

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT THE PROPOSED TOWNSHIP ESTABLISHMENT DEVELOPMENT OF THE ARTS AND CULTURE HUB IN AT BAKONE MALAPA CULTURAL VILLAGE IN POLOKWANE, LIMPOPO PROVINCE



November 2021

LEDET Reference Number: 12/1/9/2-C73

LIM/EIA/0001374/2021

Project Number: 20210112EIAMAYA

PREPARED BY

Precious Environment Consultants

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“BECAUSE OUR ENVIRONMENT IS PRECIOUS”

**DRAFT ENVIRONMENTAL IMPACT ASSESSMENT
REPORT THE PROPOSED TOWNSHIP
ESTABLISHMENT DEVELOPMENT OF THE ARTS AND
CULTURE HUB IN AT BAKONE MALAPA CULTURAL
VILLAGE IN POLOKWANE, LIMPOPO PROVINCE**



PROJECT DETAILS

Competent Authority: Limpopo Department: Economic Development
Environment and Tourism

Project No: 20210112EIAMAYA

LEDET Ref No: 12/1/9/2-C73 LIM/EIA/0001374/2021

Project Title: Environmental Impact Assessment Application for the proposed township establishment development of the arts and culture hub at Bakone Malapa Cultural village in Polokwane, Limpopo province

Location: Remainder of Portion 7 of the Farm Palmietfontein 24-KS, Polokwane, Limpopo, Polokwane Local Municipality.

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APPROVAL

Report Status: REVISION 00



Compiled by: Mbali Guma: (Pr.Sci.Nat)



Date: 30 November 2021

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DRAFT ENVIRONMENTAL IMPACT REPORT (dEIR)

Submitted in terms of National Environmental Management Act (Act. 107 of 1998) (NEMA) (EIA Regulations of 2014 as per the amendment); for activities under Government Notice R984 activity 15 and Listing Notice 985 activities 6e(i)(ee), 15 and 8(e)(i).

Area: Remainder of Portion 7 of the Farm Palmietfontein 24-KS, Polokwane, Limpopo, Polokwane Local Municipality.

Extent: 30 000 m²

Co-ordinates: 23°59'12.516"S and 29°27'32.868"E



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Important Notice

The Scoping and Environmental Impact Report process required by the National Environmental Management Act (Act. 107 of 1998) (NEMA) consists of two phases: (1) scoping and (2) a detailed impact assessment phase (i.e. the EIA Phase).

The scoping phase is very important to any project, as it is the first stage for the proposed development to be introduced to the public and that they have the opportunity to contribute valuable local knowledge and help identify significant issues. This information is then used to define the terms of reference (i.e. Plan of Study for EIA) for the EIA phase, by identifying the approach, critical issues to address, feasible alternatives, scope of work for detailed specialist assessments and preliminary mitigation measures (DEAT, 2002).

Interested and Affected Parties should note that only one version of the scoping report and one version of the environmental impact report will be made available for public comment in terms of the 2017 NEMA EIA Regulations. Therefore, the scoping and environmental impact report made publicly available should be viewed as the only reports.

Study Objectives

The specific objectives for the dEIAR phase of the EIA process are to:

- identify the relevant policies and legislation relevant to the activity;
- motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
- identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;
- identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
- identify the key issues to be addressed in the assessment phase;



- agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and
- Identify suitable measures to avoid, manage, or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

Public Review Period for the Draft Environmental Impact Assessment Report

This Draft Environmental Impact Assessment Report (EIAR) for the Polokwane Local Municipality proposed Bakone Malapa Cultural Township Development is made available for comment for 30 days from 1st December 2021 until 18th January 2022.

The DEIAR has been distributed to the key commenting authorities, key stakeholders, and all those persons identified as Interested and Affected Parties (I&APs) as part of the Project's I&AP Database. Copies of the Report were made available at Bakone Malapa Museum located on Remainder of Portion 7 of the Farm Palmietfontein 24-KS, Polokwane, Limpopo, Polokwane Local Municipality, on the Precious Environment company website and were submitted electronically to the I and AP's and I and Aps were given an opportunity to comment on the dEIAR by sending an email to lindiwek@preciousenvironment.co.za/info@preciousenvironment.co.za, or to contact Lindiwe Khupha telephonically on 013 0040 282 or 084 721 5008.



List of Acronyms

BID	-	Background Information Document
CRR	-	Comments and Response Report
EA	-	Environmental Authorization
EAP	-	Environmental Assessment Practitioner
ECA	-	Environmental Conservation Act, 1989 (Act No.73 of 1998).
EIA	-	Environmental Impact Assessment
EIR	-	Environmental Impact Report
EMPr	-	Environmental Management Programme Report
EMF	-	Environmental Management Framework
EMS	-	Environmental Management System
GN	-	Government Notice
I&AP	-	Interested & Affected Parties
IDP	-	Integrated Development Plan
NEMA -		National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended in 2014.
NEM:BA -		National Environmental Management Biodiversity Act, (Act No 10 of 2004)
NWA -		National Water Act, (Act No 36 of 1998)
NEW: WA -		National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).
OHSA	-	Occupational Health and Safety Act, Act 85 of 1993
PPE	-	Personnel Protective Equipment
PPP	-	Public Participation Process
SAHRA	-	South African Heritage Resources Agency
SWMP	-	Storm Water Management Plan
dEIAR	-	Draft Environmental Impact Assessment Report
fEIAR	-	Final Environmental Impact Assessment Report
PLM	-	Polokwane Local Municipality



EAP Statement of Independence

This Draft Environmental Impact Assessment Report has been commissioned by Precious Environment Consultants on behalf of Polokwane Local Municipality. An environmental impact assessment has to be undertaken for the purposes of obtaining an environmental authorisation for listed activities triggered by the proposed development which involves activities that are listed in Listing Notice 2 and 3 of the Environmental Impact Assessment Regulations, 2017 of NEMA (as amended).

In compiling this Report, the author(s) comply with the general requirements for Environmental Assessment Practitioners (EAPs) as set out below in the Regulations:

“General requirements for EAPs or a person compiling a specialist report or undertaking a specialised process:

17. An EAP appointed in terms of regulation 16(1) must—

- (a) Be independent;
- (b) Have expertise in conducting environmental impact assessments, including knowledge of the Act, these Regulations and any guidelines that have relevance to the proposed activity;
- (c) Perform the work relating to the application in an objective manner, even if this result in views and findings that is not favourable to the applicant;
- (d) Comply with the Act, these Regulations and all other applicable legislation;
- (e) take into account, to the extent possible, the matters referred to in Regulation 8 when preparing the application and any report relating to the application; and
- (f) Disclose to the applicant and the competent authority all material information in the possession of the EAP that reasonably has or may have the potential of influencing—
 - (i) Any decision to be taken with respect to the application by the competent authority in terms of these Regulations; or



(ii) The objectivity of any report, plan or document to be prepared by the EAP in terms of these Regulations for submission to the competent authority.”

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke at the end, positioned above a solid horizontal line.

Compiled by: Mbali Guma: (Pr.Sci.Nat)



Executive Summary

Baseline information for this draft Environmental Impact Assessment Report (dEIAR) was gathered through visual inspections of the project area and surroundings, desktop research and specialist studies were also conducted. Such information aided in identifying and assessing the potential current and future impacts of operations at the site, specifically with regards to sensitive receptors in the area.

Assessment Techniques for the EIA

Specialist studies have been undertaken for the Bakone Malapa Cultural Hub development site. Each of the specialist assessments followed a systematic approach to the assessment of impacts, with the principal steps being:

- Description of existing environment/baseline conditions;
- Prediction of likely potential impacts, including cumulative impacts (both positive and negative);
- Assessment of likely potential impacts (positive and negative);
- Identification of appropriate mitigation measures; and
- Assessment of residual (potential) environmental impacts.

Specialist studies that were conducted are:

- Geo-Technical Assessment
- Botanical profile /Vegetation assessment
- Traffic impact Assessment
- Floodline Assessment
- Heritage impact Assessment
- Social-Economic Impact Assessment



Other studies are currently underway and are in parallel process with the current EIA being undertaken, this includes Bulk Stormwater Management Plan, Township zoning, cable design and proposed project detailed layout plans, etc.

Baseline information

In order to evaluate the potential environmental impacts, the information relating to the existing environmental conditions was collected through field, desktop research and review of specialist studies and monitoring data; this is known as the baseline. Data was also collected from public records and other archive sources and where appropriate field surveys were also carried out.

The baseline was used to determine the sensitivity of receptors on and near the development site and what changes may take place during the construction and operation of the proposed Bakone Malapa Cultural Hub and the impacts, if any, that these changes may have on these receptors.

Identification of Potential Impacts

The norm of environmental identification of potential impacts focuses on the three phases of the proposed development: construction, operation and decommissioning, this EIA Report does not discuss the decommissioning phase as this is not envisaged anytime soon.

The Project team have experience from environmental studies for other projects in the Limpopo Province as well as other township developments. The team are therefore able to identify potential impacts addressed in the EIA based on their experience and knowledge of the type of activity proposed (Bakone Malapa Cultural Hub township development) and the local area. Their inputs informed the scope for the EIA.

Following the identification of potential environmental impacts, the baseline information was used to predict changes to existing conditions and permit an assessment of the impacts associated with these changes.



A detailed description of the assessment methodology used is presented in this Report (Section 8).

Assessment of Potential Effects

The potential impact that the proposed Bakone Malapa Cultural Hub Cultural Hub township development at Bakone Malapa Museum site may have on each environmental receptor could be influenced by a combination of the sensitivity and importance of the receptor and the predicted degree of alteration from the baseline state (either beneficial or adverse).

Environmental sensitivity (and importance) may be categorised by a multitude of factors, such as the rarity of the species; transformation of natural landscapes or changes to soil quality and land use.

The overall significance of a potential environmental impact is determined by the interaction of the above two factors (i.e., sensitivity/importance and predicted degree of alteration from the baseline).

Cumulative Impacts

Cumulative impacts result from actions which may not be significant on their own, but which are significant when added to the impact of other similar actions.

In general, three steps, as discussed below, were incorporated to ensure the correct assessment of cumulative impacts.

- Determining the extent of cumulative impacts
- Describing the affected environment
- Assessment of cumulative impacts

The anticipated cumulative impacts resulting from the operation of this development could potentially result in cumulative effects when taking the following into consideration:

- Socio-economic impact
- Noise impact



- Air quality impact
- Stormwater Impact

The proposed Bakone Malapa Cultural Hub Cultural Hub township development will contribute to employment opportunities within the project area. The cumulative impact of increased employment in the area therefore will contribute positively to the receiving environment with regards to social and economic upliftment of the local and provincial community.

The construction of the development will have a noise impact during the construction phase. However, in the operational phase the noise impact is expected to subside to the significance of very low, however, the cumulative noise levels must also be considered. All contractors must wear proper PPE and construction times of the site must be limited to 07h00- 18h00 working times to ensure that the cumulative noise levels are kept to a minimum.

The cumulative air quality impact for dust deposition will mostly be limited to the Bakone Malapa Cultural Hub Cultural Hub township development site and immediate surroundings. The background dust deposition rate for the area can be considered to be low.

Dust suppression must be implemented to reduce dust emissions, this is a measure recommended to ensure that the cumulative impacts are mitigated.

Mitigation

The EIA proposes measures to avoid, reduce or remedy significant adverse impacts which were identified; these are termed mitigation measures. Where the assessment process identified any significant adverse impacts, mitigation measures were proposed to reduce those impacts where practicable.

This strategy of avoidance, reduction and remediation is a hierarchical one which seeks:

- First to avoid potential impacts;
- Then to reduce the residual impacts; and



- Lastly, where no other measures are possible, to propose compensatory measures.



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Appendix B: DEA Acknowledgment of Application (Submitted during scoping phase)

Appendix C: Layout Plan

Appendix D: Land Use Zoning Certificates (Submitted during scoping phase)

Appendix E: Public Consultation Documentation

Appendix F: Specialist studies



1. Introduction

Polokwane Local Municipality is proposing a Township Establishment Development of the Arts and Culture Hub at Bakone Malapa Cultural Village in Polokwane, at Remainder of Portion 7 of the Farm Palmietfontein 24-KS, Limpopo Province. The proposed project will develop a mixed residential component (Res 1 and 2), Provincial State Theatre, Arena (Sporting Facilities), Film Studios and Film Archives or Music Studios/ General Studios, Workshop- Training Facility, Manufacturing Facilities, Retail- Incubator Building, Government Offices, Municipal Staff Housing, Cable Way, Hotel and Restaurant. This proposed development will involve activities that are listed in Listing Notice 2 and 3 of the Environmental Impact Assessment Regulations, 2017 of NEMA as amended.

The following activities will be catered for in the proposed development.

- Listing Notice 2: Activity (15) The proposed project will be a residential, mixed, retail, commercial, industrial, or institutional developments that occurs outside an urban area, where the total land to be developed is 20 hectares or more.
- Listing Notice 3: Activity (6) The development of resorts, lodges, hotels, tourism or hospital facilities that sleeps 15 people or more in Limpopo province.
- Listing Notice 3: Activity 6e(i)(ee), Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.
- Listing Notice 3: Activity 8(e)(i) The development and related operation of above ground cableways and funiculars. All areas outside urban areas.
- Listing Notice 3: Activity (15) Transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where, such land was zoned open space, conservation or had an equivalent zoning.

1.1 Purpose of EIA and Requirements of the 2017 EIA Regulations

The purpose of the EIA Phase is to:



- Address issues that have been identified through the Scoping Process;
- Assess alternatives to the proposed activity in a comparative manner;
- Assess all identified impacts and determine the significance of each impact; and
- Recommend actions to avoid/mitigate negative impacts and enhance benefits.

The EIA Phase consists of three parallel and overlapping processes:

- Central assessment process through which inputs are integrated and presented in an EIA Report that is submitted for approval to LEDET and other commenting authorities;
- Undertaking of a PPP whereby findings of the EIA Phase are communicated and discussed with I&APs and responses are documented;
- Undertaking of specialist studies that provide additional information/assessments required to address the issues raised in the Scoping Phase.

1.2 Applications Relevant to the S&EIA Process

The EIA studies will support the applications for the required licences and environmental authorisations. The following applications will be made to the Limpopo Department: Economic Development, Environment and Tourism (LEDET), acting as the Competent Authority for the proposed Township Establishment Development of The Arts and Culture Hub at Bakone Malapa Cultural Village in Polokwane:

- Application for Environmental Authorisation for listed activities triggered in Listing Notices GN R984 and GN R985 published pursuant to the EIA 2014 Regulations (as amended), promulgated in terms of the NEMA; and

The EIA findings, including specialist findings, are used by the applicant and authorities to obtain an objective view of the potential environmental, social, cultural and economic impacts that could arise during the construction and operation of the proposed Township Establishment Development of The Arts and Culture Hub at Bakone Malapa Cultural Village. Measures for the avoidance or mitigation of negative impacts will be proposed and positive impacts will be enhanced.



Precious Environment Consultants (“Precious Environment (Pty) Ltd”) were appointed by Polokwane Local Municipality as independent consultants to undertake the (S&EIR) process and lodge an application with the aim of obtaining an environmental authorisation from the competent authority viz Limpopo Department: Economic Development, Environment and Tourism (LEDET) to commence with the developments. The EIA process evaluates the environmental impacts associated with the proposed Township Establishment Development of The Arts and Culture Hub at Bakone Malapa Cultural Village in Polokwane Local Municipality as part of Environmental Authorisations (EA) application.

2. Details of Environmental Assessment Practitioner (EAP)

Precious Environment is a privately registered consulting company, Its product is accurate and timely technical information provided confidentially. Precious Environment offers its prestigious services to both the private and the public entities. Subsequently, the EAP has a vast experience in this kind of a business and has spearheaded many projects of this kind. Mbali Guma currently possesses a Master’s degree in Environmental Sciences and she has a wide experience in the environmental services. Mbali Guma is a conscientious individual with skills and knowledge in the Environmental field with 18 years of working experience in both Mining and Energy industry. Her experience includes 10 years in the Mining Environmental field (Coal and Nickel Opencast), 3 years in the Energy industry (Eskom) and 5 years in consulting (See Appendix A for the Curriculum Vitae of the EAP).

Table 1: Details of EAP

EAP Company	Precious Environment (Pty) Ltd
Address	P.O Box 40936 Reyno Ridge 1049
Physical Address	14 Block B, Jetvest Building Cnr Mandela and Linden Street EMalahleni, 1035
Website	www.preciousenvironment.co.za
Contact Person	Mrs Mbali Guma (Pr. Sci. Nat)



Tel	+27 13 004 0282
Mobile	+27 82 319 0259
Email	Mbali@preciousenvironment.co.za or info@preciousenvironment.co.za
Qualifications	Project Manager and EAP: Master's Degree Environmental Management
Expertise	Mrs Mbali Guma has over 18 years in the environmental management field providing environmental impacts assessment services for various sectors such as mining, recycling facilities, energy sector, housing projects etc. She is a qualified Scientist with a master's degree in environmental management and is a registered Professional Natural Scientist (Pr. Sci. Nat.) with the SACNASP. These services include Environmental Impact Assessments, Section 24G applications, Water use license applications, Atmospheric Emission license applications inter alia and all these permit applications are subject to public participation processes (PPP).

Independence

Neither Precious Environment, nor any of the specialist sub-consultants on this Project are affiliated to the applicant, Polokwane Local Municipality. Precious Environment also does not have any interest in secondary developments that may arise out of the authorisation of the proposed Township Establishment Development of The Arts and Culture Hub at Bakone Malapa Cultural Village in Polokwane. Furthermore, the EAP and the specialist sub-consultants meet the requirements for independence as none of them has and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the EIA Regulations, 2017; has and will not have vested interest in the proposed activity proceeding; and also has no and will not engage in conflicting interests in the undertaking of the activity.

All of the subject matter experts have been appointed as independent specialists by Polokwane Local Municipality and will/have perform(ed) the work relating to this application in an objective manner. None of the specialists have, or will, engage in conflicting interests in the undertaking of the proposed activity.



Assumptions and Limitations

The following assumptions and limitations have been made/ identified during the assessment process and in compilation of this EIA Report:

- The EAP hereby confirms that they have undertaken to obtain Project information from the client that is deemed to be accurate and representative of the project;
- A site visit has been undertaken to better understand the Project and ensure that the information provided by the client is correct, based on site conditions observed;
- The EAP hereby confirms their independence and understands the responsibility they hold in ensuring all comments received are accurately replicated and responded to within the EIA documentation;
- The comments received in response to the public participation process, are representative of comments from the broader community;
- The competent authority would not require additional specialist input, as per the proposals made in this Report, in order to make a decision regarding the application; and
- The EIA is being guided by the key principles of Integrated Environmental Management (IEM) which promote informed decision- making based on full public participation and due consideration of Project alternatives.

Notwithstanding these assumptions, it is the view of Precious Environment that this Draft Environmental Impact Report provides a good description of the issues associated with the proposed Township Establishment Development of The Arts and Culture Hub at Bakone Malapa Cultural Village, and an effective Plan of Study for the EIA phase.

3. Project Applicant

Polokwane Municipality accounts for 3% of the total surface area of Limpopo; however, over 10% of the population of Limpopo resides within its boundaries. The Municipality serves as the economic hub of Limpopo and has the highest population density in the Capricorn district. In terms of its physical composition, Polokwane Municipality is 23% urbanised and 71% rural. See Table 2 for the details of the applicant.



Table 2: Details of Project Applicant

Name of Applicant	Polokwane Local Municipality
Postal Address	P O Box 111, Polokwane, 0700
Physical Address	Polokwane Municipality Offices, Civic Centre, Corner Landros
Contact Person	Mare and Bodenstein Streets, Polokwane, 0699.
Tel	Mr Hyven Kholophe
Cell	+27 (0) 15 023 5230
Fax	+27 (0) 81 331 1062
Email	HyvenK@polokwane.gov.za

4. Project Location

The proposed project is located at Reminder of Portion 7 of the Farm Palmietfontein 24-KS, approximately 14km (15 minutes) South of Polokwane along the R37 road toward Lebowakgomo in Polokwane, Capricorn district, Limpopo Province see Figure 1. The proposed site receives an average of 661 mm annually with much of the rainfall received during summer. The region has temperatures between 21.1°C in January and fall to 12.5 °C in July.

The co-ordinates and Surveyor-general 21digit site of the proposed Township Establishment Development of The Arts and Culture Hub at Bakone Malapa Cultural Village:

Latitude: 23°59'12.516" S

Longitude: 29°27'32.868"E

Surveyor-general 21digit site: T0KS0000000002400007

The ERF portion on which the proposed Township Establishment Development of The Arts and Culture Hub at Bakone Malapa Cultural Village is under Polokwane Local Municipality; the engineering department is busy with the rezoning of the site as it is currently zoned as agricultural land.



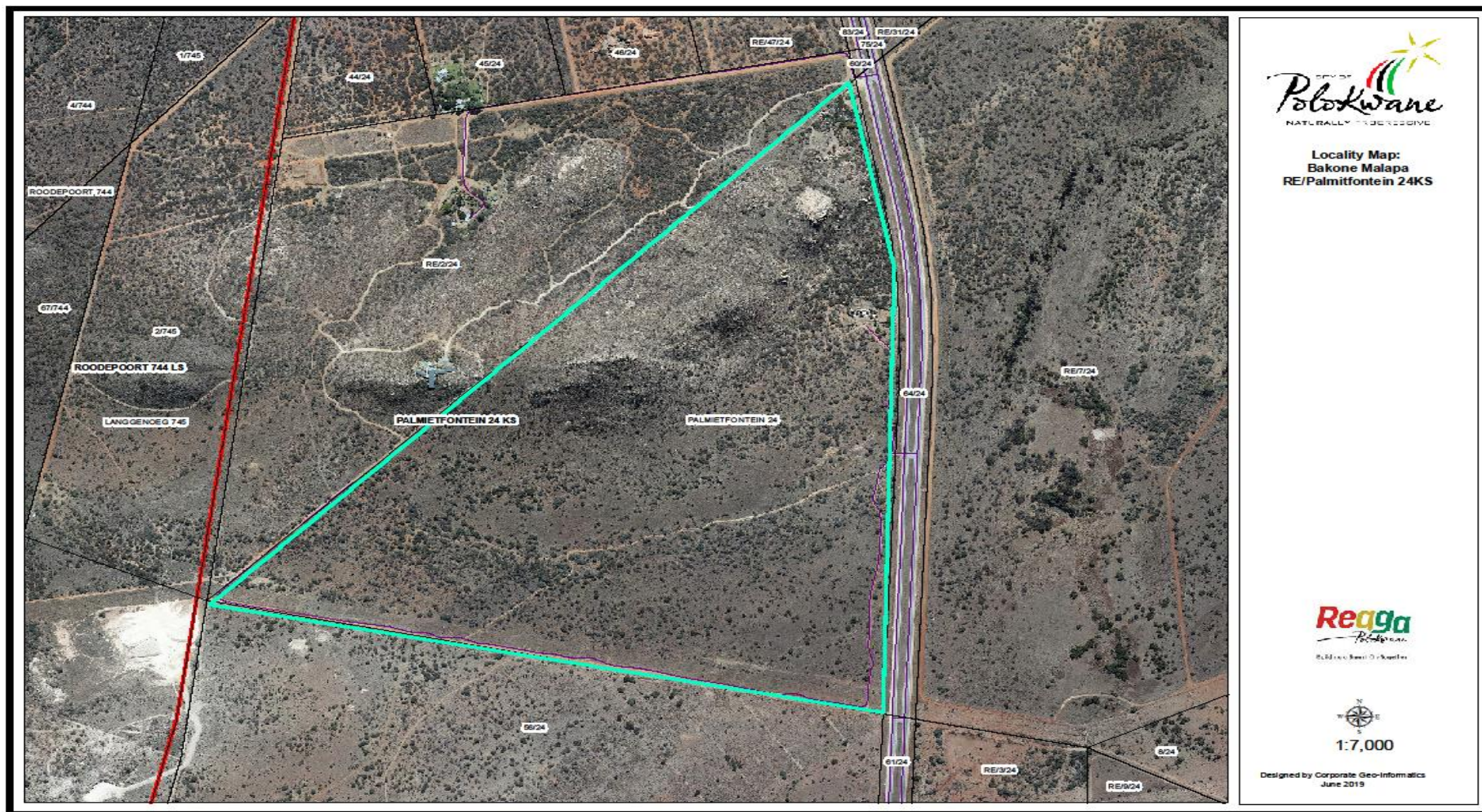


Figure 1: Locality Map of Bakone Malapa Arts and Culture Hub



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5. Project Description

Polokwane Municipality proposes to conduct an Environmental Impact Assessment (EIA) process to obtain an Environmental Authorisation for the proposed Bakone Malapa Arts and Cultural Hub Township Development. The proposed development will consist of mixed activities, including:

- Mixed residential component (Res 1 and 2),
- Provincial State Theatre,
- Arena (sporting facilities),
- Film studios & film archive/Music studios/general studios,
- Workshop - training facility,
- Retail- Incubator building,
- Government offices,
- Municipal Staff housing,
- Hotel and Restaurant
- Cable Way and
- Manufacturing facilities

The proposed development will involve activities that are listed in Listing Notice 2 and 3 of the Environmental Impact Assessment Regulations, 2017 of NEMA as amended, See **Table 3** for the listed activities that are triggered as part of this development.



Table 3: Listed Activities

Number and date of the relevant notice	Activity No(s) (in terms of the relevant notice)	Listed activity as per Project description	Process indicated by Regulations
GN 984 of 2014	15	The proposed project will be a residential, mixed, retail, commercial, industrial, or institutional developments that occurs outside an urban area, where the total land to be developed is 20 hectares or more.	Scoping and EIR
GN 985 of 2014	6	The development of resorts, lodges, hotels, tourism or hospital facilities that sleeps 15 people or more in Limpopo province.	Basic Assessment Report
GN 985 of 2014	6e(i)(ee)	Activity (6) The development of resorts, lodges, hotels, tourism or hospital facilities that sleeps 15 people or more in Limpopo province.	Basic Assessment Report
GN 985 of 2014	8(e)(i)	The development and related operation of above ground cableways and funiculars. All areas outside urban areas.	Basic Assessment Report
GN 985 of 2014	15	Transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where, such land was zoned open space, conservation or had an equivalent zoning.	Basic Assessment Report

5.1 Project Components

The proposed development includes the following:

1. Two Or More Film Studios & Film Archive (Special)

- Art department facilities



- Wardrobe and make-up facilities
- Green rooms and Star rooms
- Dimmer rooms
- Films and Documentaries
- Cameras and Filming equipment
- Global and local history of film industry

2. Workshop - Training Area (Special)

Training in product development, innovation, art and craft techniques, business management and entrepreneurship.

3. Manufacturing Area (Municipal/Special)

Mini studios where crafters work - (visitors to the hub be given access to this facility adding value to the product through understanding workmanship.

4. Retail (Business 3)

An on-site retail component housed within the Incubator building will ensure that artists, musicians, designers, etc. have a platform to sell their products. This retail is however not regular chain stores but specialised and industry-focused outlets aimed at marketing and selling goods indigenous to the Creative Super Hub and its immediate surroundings.

5. Hotel (Special)

The hotel will provide accommodation for the various performers, artists and actors making use of the on-site facilities, and will provide accommodation for individuals attending conferences, meetings, expos and other ceremonies in the Cultural Hub. This will also include cable car proposal as part of tourist attraction.

6. Arena

The Arena will be a standalone component of the Limpopo Sports, Arts and Culture Centre where musical shows can be performed and/or large Audience plays. The main benefit of the Arena is its use that aligns to converting the main centre stage into a sporting platform



that includes sports like Basketball, Tennis, Volleyball and other indoor sporting activities that can be sufficiently accommodated. If need be, the Arena can also house an ICC as other activity that it can manage to accommodate but this is not its primary function.

7. Incubator (Special)

The Incubator building as mentioned will house varying activities from retail centres to individuals selling their own arts and craft. The large incubator building can also manage to house an ICC centre within if the need for such a function exist, but the ICC is not the main focus of the Incubator building, thus the Incubator building serves to be a Multifunctional building to cater for demands that may arise in hosting different activities.

8. Theatre (Special/Government)

The theatre will act as the flagship component of the Limpopo Sports, Arts and Culture Centre, comprising of a main theatre with up to 5 rotating stages for international plays and performances. The theater will also house other mini-Theatres to host smaller shows and will also accommodate bars and restaurants to mainly cater for the Theatre Audiences and performers.

9. High Density Residential Component (Residential 3)

The high density residential in a secured property like Gated community is likely to support the integrated mixed land use and open up the corridor. Taking consideration of the approved township for a golf estate nearby is a clear sign for a city expansion and that must be considered.

10. Government/Municipal Zone Property for Arts And Cultural Related Offices for both Municipality and Government

The offices related to area must be developed in such area which is linked with the surrounding.

11. Cable ways for leisure purposes

A more detailed layout design for the cableway is underway.



6. Legislative Framework

The South African regulatory framework establishes well-defined requirements and standards for environmental and social management of industrial and civil infrastructure developments. Environmental protection functions are carried out by different authorities at both national and regional levels. This Chapter outlines the following:

- Current national, provincial and local legislation framework in South Africa as it relates to the project during planning, development and operation, including national policies and standards referred to as guidelines for the identification and management (including mitigation) of impacts.
- Key regulatory authorities and other relevant bodies related to the proposed activities, the Environmental Impact Assessment Report, and other permitting requirements.

6.1 National and Local Legislative Requirements

All applicable national, provincial and municipal legislation and policies are detailed below.

The Constitution of the Republic of South Africa (Act 108 of 1996)

The Constitution, which is the supreme law of the Republic of South Africa, provides the legal framework for legislation regulating environmental management in general, against the backdrop of the fundamental human rights. Section 24 of the Constitution states that:

- “Everyone has the right:
 - to an environment that is not harmful to their health or well-being; and
 - to have the environment protected, for the benefit of present and future generations through reasonable legislative and other measures that –
- prevent pollution and ecological degradation;
- promote conservation; and
- secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”



Section 24 of the Bill of Rights therefore guarantees the people of South Africa the right to an environment that is not detrimental to human health or well-being, and specifically imposes a duty on the State to promulgate legislation and take other steps that ensure that the right is upheld and that, among other things, ecological degradation and pollution are prevented.

In support of the above rights, the environmental management objectives of proposed project are to protect ecologically sensitive areas and support sustainable development and the use of natural resources, whilst promoting justifiable socio-economic development in the towns nearest to the Project site.

National Environmental Management Act (Act No. 107 of 1998), EIA Regulations published on 7 April 2017 (GN R327, GN R326, GN R325 and GN R324)

The National Environmental Management Act (Act No. 107 of 1998) (NEMA) provides the environmental legislative framework for South Africa and establishes a set of principles, which all authorities have to consider when exercising their powers. These include the following:

- Development must be sustainable;
- Pollution must be avoided or minimised and remedied;
- Waste must be avoided or minimised, reused or recycled;
- Negative impacts must be minimised; and
- Responsibility for the environmental consequences of a policy, project, product or service applies throughout its life cycle.

Section 28(1) states that “every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring”. If such degradation/pollution cannot be prevented, then appropriate measures must be taken to minimise or rectify such pollution.” These measures may include:

- Assessing the impact on the environment;



- Informing and educating employees about the environmental risks of their work and ways of minimising these risks;
- Ceasing, modifying or controlling actions which cause pollution/degradation;
- Containing pollutants or preventing movement of pollutants;
- Eliminating the source of pollution; and

Polokwane Municipality have a general duty of care and a responsibility to take actions to prevent pollution or degradation of the environment in terms of Section 28 of NEMA, and to ensure that the environmental impacts associated with the development of the Bakone Malapa arts and culture hub are mitigated where possible.

National Heritage Resources Act (No. 25 of 1999)

According to the National Heritage Resources Act (Act 25 of 1999), any person who intends to undertake a development must conduct a Heritage Impact Assessment to determine if there are any heritage resources along and within the proposed project and if any resources are found, mitigation measures and recommendations for the protection of such resources need to be adhered to. The Heritage Impact Assessment refers to the heritage act with reference to the proposed project and why a heritage impact assessment should be conducted (Vungandze Project, 2021. *Heritage Impact Assessment for The Proposed Township Establishment Development of The Arts And Culture Hub At Bakone Malapa Cultural Village In Polokwane, Limpopo Province*).

Based on Section 35 under Archaeology, palaeontology and meteorites of the National Heritage Act 25 of 1999 the heritage resources in South Africa should be managed in the following:

“(4) No person may, without a permit issued by the responsible heritage resources authority—

(a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite”;



Based on Section 38 under Heritage Resources Management of the National Heritage Act 25 of 1999 the heritage resources in South Africa should be managed in the following:

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

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

(i) exceeding 5 000 m² in extent” (see appendix A for the Heritage Act).

According to the Heritage Impact Assessment conducted for the proposed site, Heritage resources were found within the boundary of the proposed site, this includes the Bakone Malapa Museum and all archaeological material associated with it and rock art sites outside the Museum.

National Environmental Management: Air Quality Act, 2008 (Act No. 39 of 2008)

The National Environmental Management: Air Quality Act, 2004 has been promulgated with the objective of reforming the law regulating air quality in order to protect the environment. It also aims to comply with general environmental policies and to bring legislation in line with international air quality management practices. All outstanding sections of the Act came into effect on the 1st of April 2010 (Government Gazette, 26 March 2010). The Act has established a National Framework for Air Quality Management with standards. These standards include the National Dust Control Regulations (Government Gazette 1 November 2013, Regulation R 827 dated 1 November 2013). The standard regulate that no person may conduct any activity in such a way as to give rise to dust in such quantities and concentrations that:

i) The dust, or dust fall has a detrimental effect on the environment; including health, social conditions, economic conditions, ecological conditions or cultural heritage, or has contributed to the degradation of ambient air quality beyond the premises where it originates; or



- The dust remains visible in the ambient air beyond the premises where it originates; or

ii) The dust fallout at the boundary and beyond the boundary of the premises where it originates exceeds:

- a. 600 mg/m²/day averaged over 30 days in residential or light commercial areas measured using reference method ASTM D1739; or
- b. 1 200 mg/m²/day averaged over 30 days in areas other than residential and light commercial areas measured using reference method ASTM D1739.

A revised schedule of Listed Activities and Minimum National Emission Standards was published on the 22nd of November 2013 (GN R 893). Listed activities may only be undertaken after an AEL has been obtained and must comply with the prescribed emissions standards set for that activity. However, there were no listed activities requiring an AEL. Only dust emissions can be expected from during the construction phase of the proposed project, also vehicular movement has a potential of fugitive emissions.

National Water Act (Act No. 36 of 1998)

The National Water Act (NWA) (Act No 36 of 1998) fundamentally reforms the law relating to water resources, recognising that water is a scarce and unevenly distributed national asset that belongs to the people of South Africa and provides the Department of Water and Sanitation (DWS) with the mandate to protect, use, develop, conserve, manage and control the country's water resources in an integrated manner.

The NWA therefore provides the legal basis upon which to develop tools and the means to effect this mandate.

In terms of the Section 21 of the National Water Act, the developer must obtain water use licenses if the following activities are taking place:

- a) Taking water from a water resource;



- b) Storing water;
- c) Impeding or diverting the flow of water in a watercourse;
- d) Engaging in a stream flow reduction activity contemplated in section 36;
- e) Engaging in a controlled activity identified as such in section 37(1) or declared under section 38(1);
- f) Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;
- g) Disposing of waste in a manner which may detrimentally impact on a water resource;
- h) Disposing in any manner of water which contains waste from or which has been heated in any industrial or power generation process;
- i) Altering the bed, banks, course or characteristics of a water course;
- j) Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and
- k) Using water for recreational purposes.

Water for consumption and sewer purposes will be required for the proposed Project, the Project site does not fall within the ambit of any listed activity as per Section 21 of the NWA, and thus no Water Use License (WUL) application is this deemed required.

National Environmental Management: Biodiversity Act, 2008 (Act No. 10 of 2004)

The National Environmental Management: Biodiversity Act (Act 10 of 2004) (NEMBA) provides for “the management and conservation of South Africa’s biodiversity within the framework of the NEMA, the protection of species and ecosystems that warrant national protection, and the use of indigenous biological resources in a sustainable manner, amongst other provisions”. The Act states that the state is the custodian of South Africa’s



biological diversity and is committed to respect, protect, promote and fulfil the constitutional rights of its citizens.

Furthermore, NEMBA states that the loss of biodiversity through habitat loss, degradation or fragmentation must be avoided, minimised or remedied. The loss of biodiversity includes inter alia the loss of threatened or protected species. Biodiversity offsets are a means of compensating for the loss of biodiversity after all measures to avoid, reduce or remedy biodiversity loss have been taken, but residual impacts still remain, and these are predicted to be medium to high. Chapter 5 of NEMBA (Sections 73 to 75) regulates activities involving invasive species, and lists duty of care as follows:

- the landowner/land user must take steps to control and eradicate the invasive species and prevent their spread, which includes targeting offspring, propagating material and regrowth, in order to prevent the production of offspring, formation of seed, regeneration or re-establishment;
- take all required steps to prevent or minimise harm to biodiversity; and
- ensure that actions taken to control/eradicate invasive species must be executed with caution and in a manner that may cause the least possible harm to biodiversity and damage to the environment.

An amendment to the NEMBA has been promulgated, which lists 225 threatened ecosystems based on vegetation types present within these ecosystems. Should a project fall within a vegetation type or ecosystem that is listed, actions in terms of NEMBA are triggered.

The proposed site is situated in the Savanna Biome, hosting Mamabolo Mountain and Polokwane Plateau Bushvelds. The entire site occurs in the Critical Biodiversity Area 1, therefore an authorisation to construct the proposed theatre building on the Critical Biodiversity Area 1 must be applied for from the relevant local conservancy regulatory authorities in Polokwane or Limpopo. An assessment of Bakone Malapa Cultural Village's botanical profile for the development of the proposed arts and culture hub indicated that



total of 58 plant species were recorded from the site . Amongst these plants, no species was red data listed or protected when screened through the Protected Trees List as part of the National Forests Act, 1998 (Act No. 84 of 1998), The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) and Limpopo or Polokwane Department of Economic Development, Environment and Tourism (LEDET) Management Plans (Agri Flora Consultants, 2021. An assessment of Bakone Malapa Cultural Village’s botanical profile for the development of the proposed arts and culture hub).

National Environmental Management: Waste Act (Act No. 59 of 2008)

The requirements of the National Environmental Management: Waste Act, 2008, as amended, came into effect on 1 July 2009. The Act makes provision for the identification of various waste management activities which may have a detrimental effect on the environment. A waste management activity identified in terms of the Act may not commence, be undertaken or conducted except in accordance with published standards or a Waste Management Licence. The NEMWA has been amended by:

- National Environmental Management Laws Amendment Act, 2013 (Act No. 14 of 2013);
- National Environmental Management Laws Second Amendment Act, 2013 (Act No. 30 of 2013) (influenced NEMWA under NEMA, but no direct change to NEMWA;
- National Environmental Management Laws Third Amendment Act, 2014 (Act No. 25 of 2014); and
- National Environmental Management Waste Amendment Act, 2014 (Act No. 26 of 2014).

The proposed project does not have an activity that requires a Waste Management Licence. Waste generated will be disposed of as domestic waste at a registered landfill.



7. Background Motivation

A feasibility study that was conducted in 2016 by the Limpopo Department of Sport, Arts and Culture revealed there was a need for the Limpopo Provincial Theatre. Also, the study indicated that the Limpopo Provincial Theatre could be used as a catalyst to address the socio-economic challenges of the province. Further, A Solutions Options Analysis study conducted in 2019 for The Limpopo Department of Sport, Arts and Culture – Limpopo Provincial Theatre indicated that Bakone Malapa Open Air Museum is earmarked by the municipality as part of a 'Cultural hub' in their spatial development plans. This obliged Polokwane Local municipality to conduct an Environmental Impact Assessment (EIA) process to obtain an Environmental Authorisation for the proposed Bakone Malapa Arts and Cultural Hub Township Development.

7.1 Project Alternatives

Alternatives are different means of meeting the general purpose and need of a proposed activity. Alternatives aid in identifying the most appropriate method of developing the Project, taking into account location or site alternatives, activity alternatives, processing or technology alternatives, as well as the no-project alternative. Alternatives also aid in determining the activity with the least environmental impact.

This Section discusses the alternatives that will be considered as part of the EIA Phase. The 2017 amended EIA Regulations (GN R326) define "alternatives", in relation to a proposed activity, "as different means of meeting the general purpose and requirements of the activity, which may include alternatives to the:

property on which or location where the activity is proposed to be undertaken;

- type of activity to be undertaken;
- design or layout of the activity;
- technology to be used in the activity; or
- operational aspects of the activity; and



- includes the option of not implementing the activity”.

Appendix 2 of the 2014 amended EIA Regulations provides the following objectives of the Scoping Process in relation to alternatives:

- To identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process; and
- To identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment.

Sections 24(4) (b) (i) and 24(4A) of the NEMA require an EIA to include investigation and assessment of impacts associated with alternatives to the proposed development of Bakone Malapa Arts and Culture Hub. In addition, Section 24O (1)(b)(iv) also requires that the Competent Authority, when considering an application for EA, takes into account “where appropriate, any feasible and reasonable alternatives to the activity which is the subject of the application and any feasible and reasonable modifications or changes to the activity that may minimise harm to the environment”. Therefore, the assessment of alternatives should, as a minimum, include the following:

- The consideration of the no-go alternative as a baseline scenario;
- A comparison of the reasonable and feasible alternatives; and
- Providing a methodology for the elimination of an alternative.

The Solutions Options Analysis conducted for the Limpopo Department of Sport, Arts and Culture – Limpopo Provincial Theatre indicated that Bakone Malapa Open Air Museum is earmarked by the municipality as part of a ‘Cultural hub’ in their spatial development plans. The combination of the Bakone Malapa art and culture hub and open-air museum will create a cultural destination, ideal for destination type events such as festivals, large scale conferences and awards programmes.



Type of Activity

No activity alternatives have been considered as part of this project. The proposed activity is considered both economically and financially beneficial.

Location Alternatives

As noted above, as per the requirements listed within Appendix 2 (2) (g) (ix) of the 2014 as amended EIA Regulations, a site selection matrix should be provided to show how the preferred site was determined through a site selection process. Within this context, it is assumed that the "site" referred to in the 2014 amended EIA Regulations is the farm or land portions on which proposed location alternatives will be considered for the proposed location alternatives will be considered for the proposed Bakone Malapa art and culture hub activities.

A Solutions Options Analysis was conducted for the Limpopo Department of Sport, Arts and Culture – Limpopo Provincial Theatre. Two sites were identified for the proposed. i.e. Soft Ball Site and Bakone Malapa Site (Maya Group, The Limpopo Department of Sport, Arts and Culture (DSAC) Limpopo Provincial Theatre – Solutions Options Analysis, NOVEMBER 2019).

Portion of the Farm Sterkloop (Soft Ball Site)

Advantages

- Site is easily accessible from the R71.
- Proximity of site will enable foot traffic as well as public transport adapting easily to the route.
- Municipality earmarked site for the theatre as part of their spatial planning.
- Site has accessible basic services around (water, sanitation, roads and stormwater link services).
- Site has more potential for commercialisation and generating revenue as it can have a multitude of other amenities leading to job creation.



- Site has the potential of attracting investors that wish to invest in areas of high growth, and with most of the requisite infrastructure.

Disadvantages

- Life-cycle costs will require significant investment, especially in the first 5-10 years to ensure production success.
- Will need a solid commercialisation angle to function successfully and get value for investment.
- Site may be too small, subject to the type of developer envisaged.

Remainder of Portion 7 of Palmietfontein (Bakone Malapa Site)

Advantages

- Combination with open air museum creates a cultural destination, ideal for destination type events such as festivals, large scale conferences and awards programmes.
- Bakone Malapa Site is earmarked by the municipality as part of a 'Cultural hub' in their spatial development plans.
- Development in the area is said to have started and promising to grow, public transport will adapt to routes where development is.

Disadvantages

- Distance for artists and audiences to travel is a disadvantage and costly for small productions.
- Creatives not fond of site as it is not in close proximity with Polokwane CBD public transport.
- No services (Water, sewer, roads and stormwater links) nearby the site, bulk costs will be very high.
- Municipality's planned expansions currently do not cater largely for this area as the developments where housing are provided are currently prioritized.



- The site is less developed than the softball site, and more alienated, therefore needs to have a specific customer attraction strategy.
- Being earmarked as a cultural hub, and relatively less developed, the attractiveness of the site for developers may be less.

Bakone Malapa was recommended for the proposed project due to the following:

- i) The site is most aligned to the cultural hub destination in Polokwane;
- ii) The size of the site gives sufficient room for the development to cater for developments of varied sizes;
- iii) The alignment to the municipal spatial development plans;
- iv) The site is in an area of where the Polokwane city is expanding, which gives potential for the developments integrated.

Land-Use Alternatives

Bakone Malapa Open-Air Museum has been considered a wonderful place to experience the rich culture of the Basotho people. Bakone is a reconstructed village in the style used by the northern Sotho about 250 years ago designated to demonstrate the daily life of the Bakone, a highly sophisticated subgroup of the Northern Sotho tribe. Most importantly, the museum is more than a cultural village alone since it has a bird sanctuary, a game reserve, hiking trails and outdoor recreation areas. The proposed project will be in line with the current land use.

Layout Alternatives

No design or layout alternatives have been considered as part of this application.

Operational Alternatives

Various types of material can be used for the construction of the township and its associated structures. These include different brick types, roof types, finishes (paint colour, external lighting, landscape features, etc.) and road surfacing (asphalt, brick paving).



No-Go Alternative

The no-go alternative assumes that the proposed project will not go ahead. This alternative would result in no environmental impacts on the site or surrounding local area. It provides the baseline against which other alternatives are compared and will be considered throughout the Report.

Since no-go, refer to the scenario whereby, the proposed site remains within its current state. The Bakone Malapa museum will not be developed as per the spatial development plans. The possible staff complement of 50 people will not be employed, also young and old artist from Polokwane and the neighbouring towns will not be able to showcase the work as anticipated. This hinder the socio-economic improvement in Limpopo province and nationally.

It has been accentuated that there the applicant to continue pursuing the proposed Bakone Malapa art and culture hub, to comply with spatial development plans and uplift the artist in Limpopo province to showcase their talent nationally and internationally, thus promoting cultural diversity thus attracting investments opportunities.

7.2 Development Rationale

The proposed project will be located adjacent to Bakone Malapa Open-Air Museum, which is well known for preserving culture, the same area has been earmarked by the municipality as part of a 'Cultural hub' in their spatial development plans. The combination with open air museum will creates a cultural destination, ideal for destination type events such as festivals, large scale conferences and awards programmes. although entire site occurs in the Critical Biodiversity Area 1, there were no red data listed or protected species found onsite. The proposed project will enable artist and production houses in Limpopo province to showcase their talent nationally and internationally, thus promoting cultural diversity and investments opportunities. Temporal employment opportunities will be available during the construction of the proposed project. Permanent employment opportunities will be also available at the Hotel and Restaurant.



7.3 Need and Desirability

South Africa is a rich culture and diversity and needs to be presented in many forms. "The culture of people is what marks them out distinctively from other human societies in the family of humanity" (Idang, 2015, p. 97). Thus, it is of the utmost importance to present the various cultures, not only from South Africa but all over the world in a manner that is accessible to all and that can be appreciated by all. The South African State Theatre was one of the main driving forces behind establishing the various performing arts in most spheres in SA. Theatres play a large role in the development of the performing arts and "is host to the colourful variety of entertainment found in the diverse cultures of our wonderful country" (The South African State Theatre, 2019). A throughout the Limpopo Province stakeholder workshops was held with arts and culture practitioners. The practitioners suggested that the new facility be focused on theatre and theatre related activities as the primary function of the development. The preferred option must be based on the needs determined through stakeholder engagements. The theatre complex must be able to meet the following requirements:

- Main theatre – 600 seating capacity
- Secondary theatre – 200 seating capacity
- Small theatre – 100 seating capacity
- Open outdoor theatre (e.g. Amphitheatre)
- Dance studio with quality dance mirrors
- Administration Block
- Multiple Rehearsal space
- Dressing rooms
- High performance lighting equipment
- Restaurant/Bar with an open plan performance centre to allow for jazz and other intimate poetry sessions
- A theatre that conforms to International Standards
- Exhibition centre



- A theatre school to enhance talent guide in the utilisation of theatre rooms.
- Accommodation
- Recording studio, gallery space, and other non-theatre disciplinary provisions
(Maya Group *Draft GTAC Limpopo State Theatre Report*, August 2019)

The need and desirability of the proposed project was determined from the research conducted throughout the Limpopo province.

8. Stakeholder Engagement

The Public Participation Process (PPP) is a requirement of several pieces of South African legislation and aims to ensure that all relevant Interested and Affected Parties (I&APs) are consulted, involved and their comments are considered, and a record included in the reports submitted to the Authorities. The process ensures that all stakeholders are provided this opportunity as part of a transparent process which allows for a robust and comprehensive environmental study.

The PPP for this EIA Process is being driven by a stakeholder engagement process that will include inputs from authorities, I&APs, technical specialists and the project proponent. Guideline 4 on "Public Participation in support of the EIA Regulations" published by DEAT in May 2006, states that public participation is one of the most important aspects of the EA Process. This stems from the requirement that people have a right to be informed about potential decisions that may affect them and that they must be afforded an opportunity to influence those decisions. Effective public participation also improves the ability of the Competent Authority (CA) to make informed decisions and results in improved decision-making as the view of all parties are considered.

An effective PPP could therefore result in stakeholders working together to produce better decisions than if they had worked independently. The PPP for the proposed establishment of the Bakone Malapa arts and culture hub site needs to be managed sensitively and according to best practises to ensure and promote:



- Compliance with international best practice options;
- Compliance with national legislation;
- Establishment and management of relationships with key stakeholder groups; and
- Involvement and participation in the environmental study and authorisation/approval process.

The first stage of public consultation was undertaken during the project announcement where the site and newspaper notices were sent to the Interested and Affected Parties and scoping phase where draft scoping report (DSR) was made available for presentation and public review. The objective of this consultation was to inform the National, Provincial and local Government Authorities, relevant public, private sector entities, NGOs and local communities about the project and capture their initial views and issues of concern that is important for the formulation of plan of study. All issues raised during the scoping phase has been taken into consideration and included in this EIA report. Appendix E has the comments and response report, which includes comments received during the scoping phase, as well all the tasks that were undertaken.

The primary aims of the public participation process are:

- Introduce the proposed Project;
- Explain the authorisations required;
- Explain the environmental studies already completed and yet to be undertaken (where applicable);
- Solicit and record any issues, concerns, suggestions, and objections to the project;
- Provide opportunity for input and gathering of local knowledge;
- Establish and formalise lines of communication between the I&APs and the project team;
- Identify all significant issues for the project; and
- Identify possible mitigation measures or environmental management plans to minimise and/or prevent negative environmental impacts and maximize and/or promote positive environmental impacts associated with the project



During the EIA phase the following tasks were undertaken for public participation:

- Notification letters were sent out to registered I&APs, key stakeholders, and organs of state to inform them of the availability of the draft Environmental Impact Assessment Report (EIAR) for review and comment (30 days);
- An Issues Trail/Comments and Responses Report was compiled, recording comments and/or queries received, and the responses provided;
- Notification letters will be sent to all registered I&APs, key stakeholders, and organs of state to inform them of the decision by the DEA and the appeal procedure; and
- Placement of advertisements in the same local and regional newspapers (in English) to inform I&APs of the decision taken by the DEA where necessary.
- I&APs were able to register on the I&AP database throughout the duration of the EIA process and registered, I&APs were informed about the progress of the application.

The public participation in the EIA phase had the following objectives:

- Inform I&APs about the EIA process followed to date;
- Present the additional work undertaken, impacts and proposed mitigation measures;
- Present the results of the Environmental Impact Assessment; and
- Collect concerns and expectations and take them into consideration in the EIA.

Details of the above information is attached in a public participation report included as

Appendix E.

A summary of the issues raised to date are included in the format outlined in **Table 4** below. However, there were no comments received from the I and APs during project announcement and scoping phase. The only comments received during the project announcement and scoping phase were from the competent authority LEDET.



Table 4: Issues raised by I&APs

NAME OF INTERESTED AND AFFECTED PARTY/STAKEHOLDER	COMMENTS	RESPONSE/COMMENT
1. SCOPING REPORT CONTENTS		
LEDET	The Department advice that the contents for Scoping Reports prescribed in Appendix 2 (2) of the EIA Regulation 2014 must be adhered to.	Noted, Precious Environment strived to adhere to the Appendix 2 (2) of the EIA Regulation 2014 when drafting the scoping report.
2. PLAN OF STUDY FOR EIA		
LEDET	a) An appropriate plan of study for EIA compiled in terms of the requirements of Appendix 2(2)(1)(h) of the EIA regulations 2014 must be incorporate in the fourth coming Scoping Report.	Noted. Plan of study was covered on section 8.10 of the Scoping report.



	<p>b) The Plan of study for undertaking EIA must include the following:</p> <ul style="list-style-type: none">• Description of alternatives;• Environmental aspects;• Aspects to be assessed by specialists;• Methods of assessing environmental aspects;• Description of the proposed method of assessing duration and significance;• Stages at which competent authority will be consulted;• Public Participation Process;• Task to be undertaken; and• Impact management measure and mitigation based on hierarch.	
3. SPECIALIST PROTOCOL		



LEDET	<p>a) The Department wish to bring your attention on the gazetted environmental theme protocols which prescribe minimum terms of reference for specialist (Procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the National Environmental Management Act.1998, when applying for Environmental Authorisation).</p> <p>b) Please go through the screening report, page 7 to 8 and advice accordingly as to which of the specialist studies will form part of the Environmental Impact Assessment Report. Reasons for not including specialist must be provided as well.</p>	<p>a) Noted</p> <p>Specialist studies that forms part of the are:</p> <ul style="list-style-type: none"> • Geo-Technical Assessment • Botanical profile /Vegetation assessment • Traffic impact Assessment • Floodline Assessment • Heritage impact Assessment • Social-Economic Impact Assessment • Aquatic Biodiversity Impact Assessment will not be conducted as the site does not have a flow hydrograph record and is subject to baseflow for most of the year in the dry season. The proposed activities will be constructed outside the floodlines.
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	<p>c) Please note the above exercise is a regulatory requirement as per Appendix 2(2)(2) of the EIA Regulations 2014.</p> <p>d) Furthermore, familiarize yourself with the above gazetted document regarding the 'site sensitivity verification' which must be undertaken by the Environmental Assessment Practitioner and submitted to the Department.</p> <p>e) In addition to the above, the minimum report requirements for specialist reports on terrestrial fauna and flora as prescribed in the above gazetted document must be adhered to when compiling Ecological specialist report which will be submitted during the Environmental Impact Assessment Reporting phase. Please note</p>	<ul style="list-style-type: none">• The EAP is of the opinion that there is no need for other specialist studies except for the ones mentioned above.
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	<p>this will be considered during the evaluation of the Ecological report.</p>	
4. SITE DEVELOPMENT PLAN		
LEDET	<p>a) The Department request for a layout plan that depicts the proposed zoning and their associated uses/development components and erven which cumulatively amount to the total of the 30 ha of the development footprint.</p>	<p>Noted, The project is still in the planning phase, and zoning processes running parallel to the EIA process, a more accurate and detailed plan will be submitted to the Department the soonest.</p>
5. HOTEL BED CAPACITY		
LEDET	<p>a) Based on the absence of the capacity of the proposed Hotel which is said will provide planned to offer accommodation for venous visitors, the Department is unable to ascertain as to which listed activity is triggered. Therefore, the Department refers you to the following listed activities</p>	<p>Noted. The latter optioned was chosen and updated on the Scoping report.</p>



	<p>Listing Notice 3: Activity 5 'The development of resorts lodges, hotels, tourism or hospitality facilities that sleeps less than 15 people or more in Limpopo province'</p> <p>OR</p> <p>Listing Notice 3: Activity 6 'The development of resorts, lodges, hotels, tourism or hospital facilities that sleeps 15 people or more in Limpopo province</p>	
6. PUBLIC PARTICIPATION		
	<p>a) The Department request for a specific Public Participation appendix with the following appendices:</p> <ul style="list-style-type: none"> • Newspaper advert sample and proof; • Site notice placement proof; • A register of Interested and Affected parties; and 	<p>Noted, A Public Participation Report was appended on the Scoping report and also appended in this draft EIAR.</p>



	<ul style="list-style-type: none"> • Proof of circulation to Interested and Affected Parties. 	
7. GENERAL		
LEDET	Please take note that an Environmental Authorisation can be refused on the basis of the scoping report not substantially complying with Appendix 2 to the EIA Regulations 2014 and/or failure to adhere to the gazetted specialist protocols.	Noted.



Identified Project Stakeholders

Prior to advertising the EA Process in the local print media an initial database of I&APs (including key stakeholders and organs of state) was developed for the Scoping Process. This was supplemented with input from the EIA Project Manager and the Project Applicant. The following, but not limited to, Government Authorities were notified of the proposed Project.

Authorities
<p>LEDET – Mthombeni RV</p> <p>Tel: 015 290 7162</p> <p>Email: mthombeniRV@ledet.gov.za</p>
<p>LEDET – Mothapo SW</p> <p>Tel: 015 293 8396</p> <p>Email: MothapoSW@ledet.gov.za</p> <p>Comments were received from the competent Authority, refer to table 4 for comments and responses.</p>
<p>DWS – Mr M.E. Malaka</p> <p>Tel: 015 306 7300</p> <p>Email: malakae@dws.gov.za</p> <p>No comments received.</p>
<p>SAHRA – Lithole K</p> <p>Tel: 015 284 4000</p> <p>Email: litholek@sac.limpopo.gov.za</p>
<p>RAL – Phuti Montjane</p> <p>Tel:</p>



Email: MontjaneP@ral.co.za
Capricorn District Municipality: Frank Mafa Tel: 015 294 1286 Email: mafaf@cdm.org.za
Polokwane Local Municipality – Blessings Pitjadi Tel: 063 121 4613 Email: BlessingP@polokwane.gov.za
Ward Councillor- Mashau Thilivhali Solomon Tel: 073 164 6875 Email: Thilivhalim@polokwane.gov.za
Interested and Affected parties
Adjacent Landowners, surrounding community and interested parties. A list of Interested and affected parties is attached in Appendix E of this report. There were no comments received from the interested and affected parties.

Initial Notification (Notices, Advertisements, and BID)

The PPP commenced on the 24 June 2021 with an initial notification and call to register for a period of 30 days. A notification and call to register was undertaken based on the scope of work. The notification was given in the following manner:

Registered Letters, Faxes and Emails

Notification letters (English) and/or faxes, and emails will be distributed to all pre-identified key I&APs including government organisations, relevant municipalities, ward councillors, landowners and other organisations that might be affected.



- The notification letters included the following information to I&APs:
- List of anticipated activities to be authorised;
- Scale and extent of activities to be authorised;
- Information on the intended recycling operation to enable I&APs to assess/surmise what impact the activities will have on them or on the use of their land;
- The purpose of the proposed project;
- Details of the affected properties (including a locality map);
- Details of the relevant NEMA Regulations;
- Initial registration period timeframes; and
- Contact details of the EAP.

In addition, a registration sheet/ questionnaire was included in the registered letters, emails and facsimiles, towards facilitating registration and soliciting input on local knowledge of the study area.

Background Information Document (BID)

- A Background Information Document (BID) in English was prepared and distributed by hand and e-mails and made available at the Polokwane library. The BID contains the following information:
- Project name;
- Applicant name;
- Project location (including map of study area);
- Description of the EA application process, EIA flow chart, and public participation process;
- Information on future document review opportunities;
- A detailed questionnaire/ I&AP registration form; and
- Relevant Precious Environment contact person for the project.

Newspaper Advertisements / Government Gazette

Advertisements describing the proposed project and EIA process were placed in newspapers with circulation in the vicinity of the project area. The initial advertisements



were placed in the Polokwane Observer (in English) on the 24-30 June 2021 publication.

The newspaper adverts included the following information:

- Project name;
- Applicant name;
- Project location;
- Nature of the activity; and
- Relevant Precious Environment contact person for the Project

Site Notice Placement

A3 posters in English were placed at the Bakone Malapa Cultural Village site entrance and on-site perimeter on poles for ease of visibility to the public refer to **Figure 3**. The on-site notices included the following information:

- Project name;
- Applicant name;
- Project location;
- Map of Project area;
- Project description;
- Legislative requirements; and
- Relevant Precious Environment contact person for the Project.

Poster Placement

A3 posters in English were placed at the Bakone Malapa Cultural Village site entrance and on-site perimeter on poles for ease of visibility to the public (see poster below).

The notices and written notification afford all pre-identified I&APs the opportunity to register for the Project as well as to submit their issues/queries/concerns and indicate the contact details of any other potential I&APs that should be contacted. The contact person at Precious Environment, contact number, email and faxes were stated on the posters. Comments/concerns and queries were encouraged to be submitted in either of the following manners:



- Electronically (fax, email);
- Telephonically; and/or
- Written letters.



Site notice at the entrance of the proposed project entrance.





Site notice at the fence perimeter of the proposed project area.



Site notice at the second gate of the proposed project area.





Site notice at the third gate of the proposed project area.

Figure 2 : Site Notices placed at the entrance and fence perimeter of the proposed project area.

Availability of Draft Scoping Report Notification

Notification regarding the availability of the Scoping Report for public review was given in the following manner to all registered I&APs (which includes key stakeholders and landowners):

- Site and Newspaper Adverts
- Registered letters with details on where the scoping report is available from, as well as the public review comment period;
- Facsimile notifications with information similar to that in the registered letter described above; and/or
- Email notifications with a letter attachment containing the information described above.



The Draft Scoping Report was made available for public review from the 26th of July 2021 until the 25th of August 2021 for a period of 30 days subsequently, the final scoping report was submitted on the 8th September 2021.

Consultation with Competent Authority

A pre-consultation meeting was held with the CA (LEDET) on the 11th of June 2021. All public participation documentation will reach the LEDET, as well as other relevant authorities and organs of state included on the I&AP database. Additionally, consultation with relevant authorities on a one-on-one basis will be affected where necessary and notes from these meetings will be compiled summarizing the main outcomes thereof.

Comments received on the Scoping Process from the authorities were included in the Comments and Response Register as an appendix to the Scoping Report (which was submitted to the LEDET on the 8th September 2021 for decision-making in line with Regulation 22 of the 2017 EIA Regulations).

Review of the Draft EIA Report (Current Stage)

This stage(current phase) in the process entails the release of the Draft EIA report for a 30-day period for public review (in line with Regulation 3 (8) and Regulation 21 (1) of the 2017 EIA Regulations). All I&APs on the project database will be notified in writing of the release of the Draft EIA Report for review.

The following mechanisms and opportunities have been utilised to notify I&APs of the release of the Draft EIA Report for comment:

- Correspondence to I&APs - Letter to notify I&APs of the release of the EIA Report and the comment period was sent via registered mail and email (where postal, physical and email addresses are available for I&APs and organs of state on the project database).
- Availability of Information - the Draft EIA Report has been made available for review by I&APs and key authorities through the following means:



- The Draft EIA Report was placed on the EAP's website;
- The Draft EIA Report was placed at the Polokwane Local Municipality Reception;
- The Draft EIA Report in a cd format was couriered to the relevant authorities or based on request.
- Telephonic consultations will be held with key I&AP and organs of state groups, as necessary.

All issues identified through the review of the Draft EIA Report will be captured in an updated Issues and Responses Trail (as an appendix to the Final EIA Report), which will be submitted to the LEDET for decision-making in line with Regulation 22 of the 2017 EIA Regulations.

Public Participation during the Impact Assessment Phase

Public participation activities during the EIA Phase will revolve around I&APs providing comments on findings, recommendations and mitigation measures proposed. These findings and recommendations will be included as part of the Draft EIA/EMP Report. If necessary, a public meeting may be held to present the findings and to get comments from I&APs.

9. Receiving Environment

This section of the draft EIR provides a description of the environment that may be affected by the proposed Bakone Malapa Arts and Cultural Hub. Aspects of the biophysical, social and economic environment that could be directly or indirectly affected by, or could affect, the proposed new activities at the existing facility have been described. This information has been sourced from specialist studies and existing information available for the area.



Climate

Polokwane normally receives an average of 661 mm annually with much of the rainfall received during summer. The region has temperatures between 21.1°C in January and fall to 12.5 °C in July.

Topography and Landscape

The landscape is of slightly to moderately undulating plains sloping generally down to the north of the old museum site. The site has good, developed grass layers, short and shrubby, and long bushveld trees.

Site Geology and Soils

The area is underlain by shales and quartzites according to the data the study area does not fall within an area with any dolomite.

Individual pits and their constituent horizons have been examined and the dominant geotechnical properties assessed. This entailed summing estimated vertical heave determinations per test pit constituent horizons, and assessing total expected short- and long-term settlements, problems associated with shallow water table, excavatability and collapse potential.

According to the Geotechnical Investigation for The Proposed Township Establishment the site has low heave potential across all layers encountered ranging from silty SAND, to silts and clays of low plasticity. The site is subdivided into area 1 & 2 based on its collapsibility and compressibility potential. Area 1 which is characterized by pale brown mottled mica biotite greyish olive shattered sandy clayey silty Gravel with ferricrete nodules identified to be coarse Colluvium Reworked residual tending to soft work weathered Talc-chlorite, amphibole-chlorite schist, amphibole, serpentine, and interbedded iron formation; Mothiba Formation is classified as C1 (Compressible and potentially collapsible soils with between 5 and 10 mm movement). Area 2 which is characterized by dusky brown pale maroon pin-hole voided clayey sandy silt ferricrete nodules is classified as S2 (Compressible sands with >20 mm movement).



Surface Water

The major stormwater system consists of all-natural water ways, including springs, streams, rivers, wetlands and dams. It includes detention dams and other devices constructed to control stormwater. Roadways and their associated drainage structures are also part of the major stormwater system if they result in a significant deflection of stormwater from its natural overland flow path.

The minor stormwater system consists of any measures provided to accommodate stormwater runoff within sites and road reserves and convey the runoff to the major stormwater system. These measures include gutters, conduits, berms, channels, road verges, small watercourses and infiltration constructions.

Stormwater runoff should not be concentrated to an extent that would result in any damage to the environment during storms with a probability frequency more than 1 in 10 years and would result in only minor, repairable damage in storms with a probability frequency of more than 1 in 50 years. All elements of the built and natural environment must be able to withstand a 1 in 50- year storm event without significant consequential loss and risk to property and life. Note that a "storm frequency" equates to a "probability of occurrence" of a storm event that should be used to assess the annual budget or insurance provision for remedial works, should the event occur.

In all catchments, the water courses and built stormwater infrastructure must be maintained in a clean state, free of any rubbish, debris and matter likely to pose any pollution threat to the lower reaches of the water courses.

The Stormwater Management Philosophy for the Bakone Malapa encourages developers, their professional teams, contractors and property owners to do the following:

- Maintain adequate ground cover at all places and at all times to negate the erosive force of wind, water and all forms of traffic.
- Prevent concentration of stormwater flow at any point where the ground is susceptible to



erosion.

- Reduce stormwater flows as much as possible by the effective use of attenuating devices.
- Ensure that development does not increase the rate of stormwater flow above that which the natural ground can safely accommodate at any point in the sub-catchments.
- Ensure that all stormwater control works are constructed in a safe and aesthetic manner in keeping with the overall development.
- Prevent pollution of water ways and water features by suspended solids and dissolved solids in stormwater discharges.
- Contain soil erosion, whether induced by wind or water forces, by constructing protective works to trap sediment at appropriate locations. This applies particularly during construction.
- Avoid situations where natural or artificial slopes may become saturated and unstable, both during and after the construction process.

Steady state flood modelling was undertaken, which is a conservative approach as it ignores the effect of storage within the system and therefore produces higher flood levels than would be expected to occur in some cases. The site does not have a flow hydrograph record and is subject to baseflow for most of the year in the dry season; therefore, the steady state modelling is acceptable.

Given the previously mentioned limitation in utilising the LiDAR survey for the hydrology, the upstream and downstream sections of the project area had to rely on the use of external data sources. Furthermore, the unavailability of the bathymetry for the localised ponded areas results in some inaccuracies in the storage areas. However, the 1-D model is deemed acceptable.

The results are acceptable for these Floodlines provided they are used for purposes of the environmental authorizations and planning being sought for the development of residential units and related infrastructure; no further work is required at this stage.

Floodlines for the 1:50-year and 1:100-year recurrence intervals were determined for the



5.5 km watercourse passing adjacent the Proposed Development site. The results of the modelling show that an area of approximately 16 ha on the southern portion of the site will be inundated by both 1 in 50 or 1 in 100-year floodlines for the project site. It is recommended that planning of the placement of any future infrastructure should remain outside the floodlines and adhere to the South African National Water Act (36 of 1998) (NWA). (Kwadiwa Africa, 2021. Floodlines Determination and Assessment for the Proposed Township Development).

Fauna and Flora

A total of 14 grass and 11 herbaceous plants species were recorded. Since the herbaceous plants may be annuals, biennials or perennials, some of these plants could have been missed out during the site assessment. Orbea plant species that were recorded in the site could not be identified to the species level due to the insufficient diagnostic features (viz. flower, seed or fruit). When the stands of Orbea sp. diagnosed using its stem and spikes features, it did not match with those of the red-listed Orbea spp. namely, *O. elegans* (Critically Rare), *O. macloughlinii* (Vulnerable), *O. woodii* (Vulnerable) and *O. pulchella* (Near Threatened). The abundance and diversity of the recorded plants were very high. All the recorded plants were of Least Concern in terms of their conservational statuses, please refer to the vegetation assessment conducted for the proposed study (Agri Flora.2021, *An assessment of Bakone Malapa Cultural Village's botanical profile for the development of the proposed arts and culture hub*).

Vegetation

The site is found to be in the Savanna Biome, which is the second-largest plant biomes in South Africa. This biome is characterized by grass pane with scattered herbaceous, shrub and tree plant species. The local areas of this biome have identified bushvelds such as Polokwane Plateau and Mamabolo Mountain.



Cultural Heritage

During the physical survey, heritage resources were found within the boundary of the proposed site. This includes the Bakone Malapa Museum and all archaeological material associated with it and rock art sites outside the Museum. The No-Go boundary map which has already been established, a possible rock art site and the rainmaking hill, see figure 3 to figure 6. More details on Heritage Impact Assessment for The Proposed Township Establishment Development of The Arts and Culture Hub at Bakone Malapa Cultural Village in Polokwane, Limpopo Province: Phase 1.

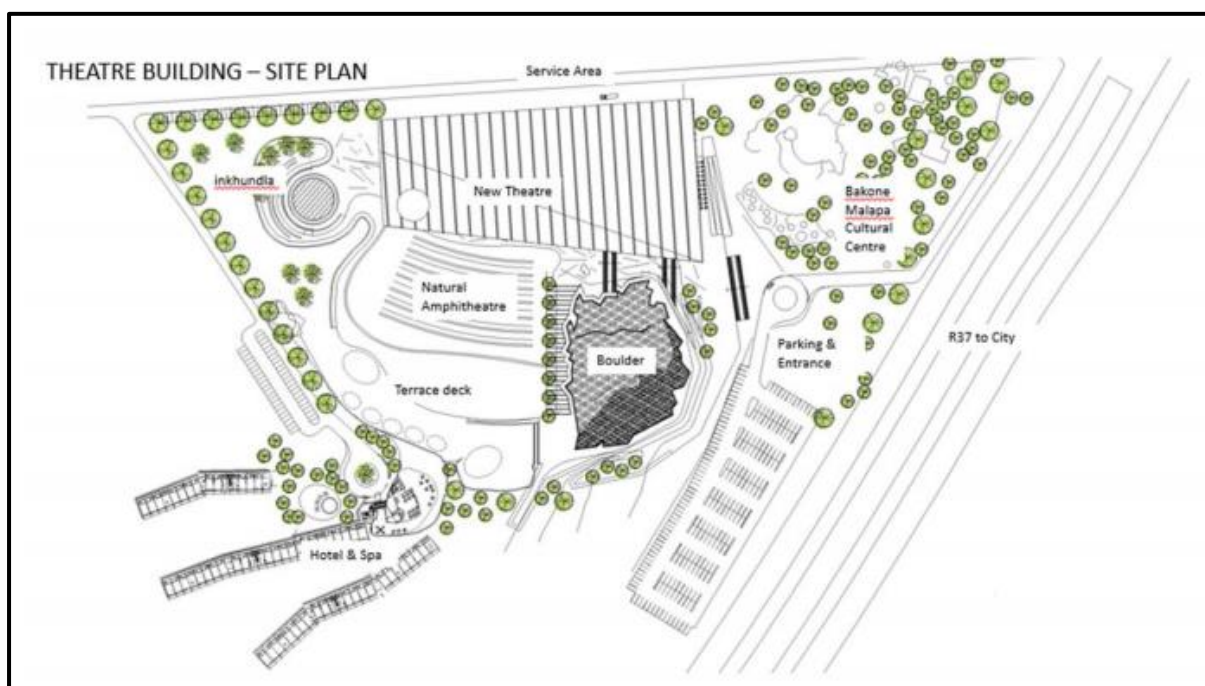


Figure 3: Site Plan.



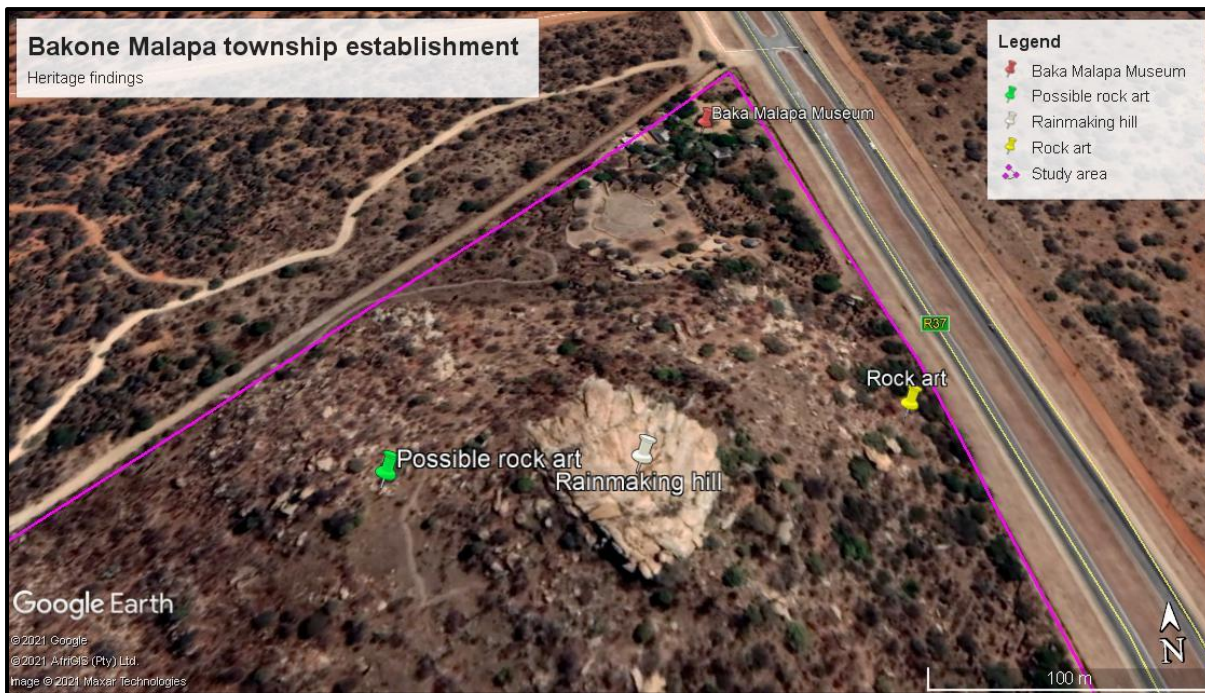


Figure 4: Map of heritage resources found within the proposed site.

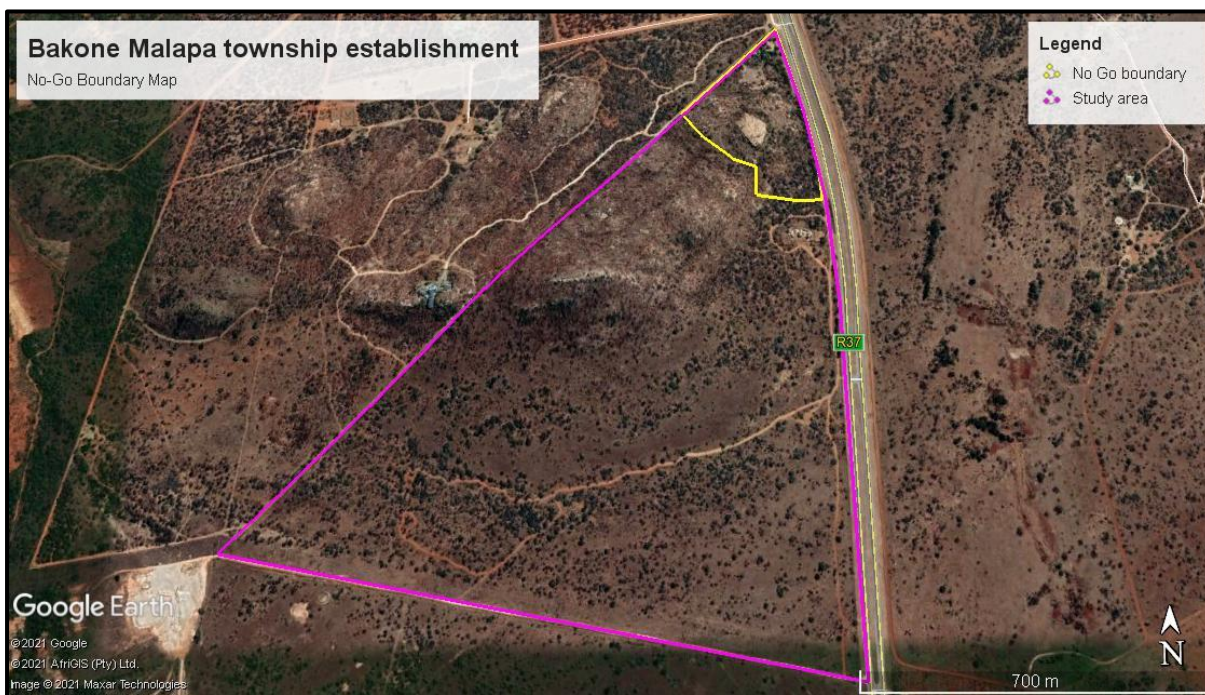


Figure 5: No-Go boundary map.



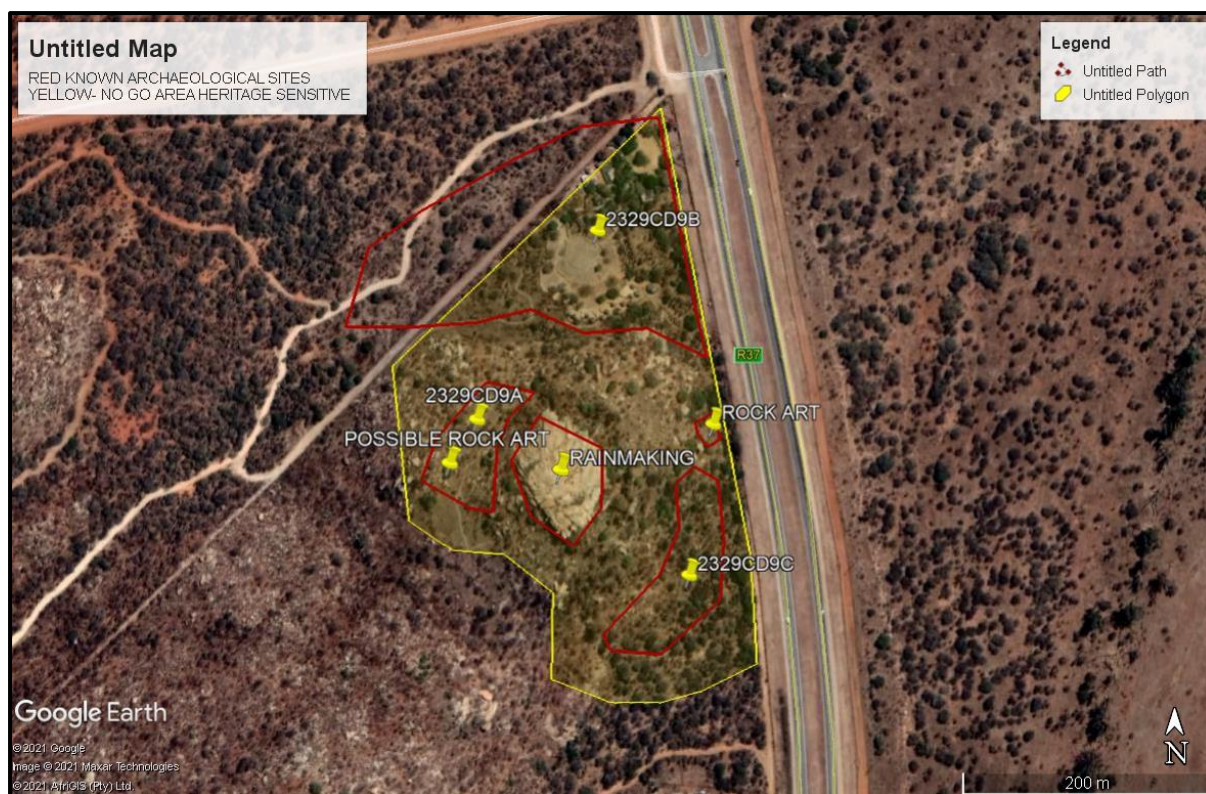


Figure 6: No-Go boundary map provided by landowner.

Socio-Economic Context

Regional Study Area

Polokwane Municipality is located within the Capricorn District Municipality in the Limpopo Province. It covers a surface area of 3775 km² and accounts for 3% of the province's total surface area of +/- 124000 km². In terms of its physical composition Polokwane Municipality is 23% urbanized and 71% rural. The remaining area (6%) comprises small holdings and institutional, industrial and recreation land.

Demographics

The population size is defined as the total number of households in a particular municipal area and is vitally important when determining service provision requirements and infrastructural needs of local inhabitants. The growth rate of the population is of importance due to its ability to do future projections. These projections are used to



determine future needs and indicate inward or outward migration, which in turn has an effect on job creation or availability and economic growth.

The population size is 828 493 (PLM IDP 2021-2026), with 178 001 households and average of 4 persons per household. 92,9% of the population is black African, followed by white people at 5,2%. Other population groups make up the remaining 1,9%. For every 100 females there are 93 males (Stats SA, 2011).

Age and Gender Distribution

With regards to the age and gender distribution of the population residing in the local study area, it is evident that the population of the municipality is growing. According to Stats SA 2011 the number of males against that of female is lower. The female population is higher by 51.46% than the male population of 48.54% (PLM IDP 2021-2026). The gender distribution retrieved from census 2011 data reveals that on average, the majority of individuals in Polokwane are of the male sex group averaging from 20-24. The age dependency ratio is 54,3.

The gender distribution among households' heads indicate that there are more male headed household than by females (Stats SA, 2011).

Language and Racial Distribution

Most people in the municipality speak Sepedi as the first language at 80%, Afrikaans at 5%, English at 3% and the other languages make up 11%. 17,9% of the population aged 20 years and older had some form of higher education; whereas 29,6% has completed matric and only 6,8% had no schooling (Stats SA, 2011).

Overview of the Economy

The gross domestic product is the total value of all final goods and services produced within a certain geographic area during a particular period. In this case, Polokwane Municipality is referred to as a geographic area during the period. The gross geographic product (GGP) of a particular area amounts to the total income or payment received by the production factors – (land, labour, capital, and entrepreneurship) – for their



participation in the production within that area. In 2019 Polokwane Municipality had an estimated gross domestic product of R80.8 billion (Estimated by IHS Global Insight, 2020). Capricorn district's GDP is estimated at R 110.1 billion for 2019. This indicated that Polokwane is the dominant municipal economy in the Capricorn district. It is also the largest municipal economy within Limpopo Province, contributing more than other local municipalities within the Capricorn District.

Employment and Income

A total of 318 690 people were employed in Polokwane in the year 2019 when compared to 216 930 people in 2009. IHS Global Insight research estimated the economically active population in Polokwane has increased by 3.92% over the years. This implies a labour force participation rate of has increased based on the proportion or percentage of the population of working age (i.e. 15 to 64 years) for 2019.

Unemployment occurs when a person who is actively searching for employment is unable to find work. Unemployment is often used as a measure of the health of the economy. The most frequently cited measure of unemployment is the unemployment rate. This is the number of unemployed persons divided by the number of people in the labour force. In the year 2009 unemployment was estimated at 50 126 and the figure had declined over the years to 49 762 in the year 2019. The reason there's a slight decline in unemployment might be the result of a host of factors, ranging from access constraints between the place of residence and the place of work, education and skills, or the inability of the labour market to absorb more participants (PLM IDP 2021-2026).

Access to Water, Sanitation and Energy

Polokwane Municipality is a water scarce city, with more than 60% of its water sourced outside the boundary of the Municipality. Seshego's water is supplied by the following water sources: Seshego Dam, Olifants and Seshego Dam. Most of municipal Regional Water Schemes are 100% reticulated with metered yard connections, The municipality provides free basic to communities (PLM IDP 2021-2026).



Major progress was made in the provision of sanitation services in Polokwane between the census periods of 2001 and 2011. However, even with the improvement the municipality will not meet the Millennium Development Goal that every household must have access to healthy and dignified sanitation facility. In 2020 Polokwane Municipality had 103 180 flush toilets connected to the sewerage infrastructure and 102 965 with toilet without ventilation. The municipality is currently having a huge backlog of sanitation facilities and estimates a R500 million is required to eradicate the backlog. (PLM IDP 2021-2026)

Housing and Tenure

Polokwane Municipality, as the economic hub of the Province, is experiencing population growth which results in an influx of people from the rural areas into the urban parts of the municipality. Between 2001 and 2011 there has been an increase in the number of households that have income from 77% to 86%. Provision of household services has increased between 2001 and 2011. The municipality has 46 health facilities in the form of hospitals and clinics, excluding private hospitals (Stats SA 2011).

Poverty and Vulnerability

Individuals or groups can be classified as vulnerable for several reasons. Often, they are classified according to demographic or social profiles. As adapted from the IFC definition, vulnerable groups are people who by virtue of gender, ethnicity, age, physical or mental disability, economic disadvantage, or social status may be more adversely affected by project impacts than others, and who may be limited in their ability to claim or take advantage of project related benefits (IFC, 2012).

The most common groups identified as vulnerable are children, the elderly, ethnically marginalised, child or female headed households, the poor and the disabled. Other socio-economic aspects also make certain people and groups more vulnerable, such as low levels of education and high levels of unemployment and diseases. The low average monthly income among some households, combined with unemployment and a number of people who have not completed primary schooling (15%), implies some degree of poverty and



vulnerability among economically depressed households within the local study area (StatsSA, 2013). The socio-economic profile of the site-specific study area is presented in this section.

Socio-economic trends follow tenure status, with landowners situated at the upper end of the socio-economic scale (e.g. those residing in affluent housing estates), whereas households in informal settlements are often characterised by a high degree of socio-economic vulnerability. Most of the households in the latter category have no other homes and reside in underdeveloped dwellings with no security of tenure and have very limited access to public services and facilities.

Living conditions are for the most part harsh and houses are often overpopulated. The establishment of these areas is mainly due their proximity to economic opportunities; often these households are unable to afford any other accommodation options. Economic activity within these settlements is concentrated within the informal sector with most businesses, being relatively small and servicing the residential population. Common businesses include 'spaza shops', informal 'shebeens', transport provision, and small-scale catering.

Unemployment is high and those who are employed are mainly employed at surrounding housing estates doing gardening, maintenance or other domestic work. High unemployment levels are ascribed to a lack of skills, lack of employment opportunities, and formal employment policies excluding foreign nationals, which comprise a significant proportion of the population.

The most common sources of household income are social grants (mostly pension and childcare grants) and wages (usually at minimum wage level). Other sources of income include temporary or short-term employment opportunities. However, the high unemployment rate has reportedly forced a considerable number of the economically active population to revert to informal and often illegal, activities to sustain their household's livelihood. These activities allegedly include formal and informal shebeens, prostitution and petty crime. High unemployment combined with extremely low levels of



income is sustaining extremely high levels of poverty and vulnerability within these communities.

Assessment of Potential Impacts

The potential impact that the proposed Township Establishment Development of the Arts and Culture Hub activities have on each environmental receptor will be influenced by a combination of the sensitivity and importance of the receptor and the predicted degree of alteration from the baseline state (either beneficial or adverse).

Environmental sensitivity (and importance) is be categorised by a multitude of factors, such as the rarity of the species; transformation of natural landscapes or changes to soil quality and land use.

The overall significance of a potential environmental impact is determined by the interaction of the above two factors (i.e., sensitivity/importance and predicted degree of alteration from the baseline).

The identification of potential impacts include impacts that may occur during the construction and operational phase of the Bakone Malapa Cultural Hub Township Development. The assessment of impacts includes direct, indirect as well as cumulative impacts. In order to identify potential impacts (both positive and negative) it is important that the nature of the proposed projects is well understood so that the impacts associated with the projects are assessed. The process of identification and assessment of impacts includes:

- Determining the current environmental conditions in sufficient detail so that there is a baseline against which impacts can be identified and measured;
- Determining future changes to the environment that will occur if the activity does not proceed;
- Develop an understanding of the activity in sufficient detail to understand its consequences; and



- The identification of significant impacts which are likely to occur if the activity is undertaken.

Impact Assessment Methodology

To clarify the purpose and limitations of the impact assessment methodology, it is necessary to address the issue of subjectivity in the assessment of the significance of environmental impacts. Even though Precious Environment, and the majority of EIA practitioners, proposes a numerical methodology for impact assessments, one has to accept that the process of environmental significance determination is inherently subjective.

The weight assigned to each factor of a potential impact, and also the design of the rating process itself, is based on the values and perception of risk of members of the assessment team, as well as that of the I&AP's and authorities who provide input into the process.

The perception of the probability of an impact occurring is dependent on perceptions, aversion to risk and availability of information. The purpose of the EIA process is to provide a structured, traceable and defensible methodology of rating the relative significance of impacts in a specific context.

A desktop environmental impact assessment was undertaken, the results of which are presented in this part of the section. The significance of the environmental impacts was assessed based on the nature, probability, extent, duration, and intensity of the impact. Once the significance of the environmental impacts had been identified and assessed, suitable mitigation measures were formulated, and the significance after mitigation was re-assessed.

This assessment is for potential direct, indirect and cumulative related impacts (as appropriate) on the environment of each of the activities that have commenced. The Table below is the Impact Assessment Descriptive Criteria.



Nature	Include a descriptive sentence	
Probability	Categories 1 – 5	
	1	Improbable (less than 24% chance of occurring)
	2	Probable (25 – 49%)
	3	Likely (50 – 69%)
	4	Very likely (70 – 89%)
	5	Definite (90 – 100%)
Frequency	Categories 1 – 5	
	1	Very rare to remote (once or twice a decade)
	2	Unusual to occasional (once or twice every 5 years)
	3	Frequent (a few times a month)
	4	Very frequent (a few times a week, to daily)
	5	Continuous (daily to a significant percentage of every day)
Extent	Categories 1 – 5	
	1	Footprint / site
	2	Local
	3	Regional
	4	National
	5	International (trans-boundary)
Duration	Categories 1 – 5	
	1	Short (few days to a few months, less than a phase)
	2	Short (few months, or less than a phase in total)
	3	Medium (a few years, significant part of a phase)
	4	Long (lifespan of development (i.e. all of operation))
	5	Permanent
Intensity	Categories 1 – 5	
	1	Very low – natural processes not affected
	2	Low – natural processes slightly affected
	3	Medium – natural processes continue but in a modified
	4	Medium-high – natural processes are modified significantly
	5	High – natural processes disturbed significantly so that they cease to occur (temporarily / permanently)
Significance	Significance=P+F+E+D+I Minimum value of 5 Maximum of 25 Status determines if positive / negative	
	Any positive value	No impact 1.High to low consequence, probability not an issue as positive, no mitigation required.
	1 - 5	Low 2.Low consequence, probably, minimal mitigation may be required.
	6 - 10	Medium 3. Medium consequence, probably, mitigation is advised / preferred.
	11 - 15	Medium-high 4.Medium to high consequence, probably to very probable, mitigation is necessary.
	16 - 20	High 5.High consequence, probably / definite, mitigation is essential
	21 - 25	Extreme 6. Very high consequence, definite, fatal flaw!



The overall significance score for each identified impact is calculated by adding Probability + Frequency + Extent + Duration + Intensity. The range of possible impact significance scores is from 1 to 25. The range of possible significance scores were classified into seven rating classes as shown in Significant Rating Table above. For the purpose of this assessment, a significance score of 6 to 10 (medium-low) is considered 'acceptable but undesirable' to society. Undesirable impacts are not recommended and should be mitigated, but they may be offset by significant gains (>10+) in other aspects of the environment.

A significance score of 11 to 15 (medium) and 16 to 20 (medium-high) is considered 'generally unacceptable' to society and only high gains (>20+) in other aspects of the environment can or should offset this impact. However, trade-offs between 'generally unacceptable' and 'highly beneficial' impacts should be avoided in line with the principles of sustainability. A significance score of over 20 (high to very high) is considered 'totally unacceptable' to society and no gains in other aspects of the environment can or should offset this impact. It is important to note, however, that this rating system is not prescriptive, and its aim is to aid and inform decision making. The method and ratings are there to guide the assessment of significance and all significance ratings will need to be interpreted realistically by the practitioner involved. In the end the decision to authorize this activity is the responsibility of the competent authority.

Impacts will then be collated into the Environmental Management Plan report (EMPr), and these will include the following:

- Quantifiable standards for measuring and monitoring mitigatory measures and enhancements will be set. This will include a programme for monitoring and reviewing the recommendations to ensure their ongoing effectiveness.
- Identifying negative impacts and prescribing mitigation measures to avoid or reduce negative impacts. Where no mitigatory measures are possible this will be stated.



- Positive impacts will be identified, and augmentation measures will be identified to potentially enhance positive impacts where possible.

Other aspects to be taken into consideration in the assessment of impact significance are:

- Impacts will be evaluated for the construction and operation phase of the Township Establishment Development of the Arts and Culture Hub. The assessment of impacts for the decommissioning phase will be brief, as there is limited understanding at this stage of what this might entail. The relevant rehabilitation guidelines and legal requirements applicable at the time will need to be applied;
- Impacts will be evaluated with and without mitigation in order to determine the effectiveness of mitigation measures on reducing the significance of a particular impact;
- The impact evaluation will, where possible, take into consideration the cumulative effects associated with this and other facilities/projects which are either developed or in the process of being developed in the local area; and
- The impact assessment will attempt to quantify the magnitude of potential impacts (direct and cumulative effects) and outline the rationale used. Where appropriate, national standards are to be used as a measure of the level of impact.

In terms of the assessment process the potential to mitigate the negative impacts is determined and rated for each identified impact and mitigation objectives that would result in a measurable reduction or enhancement of the impact are taken into account. The significance of environmental impacts has therefore been assessed taking into account any proposed mitigation measures. The significance of the impact "without mitigation" is therefore the prime determinant of the nature and degree of mitigation required. Environmental Management Plans are thus critical to ensure the environmental impacts are minimised. These plans include the following:

- Emergency Response Plan
- Environmental Awareness Plan
- Environmental Management Plan Report (EMPr)



- Waste Management Plan
- Storm water Management Plan

Mitigation

The EIA proposes measures to avoid, reduce or remedy significant adverse impacts which were identified; these are termed mitigation measures. Where the assessment process identified any significant adverse impacts, mitigation measures were proposed to reduce those impacts where practicable.

This strategy of avoidance, reduction and remediation is a hierarchical one which seeks:

- First to avoid potential impacts;
- Then to reduce those which remain; and
- Lastly, where no other measures are possible, to propose compensatory measures.

The EAP has identified appropriate mitigation measures (where relevant).

Cumulative Impacts

In accordance with the EIA Regulations, consideration is also given to 'cumulative impacts'. Cumulative impacts are contextual and encompass a broad spectrum of impacts at different spatial and temporal scales (IFC, 2013) i.e. cumulative impacts can result from individually minor but collectively significant activities taking place over a period of time (Dutta, et al., 2012). These are not new types of impacts but recognition that impacts from individual projects and activities can combine together in time and space. In some cases, cumulative impacts occur because a series of projects of the same type are being developed. In other cases, cumulative impacts occur from the combined effects over a given resource of a mix of different types of projects. For example, the landscape impact of one Township Establishment Development may be insignificant, but when combined with another it may become significant.

The Polokwane Local Municipality project site included in the assessment of cumulative impacts has been based on the knowledge and status of the surrounding areas at the time of finalising the EIA Report.



The EAP used existing publicly available information for the developments that occur within the vicinity of the proposed Bakone Malapa Township Establishment Development, to assess the cumulative impacts. Cumulative impacts that have been considered are those residual impacts that remain medium to high post mitigation. It should be noted that this assessment is highly qualitative and based on specialists' knowledge.

In brief cumulative impacts refer to impacts that may be of low significance on their own but become of high significance when added to similar impacts emanating from various sources in the surrounding area where an activity is undertaken. The activities may be from identified and discussed. In line with the Bakone Malapa Township Establishment Development site, possible cumulative impacts that may result are as follows:

- Increased traffic on roads due to movement of vehicles during construction and operations phase.

The impacts mentioned above affect the environment within the proposed site or surrounding area in terms of the Biophysical environment.

Aspects to be assessed as part of the Environmental Impact Process

It is not the purpose of an EIA to carry out exhaustive studies on all environmental impacts for all projects. If key issues are identified and a full-scale EIA considered necessary, then the scoping should include terms of reference for these further studies. In this case, no fatal flaws were identified during the Scoping phase, and it was agreed upon (during a pre-consultation meeting) with the competent authority that no further specialist studies would be required.

Precious Environment has subjected this Report to a full Legal Review, undertaken by the EAP. Specialist studies were undertaken for the proposed Bakone Malapa Township Establishment Development Culture Hub. It is of the opinion of the EAP that there is enough information, evidence, assessed impacts and proposed mitigation measures in the existing specialist studies for the Project site. Other studies are currently underway and



are in parallel process with the current EIA being undertaken, this includes Bulk Stormwater Management Plan, Township zoning, detailed layout plans, etc.

Description of Environmental Issues and Potential Impacts, Including Cumulative Impacts

Different types of impacts may occur from the undertaking of an activity. The impacts may be positive or negative and may be categorized as being direct (primary), indirect (secondary) or cumulative impacts.

Direct impacts are impacts that are caused by the activity and generally occur at the same time and at the place than the proposed activity (e.g. noise generated by construction activities). These impacts are usually associated with the quantifiable aspects of the application.

Indirect impacts of an activity are indirect or induce changes that may occur as a result of the activity (e.g. reduction of water in a stream that supplies water to a reservoir that supplies water to the activity). These types of impacts include all of the potential impacts that do not manifest immediately when the activity is undertaken, or which occur at a different place as a result of the activity.

Cumulative impacts are impacts that result from the incremental impact of the proposed activity on a common resource when added to the impacts of other past, present or reasonably foreseeable future activities (e.g. discharge of nutrients and heated water to a river that combine to cause algal bloom and subsequent loss of dissolved oxygen that is greater than the additive impacts of each pollutant). Cumulative impacts can occur from the collective impacts of individual minor actions over a period of time and can include both direct and indirect impacts.

GN R. 543 defines cumulative impacts, in relation to an activity, as the impact of an activity that in itself may not be significant but may become significant when added to the existing



and potential impacts eventuating from similar or diverse activities or undertakings in the area.

The identification of the potential impacts of an activity on the environment should include impacts that may occur during the commencement, operation and termination of an activity. In order to identify impacts, it is important that the nature of the proposed activity is well understood so that the potential impacts that are associated with the activity can be understood.

The process of identification and assessment of impacts includes the:

- Determination of current environmental conditions in sufficient detail so that there is a baseline against which impacts can be identified and measured;
- Determination of future changes to the environment that will occur if the proposed activity does not take place;
- An understanding of the activity in sufficient detail to understand its consequences; and
- The identification of impacts which are likely to occur if the activity is undertaken.

Potential environmental impacts of the proposed development have been identified during consultative processes between the consultant, the applicant and a panel of technical specialists based upon their professional experience and judgement. No additional potential environmental impacts were identified during the public participation process.

9. Impact Assessment

Different types of impacts may occur from the undertaking of an activity. The impacts may be positive or negative and may be categorized as being direct (primary), indirect (secondary) or cumulative impacts. An impact can be defined as any change in the physical-chemical, biological, cultural and/or socio-economic environmental system that can be attributed to human activities related to alternatives under study for meeting a project need. An impact can be positive or negative, and the same activity can lead to



impacts that are perceived as positive by certain stakeholder groups, and negative by others.

Significance of an impact can be reduced (if the impact is negative) by the implementation of management or mitigation measures. This is achieved through the following:

- Identify alternatives that could lead to the avoidance of the impact occurring at all;
- Implement measures to reduce the likelihood of an impact occurring by ensuring effective management; or
- Implement procedures that will ensure timely and effective corrective measures in the event of an impact occurring.

Direct impacts are impacts that are caused by the activity and generally occur at the same time and at the place than the proposed activity (e.g. noise generated by construction activities). These impacts are usually associated with the quantifiable aspects of the application.

Indirect impacts of an activity are indirect or induce changes that may occur as a result of the activity (e.g. reduction of water in a stream that supplies water to a reservoir that supplies water to the activity). These types of impacts include all of the potential impacts that do not manifest immediately when the activity is undertaken, or which occur at a different place as a result of the activity.

Cumulative impacts are impacts that result from the incremental impact of the proposed activity on a common resource when added to the impacts of other past, present or reasonably foreseeable future activities (e.g. discharge of nutrients and heated water to a river that combine to cause algal bloom and subsequent loss of dissolved oxygen that is greater than the additive impacts of each pollutant). Cumulative impacts can occur from the collective impacts of individual minor actions over a period of time and can include both direct and indirect impacts.

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existing and potential impacts eventuating from similar or diverse activities or undertakings in the area. The identification of the potential impacts of an activity on the environment should include impacts that may occur during the commencement, operation and termination of an activity. In order to identify impacts, it is important that the nature of the proposed activity is well understood so that the potential impacts that are associated with the activity can be understood.

Management and Mitigation Measures can also be prescribed to enhance positive impacts by maximizing their occurrence or maximizing their positive effect.

A detailed impact assessment is undertaken during this EIA Phase (current phase). The significance of an impact ultimately determines the level of mitigation required to reduce the impact significance to acceptable levels. The EMP compiled as part of the EIA Phase includes detailed mitigation measures to address each identified impact.

The construction and operation of the proposed project have a potential to trigger the following impacts:

- Vegetation clearance.
- Heritage impacts
- Visual impacts.
- Dust (temporal).
- Municipal portable water and sewer system.
- Health and safety (temporal).
- Create temporal and permanent jobs for the local and provincial communities.
- Escalate local and provincial Economic Development in the area and.
- Promote arts and cultural diversity locally and provincially.

The significance of the potential impacts and mitigation required to reduce the impact significance to acceptable levels is addressed in the section below.



Dust and Noise quality

Dust impacts are anticipated from particulate matter that is released from construction activities and vehicle movements. Significance is considered to be low after mitigation measures.

Potential Impact	Probability	Extent	Duration	Intensity	Significance without mitigation	Significance with mitigation	Status
Generation of dust due to construction activities.	3	2	1	3	9	6	Negative
Noise nuisance due to construction activities	3	2	1	3	9	5	Negative

Mitigation Measures

- All employees must wear proper PPE.
- Dust suppression must be implemented to reduce dust emissions.
- The construction times of the site must be limited to 07h00- 18h00 working times.
- A register should be maintained for all complaints received as a result of noise and dust.

Soils and Agricultural Impacts

Soil impacts are anticipated from removal and compaction of soil during the construction phase. pollution may occur predominantly as a result of fuel spills by vehicles. Significance is considered to be medium after mitigation measures.



Soils and Agricultural Impacts

Potential Impact	Probability	Extent	Duration	Intensity	Significance without mitigation	Significance with mitigation	Status
Removal and compaction of soil during construction activities.	4	1	2	2	9	7	Negative
Erosion, degradation and loss of topsoil due to construction activities.	3	1	2	2	8	6	Negative
Degradation of soil due to exposed areas and roads.	2	1	2	2	7	5	Negative

Mitigation Measures

- The temporary access roads that will no longer be used must be rehabilitated to ensure the re-growth of vegetation.
- Topsoil must be kept separate from overburden and must not be used for building purposes or maintenance of access roads
- Vehicles and machines must be maintained properly to ensure that oil spillages and leakages are kept to a minimum.

Fauna and Flora

An assessment of Bakone Malapa Cultural Village's botanical profile for the development of the proposed arts and culture hub indicated that the proposed site is situated in the Savanna Biome, hosting Mamabolo Mountain and Polokwane Plateau Bushvelds. The entire site occurs in the Critical Biodiversity Area 1. An assessment of Bakone Malapa Cultural Village's botanical profile for the development of the proposed arts and culture hub indicated that total of 58 plant species were recorded from the site. Amongst these plants, no species was red data listed or protected when screened through the Protected Trees List as part of the National Forests Act, 1998 (Act No. 84 of 1998), The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) and Limpopo or



Polokwane Department of Economic Development, Environment and Tourism (LEDET)
Management Plans. Significance is considered to be low after mitigation measures.

Fauna and Flora							
Potential Impact	Probability	Extent	Duration	Intensity	Significance without mitigation	Significance with mitigation	Status
Destruction of vegetation	2	1	3	2	8	5	Negative
Removal of plant species diversity	2	1	3	2	8	5	Negative
Transformation of habitat units, installation of buildings and other structures	2	1	3	2	8	5	Negative
Reduction of plant species diversity	2	1	3	2	8	5	Negative
Habitat transformation	2	1	3	2	8	5	Negative
Changes in the vegetation assemblages	2	1	3	2	8	5	Negative
Mitigation Measures							
<ul style="list-style-type: none"> ▪ The Polokwane local Municipality should apply for an authorisation to construct the proposed theatre building on the Critical Biodiversity Area 1 from the relevant local conservancy regulatory authorities in Polokwane or Limpopo. ▪ The development should not overlap with the areas outside the borderlines of the site. 							



- The proposed development should not clear more than 50% of the large trees on the site. All the species of the large trees should be left on the site. Most importantly, indigenous fruit trees should be protected.

Surface Water and Groundwater

At the moment, there is no water reticulation from the Polokwane Municipality in the area – water will have to be supplied from the City Water storage site. The nearest area with water reticulation is in Ivy Park, which means bulk water supply infrastructure will have to be built connecting Ivy Pak and the proposed Arts and Cultural Hub at Bakone Malapa. Detailed design of Stormwater system will be in accordance with the Guidelines for Human Settlement Planning and Design standards as well as the SANRAL Drainage Manual. The primary function of a Stormwater drainage system is to collect run-off from roads and properties and convey this flow and all overland flow from the upstream area to the nearest watercourse. The proposed stormwater system will be sized accordingly to accommodate runoff equivalent to a 1 in 5-year flood. The surface and groundwater impacts significance is expected to be very low after mitigation measure.



Surface Water and Groundwater

Potential Impact	Probability	Extent	Duration	Intensity	Significance without mitigation	Significance with mitigation	Status
Surface water pollution as a result of fuel leaks and lubricants.	2	1	2	2	7	5	Negative
Potential for ground water pollution due to spillages: potential exists for spills of contaminants such as fuels and lubricants stored on site during construction phase.	2	1	2	2	7	5	Negative

Mitigation Measures

- Adequate fuel containment facilities to be used.
- The use of all materials, fuels and chemicals which could potentially leach into underground water must be controlled.
- All such materials, fuels and chemicals must be stored in a specific and secured area to prevent pollution from spillages and leakages.
- All fuels and chemicals must be stored in a specific and secured area to prevent pollution from spillages and leakages.

Visual

Topographically, the site is characterized by an undulating topography with highest and lowest elevation points at 1330 and 1450 meters above sea level with 5m margin of error, respectively. The site has an average gradient of 6%. The proposed site is situated in the



Savanna Biome, hosting Mamabolo Mountain and Polokwane Plateau Bushvelds. The site is currently covered by Indigenous and alien vegetation

Potential visual impacts are expected during the construction-phase of the project. Activities such as vegetation clearing, and actual construction will cause visual impact to the surrounding community. Visual impacts are anticipated to be low during operational phase as the development will be state of the art. Significance is considered to be low after mitigation measures.

Visual							
Potential Impact	Probability	Extent	Duration	Intensity	Significance without mitigation	Significance with mitigation	Status
Vegetation clearing	3	2	1	3	9	6	Negative
Construction activities	3	2	1	3	9	5	Negative
Mitigation Measures							
<ul style="list-style-type: none"> The site must be fenced with using shade cloth fencing to obscure the inside during the construction phase. 							

Traffic

The proposed development will potentially involve the following proposed uses:

- Existing Bakone Malapa Open Museum (17.08 hectares);
- Proposed Provincial Arts and Culture Theatre (10 hectares);
- Proposed Residential 3 Housing (23,81 hectares);
- Proposed Arts Training Studios (17,22 hectares);
- Proposed Hotel and Restaurant (10 hectares);
- Proposed Sports Arena with a Tennis Court (4,73 hectares);



- Proposed Arts and Culture-Focused Retail Facilities (6,56 hectares);
- Proposed Government Offices (10,23 hectares); and
- Proposed Internal Streets and Roads (11,6 hectares).
- The proposed development is estimated to generate 1 227 vehicle trips during a typical weekday AM and PM peak hour.

The proposed development will have a noticeable impact on the adjacent road network and will require that some upgrades be implemented at the proposed development

According to the Traffic Impact Assessment, there are upgrades that are recommended to accommodate the proposed development traffic and provide access into the proposed development. The upgrade includes:

- Design and construction of a three-legged signalised intersection off-R37 onto the proposed development.
- Design and construction of suitable drainage, public transport and NMT infrastructure.
- Installation of suitable signage and street lighting.

Heritage

According to the Heritage Impact Assessment conducted for the proposed site, Heritage resources were found within the boundary of the proposed site, this includes the Bakone Malapa Museum and all archaeological material associated with it and rock art sites outside the Museum. Heritage resources found with the proposed site includes

- Museum which contains stonewalling
- Rock Art and Possible Rock Art
- Rainmaking Hill

The Significance is considered to be medium with mitigation measures.



Heritage							
Potential Impact	Probability	Extent	Duration	Intensity	Significance without mitigation	Significance with mitigation	Status
Destruction of heritage resources found on the proposed site.	5	3	5	5	18	11	Negative

Mitigation Measures

- The museum and its immediate surrounding are a No-Go area for the proposed project. See figure 5 and 6 for the No-Go boundary which means no construction should take place within the boundary to protect the known heritage resources found on site. A temporary fence will have to be erected which will still allow access to the area in order to ensure no construction takes place beyond the point of the fence.
- During the construction phase, the contractor should keep within the proposed parameters of the site to avoid impacting on any heritage resources that may be found outside of the proposed project site, this may include unknown burial grounds and graves, archaeological artifacts and even structures.
- The contractor should induct all employees on the importance of heritage sites and resources that they should not be impacted in any way. This is to ensure that even if any heritage resources are found during the construction phase or exposed due to construction activities, should by no means be impacted or destroyed.
- The proposed project should incorporate the Museum and its surrounding (No-Go area) as the site plan indicates (see figure 3). Should the developer want to alter the Museum in a manner that will not compromise the character of the place, the following is recommended:



- Interested & Affected parties should be notified and given the opportunity to make comments.
- A permit application must be applied for to SAHRA by a professional archaeologist; of which no construction will take place pending a response from SAHRA.
- Should any other heritage resources be found on site during the construction phase apart from the ones already found; be it archaeological artefacts such as stone tools and pottery; burial grounds and graves and structures; the contractor should cease construction immediately and contact the client and the Museum. A heritage expert should be called to site to assess the significance of the archaeological artefacts and the impacts of the proposed activities on such artefacts, and then provide mitigation measures.
- The possibility of uncovering unearthed human remains or graves that are of archaeological significance is high. Should potential human remains be found on site, the contractor should cease construction immediately and the South African Police Service; the client; and the Museum should also be contacted. Should the remains be below 60 years old since time of death, it is considered a forensic case and further investigations will be conducted by the police and should the remains be above 60 years old since time of death (which might be the case here), it becomes a South African Heritage Resources Agency case. This means an archaeologist should be called on site for assessment and propose mitigation measures.

Socio-economic

The proposed project will enable artist and production houses in Limpopo province to showcase their talent nationally and internationally, thus promoting cultural diversity and investments opportunities. Temporal employment opportunities will be available during the construction of the proposed project. Permanent employment opportunities will be also available at the Hotel and Restaurant. Local employment and economic stimulus are anticipated as a positive impact. The significance is considered to be low from a national viewpoint, medium from a regional viewpoint but high in respect to local impacts. More employment opportunities in the area should have a positive economic impact on the residents in the surrounding communities as there will be more spending power from which



the local businesses will benefit. Significance is considered to be very high with mitigation measures.

Socio-economic							
Potential Impact	Probability	Extent	Duration	Intensity	Significance without mitigation	Significance with mitigation	Status
Employment opportunities.	5	3	5	5	18	18	Positive
Promotion of cultural diversity.	4	3	5	5	17	17	Positive
Possible increase in criminal activity during construction phase.	3	2	2	3	10	8	Negative

Mitigation Measures

- Develop a recruitment policy that allows equal opportunity to all people (woman, disabled) and give preference to local labour where possible.
- Develop a programme that will assist in bringing local and national artist to come promote their artwork.
- Communicate the policy to the local community via existing structures such as the ward councillor.
- Increase security detail during the construction phase.



Land-use

Land-use is considered to be improved based on economic use of the site. Traffic impacts on the area may be felt as a part of the accumulative impacts and is associated with current, planned and future users of the area. This may have an impact on land use planning and land use management. This is considered to be of medium significance after mitigation measures.

The site is in an area with zoned agricultural however a rezoning process is underway. The site will be rezoned to residential use. The land potential will be impacted during the construction and operational phase. The Bakone Malapa Cultural Hub township development will have negative impacts on the land, however the development will bring positive impact on the socio-economic environment of the site.

Waste Disposal and Littering

The indiscriminate disposal of waste and uncontrolled littering can be a source of pollution to the soils on site. Littering will also have a negative visual impact for the surrounding community. Significance is considered to be low after mitigation measures.

Waste Disposal and Littering							
Potential Impact	Probability	Extent	Duration	Intensity	Significance without mitigation	Significance with mitigation	Status
Waste disposal and littering during operations	3	2	1	3	9	6	Negative
Mitigation Measures							
<ul style="list-style-type: none"> ▪ Maintain a high standard of housekeeping. ▪ Store all litter carefully so it cannot be washed or blown into the storm water systems. 							



- Rubbish bins: provide bins for workers and staff at appropriate locations, particularly where food is consumed.
- Daily site clean-up: clean-up site of all litter daily.
- Waste disposal: dispose of domestic waste at a registered landfill.
- Leakage containment and treatment: ensure that oil, fuel or solvent leakages cannot enter the storm water system.
- Establish and adhere to a Waste Management Plan.
- Employees need to be encouraged to use the waste bins provided at all times, and littering should be prohibited.



Safety and Security

Safety and health impacts during the construction phase. Significance is considered to be low after mitigation measures.

Safety and Health impacts							
Potential Impact	Probability	Extent	Duration	Intensity	Significance without mitigation	Significance with mitigation	Status
Vegetation clearing	3	2	1	3	9	6	Negative
Construction activities	3	2	1	3	9	5	Negative

Mitigation Measures

- Implement a Health and Safety Program on site, including safety consciousness and awareness training. The program should also include relevant health aspects, e.g. sexual health, fatigue management, social health and covid 19.
- Personnel on site must be provided with Personal Protection Equipment (PPE) for their health and safety.
- Personnel on site must be provided with Personal Protection Equipment (PPE) for their health and safety.
- Potentially hazardous areas (i.e. deep excavations) must be demarcated and clearly marked.
- Strictly adhered to all relevant Health and Safety legislation as required in South Africa including the Occupational Health & Safety Act, 1993 (Act No. 85 of 1993).

Consultation and Participation

The Public Participation Process (PPP) is a requirement of several pieces of South African legislation and aims to ensure that all relevant Interested and Affected Parties (I&APs) are



consulted, involved, their comments are considered, and a record included in the reports submitted to the Authorities. The process ensures that all stakeholders are provided this opportunity as part of a transparent process which allows for a robust and comprehensive environmental study.

EIA Phase Process

Public participation takes place throughout the EIA process (which includes the Scoping phase and the EIA phase). The main purpose of the Public Participation Process (PPP) is:

- To identify I&APs that will be affected by the proposed development;
- To identify parties that have an interest in the proposed development and/or the environment under consideration;
- To establish a record of the procedure by which I&APs were identified and afforded the opportunity to participate at all appropriate stages of the process;
- To provide opportunities to I&APs to express their views regarding the scope and content of the environmental reports, including alternatives and issues that are being investigated;
- To provide an opportunity for I&APs to verify that their issues were included and considered in the EIA; and
- To maintain a record of all correspondence and views of I&APs.

Evidence of consultation conducted to date is included in Appendix E. Details on the public participation process during the scoping phase, including public consultation events, notifications and scoping phase consultations with authorities can be found in the EIA Report. Consultation of the dEIR will be included on the FEIR.

I&AP Identification

The identification of I&APs and/or stakeholders has been carried out in three separate tasks, namely:

- Those identified during the screening process (i.e., by review of available stakeholder information);



- Those identified as directly affected landowners within the proposed development site; and
- Those who registered as a result of the advertising and notification process.

It should be noted that the developer is landowner for this proposed project. Neighbours to the Bakone Malapa site were encouraged throughout the process to participate.



Issues and Responses Report

An Issues and Responses Report (IRR) has been compiled for the proposed development. This report represents a “living” record of the public consultation process. The IRR captures the following information:

- Date of comment/question;
- Method of comment/question (e.g., public meeting, letter, etc.);
- Name and organisation of the person who made the comment/asked the question;
- The comment/question. The IRR will be grouped according to the themes of the issues and concerns raised; and
- An answer to the question/response to the comment or a reference as to where such information may be obtained in the Scoping Report and EIR.

The DEIAR will be released for a 30-day public review & comment period. All I&APs on the I&AP databases will be notified in writing, via letter, fax and/or email of the availability of the DEIAR for review.

The FEIAR will then be finalised, and notifications issued to all registered I&APs via letters, faxes and/or emails regarding the submission of the FEIAR to the LEDET. In addition I&APs will be informed of any material changes made to the DEIAR which are incorporated in the FEIAR. I&APs will have an opportunity to comment on the FEIAR, with any comments submitted directly to the LEDET (details of where and to whom to send such comments will be included in the FEIAR availability notification letter).

All environmental documentation will be made available to the competent authority (LEDET).

This step marks the end of the EIA Phase. Once the LEDET has reviewed the FEIAR, they will make a decision on the report and subsequently decide on whether or not to grant the Environmental Authorisation.



Ongoing Communication

Throughout the project, stakeholders are encouraged to get into contact with the PPP team to raise issues, ask questions or make suggestions. Communication can be via telephone or in written form. Once a contact has been made, the issue/question/suggestion will be logged on the Issues and Responses Report and a response will be provided to the stakeholder.

Registration of I&APs continues throughout the EIA process however comments on the DEIAR need to be received within the specified time periods to ensure they can be taken into account in the FEIAR

Recommendations

The proposed Bakone Malapa Cultural Hub Township Development is sited next to the Bakone Malapa museum which prides itself with continuous preserving of culture and heritage of the Limpopo communities, proposed site is situated in the Savanna Biome, hosting Mamabolo Mountain and Polokwane Plateau Bushvelds. The entire site occurs in the Critical Biodiversity Area 1. Polokwane Local Municipality will have to implement the recommendations from the heritage impact assessment and botanical profile/vegetation assessment conducted for the proposed project.

Recommendations for Heritage Resources:

- The museum and its immediate surrounding are a No-Go area for the proposed project. No construction should take place within the boundary to protect the known heritage resources found on site. A temporary fence will have to be erected which will still allow access to the area in order to ensure no construction takes place beyond the point of the fence.
- During the construction phase, the contractor should keep within the proposed parameters of the site to avoid impacting on any heritage resources that may be



found outside of the proposed project site, this may include unknown burial grounds and graves, archaeological artifacts and even structures.

- The contractor should induct all employees on the importance of heritage sites and resources that they should not be impacted in any way. This is to ensure that even if any heritage resources are found during the construction phase or exposed due to construction activities, should by no means be impacted or destroyed.
- The proposed project should incorporate the Museum and its surrounding (No-Go area) as the site plan indicates (see figure 3). Should the developer want to alter the Museum in a manner that will not compromise the character of the place, the following is recommended:
 - *Interested & Affected parties should be notified and given the opportunity to make comments.*
 - *A permit application must be applied for to SAHRA by a professional archaeologist; of which no construction will take place pending a response from SAHRA.*
- Should any other heritage resources be found on site during the construction phase apart from the ones already found; be it archaeological artefacts such as stone tools and pottery; burial grounds and graves and structures; the contractor should cease construction immediately and contact the client and the Museum. A heritage expert should be called to site to assess the significance of the archaeological artefacts and the impacts of the proposed activities on such artefacts, and then provide mitigation measures.
- The possibility of uncovering unearthed human remains or graves that are of archaeological significance is high. Should potential human remains be found on site, the contractor should cease construction immediately and the South African Police Service; the client; and the Museum should also be contacted. Should the remains be below 60 years old since time of death, it is considered a forensic case and further investigations will be conducted by the police and should the remains be above 60 years old since time of death (which might be the case here), it



becomes a South African Heritage Resources Agency case. This means an archaeologist should be called on site for assessment and propose mitigation measures.

Recommendations for Vegetation Protection are:

- The Polokwane local Municipality should apply for an authorisation to construct the proposed theatre building on the Critical Biodiversity Area 1 from the relevant local conservancy regulatory authorities in Polokwane or Limpopo.
- The development should not overlap with the areas outside the borderlines of the site.
- The proposed development should not clear more than 50% of the large trees on the site. All the species of the large trees should be left on the site. Most importantly, indigenous fruit trees should be protected.

Recommendations for Soil Management (Geotech):

- It is, therefore recommended that all excavations and foundation trenches be inspected by a competent person to verify that the founding conditions are not at variance with those described herein.
- Compaction of in situ soils below floor slab: Remove in-situ material to a nominal depth as per structural designs and replace with well graded G5-G6 material
- compacted to not less than 95% MOD AASHTO density. The use of soil-crete is also recommended where necessary.
- Site clearance of all organic material on the footprint must be conducted prior to excavating and laying foundations.
- Site drainage should be such that water is channelled from structural units into a suitable storm water drainage system. Proper landscaping should be exercised so as to deter accumulation of rainwater closer to the structure following precipitation. All reinforcing material must be totally submerged in concrete so as to limit the moisture exposure that might lead into steel corrosion leading to concrete spalling.



- Foundations should be laid at on surface of properly prepared fill. Proper compaction of the classified fill material in layers not exceeding 200 mm where mechanical equipment is to be used or 100 mm where handheld compacters are to be used, must take place for all foundation types.
- Shoring of excavation sidewalls should be applied when working in deeper than 1.5 m pits and trenches. Alternatively, sidewalls should be battered back to slopes shallower than 1:1. Detailed proper construction practices as drawn in the SANS Building Codes should be exercised.
- Any follow up geotechnical investigations during construction must focus on confirming the as exposed founding soils and undertake any soil tests as deemed necessary by the appointed foundation design engineer.
- Detailed proper construction practices as drawn in the NHBRC Home Building Manuals and SANS Building Codes should be exercised.
- Conditions prevailing at the site suggest that no problems are foreseen for the development of single and double storey masonry structures, provided the contents of this report are acknowledged and recommendations as outlined in the report are adhered to.

10. Development of Management Plans

Management plans will be critical for the sustainable, efficient and responsible operating of the hub. A framework for the development and implementation of these plans will be developed:

- Environmental Management Program (EMPr);
- Stormwater Management Plan;
- Maintenance and Operational Plan (OEMPr); and
- Emergency and Incident Management Plan (EIMP).



11. Environmental Management Programme

The National Environmental Management Act 107 of 1998 (NEMA) requires that an environmental management programme Report (EMPr) be submitted where an environmental impact assessment has been identified as the environmental instrument to be utilised as the basis for a decision on an application for environmental authorisation (EA). The content of an EMPr must either contain the information set out in Appendix 4 of the Environmental Impact Assessment Regulations, 2014.

An Environmental Management Programme Report (EMPr) is a site-specific programme developed to ensure that all necessary measures are identified and implemented in order to protect the environment and comply with environmental legislation. The aim of the EMP is to address the impacts and guide with the implementation of the mitigation measures, including monitoring measures to be undertaken for the proposed inclusion of hazardous metal recycling at the existing Polokwane Local Municipality site. The EMPr outlines the impacts and associated mitigation measures for the construction and operation of the Bakone Malapa township development.

Purpose and Objectives of the EMPr

The EMPr has been compiled to provide recommendations and guidelines according to which construction activities at the Bakone Malapa Township Development site must be undertaken, as well as to ensure that all relevant factors are considered for implementing an environmentally responsible development. This EMPr informs all relevant parties, including the EAP, Contractor/ Site Manager and all other staff employed by Polokwane Local Municipality on site, as to their duties in the fulfilment of the environmental legal requirements for the construction and operation of the Bakone Malapa Township Development, and with particular reference to the prevention and mitigation of anticipated potential environmental impacts.

The objectives of the EMPr are to:



- Identify a range of mitigation measures which could reduce and mitigate the potential environmental impacts to minimal or insignificant levels;
- Detail specific actions deemed necessary to assist in mitigating the environmental impact of the Project;
- Identify measures that could optimize beneficial impacts;
- To create management structures that address the concerns and complaints of the public with regards to the development;
- To establish a method of monitoring and auditing environmental management practices during the operational phase of the Project;
- Ensure that the operational phase of the Projects follow the principles of Integrated Environmental Management (IEM);
- Specify time periods within which the measures contemplated in the EMPr shall be implemented where appropriate.

The emphasis of the EMPr is to:

- Avoid impacts by not performing certain actions;
- Minimise impacts by limiting aspects of an action;
- Rectify impacts through consideration of the affected environment;
- Compensate for impacts by providing substitute resources or environments;
- Minimise impacts by optimising processes, structural elements and other design features;
- Maximise benefits accruing from the Project and;
- Provide ongoing monitoring and management of the environmental impacts of the development by documenting any EMPr digressions / good performances.

To manage potential environmental impacts which may be brought on by the construction and operation of the Bakone Malapa Cultural Hub, the following need to be adhered to:

- A temporary fence around the Bakone Malapa Museum will have to be erected which will still allow access to the area in order to ensure no construction takes place beyond the point of the fence.



- During the construction phase, the contractor should keep within the proposed parameters of the site to avoid impacting on any heritage resources that may be found outside of the proposed project site, this may include unknown burial grounds and graves, archaeological artifacts and even structures.
- The proposed project should incorporate the Museum and its surrounding (No-Go area) as the site plan indicates (see figure 3). Should the developer want to alter the Museum in a manner that will not compromise the character of the place, the following is recommended:
 - *Interested & Affected parties should be notified and given the opportunity to make comments.*
 - *A permit application must be applied for to SAHRA by a professional archaeologist; of which no construction will take place pending a response from SAHRA.*
- Should any other heritage resources be found on site during the construction phase apart from the ones already found; be it archaeological artefacts such as stone tools and pottery; burial grounds and graves and structures; the contractor should cease construction immediately and contact the client and the Museum. A heritage expert should be called to site to assess the significance of the archaeological artefacts and the impacts of the proposed activities on such artefacts, and then provide mitigation measures.
- Should potential human remains be found on site, the contractor should cease construction immediately and the South African Police Service; the client; and the Museum should also be contacted. Should the remains be below 60 years old since time of death, it is considered a forensic case and further investigations will be conducted by the police and should the remains be above 60 years old since time of death (which might be the case here), it becomes a South African Heritage Resources Agency case. This means an archaeologist should be called on site for assessment and propose mitigation measures.



- The Polokwane local Municipality should apply for an authorisation to construct the proposed theatre building on the Critical Biodiversity Area 1 from the relevant local conservancy regulatory authorities in Polokwane or Limpopo. The rationale of this application is that the proposed site has no protected or red-listed plant species.
- The development should not overlap with the areas outside the borderlines of the site.
- The proposed development should not clear more than 50% of the large trees on the site. All the species of the large trees should be left on the site. Most importantly, indigenous fruit trees should be protected.

Refer to **Table 6** till Table **14** for a detailed EMP.

Environmental Awareness and Compliance

The philosophy that has been used for the compilation of this management programme is derived from the principles of the National Environmental Management Act (No. 107 of 1998) which states that development must be socially, economically and environmentally sustainable. Sustainable development requires that:

- The disturbance of ecosystems and loss of biodiversity are avoided (minimised or remedied);
- Pollution and degradation of the environment are avoided or minimised and remedied; Waste is avoided or minimised and re-used or re-cycled where possible and otherwise disposed of in a responsible manner;
- A risk averse and cautious approach is applied;
- Negative impacts on the environment and on people's environmental rights be anticipated; and, prevented and where they cannot altogether be prevented, are minimised and remedied.

The Act makes provision that anyone who causes pollution or degradation of the environment is responsible for preventing impacts occurring, continuing or recurring and for the costs of repair of the environment.



Roles and Responsibilities for Good Environmental Management

Polokwane Local Municipality is responsible for environmental management on site during the operational phase of the existing development. Specific roles and responsibilities are highlighted in the table below.

Environmental Control Officer (ECO)

The ECO will be responsible for overseeing the implementation of the EMPr during the operational phase, and for monitoring, reviewing and verifying compliance of the contractor with the EMPr, record-keeping and updating of the EMPr as and when necessary.

During decommissioning, the ECO will be responsible for:

- Overseeing the implementation of the EMPr for the decommissioning phase; and
- Conducting an environmental inspection on completion of decommissioning and “signing off” the site rehabilitation process.

Bakone Malapa Site Operations Manager

The Contractor/ Site Manager should:

- Be fully knowledgeable with the contents of the EMPr;
- Be fully knowledgeable with the contents of all relevant environmental legislation and ensure compliance with them;
- Ensure that the contents of the EMP are communicated to the contractor, all site staff, and the site manager are made aware of the contents of the EMPr, through presentations and discussions;
- Ensure that compliance to the EMPr is monitored by regular and comprehensive inspection of the site and surrounding areas;
- Report on any incidents of non-compliance and ensure mitigation measures are implemented as soon as practical;
- Overseeing the implementation of the EMPr for the operation phase;



- Ensure that the necessary environmental monitoring takes place as specified in the EMPr;
- Update the EMPr and ensure that records are kept of all monitoring activities and results; and
- Maintain an Incidents Register and Complaints Register on site.

Training and Induction of Employees

It is important to ensure that all employees at the Polokwane Local Municipality site have the appropriate level of environmental awareness and competence to ensure continued environmental due diligence and ongoing minimisation of environmental harm during construction. Training needs should be identified based on the available and existing capacity of site personnel to undertake the required EMPr management actions and monitoring activities. It is vital that all personnel are adequately trained to perform their designated tasks to an acceptable standard.

The Contractor/ Site Manager has a responsibility to ensure that all personnel involved in the project are aware of and are familiar with the environmental requirements for the project. The EMPr shall be part of the terms of reference (ToR) for all employees and suppliers/ vendors. All employees have to give some assurance that they understand the EMPr and that they will undertake to comply with the conditions therein. All senior and supervisory staff members shall familiarise themselves with the full contents of the EMPr. They shall know and understand the specifications of the EMPr and be able to assist other staff members in matters relating to the EMPr.

The environmental training is aimed at:

- Promoting environmental awareness;
- Informing the employees of all environmental procedures, policies and programmes applicable;



- Providing generic training on the implementation of environmental management specifications; and
- Providing job-specific environmental training in order to understand the key environmental features of the construction site and the surrounding environment.

The Contractor/ Site Manager must ensure that all staff working on site has an environmental induction. The presentation can include the following topics;

- What is meant by “Environment”?
- Why the environment needs to be protected and conserved.
- How construction activities can impact on the environment.
- What can be done to militate against such impacts?
- Awareness of emergency and spills response provisions.
- Social responsibility during operations e.g. being considerate to local residents.

A detailed environmental management and training program must be developed. The purpose of this is to ensure that all staff and workers understand what is required of them.

The main components of the program can incorporate the following:

- Concept of sustainability and the reasons for good environmental management and practice
- Potential environmental impacts
- Mitigation measures
- Establishing a chain of responsibility and decision making
- Specific training requirements of certain staff, and the potential hazardous associated with the job.
- Training in the use of relevant equipment
- Training in identification of non-compliance situations and procedures to be followed in such instances
- Reporting requirements
- Fire management
- HIV/AIDS



- Covid 19

Procedures for Environmental Incidents: Leakages and Spills

Remove spilt material and In the care of leakages or spills, the following should be done:

- Identify and isolate the source of spill and/or leakage;
- Notify the ECO of spill incident;
- Stop, if possible, under the circumstances the source of spill and/or leakage;
- Remediate spill according to the method statement supplied and approved;
- Contain spilt material, using the spill kit and sand;
- Consult and appoint a specialist remediation contractor for major incidents (ECO to advise);
- contain and dispose of hazardous content according to the method statement supplied and approved; and
- All management and remediation of spills should be conducted according to the incident management plan provided for by the relevant main/building contractor.

Complaints Register and Environmental Incidents Book

The Contractor/ Site Manager must record any complaints received from the community. The complaint must be brought to the attention of the Management, including the ECO, who will respond accordingly.

The Contractor/ Site Manager shall keep a current and up-to-date complaints register. The complaints register is to be a record of all complaints received from communities, stakeholders and individuals. The Complaints Record shall:

- Record the name and contact details of the complainant;
- Record the time and date of the complaint;
- Contain a detailed description of the complaint;
- Where relevant and appropriate, contain photographic evidence of the complaint or damage (Contractor/ Site Manager to take relevant photographs); and



- Contain a copy of the Contractor/ Site Manager written response to each complaint received and keep a record of any further correspondence with the complainant. The Site Operations Manager's written response will include a description of any corrective action to be taken and must be signed by the Contractor/ Site Manager and affected party.

All complaints received must be investigated and a response (even if pending further investigation) will be given to the complainant within 7 days.

All environmental incidents occurring on the site will be recorded. The following information will be provided:

- Time, date, location and nature of the incident,
- Actions taken and by whom.

Monitoring and Compliance

A monitoring programme should be in place to ensure compliance with the EMPr and to monitor any environmental issues and impacts which could result in significant environmental impacts for which corrective action is required. A monitoring programme should be implemented for the duration of the operational phase of the project. This programme must include:

- Annual site audits that will be conducted by the ECO
- Compilation of an annual audit report which will document findings and recommend corrective action to be taken where required. Subsequent reports will provide feedback on whether previous non-compliances raised have been resolved, thereby ensuring continual improvement of the site's environmental performance; and
- Daily site inspections will be conducted by the Contractor/ Site Manager to ensure daily implementation of the EMPr conditions and provide corrective actions.

The implementation of the relevant provisions and/or management measures contained in the EA and EMPr will be subjected to monitoring and review to ensure compliance.



Reference is made to routine and periodic monitoring to verify, assess and report on compliance with the relevant provisions of the EA and EMPr, according to a set performance criterion, provided for throughout the said document.

To clarify reporting - the findings will be called and presented as non-compliance, potential non-compliance and observations. These are defined as follows: **Definitions of Compliance Findings**

Table 5: Definitions of Compliance Findings

Compliance: (C)
<p>Full compliance achieved with documented or audited proof of compliance available. No further actions are required – Polokwane Local Municipality site has fulfilled all requirements relevant to the respective condition.</p>
Partial compliance: (PC)
<p>A potential or partial compliance refers to a deviation from a legal requirement, a standard specification, or a planned arrangement which does not constitute a non-compliance, but which does not represent Best Practice – Polokwane Local Municipality site is in partial compliance with the requirement of the respective condition, but management plans are in place, capex is available; designs are completed; work orders have been raised and work may or may not have commenced to deal with the non-compliance.</p>
Non-compliance: (NC)
<p>Non-compliance is the most severe type of finding. A non-compliance will indicate legal non-compliance to the relevant legislation, license and/or records of decisions conditions – Polokwane Local Municipality site is not in compliance with the respective condition. Where appropriate the audit report contains recommendations regarding non-compliance and specified/ agreed target dates for the implementation.</p>



Not Applicable/Noted

No objective evidence available at the time of the audit to make an appropriate finding of compliance, or non-compliance. Also applies to acknowledgement of a statement.

An observation refers to a deviation from best practice and includes observations of opportunities for improvement. Recommendations could be stated for observations but will not have specified target dates. This has been included for the benefit of management and while not being of immediate priority, can be included in the self-improvement cycle of environmental management.

Dealing with Non-Compliance with the EMPr

There may be difficulties encountered with carrying out the mitigation measures within the EMPr, this may result in non-compliance with the EMPr. It may be possible that the Applicant put in place procedures to motivate staff members to comply with the EMPr and to deal with deal with non-compliance.

EMP Amendments and Instructions

No EMP amendments shall be allowed without the approval of the LEDET. Amendments may be possible, following discussions with the relevant EAP or environmental consultant, who may propose EMP amendments on behalf of the developer or issue EMP instructions, corrective actions, remediation or rehabilitation. These correction actions must be completed within the specified timeframes.

This particular section of the EMPr is applicable to the construction and operational phase of the Bakone Malapa Cultural Hub township development and is specifically designated to provide for and convey management measures to be implemented for the duration of the construction and operational phase, to ensure and maintain the environmental performance of the said development. It should be noted that the Operational EMPr represents a living document, which will essentially be updated on a regular basis for the duration of the construction and operational phase, to incorporate the identification and



management of environmental risks and/or impacts associated with the day-to-day operations of the Bakone Malapa Cultural Hub development.



Table 6: EMP for General Environment

Activity:					
<ul style="list-style-type: none"> Construction of the Bakone Malapa Cultural Hub township development. 					
Aspect:					
<ul style="list-style-type: none"> Insufficient information & knowledge amongst workers and contractors in terms of how their actions may impact on the environment. 					
Impact description	Environmental objective	Management / Mitigation Measures	Monitoring & Compliance Reporting	Timeframe	Responsibility
Nature and significance of environmental impact.					
Construction and Operational Phase					
Employment and Operational Phase. Disturbance to the environment in general (this includes pollution of soil and water resources, as well as harm to employees and wasteful practices in terms of	To prevent harm to the environment by educating workers and contractors. Make the relevant provisions of the EMPr enforceable	<ul style="list-style-type: none"> The contractor/developer shall ensure that local labour is used where possible in order to improve the local economy of the area. All employees are required to attend onsite 	<ul style="list-style-type: none"> Regular site inspections Internal audits against this EMP must be conducted every 6 months and records kept onsite. 	Life of operation	



<p>resource use and waste management) during construction of the township development.</p>	<p>under the general conditions of the operations contract.</p> <p>Contractor/ Site Manager to oversee the day-to-day implementation of the EMP.</p>	<p>Environmental Awareness/Training prior to commencing work on site.</p> <ul style="list-style-type: none"> ▪ Follow-up Environmental Awareness/Training may be required from time to time as new employees commence work or for specific activities that may potentially impact the environment. ▪ The Contractor/ Site Manager is to maintain accurate records of any training undertaken. ▪ Training is to cover all aspects of the EMP and 	<p>Shortcomings must immediately be addressed.</p>		<p>Contractor/ Site Manager</p>
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		<p>applicable environmental procedures to be followed.</p> <ul style="list-style-type: none">▪ The content and relevant provisions of the EMPr shall be conveyed to all applicable to attend the environmental awareness training of all personnel on site; and parties.			
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Table 7: EMP for Dust and Noise impacts

Activity:					
<ul style="list-style-type: none"> Construction of the Bakone Malapa Cultural Hub township development. 					
Aspect:					
Construction and Operational Phase: - (i) Increased traffic flow to the site; (ii) Noise generated by vehicles travelling to and from the development (iii) Generation of nuisance dust from the construction activities.					
Nature and significance of environmental impact.					
Impact description	Environmental objective	Management / Mitigation Measures	Monitoring & Compliance Reporting	Timeframe	Responsibility
Operational Phase					
Disturbance and nuisance to adjacent receptors due to noise generated by the construction activities. There are no known sensitive receptors, such as residential dwellings, within the immediate vicinity of the site.	To minimize the noise and nuisance generated by the operational activities	<ul style="list-style-type: none"> All employees must wear proper PPE. Dust suppression must be implemented to reduce dust emissions. The construction times of the site must be limited 	<ul style="list-style-type: none"> Regular site inspections. Internal audits against this EMP must be conducted every 6 months and records kept onsite. Shortcomings must 	Life of Operation	Site Operations Manager



		<p>to 07h00- 18h00 working times.</p> <ul style="list-style-type: none"> ▪ A register should be maintained for all complaints received as a result of noise and dust. 	<p>immediately be addressed.</p>		
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Table 8: EMP for soil impacts

Activity:					
<ul style="list-style-type: none"> • Construction of the Bakone Malapa Cultural Hub township development. 					
Aspect:					
Construction and Operational Phase: - Incorrect management of soil.					
Nature and significance of environmental impact					
Impact description	Environmental objective	Management / Mitigation Measures	Monitoring & Compliance Reporting	Timeframe	Responsibility
Operational Phase					



<p>Soil erosion due to improper management of storm water onsite.</p> <p>Removal and compaction of soil during construction activities.</p> <p>Erosion, degradation and loss of topsoil due to construction activities.</p> <p>Degradation of soil due to exposed areas and roads.</p>	<p>To ensure adequate soil management to prevent erosion.</p>	<ul style="list-style-type: none"> ▪ The site must have an adequate and effective storm water management system in place. ▪ storm water measures should be inspected on a regular basis to ensure that the structures are functional and not causing soil erosion. ▪ Develop an inspection schedule to include the inspection of storm water management. (The schedule must be updated after every site inspection. 	<ul style="list-style-type: none"> ▪ Regular site inspections (weekly Inspections) ▪ Internal audits against this EMP must be conducted every 6 months and records kept onsite. Shortcomings must immediately be addressed. 	<p>Life of Operation</p>	<p>Site Operations Manager</p>
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| | | <ul style="list-style-type: none">▪ Where necessary, place culverts underneath road foundations All vehicles owned by PLM must be maintained to prevent hydrocarbon spillages (Oil leaks, fuel- petrol, diesel, spillages). (Spill Kit Material must be available▪ No maintenance of construction vehicles should take place on site, in order to prevent soil contamination▪ The temporary access roads that will no longer | | | |
|--|--|--|--|--|--|



		<p>be used must be rehabilitated to ensure the re-growth of vegetation.</p> <ul style="list-style-type: none">▪ Topsoil must be kept separate from overburden and must not be used for building purposes or maintenance of access roads▪ Vehicles and machines must be maintained properly to ensure that oil spillages and leakages are kept to a minimum.			
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Table 9: Heritage Resources

Activity:					
<ul style="list-style-type: none"> Construction of the Bakone Malapa Cultural Hub township development. 					
Aspect:					
Construction and Operational Phase: - (i) Incorrect management Heritage Resources found onsite.					
Nature and significance environmental					
Impact description	Environmental objective	Management / Mitigation Measures	Monitoring & Compliance Reporting	Timeframe	Responsibility
Operational Phase					
Incorrect management Heritage Resources found onsite during construction and operational phase.	To protect all heritage resource found onsite.	<ul style="list-style-type: none"> The museum and its immediate surrounding are a No-Go area for the proposed project. See figure 5 and 6 for the No-Go boundary which means no construction should take place within 	<ul style="list-style-type: none"> Regular site inspections 	Life of Operation	A heritage expert and Contractor/ Operations manager



the boundary to protect the known heritage resources found on site. A temporary fence will have to be erected which will still allow access to the area in order to ensure no construction takes place beyond the point of the fence.

- During the construction phase, the contractor should keep within the proposed parameters of the site to avoid impacting on any heritage resources that may be found outside of



the proposed project site, this may include unknown burial grounds and graves, archaeological artifacts and even structures.

- The contractor should induct all employees on the importance of heritage sites and resources that they should not be impacted in any way. This is to ensure that even if any heritage resources are found during the construction phase or exposed due to



		<p>construction activities, should by no means be impacted or destroyed.</p> <ul style="list-style-type: none"> ▪ The proposed project should incorporate the Museum and its surrounding (No-Go area) as the site plan indicates (see figure 3). Should the developer want to alter the Museum in a manner that will not compromise the character of the place, the following is recommended: ▪ <i>Interested & Affected parties should be notified</i> 			
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		<p><i>and given the opportunity to make comments.</i></p> <ul style="list-style-type: none">▪ <i>A permit application must be applied for to SAHRA by a professional archaeologist; of which no construction will take place pending a response from SAHRA.</i>▪ <i>Should any other heritage resources be found on site during the construction phase apart from the ones already found; be it archaeological artefacts such as stone tools and</i>			
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		<p>pottery; burial grounds and graves and structures; the contractor should cease construction immediately and contact the client and the Museum. A heritage expert should be called to site to assess the significance of the archaeological artefacts and the impacts of the proposed activities on such artefacts, and then provide mitigation measures.</p> <ul style="list-style-type: none"> ▪ The possibility of uncovering unearthed 			
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		<p>human remains or graves that are of archaeological significance is high. Should potential human remains be found on site, the contractor should cease construction immediately and the South African Police Service; the client; and the Museum should also be contacted. Should the remains be below 60 years old since time of death, it is considered a forensic case and further investigations will be conducted by the police</p>			
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		<p>and should the remains be above 60 years old since time of death (which might be the case here), it becomes a South African Heritage Resources Agency case. This means an archaeologist should be called on site for assessment and propose mitigation measures.</p>			
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Table 10: Fauna and Flora

Activity:					
<ul style="list-style-type: none"> Construction of the Bakone Malapa Cultural Hub township development. 					
Aspect:					
Construction and Operational Phase: - (i) Incorrect management flora and fauna found onsite.					
Nature and significance environmental					
Impact description	Environmental objective	Management / Mitigation Measures	Monitoring & Compliance Reporting	Timeframe	Responsibility
Operational Phase					
Destruction of vegetation Removal of plant species diversity Transformation of habitat units, installation of buildings and other structures	To properly manage fauna and flora during construction and operational phase.	<ul style="list-style-type: none"> The proponent should apply for an authorisation to construct the proposed theatre building on the Critical Biodiversity Area 1 from the relevant local conservancy regulatory 	<ul style="list-style-type: none"> Regular site inspections 	Life of Operation	Operations manager



<p>Reduction of plant species diversity</p> <p>Habitat transformation</p> <p>Changes in the vegetation assemblages</p>		<p>authorities in Polokwane or Limpopo.</p> <ul style="list-style-type: none"> ▪ The development should not overlap with the areas outside the borderlines of the site. ▪ Although there were no red data listed species on the site, the proposed development should not clear more than 50% of the large trees on the site. All the species of the large trees should be left on the site. Most importantly, indigenous fruit trees should be protected. 			
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Table 11: EMP for Socio-economic impacts

Activity:					
<ul style="list-style-type: none"> Construction of the Bakone Malapa Cultural Hub township development. 					
Aspect:					
Construction and Operational Phase: - Creation of employment opportunities.					
Nature and significance environmental					
Impact description	Environmental objective	Management / Mitigation Measures	Monitoring & Compliance Reporting	Timeframe	Responsibility
Operational Phase					
<p>Employment opportunities.</p> <p>Promotion of cultural diversity.</p> <p>Possible increase in criminal activity during construction phase</p>	<p>To promote socio-economic upgrading to the local and provincial community.</p>	<ul style="list-style-type: none"> Develop a recruitment policy that allows equal opportunity to all people (woman, disabled) and give preference to local labour. Develop a programme that will assist in bringing local and national artist 	<ul style="list-style-type: none"> Regular site inspections 	<p>Life of Operation</p>	<p>Operations manager</p>



		<p>to come promote their artwork.</p> <ul style="list-style-type: none">▪ Communicate the policy to the local community via existing structures such as the ward councillor.▪ Increase security detail during the construction phase.			
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Table 12: EMP for Soil, storm water and groundwater impacts

Activity:					
<ul style="list-style-type: none"> Construction of the Bakone Malapa Cultural Hub township development. 					
Aspect:					
<p>Construction and Operational Phase: - (i) incorrect management, storage, and disposal of chemicals & fuels; (ii) incorrect management, storage and disposal of general and hazardous waste; (iii) incorrect management and contamination of storm water runoff; (iv) Leaking or broken sewerage pipes and, (v) inadequate storage of oil, such as on a permeable surface.</p>					
Nature and significance environmental					
Impact description	Environmental objective	Management / Mitigation Measures	Monitoring & Compliance Reporting	Timeframe	Responsibility
Operational Phase					
Soil, storm water and groundwater pollution due to poor management and accidental spills of hazardous chemical substances including fuel, greases and	To prevent and minimize soil, storm water and groundwater pollution because of poor management and	▪ Hazardous items including oils, fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site in a	▪ Internal audits against this EMP must be conducted every 6 months and records kept onsite. Shortcomings must	Life of Operation	Site Operations Manager



<p>oils used during operational activities.</p>	<p>accidental spills of hazardous chemical substances including fuel, greases and oils used onsite.</p>	<p>specific designated area with secondary containment and adequately banded to contain at least 110% of the spilled substance.</p> <ul style="list-style-type: none"> ▪ All hazardous items and or substances shall be handled and managed on site with the utmost care, and in an appropriate manner. ▪ Provision should be made for a spill response kit on site and all hydrocarbon spills immediately remediated once occurred. 	<p>immediately be addressed.</p> <ul style="list-style-type: none"> ▪ Regular site inspections 		
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| | | <ul style="list-style-type: none">▪ Ensure that the spill kit material is in place. The spill kit must comprise of absorbent fibres and associated containers. Contaminated material resulting from the spillages must be stored appropriately in designated hazardous waste containers (skips) and removed regularly to an approved hazardous waste disposal site.▪ Train employees and contractors on environmental awareness. | | | |
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		<ul style="list-style-type: none"> ▪ Develop a site Emergency Preparedness Plan or Response Plan. ▪ A sixteen (16) point Material Safety Data Sheet (MSDS) as required in terms of the Occupational Health and Safety Act (Act 85 Of 1993) must be available on site for all chemicals and hazardous substances used stored or used on site. 			
Soil, storm water and groundwater pollution due to poor waste management during operational activities.	To prevent and minimize soil, storm water and groundwater pollution	<ul style="list-style-type: none"> ▪ Training must be provided continuously to employees working with waste. The training 	<ul style="list-style-type: none"> ▪ Regular site inspections ▪ Internal audits against this EMP must be conducted bi-annually 		



<p>Nuisance caused by odours and unsightly appearance of waste onsite.</p> <p>Domestic waste will be removed from site by the municipal waste removal service.</p>	<p>and nuisance due to poor waste management.</p>	<p>programme must include the provisions stipulated in GNR. 926 of 29 November 2013.</p> <ul style="list-style-type: none"> ▪ An Emergency Response Plan must be compiled in accordance with GNR. 926 of 29 November 2013. ▪ Monitoring, auditing, reporting and record keeping must be conducted in accordance with GNR. 926 of 29 November 2013. ▪ Domestic (General) waste must be removed from site by the 	<p>and records kept onsite. Shortcomings must immediately be addressed.</p>	<p>Life of Operation</p>	<p>Site Operations Manager</p>
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		<p>municipal waste removal service. If waste is not removed by the municipality, the Contractor/ Site Manager must ensure that the domestic waste is removed to a licensed waste disposal site. Waste (Hazardous and General) on site must be managed (disposed of) in accordance with GNR 634, Waste Classification and Management Regulations, 23 August 2013.</p>			
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| | | <ul style="list-style-type: none">▪ Should any of the waste need to be disposed of, it must be taken to a suitable, licensed landfill site. The waste (hazardous) must be transported in sealed bins.▪ The Waste Classification and Management Regulations, 2013, and the National Norms and Standards for Disposal of Waste to Landfill, 2013, must be used to determine to which type of landfill a waste stream | | | |
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		<p>must be sent for disposal.</p> <ul style="list-style-type: none"> ▪ No waste shall be burned on site. ▪ No littering is permitted, and site clean-ups must regularly be undertaken. ▪ Disposal certificates shall be obtained from the relevant waste service providers and copies of these shall be retained by PLM. ▪ Develop a weekly cleaning schedule for the cleaning of the site. 			
Soil, storm water and groundwater pollution from	To prevent soil, storm water and	▪ Sufficient ablution facilities shall be	▪ Regular site inspections		Life of Operation



<p>unsanitary conditions onsite during construction and operational activities.</p>	<p>groundwater pollution from unsanitary conditions onsite.</p>	<p>provided – minimum of 1 toilet per 15 workers.</p> <ul style="list-style-type: none"> ▪ Functional, existing ablution facilities can be used. ▪ Ablating anywhere other than in the toilets shall not be allowed. ▪ Ablution facilities are to be serviced weekly or more frequently if required. ▪ Toilet paper must be provided always. 	<ul style="list-style-type: none"> ▪ Internal audits against this EMP must be conducted every 6 months and records kept onsite. Shortcomings must immediately be addressed. 		<p>Site Operations Manager</p>
<p>Soil and groundwater pollution from leaking or broken sewerage pipes.</p>	<p>To prevent soil, storm water and groundwater pollution</p>	<ul style="list-style-type: none"> ▪ Should toilets become blocked or run slowly, this should be reported to 	<ul style="list-style-type: none"> ▪ Regular site inspections ▪ Internal audits against this EMP must be 	<p>Life of Operation</p>	<p>Site Operations Manager</p>



	<p>from leaking or broken sewerage pipes.</p>	<p>site Management and the cause must be investigated. This could be due to a blocked or broken pipe leading from the toilets to the sewerage system.</p>	<p>conducted every 6 months and records kept onsite. Shortcomings must immediately be addressed.</p>		
<p>Soil, storm water and groundwater pollution because of contaminated wash water entering the environment during operational activities.</p>	<p>To prevent soil, storm water and groundwater pollution by contaminated wash water.</p>	<ul style="list-style-type: none"> ▪ Wash water that cannot be re-used must also be disposed of at a licensed waste disposal site ▪ The waste/wash water delivery pipeline into the municipal sewage disposal system must be maintained in a proper condition and free from leaks. 	<ul style="list-style-type: none"> ▪ Regular site inspections ▪ Internal audits against this EMP must be conducted every 6 months and records kept onsite. Shortcomings must immediately be addressed. 	<p>Life of Operation</p>	<p>Site Operations Manager</p>



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| | | <ul style="list-style-type: none">▪ No wastewater/wash water may be disposed of on site, onto the soil or into any water body.▪ Runoff from washing activities is to be contained by trenches.▪ No washing of vehicles is permitted on site.▪ A dedicated cleaning area is to be identified to facilitate washing of all equipment. The cleaning area could be a plastic lined cleaning pit or dedicated plastic or metal drums, located as | | | |
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		close as possible to a water point.			
Contamination of clean storm water runoff when the water runs through "dirty" areas on the site.	To ensure adequate storm water management and to prevent the contamination of clean storm water.	<ul style="list-style-type: none"> ▪ The site must have an adequate and effective storm water management system in place. ▪ No hazardous chemicals or waste may be discarded into the storm water management system. ▪ Clean storm water runoff from the surrounding environment must be channelled away from 'dirty' areas. These 'dirty' areas include the scrap 	<ul style="list-style-type: none"> ▪ Regular site inspections ▪ Internal audits against this EMP must be conducted every 6 months and records kept onsite. Shortcomings must immediately be addressed. 	Life of Operation	Site Operations Manager



		<p>storage area, buildings on site as well as any other product or waste storage areas.</p> <ul style="list-style-type: none"> ▪ Develop an inspection schedule to include the inspection of storm water management. (The schedule must be updated after every site inspection. ▪ Where necessary, place culverts underneath road foundations 			
The inadequate storage of pyrolysis oil, such as on a permeable surface, together	To ensure that the oils and hazardous waste products are	<ul style="list-style-type: none"> ▪ The purified oil must be stored in suitably designed storage tanks, 	<ul style="list-style-type: none"> ▪ Regular site inspections ▪ Internal audits against this EMP must be 	Life of Operation	Site Operations Manager



<p>with the possibility of storage tank failure can lead to pollution of the soil, storm water and groundwater. Such pollution can also be caused due to the incorrect storage of waste.</p>	<p>stored in a safe and responsible manner.</p>	<p>contained within an impermeable bund area. The bund area must be able to contain a volume not less than the greatest amount of product (oil) that can be released from the largest tank. The capacity of the bunded area must be calculated after the volume of the other tanks below the bund wall (excluding the largest tank), has been deducted.</p> <ul style="list-style-type: none"> ▪ All tanks must be labelled to show their composition and tank 	<p>conducted every 6 months and records kept onsite. Shortcomings must immediately be addressed.</p>		
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capacity. Bund walls must be labelled to show their capacity.

- The bund area must be equipped with an operational sump and pump system to collect any oil that may spill.
- The bunded area must have adequate firefighting equipment installed to the satisfaction of the local authorities.



Table 13: EMP for resources impacts energy and water

Activity:					
<ul style="list-style-type: none"> Construction of the Bakone Malapa Cultural Hub township development. 					
Aspect:					
Construction and Operational Phase: - (i) Leaking or broken water storage vessels; (ii) Leaking or broken water pipes and, (iii) inefficient operation of the backup generator.					
Nature and significance of environmental impact					
Impact description	Environmental objective	Management / Mitigation Measures	Monitoring & Compliance Reporting	Timeframe	Responsibility
Construction and Operational Phase					
Wastage or depletion of water from the municipal water supply due to leaking or broken water pipelines and water storage vessels	To prevent the wastage or depletion of a valuable resource	<ul style="list-style-type: none"> Ensure that all employees have been informed of the importance of natural resources (proper environmental training and awareness). 	<ul style="list-style-type: none"> Regular site inspections. Internal audits against this EMP must be conducted every 6 months and records kept onsite. 	Life of operation	Site Operations Manager



		<ul style="list-style-type: none">▪ Regular site inspection by supervisors.▪ Regular maintenance and inspection of the municipal water supply pipeline(s) to the site.▪ Monitoring of resource consumption to detect leakages as soon as possible.▪ Integrity tests must be conducted on water storage vessels as stipulated by the suppliers.	Shortcomings must immediately be addressed.		
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<p>Wastage of energy used on site.</p> <p>Inefficient or ineffective operation of the backup generator. This may lead to higher diesel usage should the generator not operate efficiently and can also result in more breakages than normal.</p>	<p>To prevent the wastage or depletion of a valuable resource</p> <p>To ensure the efficient, long-term operation of the backup generator</p>	<ul style="list-style-type: none"> ▪ Ensure that the electricity on site is used wisely. Create environmental awareness on electricity usage. (Energy saving tips such as switching off machinery not in use, switch off the lights regularly, etc). ▪ Ensure that the generator is correctly maintained as stipulated by the manufacturer and repaired when required. Optimal combustion will allow for 'cleaner' emissions. ▪ Limit unnecessary idling of the generator. 	<ul style="list-style-type: none"> ▪ Regular site Inspections ▪ Internal audits against this EMP must be conducted every 6 months and records kept onsite. Shortcomings must immediately be addressed. 	<p>Life of operation</p>	<p>Site Operations Manager</p>
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Table 14: EMPr for Safety of workers

Activity: Construction of the Bakone Malapa Cultural Hub township development.					
Aspect: Construction and Operational Phase:					
<ul style="list-style-type: none"> ▪ Inadequate training of employees or contractors on risks associated with operational activities. ▪ Safety hazards may occur if equipment is not handled in the correct manner. ▪ Employees not receiving the correct PPE for their specific responsibilities. ▪ Employees not adhering to safety rules implemented at the site. 					
Nature and significance of environmental impact					
Impact description	Environmental objective	Management / Mitigation Measures	Monitoring & Compliance Report	Timeframe	Responsibility
Operational Phase					
Injury of employees working on site during the construction phase of the development.	To ensure that employees and contractors work in a safe working	<ul style="list-style-type: none"> ▪ Polokwane Municipality must ensure the health and safety of workers, contractors, and visitors on site in terms 	<ul style="list-style-type: none"> ▪ Regular site Inspections. • Internal audits against this EMP 	Life of operation	



	<p>environment and are not injured.</p>	<p>of the Occupational Health and Safety Act (Act 85 of 1993).</p> <ul style="list-style-type: none">▪ All employees must receive relevant, job-specific training and must be adequately qualified to work at the development.▪ All employees must be provided with the correct PPE for the work that they conduct. This includes, for example, boots, overalls, dust masks and gloves.▪ Clean overalls must be provided to workers	<p>must be conducted every 6 months and records kept onsite. Shortcomings must immediately be addressed.</p>		<p>Site Operations Manager</p>
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		<p>and the must be kept clean.</p> <ul style="list-style-type: none">▪ New masks must be provided daily if disposable masks are used.▪ An emergency procedure, taking into consideration all potential emergencies, such as a fire outbreak, hazardous chemical spill, natural disasters such as floods etc. should be compiled.▪ All employees, contractors including sub-contractors and			
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		<p>their employees, must be trained on the emergency procedure.</p> <ul style="list-style-type: none">▪ Follow-up emergency training may be required from time to time as new contractors and subcontractors, or crews commence work.▪ The Contractor/ Site Manager is to maintain accurate records of any emergency training undertaken.			
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Concluding Statement

The assessment methodology that was used is in accordance with the recent revised 2017 EIA Regulations (as amended). The significance of environmental impacts is a function of the environmental aspects that are present and to be impacted on, the probability of an impact actually occurring and the consequence of such an impact occurring before and after implementation of proposed mitigation measures.

Our recommendation, based on the assessment of the available information, is that application for the proposed Bakone Malapa Cultural Township development should be authorized provided that good environmental management incorporated up to date be carried out by the proponent during both construction and operational phases of development. A variety of mitigation measures have been identified that will serve to mitigate the scale, intensity, duration or significance of the impacts that have a moderate to low significance rating. These include guidelines to be applied during the construction phase of the project. It is submitted that the proposed mitigatory measures, if implemented, will reduce the significance of the majority of the identified impacts to "low" and "negligible", and that the proposed project should proceed.

The proposed Bakone Malapa Cultural Township development should proceed since it will have a positive impact on the socioeconomic health of the area at large in terms of an increase in the present local employment opportunities. The EMPr will be binding on all managers and employees operating / utilising the site.

The potential positive impacts associated with the project are further recognised through the creation of jobs for the local community, and the positive contributions to the socio-economic development and increased cultural diversity of the surrounding areas, local and provincial communities. Looking at other social aspects such as noise and health, the impact along the access roads due to increased movement of vehicles to and from the site is rated to be low, and the impacts could be reduced very low levels if mitigation measures



as stipulated in the EMPr are implemented. These mitigation measures should also form part of the operational plan so as to reduce the dust and noise generated on site.

Specialist studies that were conducted aiming to provide a comprehensive understanding of the baseline conditions / limitations of the site, potential impacts that could arise and identify mitigation / enhancement measures have been included in this Report.

A PPP was initiated during Scoping phase and will continue throughout the process. The notification was undertaken within the requirements of the regulations and a register of IAPs is maintained. Comments were received from competent authority at the time of Report writing and compilation –refer to **Table 4: Issues raised by I&APs**. All issues raised during the scoping phase of the proposed project have been addressed during this EIR Phase. Once a decision has been reached, the stakeholders will be informed of the next phase of the public participation process.

Potential impacts were scoped. A plan of study was developed and did not include any further or new specialist studies. The Limpopo Department of Sport, Arts and Culture – Limpopo Provincial Theatre indicated that Bakone Malapa Open Air Museum is earmarked by the municipality as part of a 'Cultural hub' in their spatial development plans.

No environmental fatal flaws have been identified that would prohibit the proposed inclusion of hazardous waste from continuing. The majority of the impacts have a low significance, which implies that they will not influence the decision to proceed with the proposed Bakone Malapa Cultural Township development at Remainder of Portion 7 of the Farm Palmietfontein 24-KS, Polokwane, Limpopo, provided they can be effectively mitigated. The proposed mitigating measures are considered to be sufficient to effectively mitigate the low and moderate significance impacts and thus the decision can be made to proceed with the proposed Bakone Malapa Cultural Hub Township development.

The Final EIAR will be submitted to the delegated competent authorities responsible for decision making of this Project



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Appendices

Appendix A: Declaration of EAP and CV (Submitted during scoping phase)

Appendix B: DEA Acknowledgment of Application (Submitted during scoping phase)

Appendix C: Site Photograph Log (Submitted during scoping phase)

Appendix D: Land Use Zoning Certificates (Submitted during scoping phase)

Appendix E: Public Consultation Documentation

Appendix F: Specialist studies

