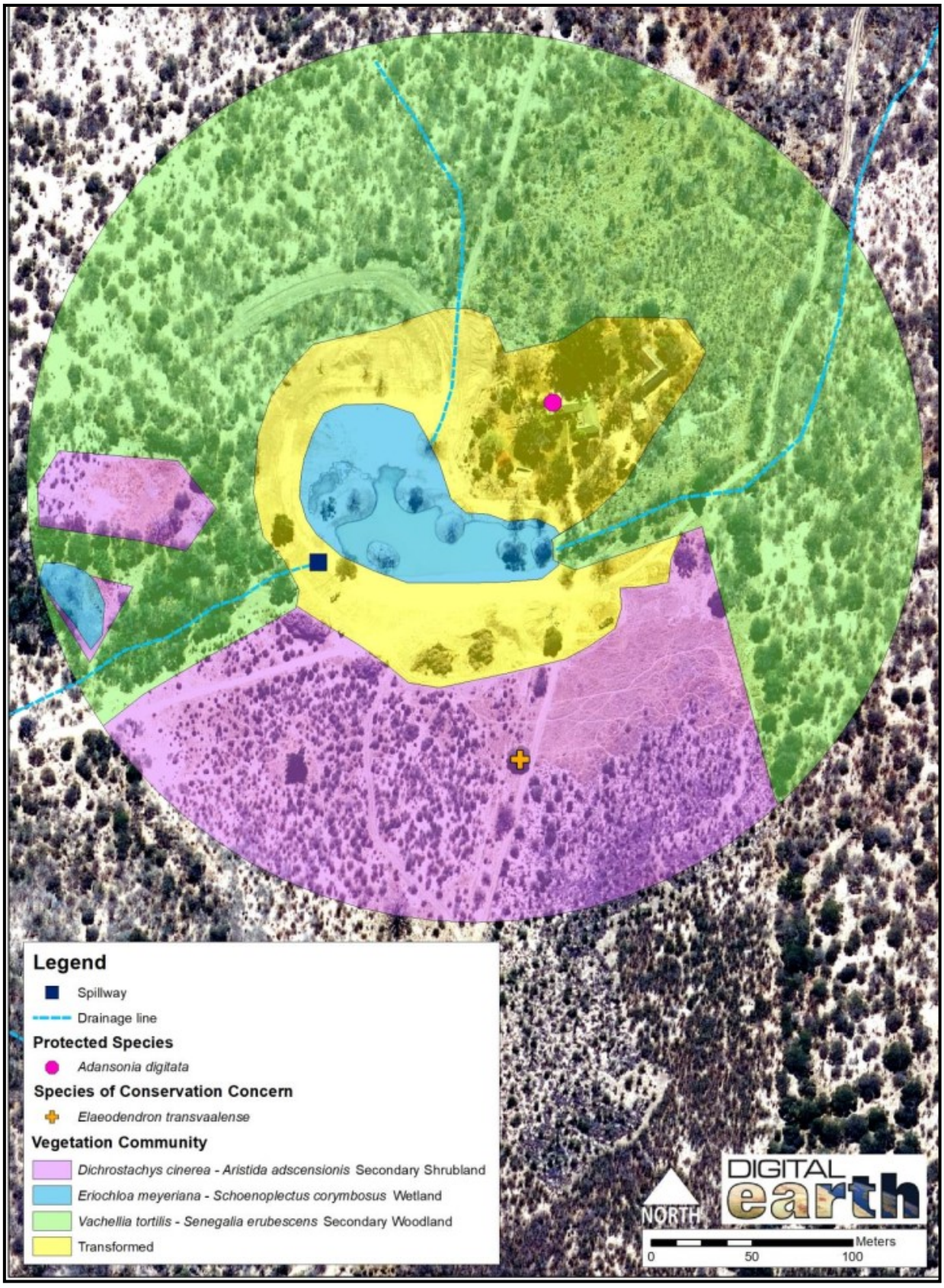

Figure 10: Biodiversity value map of the study area

The Closed Woodland and Secondary Shrubland communities are situated within an informally protected area adjacent to the GKNP which supports confirmed populations of CR, EN and VU mammal, bird and reptile species, some of which were confirmed during fieldwork. However, many species are also not present on the property, having been effectively fenced out. The Conservation Importance (CI) is therefore assessed as High. The Functional Integrity (FI) is Low as a result of historical agricultural activities leading to secondary vegetation being present. This results in a Biodiversity Importance (BI) of **Low**. Receptor Resilience (RR) is assessed as **High** as most savanna species regenerate moderately quickly during favourable climatic conditions and due to a high rate of growth of taxa. When integrated with the Low BI the SEI of both communities is assessed as **Low**.

The Wetland vegetation community is extremely small in size and fairly isolated. It has High CI as a result of the number of predicted occurrences of faunal SCC. Although the perimeter fence excludes larger mammals such as Savanna Elephant and White Rhinoceros, smaller species such as Leopard and Spotted Hyaena potentially visit to drink. The FI is Low due to the high levels of modification and artificial state of the habitat. The integration of High CI and Low FI results in a BI of **Low**. RR is Medium as many Lowveld wetland species regenerate only moderately quickly during favourable climatic conditions and due to the rate of growth of taxa. When integrated with the Medium BI the SEI of the vegetation community is assessed as **Low**.

Transformed areas, including within the homestead area, are assessed as having **Very Low** SEI.

The proposed stream crossing upgrade site received a risk rating of **Low** from Dr Andrew Deacon in his Assessment of the proposed activity.

5 LAND USE CHARACTER OF SURROUNDING AREA

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

5.1 Natural area	✓	5.22 School	
5.2 Low density residential		5.23 Tertiary education facility	
5.3 Medium density residential		5.24 Church	
5.4 High density residential		5.25 Old age home	
5.5 Medium industrial [AN]		5.26 Museum	

5.6 Office/consulting room		5.27 Historical building	
5.7 Military or police base/station/compound		5.28 Protected Area	✓
5.8 Spoil heap or slimes dam [A]		5.29 Sewage treatment plant [A]	
5.9 Light industrial		5.30 Train station or shunting yard [N]	
5.10 Heavy industrial [AN]		5.31 Railway line [N]	
5.11 Power station		5.32 Major road (4 lanes or more)	
5.12 Sport facilities		5.33 Airport [N]	
5.13 Golf course		5.34 Harbour	
5.14 Polo fields		5.35 Quarry, sand or borrow pit	
5.15 Filling station [H]		5.36 Hospital/medical centre	
5.16 Landfill or waste treatment site		5.37 River, stream or wetland	
5.17 Plantation		5.38 Nature conservation area	✓
5.18 Agriculture		5.39 Mountain, koppie or ridge	
5.19 Archaeological site		5.40 Graveyard	
5.20 Quarry, sand or borrow pit		5.41 River, stream or wetland	✓
5.21 Dam or Reservoir		5.42 Other land uses (describe) **The site is adjacent and forms part of an existing tourism lodge.**	✓

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

The proposed homestead and stream crossing upgrade is situated on Remaining Extent 2 of the Farm Schoongezight 66 KU, which in turn is situated within an area that will be incorporated into the Timbavati Private Nature Reserve, adjacent to the town of Hoedspruit in the Mopani District of the Limpopo Province (Figure 1). The proposed developments will not affect the surrounding land use as the existing activity is already in place and is an acceptable land use within a conservation and tourism area.

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

If YES, specify and explain:	
If NO, specify:	

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

If YES, specify and explain:	
If NO, specify:	

6. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including	YES	NO✓
Archaeological or palaeontological sites, on or close (within 20m) to the site?	Uncertain	
If YES, explain:		
If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.		

Briefly explain the findings of the specialist:	An Archaeological and Heritage Impact Assessment was undertaken by Kudzala Antiquity CC in respect of the proposed establishment of a new camp and associated facilities on a few small sites within an area of approximately 18 hectares of the farm Schoongezicht 66 KU near Hoedspruit, Limpopo Province. The study was done with the aim of identifying sites which are of heritage significance on the identified project areas and assess their current preservation condition, significance and possible impact of the proposed action. This forms part of legislative requirements as appears in section 38 of the National Heritage Resources Act (Act No. 25 of 1999). This report can be submitted in support of the National Environmental Management Act (Act 25 of 1998). The survey was conducted on foot and with the aid of a motor vehicle in an effort to locate archaeological remains and historic sites, structures and features. Archival information including scrutiny of previous heritage surveys of the area formed the baseline information against which the survey was conducted. Three locations, sites S1, S2 and S3, were documented, they consist of a family graveyard which has two marked graves and two existing houses, one of which (site S2) is possibly older than 60 years of age as it is indicated on a topographical map dated 1960. The graves are considered to be of high significance, and it is recommended than the proposed activities not impact in any way on the graveyard, a buffer zone of at least 20 meters should be observed. The older building (site S2) is not regarded as being of heritage significance but because of its age it is protected by the Act (25 0f 1999) and demolishing should be permitted. The second house is a modern building and is not within the ambit of the Act. A single survey orientation location was documented, site SO 1, which includes a GPS location and photographs of the landscape at that particular location. In terms of section 34 of the National Heritage Resources Act (NHRA, 25 of 1999), no significant buildings or structures were located. One house (site S1) is however older than 60 years and demolishing must be permitted. In terms of section 35 of the NHRA, no significant archaeological sites or features were located. In terms of section 36 of the NHRA, two graves were located. None of these, however, will be affected by the proposed developments.

The whole farm is on ancient rocks of the Makhutswi Gneiss (Figure of the Palaeontological Assessment). Gneiss is a high grade metamorphic rock, meaning that it has been subjected to higher temperatures and pressures than schist. It is formed by the metamorphosis of granite, or sedimentary rock. Gneiss displays distinct foliation, representing alternating layers composed of different minerals. Therefore, there is no chance of any fossils occurring in these rocks. This is confirmed by the grey colouration in the SAHRIS palaeosensitivity map

Will any building or structure older than 60 years be affected in any way?	YES	NO✓
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO✓

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

(a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the department) at a place conspicuous to the public at the boundary or on the fence of—

  (i) the site where the activity to which the application relates is or is to be undertaken; and

  (ii) any alternative site mentioned in the application;

(b) giving written notice to—

  (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;

  (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;

  (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;

  (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;

  (v) the municipality which has jurisdiction in the area;

  (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and

  (vii) any other party as required by the department;

(c) placing an advertisement in—

  (i) one local newspaper; or

  (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;

(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and

(e) using reasonable alternative methods, as agreed to by the department, in those instances where a person is desiring of but unable to participate in the process due to—

(i) illiteracy;

(ii) disability; or

(iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

(a) indicate the details of the application which is subjected to public participation; and

(b) state—

(i) that the application has been submitted to the department in terms of these Regulations, as the case may be;

(ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;

(iii) the nature and location of the activity to which the application relates;

(iv) where further information on the application or activity can be obtained; and

(v) the manner in which and the person to whom representations in respect of the application may be made.

- See APPENDIX E, Annexure A & B (Site notice and the content thereof)
- See APPENDIX E, Annexure C (Background Information Document)
- See APPENDIX E, Annexure D & E (News Paper Advertisement)

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the department in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these Regulations.

Advertisements and notices must make provision for all alternatives.

Potentially interested and affected parties were notified of the proposed application and site meeting by –

- Fixing a notice board at a place conspicuous to the public, specifically at the Reserve main gate (APPENDIX E, Annexure A & B). There was no reasonable alternative site (Section D 5).
- Giving written notice to owners and occupiers of land adjacent to Remaining Extent 2 of the Farm Schoongezight 66 KU, and organs of state having jurisdiction in respect of the proposed activity.
- A Background Information Document (BID) was prepared and distributed via email (APPENDIX E, Annexure C). Also see table below.
- Placing an advertisement in a local newspaper, the Lowvelder (APPENDIX E, Annexure D & E). No official Gazette existed at the time of the application. The proposed activity shall not have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it will be undertaken.
- Lodging copies of the Draft Basic Assessment Report, for public review and comment, as well as sending all registered I&AP's who requested a hard copy the document. This was done from the 01 June 2022.
- Comments received on the BID and initial public consultation have been included and reflected in this Draft Basic Assessment Report.

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the department to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

The level of public participation was determined by taking into account the scale of the anticipated impacts of the proposed project, the sensitivity of the affected environment and the degree of controversy of the project, and the characteristics of the potentially affected parties. Based on the findings of the aforementioned consideration, there was no reason to elaborate on the minimum requirements of the public participation process outlined in the EIA Regulations, 2010 and 2014 or use reasonable alternative methods for people desiring of but unable to participate in the process due to illiteracy, disability or any other disadvantage. Thus the decision was taken to circulate a detailed Background Information Document and that this, with additional input from I&AP's, would be adequate in terms of engaging with the public and affected parties.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in these Regulations and be attached to this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable.

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

Comment on initial PPP

Name of Authority informed:	Comments received (Yes or No)	Response
Ward Councillor The site is not designated a ward.	N/A	N/A
Mopani District Municipality (MDM) tim@mopani.gov.za 015 811 6300 Maruleng Municipality (MLM) Mrs. Rosina Ngoveni (ngovenir@maruleng.gov.za 084 886 6019) Mr. Ramothwala R.J (ramothwalar@maruleng.gov.za 079 880 5377) Mr. Modiba T.S (modibas@maruleng.gov.za 084 709 4410)	No comment on BID To date no issues have been raised. No comment on BID To date no issues have been raised.	N/A

Department of Water Affairs (DWA) Khethiwe Phoku (phokyk@dwaf.gov.za, 013 759 7310) Sampie Shabangu (shabangus@iucma.co.za), 013 759 7300) Mbali Dlamini (dlaminim@dwa.gov.za, 082 325 9685)	No comment on BID	N/A
Limpopo Parks and Tourism Board De Toit Malan (maland@golimpopo.com)	No comment on BID To date no issues have been raised.	N/A
LEDET Riaan Visagie (VisagieC@ledet.gov.za)	No comment on BID To date no issues have been raised.	N/A
Timbavati Private Nature Reserve • Edwin Pierce: warden@timbavati.co.za • Almero Bosch: almero@timbavati.co.za Endangered Wildlife Trust • David Mills: DavidM@ewt.org.za Kruger to Canyon • Wehncke vd Merwe bufferzone@kruger2canyons.org SANParks • Marisa Coetzee: Marisa.Coetzee@sanparks.org BirdLife SA • Melissa Whitecross: melissa.whitecross@birdlife.org.za	No comment on BID To date no issues have been raised	N/A

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the department.

Proof of any such agreement must be provided, where applicable.

Has any comment been received from stakeholders?	YES	NO✓

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

AS ABOVE

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Annexure E):

AS ABOVE

2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

Alternative (preferred alternative)

Direct impacts:

- Change to Physical Topography
- Ecological Sensitivity
- Erosion and Sedimentation
- Stormwater management
- Heritage
- Solid waste removal – to a registered site
- Dust
- Noise pollution
- Safety
- Traffic
- Employment opportunities (short and long-term) - positive

Indirect impacts:

- Ground and surface water impact
- “Sense of place” – visual impact
- Dust
- Noise pollution
- Safety
- Traffic
- Employment opportunities (short and long-term) - positive

Cumulative impacts:

- Stormwater control. Due to a potential increase in hardened surfaces and the resultant increase in runoff, as well as the potential affect that the development may have on the integrity of the riverbank and related riparian vegetation. Due to the design of the camp (fragmented and small hardened surface areas) and with the implementation of sufficient mitigations to reduce compaction of the surrounding area, reduce runoff, the proposed Camp would have a **very low significance** in this regard.

2.1 Assessment Methodology

The general objective of integrated environmental management is, inter alia, to “identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management” (Section 23(2)(b) of NEMA).

The purpose of the assessment is to synthesise and analyse information relevant to the environmental impacts of a proposal. In order to achieve this, two elements, namely the outline of methodology used, and the systematic assessment of the impacts are required.

The environmental significance scale is an attempt to evaluate the importance of a particular impact. This evaluation needs to be undertaken in the relevant context, as an impact can be ecological, economic, social, or all of the aforementioned. The evaluation of the significance of an impact relies heavily on the values of the person making the judgement. For this reason, impacts of especially a social nature need to reflect the values of the affected society.

Issues associated with the proposed development have been identified and the following provided in order to analyse their effect on the receiving environment:

- The significance scale; and
- Mitigation measures to reduce negative impacts and enhance positive impacts.

To facilitate informed decision-making, EIA's must endeavour to come to terms with the significance of the potential environmental impacts associated with particular development activities. Despite their attempts at providing a completely objective and impartial assessment of the environmental implications of development activities, EIA processes can never completely escape the subjectivity inherent in attempting to define significance. Recognising this, we have attempted to address potential subjectivity in the current process as follows:

- Being explicit about the difficulty of being completely objective in the determination of significance, as outlined above.
- Developing an explicit methodology for assigning significance to impacts and outlining this methodology in detail in this BAR. Having an explicit methodology not only forces the assessor to come to terms with the various facets contributing toward determination of significance, thereby avoiding arbitrary assignment, but also provides the reader of the BAR with a clear summary of how the assessor derived the assigned significance.
- Wherever possible, differentiating between the likely significance of potential environmental impacts as experienced by the various affected parties.

Although these measures may not totally eliminate subjectivity, they provide an explicit context within which to review the assessment of impacts.

This section outlines the methodology used to assess the significance of the potential environments impacts. For each impact, the EXTENT (spatial scale), MAGNITUDE and DURATION (time scale) are described. These criteria are used to ascertain the significance of the impact, firstly in the case of no mitigation and then with the most effective mitigation measure(s) in place. The mitigation described represents the full range of plausible and pragmatic measures and does not imply that they would or should be implemented. The tables below show the scale used to assess these variables and define each of the rating categories.

Table 2: Assessment criteria for the evaluation of impacts

CRITERIA	CATEGORY	DESCRIPTION
Extent or spatial influence of impact	**Regional**	Beyond 5 km of the proposed activity.
	Local	Within 5 km of the proposed activity.
	Site specific	On site or within 100 m of the site boundary.
Magnitude of impact (at the indicated spatial scale)	**High**	Natural and/ or social functions and/ or processes are *severely* altered.
	Medium	Natural and/ or social functions and/ or processes are *notably* altered.
	Low	Natural and/ or social functions and/ or processes are *slightly* altered.
	Very Low	Natural and/ or social functions and/ or processes are *negligibly* altered.
	Zero	Natural and/ or social functions and/ or processes remain *unaltered.*
Duration of impact	**Construction**	Up to 2 years.
	Short Term	0-5 years (after construction).
	Medium Term	5-15 years (after construction).
	Long Term	More than 15 years (after construction).

The SIGNIFICANCE of an impact is derived by taking into account the temporal and spatial scales and magnitude. The means of arriving at the different significance ratings is explained in Table 3.

Table 3: Definition of significance ratings

SIGNIFICANCE RATINGS	LEVEL OF CRITERIA REQUIRED
High	• High magnitude with a regional extent and long term duration. • High magnitude with either a regional extent and medium term duration or a local extent and long term duration. • Medium magnitude with a regional extent and long term duration.
Medium	• High magnitude with a local extent and medium term duration. • High magnitude with a regional extent and short term duration or a site specific extent and long term duration. • High magnitude with either a local extent and short term duration or a site specific extent and medium term duration. • Medium magnitude with any combination of extent and duration except site specific and short term or regional and long term. • Low magnitude with a regional extent and long term duration.
Low	• High magnitude with a site specific extent and short term duration. • Medium magnitude with a site specific extent and short term duration. • Low magnitude with any combination of extent and duration except site specific and short term. • Very low magnitude with a regional extent and long term duration.
Very low	• Low magnitude with a site specific extent and short term duration. • Very low magnitude with any combination of extent and duration except regional and long term.
Neutral	• Zero magnitude with any combination of extent and duration.

Once the significance of an impact has been determined, the PROBABILITY of this impact occurring as well as the CONFIDENCE in the assessment of the impact, are estimated using the rating systems outlined in Table 4 and Table 5 respectively. It is important to note that the significance of an impact should always be considered in concert with the probability of that impact occurring. Lastly the REVERSIBILITY is estimated using the rating system outlined in Table 6**.**

Table 4: Definition of probability ratings

PROBABILITY RATINGS	CRITERIA
Definite	Estimated greater than 95 % chance of the impact occurring.
Highly probable	Estimated 80 to 95 % chance of the impact occurring.
Probable	Estimated 20 to 80 % chance of the impact occurring.
Possible	Estimated 5 to 20 % chance of the impact occurring.
Unlikely	Estimated less than 5 % chance of the impact occurring.

Table 5: Definition of confidence ratings

CONFIDENCE RATINGS	CRITERIA
Certain	Wealth of information on and sound understanding of the environmental factors potentially influencing the impact.
Sure	Reasonable amount of useful information on and relatively sound understanding of the environmental factors potentially influencing the impact.
Unsure	Limited useful information on and understanding of the environmental factors potentially influencing this impact.

Table 6: Definition of reversibility ratings

REVERSIBILITY RATINGS	CRITERIA
Irreversible	The activity will lead to an impact that is permanent.
Long Term	The impact is reversible within 2 to 10 years after construction.
Short Term	The impact is reversible within the 2 years of construction.

Subjectivity in Assigning Significance

To facilitate informed decision-making, EIA's must endeavour to come to terms with the significance of the potential environmental impacts associated with particular development activities. Despite their attempts at providing a completely objective and impartial assessment of the environmental implications of development activities, EIA processes can never completely escape the subjectivity inherent in attempting to define significance. Recognising this, we have attempted to address potential subjectivity in the current process as follows:

- Being explicit about the difficulty of being completely objective in the determination of significance, as outlined above.
- Developing an explicit methodology for assigning significance to impacts and outlining this methodology in detail in this BAR. Having an explicit methodology not only forces the assessor to come to terms with the various facets contributing

toward determination of significance, thereby avoiding arbitrary assignment, but also provides the reader of the BAR with a clear summary of how the assessor derived the assigned significance.

- Wherever possible, differentiating between the likely significance of potential environmental impacts as experienced by the various affected parties.

Although these measures may not totally eliminate subjectivity, they provide an explicit context within which to review the assessment of impacts.

2.2 Consideration of Cumulative Impacts

Section 24(4) of the National Environmental Management Act requires the consideration of cumulative impacts as part of any environmental assessment process. EIA's have traditionally, however, failed to come to terms with such impacts, largely as a result of the following considerations:

- Cumulative effects may be local, regional or global in scale and dealing with such impacts requires coordinated institutional arrangements; and
- EIA's are typically carried out on specific developments, whereas cumulative impacts may result from broader biophysical, social and economic considerations, which typically cannot be addressed at the project level.

In terms of the proposed Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing the following cumulative impacts have specifically been identified:

- Stormwater control. Due to a potential increase in hardened surfaces and the resultant increase in runoff, as well as the potential affect that the development may have on the integrity of the riverbank and related riparian vegetation. Due to the design of the camp (fragmented and small hardened surface areas) and with the implementation of sufficient mitigations to reduce compaction of the surrounding area, reduce runoff, the proposed Camp would have a **very low** significance in this regard.

It is more important to identify likely environmental impacts than to precisely evaluate the more obvious impacts.

All assessors (the different specialists) try to evaluate all the significant impacts, recognising that precise evaluation is not possible. It is better to have a *possible* or *unsure* level of certainty on important issues than to be *definite* about unimportant issues. This is the 'Probability Scale', which provides an indication of the risk or chance of an impact-taking place. There is no doubt that some impacts would occur if the development takes place, but certain other (usually secondary) impacts are not as likely, and may or may not result from mining and related activities in the area. Although these impacts may be severe, the likelihood of them occurring may affect their overall significance and must therefore be taken into account. It is therefore necessary for the author to state his estimate of the likelihood of an impact occurring.

2.3 Alternative (preferred alternative)

2.3.1 Construction Phase Impacts on the Biophysical and Social Environment

The construction phase is likely to result in a number of negative impacts on the biophysical and social environments. The significance of construction phase impacts is likely to be curtailed by their relatively short duration. Moreover, many of the construction phase impacts can be mitigated by the implementation of an approved Environmental Management Programme (EMPr), (see Final report attached as **Appendix F**).

The potential impacts and an assessment of their significance are discussed below.

The bio-physical issues identified include:

- Change to Physical Topography
- Ecological Sensitivity
- Erosion and Sedimentation
- Ground and surface water impact
- Stormwater management

The socio-economic impacts identified include:

- Heritage
- Solid waste removal – to a registered site
- "Sense of place" – visual impact
- Dust
- Noise pollution
- Safety
- Traffic
- Employment opportunities (short and long-term) - positive

2.3.1.1. Assessment of construction phase impacts

A summary of the construction phase impacts (assessed within the Final BAR) is provided below.

Table 7: Summary of construction impacts

IMPACT	Without mitigations (positive & negative)			With mitigation (positive & negative)		
	HIGH	MODERATE	LOW	HIGH	MODERATE	LOW
Change to Physical Topography		x				x
Ecological Sensitivity • Habitat loss (Fauna and Flora) • Barriers to dispersal and migration of fauna and flora		x				x
Aquatic Sensitivity		x				x
Erosion and Sedimentation		x				x
Ground and Surface Water Impact		x				x
Heritage			x			x
Solid Waste Removal		x				x
Noise disturbance		x				x
"Sense of Place" - Visual		x				x
Windblown Dust		x				x
Litter and Waste		x				x

Safety		✖				✖
Traffic		✖				✖
Socio-Economic ▪ **Employment Opportunities (short-term)**			✖		✓	
▪ **Influx of aliens**		✖				✖

A summary of the integrated construction phase impacts:

Table 8: Summary of integrated construction impacts for Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Site specific/ Local**	**Site specific/ Local**
Magnitude	**High (-)**	**Medium Low (-)**
Duration	**Construction**	**Construction**
Significance	**Medium (-)**	**Low (-)**
Probability	**Highly Probable**	**Highly Probable**
Confidence	**Certain**	
Reversibility	**Short Term**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.1. Change to physical topography.

Physiographically, the proposed site falls within an area that constitutes gently sloping, undulating terrain. The gradient of the site is relatively flat and slopes only slightly to the west of the site (2.5 to 5 degree slope).).

The activities associated with the construction (excavation for foundations, clearing the development footprint, etc…), of Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing, suggests the possibility of changes to topography of the site and thus the landscape.

These changes however will be minimal as the development is small, taking into consideration all impacts on the local ecology and landscape. The total footprint of the

development is no larger than 400 m^2.

This potential impact is considered to be of **low significance** with mitigation measures implemented.

Mitigatory measures proposed are the following:

The homestead should be built and designed in such a way as to minimise its effect on the natural surroundings. The following should be taken note of:

- Excavation and reshaping of the area should be kept to a minimum.
- Structures to be built should where possible, be built to accommodate the natural features on site. These include but are not limited to:
    - Termite mounds, large trees and bush clumps as well as any other outstanding physical features. These should be left untouched, and infrastructure aligned to accommodate these.

- Adequate storm water and erosion control measures should be put into place where topography is altered.

Table 9: Change to physical topography.

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Medium (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Probable**	**Unlikely**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.2. Ecological Sensitivity

An Ecological Importance analysis of the single vegetation community represented by the site was undertaken.

The sites vegetation composition and structure, although representative of the Granite Lowveld vegetation type, was evidently secondary in nature with historic anthropogenic impacts evident in and around the site. The site received a Moderate Biodiversity value rating due to low species diversity and an absence of any plant SCC. The secondary nature

of the site, coupled with the lack of species diversity, vegetation cover and protected species suggest that the site would be suitable for the low impact upgrade development proposed within the guidelines and limitations of the LCPv2 of 2013 and NEMBA of 2004 (Figure 8).

Important mitigation measures would include:

- The appointment of an ECO prior to construction,
- The borders of the areas to be developed should be demarcated with danger tape in order to prohibit access by the construction team into ecologically sensitive vegetation communities (this danger tape must be removed once construction is completed)
- A conservation buffer of 25 m from the Full Supply Level of Dam A and 5 m from ephemeral drainage lines, must be implimented.
- No trees with a diameter of 30 cm or more at chest height should be removed by any construction, whether protected or not. Protected trees with a diameter of less than 30 cm should also be avoided. All roads should be routed around these trees and the proposed homestead should be constructed around all larger trees.
- Poaching could be a significant threat. If any external labour teams are used during construction, then these teams should preferably be accommodated off site; if this is not possible then teams should be carefully monitored to ensure that no unsupervised access to plant and animal resources takes place.
- Construction teams must not be allowed to harvest any plant or animal resources from the property.
- Any populations of conservation-important plant species found within the development footprint should be identified and excluded from development or relocated to similar adjacent habitat prior to clearing of vegetation;
- If it is unavoidable to design infrastructure around the larger Near Threatened or protected species, then permits to destroy them should be applied for from the relevant authorities.
- All listed invasive alien plants found within the site must be destroyed and removed.
- No dumping of building rubble must be allowed on the property;
- Topsoil must be protected through stock-piling during the construction phase; this soil can then be used for landscaping at a later stage.
- Where possible, no new roads should be constructed but the existing tracks could merely be upgraded to allow access to the proposed homestead and crossing upgrade site.

If all proposed activities are kept within the site footprint as indicated and mitigation measures are implemented, then this potentially medium significance could be reduced to **low**.

In addition to the important but general mitigatory measures listed above the following specific mitigations are also of relevance.

1. **Habitat loss (Fauna and Flora)**

   The proposed site for Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing is small. There are however a few protected species on site resulting in a vegetation sensitivity of moderate. The total loss of land for habitats is

highly unlikely and any loss that does occur will be much localised. The significance of this habitat loss is **low** as much of the area surrounding the site as well as the site itself will be able to sustain the vegetation in its natural state. Impacts will be site specific and temporary.

The development of the above mentioned site is in principle not a significant change in land-use and will thus not contribute to large scale fragmentation and loss of faunal habitats. The limited habitat loss and fragmentation that could occur on site would be permanent, site bound and of **low** significance.

The adoption of recommendations will be beneficial.

Mitigation:

- Existing vegetation should be retained where possible.
- All instructions, as set out in the EMPr must be adhered to.
- Indigenous vegetation should be utilized in landscaping to retain linkages and to retain a sense of place.

2. Barriers to dispersal and migration of fauna and flora

The construction of any structures, artificial landscapes, roads and fencing may create barriers to dispersal and migration of indigenous fauna and flora. The relatively small footprint of the proposed development site, as well as the fragmented placement of the infrastructure, allowing for thoroughfare and movement will however mitigate these impacts.

However, despite this, barriers to faunal dispersal and migration will probably occur and without mitigation the significance of the impacts will be **moderate**. These impacts will be permanent and localised. With mitigation the impacts may be reduced to **low**.

Mitigation:

- Where infrastructure is to be built the layout should take cognizance of the natural features and thus allow for relative free movement of fauna. Ecological corridors are to be incorporated into the design.
- Fencing (electrical or non-electrical), for the protection of the site against damage that may be caused by elephants may be erected.
    - Here design aspects, such as the height of the lowest electrified wire above the ground, need to be born in mind to overcome possible negative impacts.

Table 10: Ecological sensitivity

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**High (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Moderate (-)**	**Low (-)**
Probability	**Probable**	**Unlikely**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.3. Aquatic ecosystems

One artificial hydro-geomorphic aquatic ecosystem type was identified within the potential footprint of the proposed development.

The Study Area contained a number of ephemeral drainage lines. These were mapped for the purposes of this study but not considered further because they do not support aquatic biota and therefore do not constitute aquatic ecosystems.

Construction of the proposed family homes could disturb the stability of episodic drainage lines within the Study Area and increase the risks of erosion. The severity of this impact can be prevented by ensuring that no development takes place within 5 m of any drainage line. The overall risk of construction on the stability of the drainage lines is rated with high confidence as **Low** as long as mitigation measures are implimented.

Mitigation:

- The following buffer zones are recommended:
  - 5 m from ephemeral drainage lines; and
  - 25 m from the Full Supply Level of Dam A
- Material stockpiles may not be stored or placed within any drainage line or stormwater system.
- Re-vegetation must start immediately after the completion of an activity and at an agreed distance behind any particular work front.
- Steps must be taken to prevent further erosion in the erosion donga that has developed at the homestead boundary fence.
- Appropriate rehabilitation of disturbed and compacted soils.
- Control of alien invasive vegetation.
- Use of alien plant species in landscaping must be prohibited.
- Appropriate house-keeping, including provision of scavenger proof and weather-proof bins.

- Refuse generated from the campsite, construction area, storage area or any other area shall be collected and placed in suitable covered refuse bins on a daily basis. A litter patrol around the construction camp is to take place every day to collect any litter that may have been strewn around.
- Bins and/ or skips should be emptied regularly, and waste should be disposed of at a registered landfill site.
- All refuse containers are to be covered at all times.
- Regular inspections shall be carried out to ensure toilets are kept in a hygienic state.
- Regular inspections shall be carried out to ensure toilets, ablutions, septic tanks and other such areas are not leaking, and immediate corrective action taken if they leak.

Table 11: Aquatic Ecosystems

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**High (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Moderate (-)**	**Low(-)**
Probability	**Probable**	**Unlikely**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.3. Erosion and sedimentation

One of the potential impacts of construction is the erosion of surface soils and the subsequent sedimentation of downstream environments. This is due to the clearing of land, which leads to the runoff from the site having a high sediment load. Potential sedimentation of the streams is therefore of particular concern.

Where possible, construction activities should be scheduled to occur outside of the rainy period, thereby reducing the volume of runoff during construction. If this is not possible then extra precaution needs to be taken to reduce this impact.

In addition to the above the following mitigatory measures should be implemented:

- Topsoil must be stockpiled separately on the high ground side of, and within the designated construction site of the homestead development and watercourse crossing upgrade extension for later rehabilitation use and should not be compacted. No other soil may be placed or stockpiled upon it. Topsoil stockpiles are not to exceed 1.5 m in height and should be protected by a mulch cover. This mulch cover must not contain alien vegetation.

- Topsoil is to be replaced by direct return where feasible (i.e. replaced immediately on the area where construction is complete), rather than stockpiling it for extended

periods, and may not be used for any other purpose.

- Where backfill material is deficient, it must be made up by importation from an approved borrow pit and may not be made up by excavation within the construction site and the surrounding areas. The applicant must apply to the Department of Minerals and Energy for a Mining Permit in terms of section 27(2) of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), for the borrow pit should borrow material is not sourced from a commercial source.

- During construction all areas susceptible to erosion must be protected by the installation of the necessary, temporary and permanent drainage works as soon as possible, and measures necessary for the prevention of surface water being concentrated in water sources and from scouring the slopes, banks and other areas must been taken into account.

  Erosion protection measures should include, but not be limited to:
  - The use of indigenous, endemic groundcover or grass
  - ⇒ Hard landscaping e.g. gabions.

- Storm water drainage measures should be implemented on site to control runoff and prevent erosion.
- Storm water berms should be constructed that will channel storm water appropriately.

This potential impact is considered to be of **low significance** with mitigation measures implemented.

Table 12: Erosion and sedimentation

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Medium (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Probable**	**Unlikely**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.4. Ground and surface water impact (Deterioration of water quality)

During construction, pollutants may find their way into drainage channels and watercourses. Typical sources of pollution include oils and fuels from construction vehicles and construction materials such as cement, detergents, paints and other chemicals. Careful management and education of all construction staff, together with the implementation of an appropriate EMPr at this site, would curtail the risk of pollution spills. This potential impact is considered to be

of **low significance** with mitigation measures implemented.

Mitigation:

- All personal washing operations will take place at a location where wastewater can be disposed of in an acceptable manner. Facilities not feeding into a formal drain should ensure that biodegradable soaps are used.
- Dry chemical toilets must be made available at the construction camp and must be cleaned and serviced regularly. All chemical toilets must be placed above the 1:100 year flood line or at least 100 m away from any water course.
- At least one toilet must be provided for every 15 employees or part thereof and must be serviced at least twice a month.
- All maintenance and repair work of construction vehicles will be carried out within an area designated for this, equipped with the necessary pollution containment measures.
- The ground under the servicing and refuelling areas must be protected against pollution caused by spills and/or tank overfills.
- In the event of a breakdown or emergency repair, any accidental spillage must be cleaned up or removed immediately.
- All construction equipment and machinery must be maintained in good order. Regular checks must be undertaken for leaks, and any found must be immediately repaired.
- Construction vehicles have to be parked in the construction camp area after working hours.
- The ECO must ensure that reasonable precautions are taken to prevent the pollution of the ground and water resources on and adjacent to the sites during the construction phase.
- No natural watercourse is to be used for the cleaning of tools or any other apparatus. This includes for purposes of bathing, or the washing of clothes etc. All washing operations will take place at a location where wastewater can be disposed of in an acceptable manner.
- The contractor must maintain good housekeeping practices that ensure that all work sites are kept tidy and litter free, ensuring no runoff of refuse into surrounding watercourses.
- No spills may be hosed down into a storm water drain or sewer, or into the surrounding natural environment. All contaminated soil is to be excavated to the depth of contaminant penetration, placed in 200 litre drums and removed to an appropriate landfill site.
- Areas where cement and concrete are handled should be bunded and suitable methods developed to contain any access water containing waste. Water and slurry from concrete mixing operations must be contained to prevent pollution of the ground surrounding the mixing points.
- Tar and oil-based products should be applied to the manufacturer's specifications.

Care should be taken to identify pollution timely and suitable methods of decontamination should be used.

- Excavation of sand to solid ground must be done carefully and appropriate drainage incorporated. Excavating soil or imported backfill is to be stockpiled within the area designated for such and may not take place within the 1:100 year flood line.
- A drainage diversion system is to be installed to divert run-off from areas of potential pollution. Internal storm water reticulation is to be constructed early on in the project in order to significantly reduce the storm water effluent during construction.

Table 13: Ground and surface water impact (Deterioration of water quality)

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Medium (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Probable**	**Unlikely**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.5. Heritage impacts

There was no evidence to show that the proposed site was of cultural significance. There were no heritage resources, including known archaeological or paleontological sites over 100 years old, and graves or structures older than 60 years.

If any human skeletal remains are revealed in the process all activity will be immediately halted and application made for an emergency rescue permit in terms of section 36 of the NHRA (25 of 1999) in order to exhume the remains.

This potential impact is considered to be of **low significance**.

Table 14: Heritage

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Low (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Low (-)**	**Low (-)**
Probability	**Highly Unlikely**	**Unlikely**
Confidence	**Sure**	

Reversibility	Irreversible

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.6. Solid waste removal

Construction waste is an on-going issue on a construction site. Accumulation of waste can lead to health and safety hazards. In light of this any construction waste must be dealt with according to municipal and governmental regulations. Household waste would be temporarily stored and sorted on site. Recycling of the waste would be promoted. An outside contractor would be appointed to remove all household waste from the development to a registered waste disposal site. Any temporary waste storage site would be fenced off and made animal proof.

The developer envisages that the following waste management protocol be practiced:

- A place for food preparation and eating must be designated within the construction site. Dry chemical toilets must be made available at a ratio of 1:15 at the construction site and must be cleaned and serviced regularly.
- The contractor may not dispose of any waste and/or construction debris by burning or by burying. An adequate number of appropriate refuse bins must be provided at the construction site for refuse and solid waste.
- These bins must be emptied on a daily basis into an appropriate containment vessel that should be located in a designated waste storage area. This waste should be removed regularly to a registered dumping site for disposal.
- All waste must be transported in an appropriate manner (e.g. plastic rubbish bags).A specific site should also be allocated for construction waste e.g. empty cement bags etc. A low temporary fence may be erected around such a site in order to contain the waste and assist the effective removal thereof from the site.
- Waste should be separated and stored separately on site until removal. Construction waste should be removed on a weekly basis.
- A place for food preparation and eating must be designated within the construction site. Dry chemical toilets must be made available at a ratio of 1:15 at the construction site and must be cleaned and serviced regularly.
- The contractor may not dispose of any waste and/or construction debris by burning or by burying. An adequate number of appropriate refuse bins must be provided at the construction site for refuse and solid waste.
- These bins must be emptied on a daily basis into an appropriate containment vessel that should be located in a designated waste storage area. This waste should be removed regularly to a registered dumping site for disposal.
- All waste must be transported in an appropriate manner (e.g. plastic rubbish bags).A specific site should also be allocated for construction waste e.g. empty cement bags etc. A low temporary fence may be erected around such a site in order to contain the waste and assist the effective removal thereof from the site.
- Waste should be separated and stored separately on site until removal. Construction waste should be removed on a weekly basis. Limited amounts of non-hazardous rubble may be utilised as backfill in foundations that are to be capped to prevent

any leaching occurring.
- Hazardous waste will be removed and taken to a registered hazardous waste disposal facility.
- Waste collected – internal collection.
- Recycling policy – sort at source (will be investigated)
- Temporary onsite storage at for collection by Service provider (Professional Contractor)
- Disposal at registered landfill site – (Service agreement to be obtained)
- All storage facilities to be enclosed and animal proof.

Table 15: Solid waste removal

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Medium (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Highly Unlikely**	**Unlikely**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.7. Noise disturbance to surrounding land users.

Construction activities, construction vehicles and construction personnel on site would cause an increase in noise in the area, which may impact negatively on adjoining landowners and users. Despite there being few close neighbours, the area surrounding the site is utilized for game viewing and similar low noise dependent activities, this impact is considered of **medium** to **high** significance prior to mitigation.

Impacts of noise generation during construction in general could be mitigated by ensuring that all regulations relating to noise generation are observed and by restricting work to normal working hours. Further to this, the following mitigation measures are of relevance:

- Landowners and neighbouring lodges should be informed prior to any activities that are bothersome taking place.
- Notify adjacent landowners of after-hours construction work and of any other activity that could cause a nuisance.
- No loud music is permitted on site.
- Noise from labourer's to be controlled
- Noise suppression should be applied to all construction equipment
- If noise levels at the boundaries of the site exceed 7dB above ambient levels, then the local health authorities are to be informed.
- Respond to community complaints with regard to noise generation, taking reasonable action to eliminate and/or minimise the impact.

- Where complaints cannot be addressed to the satisfaction of all parties, then the Contractor will, upon instruction by the Project Manager, provide an independent and registered Noise Monitor to undertake a survey of the noise output levels. Recommendations to reduce noise to legislated levels must be implemented.

This potential impact could be readily managed by effective implementation of an EMPr.

The significance of this impact would be reduced from **medium to low** by the implementation of these mitigation measures.

Table 16: Noise disturbance to surrounding land users

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Medium (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Probable**	**Unlikely**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.8. Visual – "Sense of Place"

The construction of a family homestead (Lathleka) and the upgrade of an existing river crossing could have a visual impact on the scenic views and sense of place immediately surrounding the site.

Sense of place refers to a unique experience of an environment by a user, based on his or her cognitive experience of the place. Visual criteria and specifically the visual character of an area (informed by a combination of aspects such as topography, level of development, vegetation, noteworthy features, cultural / historical features, current landuse, etc…) play a significant role.

A visual impact on the sense of place is one that alters the visual landscape to such an extent that the user experiences the environment differently, and more specifically, in a less appealing or less positive light.

The most noteworthy aspect contributing to the sense of place of site is its locality in relation to the various Private Nature Reserves and the presence of undeveloped, natural bush surrounding the site.

However, the proposed activity is somewhat isolated, from a social perspective. Due to the fact that this is privately owned land and access will be limited, there are no social aspects

that may be affected by the proposed activity.

The anticipated visual impact of Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing (due to the natural surroundings, game viewing activities on the property) on the visual character of the landscape, notwithstanding that the site is isolated socially, and by implication, on the sense of place, is expected to be of **moderate** significance and may be mitigated to **low.**

- Alignment should be compatible with the natural contours
- Built structures should not break the horizon,
- Finishes should be carefully selected to match the surroundings, and free forms should be used where practicable.
- In terms of screening, all existing vegetation on the periphery of the site is to be maintained as a visual buffer and in addition to this the structures to be built are to incorporate existing vegetation. The structures and their placement are to be informed by the existing vegetation.
- Where possible, supplement the vegetation buffer with appropriate tree and shrub species (i.e. those already characterising the visual landscape of the site) between the proposed development and possible sensitive receptors.
- In terms of all infrastructure, it is recommended the access road and all structures be planned so that the unnecessary clearing of vegetation is avoided. This implies making use of already disturbed sites rather than pristine areas wherever possible and avoiding large tree specimens and dense established vegetation areas.
- Mitigation of lighting impacts includes the pro-active design, planning and specification lighting for Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing by a lighting engineer. The correct specification and placement of lighting and light fixtures for the house will go far to contain rather than spread the light.
- Mitigation of visual impacts associated with the construction phase, albeit temporary, entails proper planning, management and rehabilitation of the construction site. In addition, it is vital that vegetation is not unnecessarily cleared or removed during the construction period.
- The facility must be maintained in a neat and visually acceptable state throughout the operational life of the facility.

Table 17: Visual Sense of Place

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Medium (-)**	**Low (-)**
Duration	**Long term**	**Long term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Highly Probable**	**Probable**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.9. Traffic

Construction vehicles would have to make use of the Main TPNR access gate. This road (and other smaller roads within the property are utilised by general public as well as by other lodges/shareholders for ingress and egress. It is important that any potential impacts associated with traffic generated by the project's construction traffic are minimised.

Measures to mitigate impacts on traffic flow, and potential damage that heavy trucks may have on these roads during construction include ensuring that all regulations relating to traffic management are observed. In addition to this construction vehicles and their operators must be made fully aware that the development is situated in close proximity to other game reserves and the sensitive nature of this impact.

This impact can be reduced to a **low** significance with the application of mitigation measures.

The following strategies should be implemented to minimise potential impacts from construction related traffic:

- All heavy vehicles travelling to and from the site will follow dedicated heavy vehicle routes to avoid roads that are not suited to these vehicles.
- Heavy vehicles will not be permitted to travel along these roads after more than 20 mm of rain and until the roads have dried satisfactorily.
- Where practicable, truck deliveries will be restricted to daytime working hours.
- If possible, the transport of oversize loads will be restricted to non-peak periods to minimise traffic disruptions and will be provided with appropriate escorts and approvals from the Roads Department and the Police.
- An on-site speed limit will be enforced.

Table 18: Traffic

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**High (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Probable**	**Unlikely**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.10. Windblown dust

Construction activities are likely to result in the increased production of windblown dust. However, provided that normal dust control measures (e.g. watering, suspending dust generating activities during high wind conditions, re-vegetating/ stabilising disturbed surfaces as soon as possible) are implemented, the significance of this potential impact is considered to be **low** post mitigation**.**

The following are mitigations that should be implemented:

- Air pollution caused during construction can be limited by using dust suppression methods such as water spraying.
- The use of delivery trucks during construction should be limited to travelling during the times as stipulated by the TPNR. Moreover, delivery times should take place outside of game drive times.
- Trucks that comply with the relevant legislation should be used and these delivery vehicles should be restricted in terms of the speed that they travel.
- Building material and sand should be covered during transport to and from the site.

Table 19: Windblown dust

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Medium (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Probable**	**Unlikely**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.11. Litter/waste pollution

The effects of litter/waste pollution on the biophysical environment would be small but could be more significant for the aesthetics of the area and golf course if not properly controlled. This potential impact could be readily managed by the provision of suitable refuse disposal facilities and the effective implementation of an EMPr. The significance of this potential impact is considered to be **low** if the proposed mitigation measures are implemented.

The following are mitigations that should be implemented:

- Waste management plan for specific waste streams will be developed by the construction contractor prior to construction commencing.

- General waste will be collected and transported generally to local council approved disposal sites.
- Food wastes will be collected, where practicable, considering health and hygiene issues, for disposal off-site.
- Refuse containers will be located at each worksite.
- Where practical, wastes will be segregated and reused / recycled (e.g. scrap metal).
- All personnel will be instructed in project waste management practices and procedures as a component of the environmental induction process.
- Suppliers will be requested to minimise packaging where practicable.
- A high emphasis will be placed on housekeeping and all work areas will be maintained in a neat and orderly manner.
- All equipment and facilities will be maintained in a clean and safe condition.

Table 20: Litter/waste pollution

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Medium (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Probable**	**Unlikely**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.12. Safety

Construction activities could lead to injuries to staff, the public or fauna.

These activities include:

- The construction of the Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing –
  - Movement of construction vehicles to and from the site
  - Handling of equipment and material

The significance of this potential impact is considered to be **low** if the proposed mitigation measures are implemented.

General Mitigation:

- Measures should be taken during the construction phase, to ensure that personnel and the general public are safe at all times.

- Access should be sufficient to provide safe movement of construction vehicles.
- Construction sites and trenches should be demarcated and protected.

Emergency Response.

The contractor will prepare a detailed emergency response plan prior to work commencing. The plan will include consideration of the following:

- Information identifying the obligations under the relevant legislation.
- Development of a response, investigation, command, control and recovery for both natural disasters and other disasters/emergencies and incidents.
- Response procedures in the event of a fire, chemical release, spill, accident, explosion, equipment failure, bomb threat, natural disaster (including severe storm, bushfire and flood events) or any other likely emergency.
- Communication arrangements and contact details.
- Roles and responsibilities of responsible personnel.
- Emergency controls and alarms.
- Evacuation procedures.
- Emergency response equipment.
- Training requirements.
- Site access and security.

Fire Management

Minimise fire risk through evaluation processes and management of those risks.

- Restrict high-risk activities in accordance with local fire bans or in times of high fire danger.
- Maintain a plan for rapid and co-ordinated response to the outbreak of fire through an established fire response plan in conjunction with the local reserve and rural fire brigades.
- Develop evacuation procedures and hazard reduction.
- Undertake fire safety awareness training as part of site inductions.
- Conduct fire safety awareness training as part of site inductions.
- Conduct regular fire drills and record exercises as actions generated.
- Conduct periodic fire equipment audits.
- Consult with all relevant fire management authorities.

Incidents and Complaints

All incidents and complaints will be managed through the auditing process and reported to the appropriate authority as required.

All incidents and complaints will be documented in an incidents/complaints register. The complaints form will document at least the following information:

- Time, date and nature of complaint.

Type of communication (telephone, letter, email, visit).

- Name, contact address and contact number (if provided).
- Response and investigation undertaken as a result of the complaint.
- Action taken and signature of person investigating complaint.

Each complaint will be investigated as soon as practicable and, where appropriate, corrective action taken to remedy the cause of the complaint.

Table 21: Safety

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**High (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Probable**	**Unlikely**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.1.1.13. Socio-Economic Impact

There will definitely be a positive economic impact during the construction phase as temporary employment will be provided through the sourcing of unskilled labour. The construction of the proposed camp opens up potential for local suppliers to also benefit from the proposed development. This positive impact will, however, be negated if out-of-town contractors are employed who utilise non-local construction workers and make use of supplies brought in from other provinces (i.e. Gauteng). If local labour and suppliers are utilised during the construction phase this potential positive socio-economic impact will go from a **low (negative)** to **medium (positive)** significance.

There is also the potential for negative social impacts if there is an influx of construction workers from outside the area. This issue needs to be carefully managed which will then reduce the significance from **medium** to **low**.

Mitigation should include:

- Continued promotion of Department of Trade and Industry's guidelines to redress past racial and gender inequalities.
- Promotion of local business ventures.
- Employment of local labour for permanent positions.

- Provision made for improvement of local skills

Table 22: Socio-Economic impact – employment (short term)

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Low (-)**	**Medium (+)**
Duration	**Short term**	**Short term**
Significance	**Low (-)**	**Moderate (+)**
Probability	**Probable**	**Probable**
Confidence	**Sure**	
Reversibility	**Reversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

Table 23: Socio-Economic impact – influx of aliens

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Moderate (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Moderate (-)**	**Low (-)**
Probability	**Probable**	**Probable**
Confidence	**Sure**	
Reversibility	**Reversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.2. Environmental Management Plan and Environmental Control Officer

As alluded to above, all of the aforementioned construction phase impacts could be addressed and minimised by the development and effective implementation of an Environmental Management Plan/Programme (EMPr). Accordingly, a Final EMPr for both construction and operational phases will be prepared (see Final report attached as **Appendix F**). Prior to construction, an appropriately qualified environmental consultant should ensure that the Final EMPr be amended to take cognisance of any further requirements included in the RoD. This EMPr should be incorporated into the Civil Tender Document, since this would ensure that:

- The Contractor is made aware of the EMPr "up front";
- The EMPr is presented in a form and language familiar to the Contractor;
- The Contractor is able to cost for compliance with the EMPr; and

- The EMPr is binding within a well-developed legal framework.

To give appropriate effect to the environmental controls, it is essential that this EMPr be enforced by an appropriately qualified, independent Environmental Control Officer (ECO). The roles and responsibilities of the ECO should include:

- Ensuring that the necessary environmental authorisations and permits have been obtained;
- Monitoring and verifying that the EMPr is adhered to at all times and taking action if the specifications are not followed;
- Monitoring and verifying that environmental impacts are kept to a minimum;
- Reviewing and approving construction method statements with input from the Engineers;
- Assisting the Contractor in finding environmentally responsible solutions to problems;
- Giving a report back on the environmental issues at the monthly site meetings and other meetings that may be called regarding environmental matters;
- Keeping records of all activities/ incidents on Site in the Site Diary concerning the environment;
- Inspecting the site and surrounding areas regularly with regard to compliance with the EMPr;
- Keeping a register of complaints in the Site Office and recording and dealing with any community comments or issues;
- Monitoring the undertaking by the Contractor of environmental awareness training for all new personnel coming onto site;
- Ensuring that activities on site comply with other relevant environmental legislation;
- Ordering, via the Engineer's Representative, the removal of person(s) and/or equipment not complying with the specifications;
- Issuing of fines for contraventions of the EMPr;
- Completing monitoring checklists; and
- Keeping a photographic record of progress on Site from an environmental perspective.

2.3.3. Operational Phase Impacts on the Biophysical and Social Environment

A number of potential long-term (operational) impacts were identified during the investigative phases.

Potential bio-physical impacts:

- Erosion and siltation

The socio-economic impacts identified include:

- Safety
- Visual impact
- Economic

2.3.3.1. Assessment of operation phase impacts

A summary of the operation phase impacts (assessed within the Final BAR) is provided below.

Table 24: Summary of operation impacts

	Without mitigations			With mitigation		
	HIGH	MODERATE	LOW	HIGH	MODERATE	LOW
Erosion and Siltation		✖				✖
Safety		✖				✖
Visual – "sense of place"		✖				✖

2.3.3.1.1. Erosion and Siltation

One of the potential impacts that Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing may have on the receiving environment is that of erosion of surface soils and the subsequent sedimentation of downstream environments. Due to the topography the site may be particularly vulnerable to erosion if not managed correctly.

Areas of concern would be the access road and any areas where pedestrian traffic is high and vegetation cover is denuded. All the watercourses have the possibility of being silted up due to the runoff from the site having a potentially high sediment load.

This potential impact is considered to be of **low** significance with mitigation measures implemented.

Mitigation should include:

- Where possible, maintenance activities that would necessitate vegetation clearing should be scheduled to occur outside of the rainy period, thereby reducing the volume of runoff during maintenance. If this is not possible then extra precaution needs to be taken to reduce this impact.
- Any steep road surfaces should have water-traps and drainage furrows constructed in order to direct water off the road as quickly as possible. These must be maintained properly and regularly.
- Cut-off drains diverting stormwater around the perimeter of the development should be maintained so as to ensure proper functionality.
- Outflow from cut-off drains and stormwater diversions should be attenuated sufficiently to prevent erosion of receiving environment. These must be inspected and maintained regularly.
- As far as possible all cleared areas should be rehabilitated and re-vegetated.

Table 25: Erosion and Siltation

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Medium (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Probable**	**Unlikely**
Confidence	**Sure**	
Reversibility	**Short Term**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.3.1.2. Safety

Operational activities could lead to injuries to staff or the public. These activities include:

- The operation of the proposed homestead development and watercourse crossing upgrade and its facilities –
  - Movement of private vehicles to and from the site.
  - Injury due to improper security at the site.
  - Guest activities

The significance of this potential impact is considered to be **low** if the proposed mitigation measures are implemented.

Mitigation measures that should be implemented:

- Upon arrival, guests must be shown around the homestead and explained where danger areas are. Guests are to be told not to leave the bounds of the camp.
- Guests are not to leave their rooms unescorted at night. Guides must accompany guests to and from chalets in the late evenings and early mornings.
- All guests and staff must be provided with torches;
- An emergency medical evacuation policy that covers guests and staff in the event of serious injury or acute medical emergency should be implemented. Relevant staff must be trained in and be aware of this policy
- Guests must be informed that the homestead has good access to high quality medical facilities, and that emergency services are on standby should they be required.
- Guests are to be shown where fire extinguishers are located.
- In the event of a fire or flood homestead management are responsible to make sure that all their guests are evacuated.
- Guests are to be evacuated first, and then belongings.
- In the event of a flood, guests are to be assembled on the highest ground. In the event of a fire, guests are to assemble in front of the reception. The camp manager is in charge at all times and is responsible for issuing instructions.

Table 26: Safety

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Medium (-)**	**Low (-)**
Duration	**Short term**	**Short term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Probable**	**Probable**
Confidence	**Sure**	
Reversibility	**Reversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.3.1.3. Visual – "Sense of Place"

The operation of Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing could have a visual impact on the scenic views and sense of place immediately surrounding the site.

Sense of place refers to a unique experience of an environment by a user, based on his or her cognitive experience of the place. Visual criteria and specifically the visual character of an area (informed by a combination of aspects such as topography, level of development, vegetation, noteworthy features, cultural / historical features, current land use, etc…) play a

significant role.

A visual impact on the sense of place is one that alters the visual landscape to such an extent that the user experiences the environment differently, and more specifically, in a less appealing or less positive light.

The most noteworthy aspect contributing to the sense of place of site is its locality in relation to the surrounding reserves and the presence of undeveloped, natural bush surrounding the site.

However, the proposed activity is somewhat isolated, from a social perspective. Due to the fact that this is privately owned land and access will be limited, there are no social aspects that may be affected by the proposed activity.

The anticipated visual impact of Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing (due to the natural surroundings, game viewing activities on the property) on the visual character of the landscape, notwithstanding that the site is isolated socially, and by implication, on the sense of place, is expected to be of **moderate** significance and may be mitigated to **low.**

Mitigation to be implemented:

- In terms of screening, all existing vegetation on the periphery of the site is to be maintained as a visual buffer and in addition to this the structures to be built are to incorporate existing vegetation. The structures and their placement are to be informed by the existing vegetation.
- Where possible, supplement the vegetation buffer with appropriate tree and shrub species (i.e. those already characterising the visual landscape of the site) between the proposed development and possible sensitive receptors.
- In terms of all infrastructure, it is recommended the access road and all structures be planned so that the unnecessary clearing of vegetation is avoided. This implies making use of already disturbed sites rather than pristine areas wherever possible and avoiding large tree specimens and dense established vegetation areas.
- Mitigation of lighting impacts includes the pro-active design, planning and specification lighting for Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing by a lighting engineer. The correct specification and placement of lighting and light fixtures for the camp will go far to contain rather than spread the light.
    - Outdoor lighting should be kept to a minimum and be aimed downwards (towards the ground). Energy-saving lighting should be used.
- The development must be maintained in a neat and visually acceptable state throughout the operational life of the facility.
- Aesthetic standards must be maintained by ensuring that architectural styles and landscaping blend in with the surrounding environment.

Table 27: Visual Sense of Place

	Preferred Layout	
	Without mitigation	**With mitigation**
Extent	**Local**	**Local**
Magnitude	**Medium (-)**	**Low (-)**
Duration	**Long term**	**Long term**
Significance	**Medium (-)**	**Low (-)**
Probability	**Highly Probable**	**Probable**
Confidence	**Sure**	
Reversibility	**Irreversible**	

Significance: positive impacts indicated by no shading & (+), negative impacts indicated by shading & (-)

2.3.3.1.4. Economic (Capital Investment)

The construction of a family homestead (Lathleka) and the upgrade of an existing river crossing will add further positive socio-economic value to the wider community (both direct and indirect benefit).

In mitigation the following should be implemented and practiced:

- Continued promotion of Department of Trade and Industry's guidelines to redress past racial and gender inequalities.
- Promotion of local business ventures.
- Employment of local labour for permanent positions.
- Provision made for improvement of local skills

3. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative A (preferred alternative)

The preceding chapters and the specialist reports provide a detailed assessment of the anticipated environmental impacts on specific components of the biophysical and social environments associated with the proposed construction of a family homestead (Lathleka) and the upgrade of an existing river crossing.

This Final BAR has provided a comprehensive assessment of the potential environmental impacts, identified by the EIA team and I&AP's, associated with the proposed project. This investigation has not identified any potential impacts on the biophysical or social environments that are so severe as to suggest that the proposed development should not proceed. The conceptual design has taken cognisance of the various environmental considerations and accordingly, incorporates remedial measures aimed at curtailing the significance of the potential negative environmental impacts associated with the proposed camp development, as well as enhancing the potential positive environmental (including socio-economic and land use) impacts.

The significance of the potential environmental (biophysical and social) impacts associated with the proposed development are summarised below.

It should be noted that the impacts have been assessed with a reasonable amount of confidence.

From the table below it is apparent that there are no long term or operational phase impacts of significant concern. The negative impacts associated with the operational phase are likely to be of medium to low significance, particularly if the proposed mitigation measures are implemented.

With regards to the short term or construction phase impacts, the significance of the construction phase impacts are likely to be curtailed by the relatively short duration of the construction phase. Moreover, many of the construction phase impacts could be mitigated by the effective implementation of the mitigation measures outlined above. If these measures were put into practice the significance of all construction phase impacts would be reduced to low. While the probability of the construction phase impacts occurring is relatively high without mitigation, the effective implementation of the mitigation measures will reduce the probability of the impacts occurring.

Table 28: Summary of the significance and probability of the potential positive and negative impacts associated with the proposed Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing.

OPERATION PHASE IMPACTS						
IMPACT	**Without mitigations (positive & negative)**			**With mitigation (positive & negative)**		
	HIGH	**MODERATE**	**LOW**	**HIGH**	**MODERATE**	**LOW**
Change to Physical Topography		×				×
Ecological Sensitivity • **Habitat loss (Fauna and Flora)** • **Barriers to dispersal and migration of fauna and flora**		×				×
Aquatic Sensitivity		×				×
Erosion and Sedimentation		×				×
Ground and Surface Water Impact		×				×
Heritage			×			×
Solid Waste Removal		×				×
Noise disturbance		×				×
"Sense of Place" - Visual		×				×
Windblown Dust		×				×
Litter and Waste		×				×
Safety		×				×
Traffic		×				×
Socio-Economic ▪ **Employment Opportunities (short-**			×		✓	

term) ▪ Influx of aliens		x				x

OPERATION PHASE IMPACTS						
	Without mitigations			With mitigation		
	HIGH	MODERATE	LOW	HIGH	MODERATE	LOW
Erosion and Siltation		x				x
Safety		x				x
Visual – "sense of place"		x				x

It is felt that the proposed Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing will have an overall positive impact on the natural and socio-economic environment, and should the necessary mitigation measures be implemented there are no impacts envisaged of high significance or any fatal flaws.

In this regard the EAP sees no reason as to why the proposed activity (construction of a family homestead (Lathleka) and the upgrade of an existing river crossing) may not be authorised.

3. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative A (preferred alternative)

It is felt that the proposed Construction of a family homestead (Lathleka) and the upgrade of an existing river crossing will have an overall positive impact on the natural and socio-economic environment, and should the necessary mitigation measures be implemented there are no impacts envisaged of high significance or any fatal flaws.

In this regard the EAP sees no reason as to why the proposed activity (construction of a family homestead (Lathleka) and the upgrade of an existing river crossing) may not be authorised.

No-go alternative (compulsory)

The purpose of the proposed activity, including the construction of a family homestead (Lathleka) and the upgrade of an existing river crossing (a right that the Owner has), would be to afford the owners of Lathleka comfortable and adequate accommodation on the land that they own and provide easy unhindered access to various portions of the farm. The homestead facilities would be utilised by the proponent and his guests for recreation.

The Lathleka Property is in the process of being incorporated into the Timbavati Private Nature Reserve (TPNR). The location of the proposed development within the TPNR, requires that the aforementioned activities be restricted and in line with the Constitution and Policies governing conservation area. The TPNR constitution provides an overarching constitution.

A possible alternative to this, is one of no development at all, leaving the site/s in their present state. The site/s currently consist of a mixture of natural bush and disturbed areas, used for low impact eco-tourism and conservation activities.

Although the affected site/s and the proposed homestead will be privately owned and thus will not have any form of turnover, the operation will employ a number of temporary staff members and during construction and permanent staff as well. In addition to this the proponent will pay the required fees and monies to the Timbavati Private Nature Reserve for services rendered. Should the homestead and not be built and the causeway not be upgraded, the owner would be forced to sell off their property, individuals stand to lose their only form of income. The proposed homestead and causeway upgrade will improve operational efficiency, ecological sustainability as well as live-in conditions, respectively.

If the current status quo remains, one must entertain the likelihood of the owner selling their property. The knock on effects of this are numerous, many of which may result in large scale negative impact on the receiving environment as well as on the Timbavati Private Nature Reserve.

The EAP suggests that due to the above mentioned factors, and should the No Go alternative be exercised, that the resultant negative repercussions will outweigh the good.

In conclusion the No Go alternative should not be exercised.

Alternative B

Alternative C

For more alternatives please continue as alternative D, E, etc.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	YES✓	NO

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

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the department in respect of the application:

RECOMMENDATIONS

Should the proposed activity be authorised, the most important mitigation measures, which should be stipulated as requirements in any authorisation include the following:

- The Construction Phase EMPr that addresses, *inter alia*, the issues discussed under Construction Phase impacts, *viz*. Ecological sensitivity, erosion and sedimentation, deterioration of water quality, heritage impact, noise disturbance and socio-economic impacts, traffic, windblown dust, litter/waste and safety should be effectively implemented for the duration of the project.
- A conservation buffer of 25 m from the Full Supply Level of Dam A and 5 m from ephemeral drainage lines, must be implimented.
- A suitably qualified professional should be appointed to act as the ECO and oversee the implementation of the EMPr during construction.
- A suitably qualified professional should be appointed to act as the ECO and oversee the implementation of the EMPr during construction.
- If any human remains are discovered during earth moving activities, excavations must stop at the location of these findings, and these must be treated with respect. The South African Heritage Resources Agency must be notified immediately. An archaeologist may be required to remove the remains at the expense of the developer.
- Effective design of all stormwater outlet areas to prevent erosion and flooding.
- Appropriate landscaping and rehabilitation of indigenous vegetation should be included in the development of the site.
- Construction should be planned so that the unnecessary clearing of vegetation is avoided.
- Measures are taken to ensure that personnel and the general public are safe at all times.

THE WAY FORWARD

The competent environmental authority (i.e. LEDET) will review the final BAR and decide whether or not to grant authorisation.

Once LEDET has reviewed the Final BAR they will either issue a Record of Decision based on the information contained in the Final BAR or indicate that further information is required in order to make an informed decision with regard to the proposed activities. If a Record of Decision is issued, this would be communicated by means of letters to all identified I&AP's. Following the issuing of the Record of Decision, there will be a 10-day notice of intent to appeal period, followed by a 30-day appeal period within which I&AP's will have an opportunity to appeal against LEDET's decision to the Provincial MEC for Environmental Affairs and Development Planning in terms of the National Environmental Management Act.

Is an EMPr attached? The EMPr must be attached as Appendix F.	YES✓	NO

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, _____ declare that I –

(a) act as the independent environmental practitioner in this application;
(b) 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 Environmental Impact Assessment Regulations, 2014;
(c) do not have and will not have a vested interest in the proposed activity proceeding;
(d) have no, and will not engage in, conflicting interests in the undertaking of the activity;
(e) undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;
(f) will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
(g) will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the Department in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the Department may be attached to the report without further amendment to the report;
(h) will keep a register of all interested and affected parties that participated in a public participation process; and
(i) will provide the Department with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.

Signature of the Environmental Assessment Practitioner:

Name of company:

Date: