

# Mapungubwe National Park, National & World Heritage Site

Supplement to Heritage Impact Assessment:

## **Report on the proposed Development of Tourism and Educational Infrastructure**

- Youth Overnight Facility -
- Mapungubwe Valley Orientation Facilities -
- Schroda Orientation Centre -

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## Acronyms and Abbreviations

ATNS	Air Traffic Navigation Services
BOA	Biodiversity Offset Agreement
BSP	Biodiversity Social Projects
DFFE	Department of Forestry, Fisheries and the Environment
EIE	Environmental Interpretation and Education
GMTFCA	Greater Mapungubwe Transfrontier Conservation Area
HIA	Heritage Impact Assessment
HIL	High-intensity Leisure
ICC	Interpretation Centre Complex
IMP	Integrated Management Plan
LEDET	Limpopo Economic Development, Environment and Tourism
LIL	Low-intensity Leisure
MCL	Mapungubwe Cultural Landscape
MG	Main Gate
MPNP	Mapungubwe National Park and World Heritage Site
MVOF	Mapungubwe Valley Orientation Facilities
NDP	National Development Plan
NEM:PA	National Environmental Management: Protected Areas Act 57 of 2003
NHRA	National Heritage Resources Act 25 of 1999
NHS	National Heritage Site
NTSS	National Tourism Sector Strategy
OUVs	Outstanding Universal Values
PIA	Palaeontological Impact Assessment
PMFA	Public Finance Management Act
SAHRA	South African Heritage Resources Agency
SANDF	South African National Defence Force
SANParks	South African National Parks
SET	Socio-Economic Transformation
SOC	Schroda Orientation Centre
TFCA	Transfrontier Conservation Area
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNWTO	United Nations World Tourism Organisation
VBR	Vhembe Biosphere Reserve
WHC	World Heritage Convention
WHS	World Heritage Site
YOF	Youth Overnight Facilities

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## Introduction

SANParks currently manages over 4 million hectares of terrestrial and 369,657 hectares of marine protected biodiversity. It manages these through a system of 21<sup>1</sup> National Parks and 10 marine protected areas (MPAs), representing approximately 67% of state-owned terrestrial protected areas and 22% of State-Managed MPAs (SANParks 2020b). SANParks is furthermore the biggest tourism product owner in the country with a total of 6,787 formal beds and 8,643 camping beds throughout the national parks (SANParks 2020a).

The National Environmental Management Protected Areas Act mandates SANParks to create destinations for nature-based tourism in a manner that is not harmful to the environment. The organisation generates 80% of its operating budget from its ecotourism business; therefore, fulfilment of its conservation mandate is heavily reliant on thriving and sustainable tourism operations (SANParks 2020a).

SANParks' business operations are however founded on three important core pillars, namely

- **Sustainable conservation** – the primary mandate of the organisation is conserving South Africa's biodiversity, landscapes and associated heritage assets through a system of national parks.
- **Diverse and responsible tourism**<sup>2</sup> – the organisation has a significant role in promoting South Africa's nature-based tourism, targeted both international and domestic tourism markets. This provides for the organisation's self-generated revenues from commercial operations, necessary to supplement government funding of conservation management.
- **Socio-economic transformation** – SANParks took a strategic decision to expand its role in the developmental support provided to neighbouring communities. In addition, SANParks is required to build constituencies at international, national and local levels to support conservation of the natural and cultural heritage of South Africa. It must ensure that a broad base of South Africans participate and get involved in biodiversity initiatives, and further that all its operations have a synergistic existence with neighbouring or surrounding communities for their educational and socio-economic benefit, hence enabling the broader society to be connected to national parks (SANParks 2020b).

During 2018/19, approximately 217,362 learners participated in environmental education programmes within SANParks (SANParks 2020b) with approximately 8% being facilitated through the Mapungubwe Interpretation Centre alone, for a park that constitutes less than 1% of the entire conservation estate.

In the context of SANParks, many national parks are furthermore in rural areas characterised by high levels of poverty and inequalities. In some of these areas, these parks serve as the only means of economic activity and employment (SANParks 2020b).

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<sup>1</sup> Note: Groenkloof and Graspan/Vaalbos are declared national parks in legislation, but are not operationally functional national parks.

<sup>2</sup> UNESCO (2017) defines sustainable tourism as 'tourism that respects both local people and the traveller, cultural heritage and the environment'.

With these factors taken into account, Mapungubwe National Park and World Heritage Site (MPNP) endeavours to create additional opportunities for various stakeholders to experience the park, create potential economic stimulus within the region and attempt to become more financially sustainable. These include additional interpretation facilities to complement the main interpretation centre as well as youth overnight facilities for the enhanced environmental and cultural education of especially the youth.

This report is supplemental to the applicable Heritage Impact Assessment (HIA) and therefore an in-depth reflection of the cultural heritage significance of the Mapungubwe Cultural Landscape World Heritage Site (MCLWHS) or any of the sites where developments are envisioned will not be given. However, rationale for proposed developments will be outlined as well as various construction and operational mitigation measures to safeguard the cultural landscape and its Outstanding Universal Values.

Referral to developments will not consistently be preceded by “proposed”. Nevertheless, it is understood that the developments are still only proposed for development, pending the environmental authorisation by the Department of Forestry, Fisheries and the Environment (DFFE).

Any reference to environmental interpretation and education (EIE) should furthermore be viewed to include cultural interpretation and education as the two areas are largely interconnected within the MPNP context.

## ***Sustainable Tourism***

***Heritage stakeholders and tourism-related practitioners must share the practice of finding the balance between conservation versus development; between preservation versus extinction.***

UNESCO 2017

## Development Framework

The need for and desirability for the development of infrastructure for cultural, educational and tourism purposes, should be understood and developed within the legal framework of South African legislation, international conventions and South African National Parks (SANParks) policy and procedure.

The primary legislative and organisational framework, under which SANParks makes the decision to add developments within a national park and Mapungubwe National Park specifically, is outlined below. However, this does not diminish the importance of other legislation, conventions, protocols or guidelines that is not reflected here. Where applicable, reference will be made elsewhere regarding additional legislation that is relevant during specific activities.

### ***Constitution of the Republic of South Africa, Act 108 of 1996***

Section 24(b) of the Constitution underpins the SANParks mandate, which 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.

### ***National Environmental Management: Protected Areas Act 57 of 2003 (NEM:PAA)***

NEM:PAA defines “**environmental goods and services**” to include *cultural non-material benefits obtained from ecosystems*. These benefits are furthermore defined as *benefits of a spiritual, recreational, aesthetic, inspirational, educational, community and symbolic nature*.

The purpose (amongst others) of the declaration as a protected area include –

- to create or augment destinations for nature-based tourism; and
- generally, to contribute to human, social, cultural, spiritual and economic development.

A declaration for a protected area may only be issued to –

- provide spiritual, scientific, educational, recreational and tourism opportunities which are environmentally compatible; and
- contribute to economic development, where feasible.

The management authority of a national park and world heritage site may, subject to the management plan of the park or site carry out or allow –

- a commercial activity in the park or site; or
- an activity in the park or site aimed at raising revenue.



### **National Environmental Management: Protected Areas Act 57 of 2003, Norms and Standards for the Management of Protected Areas in South Africa<sup>3</sup>**

The Norms and Standards gives effect to Section 11 of NEM:PAA and has as purpose to prescribe appropriate values for the management and development of protected areas in South Africa, with particular reference to the following sections of NEM:PAA –

- 2(c) to effect a national system of protected areas in South Africa as part of a strategy to manage and conserve its biodiversity; and
- 2(e) to promote sustainable utilisation of protected areas for the benefit of people, in a manner that would preserve the ecological character of such areas.

Various areas of protected area management are addressed and include norms such as *law enforcement is effective; relations with neighbours is sound; infrastructure and equipment is in place and research and monitoring programme complements the management plan*. It further outlines indicators to measure compliance with the various norms and standards.

Norms and standards that are of particular reference during the development of infrastructure for tourism and educational purposes are as follows:

#### **11. Management plan of the protected area is implemented:**

**Purpose:** The purpose of this norm and its standards is to ensure that the approved management plan is implemented accordingly to meet the objectives set in the management plan.

**Norm:** The protected area has an approved management plan in place that is consistent with the objectives of the Act for the purpose it was declared.

**Standard<sup>4</sup>:** Cultural Heritage resources are managed to meet the protected area objectives as per the management plan.

#### **Indicators:**

- A cultural heritage management plan has been adopted;
- A cultural heritage inventory has been developed and is maintained;
- There is a mechanism to monitor and access the status of cultural resources that facilitates their protection;
- The management of heritage assets and resources is consistent with protected area objectives.

#### **17. Environmental education, awareness and communication programmes:**

**Purpose:** The protected area must have an education and awareness programme in place.

**Norm:** The management authority of a protected area has developed and is implementing an environmental education, communication and public awareness programme.

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<sup>3</sup> Government Gazette No. 39878, Notice 382 of 31 March 2016.

<sup>4</sup> Standard 11(f).

**Standard:** Environmental education and public awareness programme developed and implemented in accordance with the objectives of the protected area.

**Indicators:**

- There is an environmental education and public awareness plan linked to the objectives of the protected area;
- There is a plan to build capacity to ensure initiatives on environmental education and public awareness are achieved;
- There are mechanisms in place to monitor the implementation of the plan;
- Communities exposed to the programme show an increased application qualification of the protected area.

**18. Visitor facilities contribute positively to visitor experience:**

**Purpose:** To ensure that any visitor facilities in the protected area contribute to their visitors' experience.

**Norm:** Visitor facilities in the protected area contribute positively to the visitor experience without negatively affecting the environment.

**Standard:** A visitor management plan for the protected area with a monitoring system is in place, in accordance with section 50<sup>5</sup> of the Act.

**Indicators:**

- Visitor facilities and their service infrastructure are established through a process that includes an environmental assessment and that is aligned to the protected area;
- The visitor and tourism facilities are adequate and sufficient to prevent damage to protected areas;
- There are active programmes for restoration of degraded areas in the protected area and/or associated buffer zone, resulting from visitor use;
- Visitor infrastructure is effectively servicing the current volume of visitors to the protected area according to the protected area's carrying capacity;
- Areas in the protected area suffering from degradation or damage as a result of visitor use are subject to a rehabilitation plan;
- The visitor facilities are appropriate to the level of visitor use;
- There are mechanisms in place to maintain the impact of the visitor facilities on both the visitors and on the environment.

**20. Socio-economic importance of the area is enhanced:**

**Purpose:** To ensure that the protected area plays an important role in socio-economic activities within its sphere of influence.

**Norm:** The management authority for the protected area has developed a strategy to enhance the socio-economic activities within its sphere of influence.

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<sup>5</sup> *Commercial and community activities in national park, nature reserves and world heritage sites.*

**Standard:** The protected area provides substantive socio-economic benefits to the local area, where practicable.

**Indicators:**

- The protected area provides socio-economic benefits to local communities;
- Programmes to enhance local community welfare, whilst conserving protected area resources are being implemented;
- There is effective communication with local communities;
- The protected area is a source of employment for local communities;
- The protected area provides development opportunities through sustainable resource use;
- The protected area provides access to spiritual or religious sites;
- An active education and interpretation programme is implemented, focusing primarily on local children in the region around the protected area;
- Where relevant the protected area has co-management framework, which provides benefit flows to the community.

***National Environmental Management: Protected Areas Act 57 of 2003, Regulations for the proper administration of special nature reserves, national parks and world heritage sites<sup>6</sup>***

These regulations are (unless specified otherwise and with the specific exception of the Vredefort World Heritage Site), applicable to all national parks and world heritage sites.

The regulations stipulates certain prohibited or restricted activities that may have an adverse effect on the specified protected areas. These include actions such as interference with soil or substrate; littering; and the pollution of water.

The regulations also gives the management authority the power to determine entrance fees and fees for the hire of amongst others accommodation or recreational facilities.

It furthermore stipulates that failing to comply with provisions of the regulations constitutes an offence. Such offences are liable to fines and/or imprisonment.

The regulations also affords the management authority the power to provide or withdraw permission for activities such as entrance to the protected area, conducting research, overnighting etc.

***World Heritage Convention Act 49 of 1999***

The Act recognises that cultural and natural heritage are priceless and irreplaceable possessions, not only of South Africa, but also of humankind as a whole. The Act further acknowledge that the loss, through deterioration, disappearance or damage through inappropriate development of cultural and natural heritage sites, constitutes an

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<sup>6</sup> Published under Government Notice R1061 in Government Gazette 28181, 28 October 2005. Amended by Government Notice R622 in Government Gazette 37904 of 15 August 2014.

impoverishment of the heritage of all the peoples of the world and, in particular, the people of South Africa.

The Act allows for the enactment of the World Heritage Convention<sup>7</sup> as part of South African law and has as objectives –

- to provide for –
  - the cultural and environmental protection and sustainable development of, and related activities within, World Heritage Sites; and
  - giving effect to the values of the Convention.
- to make the Convention part of South African domestic law and to create a framework to ensure that the Convention and the Operational Guidelines<sup>8</sup> are effectively implemented in the Republic, subject to the Constitution and the provisions of the Act;
- to promote, manage, oversee, market and facilitate tourism and related development in connection with World Heritage Sites in accordance with applicable law, the Convention and the Operational Guidelines in such a way that the cultural and ecological integrity is maintained;
- ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage of South Africa;
- encourage investment and innovation in connection with World Heritage Sites;
- encourage job creation in connection with World Heritage Sites;
- promote the development of culturally, environmentally and, if applicable, economically sustainable projects in connection with World Heritage Sites; and
- promote empowerment and advancement of historically disadvantaged persons in projects related to World Heritage Sites.

Fundamental principles of the Act include –

- cultural and natural heritage management must be sensitive to the people and their needs and must equitably serve their physical, psychological, developmental, cultural and social interests;
- development must be socially, culturally, environmentally and economically sustainable;
- equitable access to World Heritage Sites must be pursued and special measures must be taken to ensure access thereto by historically disadvantaged persons;
- the participation of all interested and affected parties in the governance of cultural and natural heritage must be promoted;
- all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation;
- participation by vulnerable and historically disadvantaged persons must be ensured;
- decisions must take into account the interests, needs and values of all interested and affected parties;

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<sup>7</sup> The General Conference of the United Nations, Educational, Scientific and Cultural Organisation (UNESCO) adopted *the Convention concerning the Protection of World Cultural and Natural Heritage* on 16 November 1972 ([whc.unesco.org](http://whc.unesco.org) accessed 11/11/2021).

<sup>8</sup> The World Heritage Committee, the main body in charge of the implementation of the Convention, has developed *Operational Guidelines for the Implementation of the World Heritage Convention*. The Committee regularly revise these guidelines to reflect new concepts, knowledge or experiences.

- community well-being and empowerment must be promoted through cultural and natural heritage education, the raising of cultural and natural heritage awareness, the sharing of knowledge and experience and other appropriate means;
- the social, economic, cultural and natural heritage consequences of activities, including disadvantages and benefits, must be considered;
- decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with applicable law;
- global and international responsibilities relating to the cultural and natural heritage must be discharged in the national interest;
- the cultural and natural heritage is held in public trust for the people, the beneficial use of cultural and environmental resources must serve the public interest and the cultural and natural heritage must be protected as the common heritage of the people.

For the purposes of this Act, sustainable development of World Heritage Sites includes that –

- the unnatural disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be avoided, are mitigated;
- pollution and degradation of the environment are avoided, or, where they cannot be avoided, are mitigated;
- the unnatural disturbance of landscapes and sites that constitute the cultural and natural heritage of South Africa is avoided, or, where it cannot be avoided, is mitigated, and that the cultural and natural heritage of the South Africa must be enhanced;
- waste is avoided, or, where it cannot be avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner;
- the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;
- the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;
- a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions;
- negative impacts on the environment and on the environmental rights of the people must be anticipated and prevented, and where they cannot be prevented, must be mitigated;
- cultural and natural heritage may promote reconciliation, understanding and respect, and contribute to the development of a unifying South African identity; and
- cultural and natural heritage management must guard against the use of this heritage for purposes of threatening a culture based on equality and freedom or for party-political gain.

A management authority has, unless the Minister prescribes otherwise, the following duties in connection with a World Heritage Site under its control, namely to –

- develop measures for the cultural and environmental protection and sustainable development of, and related activities within, World Heritage Sites and to ensure that the values of the Convention are given effect to;
- promote, manage, oversee, market and facilitate tourism and related development in connection with World Heritage Sites in accordance with applicable law, the Convention and the Operational Guidelines in such a way that the cultural and ecological integrity are maintained;

- identify cultural and natural heritage that must be transmitted to future generations;
- take effective and active measures for the protection, conservation and presentation of the cultural and natural heritage;
- facilitate steps that encourage investment and innovation;
- facilitate programmes that encourage job creation;
- take measures that ensure that the values of the Convention are promoted;
- establish and implement the Integrated Management Plan;
- initiate steps regarding research, education, training, awareness raising and capacity building; and
- liaise with, and be sensitive to, the needs of communities living in or near World Heritage Sites.

Subject to applicable law, a management authority for a World Heritage Site may furthermore receive and raise monies from any legal source, as the Minister may prescribe with the concurrence of the Minister of Finance, including –

- contract for goods and services;
- loan;
- donor funding from inside or outside the Republic;
- interest;
- joint venture income;
- fees, including, without limitation, fees related to –
  - turnover;
  - rights granted by an Authority; or
  - services provided by an Authority;
  - sale income;
  - income from the development or leasing of its assets;
  - subsidies from any organ of state; or
  - appropriation by Parliament or a provincial legislature.

### ***Operational Guidelines for the Implementation of the World Heritage Convention***

The World Heritage Committee, the main body in charge of the implementation of the Convention, has developed criteria for the inscription of properties on the World Heritage List and for the provision of international assistance under the World Heritage Fund. These are all included in the Operational Guidelines for the Implementation of the World Heritage Convention. The Committee regularly revise the Operational Guidelines to reflect new concepts, knowledge or experiences, with the latest revision done during 2019 (whc.unesco.org accessed 11/11/2021).

Guideline 119<sup>9</sup> *Sustainable Use* states that World Heritage properties may sustain biological and cultural diversity and provide ecosystem services and other benefits, which may contribute to environmental and cultural sustainability. Properties may support a variety of ongoing and proposed uses that are ecologically and culturally sustainable and may enhance the quality of life and well-being of communities concerned. The State Party and its partners must ensure their use is equitable and fully respects the Outstanding Universal Value of the property. The

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<sup>9</sup> Under Section II.F *Protection and management*.

Guideline however also recognises that for some properties, human use would not be appropriate.

Legislation, policies and strategies affecting World Heritage properties should furthermore ensure the protection of the Outstanding Universal Value, support the wider conservation of natural and cultural heritage, and promote and encourage the effective, inclusive and equitable participation of the communities, indigenous peoples and other stakeholders concerned with the property as necessary conditions to its sustainable protection, conservation, management and presentation.

Section VI ***Encouraging Support for the World Heritage Convention*** has as objectives (VI.A 211) –

- to enhance capacity building and research;
- to raise the general public's awareness, understanding and appreciation of the need to preserve cultural and natural heritage;
- to enhance the function of World Heritage in the life of the community; and
- to increase equitable, inclusive and effective participation of local and national populations, including indigenous peoples, in the protection and presentation of heritage.

VI.B *Capacity building and research* 214bis. notes that States Parties are encouraged to develop educational and capacity building programmes that harness the reciprocal benefits of the Convention for heritage and society. The programmes may be based on innovation and local entrepreneurship and aimed in particular at medium/small/micro scale levels, to –

- promote sustainable and inclusive economic benefits for local communities and indigenous peoples; and
- to identify and promote opportunities for public and private investment in sustainable development projects, including those that promote use of local materials and resources and foster local cultural and creative industries and safeguarding intangible heritage associated with World Heritage properties.

Guideline 215 *Research* notes that States Parties are encouraged to make resources available to undertake research, since knowledge and understanding are fundamental to the identification, management, and monitoring of World Heritage properties. States Parties are furthermore encouraged to support scientific studies and research methodologies, including traditional and indigenous knowledge held by local communities and indigenous peoples, with all necessary consent. Such studies and research are aimed at demonstrating the contribution that the conservation and management of World Heritage properties, their buffer zones and the wider setting make to sustainable development, such as in conflict prevention and resolution, including, where relevant, by drawing on traditional ways of dispute resolution that may exist within communities.

Section VI.C furthermore outlines the need for Awareness-raising and education, as follows –

217. States Parties are encouraged to raise awareness of the need to preserve World Heritage in their own countries. In particular, they should ensure that World Heritage status is adequately marked and promoted on-site.
219. The World Heritage Committee encourages and supports the development of educational materials, activities and programmes.

## **SANParks Vision**

*A world-class system of sustainable national parks reconnecting and inspiring society.*

## **SANParks Mission**

*To develop, protect, expand, manage and promote a system of sustainable national parks that represents natural and cultural heritage assets, through innovation, excellence, responsible tourism and just socio-economic benefit for current and future generations.*

The following mission was furthermore adopted for the MPNP during 2018, after consultation with stakeholders as part of the review of the Mapungubwe Integrated Management Plan (IMP):

*To effectively conserve and promote Mapungubwe National Park and World Heritage Site as a unique cultural and natural landscape through collaborative decision making with descendants and stakeholders that improves access and benefit sharing within a biodiverse transfrontier region.*

## **SANParks Strategic Plan 2020/21 – 2023/24**

As a public entity listed in the Public Finance Management Act (PFMA)<sup>10</sup>, SANParks is expected to submit a five-year Strategic Plan linked to the identified outcomes<sup>11</sup> of the Presidency, for approval by the Ministry of DFFE as an executive authority.

According to SANParks (2020), the Organisation, with its natural and cultural assets as well as ecological infrastructure under its custodianship, is well positioned to contribute meaningfully to Governmental Priorities and has prioritised direct contribution to four of these priorities, namely:

1. Eradicating poverty and improving people's lives;
2. Providing education, skills and health;
3. Building a capable state that serves the people;
4. Building a better Africa, better world.

The SANParks Strategic Plan furthermore links to various strategies (such as the National Tourism Sector Strategy 2016-2026), action plans, Conventions (e.g. the World Heritage Convention) and other mandates for which SANParks is responsible. The Strategic Plan furthermore reflects the impact and outcomes, which SANParks will endeavour to achieve over the applicable period. Table 1 below highlights the Strategic Outcomes and relevant Key

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<sup>10</sup> Act 1 of 1999; Schedule 3 Part A: 25.

<sup>11</sup> Eight priorities were adopted as a way of implementing the NDP Vision, namely: *Building a capable State that serves the people; Building a united and cohesive society; Building investments, creating jobs and inclusive growth; Establishing an effective land reform programme; Eradicating poverty and improving people's lives; Providing education and skills for a changing world; Building social cohesion and safe Communities; and Building better Africa, better world.*



Priorities for the 2020/21 to 2023/24 timeframe that can be linked to the need for the proposed developments.

Table 1 SANParks medium-term focus and priorities for the 2020/21 to 2023/24 period that can be linked to the need for the proposed developments (from SANParks 2020).

Strategic Outcome	Key Priorities
<i>Sustainable Biodiversity and Cultural Heritage across land and sea delivers benefits to the people of South Africa and the world, now and in the future.</i>	Effective and efficient management of National Parks.
	Framework for the improved management of cultural heritage developed.
<i>Improved, diverse, responsible tourism.</i>	Improving tourism performance <sup>12</sup> .
	Improving responsible tourism <sup>13</sup> .
<i>Sustainable socio-economic development programme that ensures delivery of benefits to the land claimants, historically disadvantaged communities and the people of South Africa.</i>	Improving access and sustainable use of natural resources by local communities.
	Improving education and skills.
<i>Sustainable and transformed Organisation through revenue, people, systems, business processes and infrastructure.</i>	Building financially sustainable organisation.
	Enhancing effective stakeholder and partnership management.
	Enhancing an appropriate and well-maintained infrastructure (including investment in high-quality new infrastructure).

### **Mapungubwe National Park & World Heritage Site Integrated Management Plan**

The Integrated Management Plan is prepared under Section 21(1) of the WHCA and Section 39(2) of NEM:PAA.

The WHCA states that the object of every integrated management plan is to ensure the protection and management of the specific World Heritage Site, in a manner that is consistent with the objectives and principles of the Act. The Minister may furthermore, after consultation, approve the existing planning and development plans of an existing organ of state, as the integrated management plan, if the Minister is satisfied that such plans comply materially with the requirements of the WHCA.

NEM:PAA states that the management authority must manage the area –

- a) exclusively for the purpose for which it was declared; and
- b) in accordance with –
  - i. the management plan for the area;
  - ii. the NEM:PA Act, the Biodiversity Act, the National Environmental Management Act and any other applicable national legislation.

Section 41 of NEM:PAA outlines the contents of the management plan, including a zoning of the area indicating what activities may take place in different sections, and the conservation objectives of those sections. The MPNP zonation will be discussed in more detail in the context of the proposed developments.

<sup>12</sup> Relates to the percentage increase in customer satisfaction, growth in visitors to national parks as well as the increase in the number of new and diverse tourism products.

<sup>13</sup> Highlights the need for sustainable use of resources (such as limiting use of water and reduction of waste), the need for equitable access to facilities, etc.

A management plan may further contain development of economic opportunities within and adjacent to the protected area in terms of the integrated development plan framework. Management plans may also include subsidiary plans<sup>14</sup>, and the Minister may approve the management plan or any subsidiary plan in whole or in part.

The Mapungubwe Integrated Management Plan (IMP) was updated in 2018 during a public participation process and valid for a period of 10 years (2019-2028). The IMP outlines the desired state of the MPNP and WHS based on the vision, mission, vital attributes and objectives as developed in consultation with various stakeholders. The IMP also acknowledges that the park is embedded within a broader land use mosaic.

The IMP incorporates Mapungubwe’s characteristic biodiversity components, including ecosystem services, processes and associated cultural, historical and scenic features, while facilitating the sharing of benefits with the neighbouring communities and Mapungubwe Descendants<sup>15</sup>. These benefits will be achieved by creating a range of consumptive and non-consumptive benefits<sup>16</sup>, while remaining informed and constrained by the protected area’s biodiversity values.

Programmes to achieve the desired state falls within specific categories or high-level objectives, namely Regional Integration, Biodiversity Conservation, Responsible Tourism, Cultural Heritage, Stakeholder Engagement, Access and Benefits and Effective Park Management.

Threats to Mapungubwe’s vital attributes are furthermore outlined in the IMP. Table 2 shows the specific vital attributes and their associated threats that can be linked to the decision to offer the proposed developments:

Table 2 Vital Attributes and associated threats linked to the need for the proposed developments.

Vital Attribute	Threats
<b>Cultural heritage resources, including history and stories, are unique and of global significance.</b>	Loss of oral history and transmission (from one generation to the next).
	Loss of cultural values and link to the site of the communities due to urbanisation.
	Natural degradation.
	Lack of awareness by community members about the park.

<sup>14</sup> This can be linked to SANParks’ use of Lower-level Plans such as Communication, Visitor Management, Visitor Interpretation, etc. which are more detailed on various subjects pertinent to the management of a park’s operations. These plans may be updated on a more regular basis than the 10-year term of the integrated park management plan (e.g. annually, three yearly etc. depending on the specific subject).

<sup>15</sup> During a process involving the then Department of Environmental Affairs and Tourism, SANParks, SAHRA and the University of Pretoria amongst others, in line with the National Heritage Resources Act 25 (1999) which facilitates repatriation of human remains, the Lemba Cultural Association; Leshiba Royal Family; Machete Royal Family; San Council; Tshivhula Royal Council and Vhangona Cultural Movement have claimed the human remains of the inhabitants of Mapungubwe. SANParks are therefore recognising these six groups as the Mapungubwe Descendants.

<sup>16</sup> Such as job opportunities, other forms of income generation, access to resources and other opportunities (e.g. access to ritual sites).

Vital Attribute	Threats
	Lack of awareness by community members about opportunities in the park (e.g. for rituals and visitation).
<b>Uniquely integrated in the Mapungubwe Cultural Landscape, Vhembe Biosphere and Greater Mapungubwe Transfrontier Conservation Area.</b>	Lack of understanding and delivery of added value of the Transfrontier conservation area (TFCA).
	Lack of tourism access across TFCA.
<b>Interactive and diverse tourism experience, that allows for a unique ancient African reconnection.</b>	Lack of diversified cultural experience, including information and access.
	Lack of supporting infrastructure.
	Lack of active local engagement.
	Limited awareness of the park and lack of visitation by community members.
	Lack of integration with other private / regional tourism products and networks.
	Poor local knowledge of the park.
	Poor local communication and awareness.
	Dilution of the Mapungubwe brand name.

The 2019-2028 Concept Development Plan (Section 9 of the IMP) furthermore outlines proposed developments that will likely be planned during the 10-year lifetime of the IMP. Table 3 below shows the applicable developments and associated activities.

Table 3 Proposed developments and activities for the Eastern Section of MPNP. Applicable zonation, priority and probability of each development and activity are also indicated.

Infrastructure	Status	Zone	Priority	Probability
<b>Eastern Section</b>				
<b>Youth Centre dormitories<sup>17</sup> / budget accommodation</b>	New	High-intensity Leisure (HIL)	High	High
<b>Hamilton day visitor site upgrade</b>	Existing	HIL	High	High
<b>Guided trail linking major cultural sites</b>	New	Primitive	High	High
<b>K8 excavation pit profile upgrade</b>	New <sup>18</sup>	Primitive	High	High
<b>Orientation centre at Mapungubwe Hill</b>	New	Primitive	High	High
<b>Orientation centre and pathways at Schroda / Zhizo</b>	New	Low-intensity Leisure (LIL)	High	High
<b>Possible guided tour to rock art sites</b>	New	Various	High	High

Section 10 (Strategic Plan) of the Mapungubwe IMP highlights specific objectives that are envisioned during the applicable IMP timeframe. The actions necessary to achieve said objectives, along with the timeframe in which the actions should be achieved, are specified within this section of the IMP.

Table 4 below shows the various objectives and associated actions that can be linked to the need for and desirability of the proposed developments.

<sup>17</sup> Youth Hostels and/or Dormitories were used during initial planning phases, however, current planning prefer the use of the term Youth Overnight Facilities.

<sup>18</sup> Although the K8 pit profile already has a metal covering and interpretation boards, a new development is proposed. This will be discussed in more detail under *Proposed Developments*.

Table 4 Various objectives and associated actions of the Mapungubwe IMP that can be linked to the need for and desirability of the proposed developments.

High-level Objective	Programme & Objective	Sub-objective	Actions
<p><b>Regional Integration</b> To promote resilient regional outcomes across boundaries, participating in institutional arrangements and co-operative support to transfrontier and bioregional programmes, growing the cultural and conservation values through diverse partnerships and strategic land inclusions.</p>	<p><b>GMTFCA and Vhembe Biosphere Programme</b> To align, contribute and deliver on TFCA and Biosphere objectives by implementing prioritised programmes.</p>	To review, develop and implement enabling GMTFCA / VBR institutional arrangements.	Support and participate in the institutional arrangements at all levels.
		To enhance and facilitate sustainable socio-economic development opportunities within the GMTFCA.	Support and participate in the development of a joint activity plan to roll out identified and existing products. Identify and prioritise the benefits as well as beneficiaries (e.g. access, economic benefits, community-based resource use management; educational opportunities, employment opportunities).
		To support and enhance the implementation of the GMTFCA cultural heritage management programme.	Initiate the development of benefit sharing programmes within acceptable environmental and social parameters. Collaborate on cultural research and monitoring programmes between the three countries.
		To support the implementation of joint responsible tourism, marketing and branding programmes and activities within the GMTFCA.	Support the development of an integrated cultural heritage plan, and review periodically. Support and participate in potential future cross-border tourism opportunities, and review periodically.
		To develop and support the implementation of joint GMTFCA capacity development, awareness, training and research programmes.	Participate in the implementation of joint activities, and review periodically. Where possible, facilitate skills development, awareness, mentorship and learning exchange programmes linked to key management objectives.
		To promote bioregional planning and integration through a co-operative partnership with the VBR.	Identify, prioritise and implement applied research projects and monitoring programmes. Participate in collaborative programmes, including conservation / ecosystem, Biodiversity Social Projects (BSP), cultural, socio-economic, tourism, research, capacity development programmes, learning networks.
<p><b>Responsible Tourism</b> To become a unique culture- and nature-based tourism destination of choice by enabling and growing diverse visitor experience whilst</p>	<p><b>Responsible Tourism performance</b> To establish, maintain and continuously improve the park's responsible tourism</p>	To promote responsible tourism practise.	Identify tourism programmes and projects benefiting communities. Implement projects as required.

High-level Objective	Programme & Objective	Sub-objective	Actions
sustainably growing revenue and protecting the tranquil sense of place.	performance, by implementing SANS1162.		
	<b>Visitor experiences</b> To continually enhance the visitor experience within the park, by effective visitor management, interpretation and providing quality facilities.	Align new and existing tourism infrastructure and tourism products with market demands and industry standards to enable revenue optimisation.	Identify events, activities and facilities that may be considered for development within the park.
			Identify opportunities to link up existing and new products with adjacent communities that are open to the park, including the GMTFCA.
			Investigate ways to provide affordable tourism products and packages for low to medium-income earners.
		Identify areas where communities could become beneficiaries of tourism projects.	Identify and support appropriate product development by developing and implementing possible community beneficiation products.
		Ensure optimal returns from commercial operations.	Support retail outlet and restaurant in order to optimise revenue generation.
	<b>Grow tourism revenue</b> To sustainably grow income through tourism by providing visitors with an appropriate and a diverse range of products and services, whilst protecting the tranquillity and sense of place.	To ensure optimal development and maintenance priorities to enable revenue optimisation.	Identify events, activities and facilities that may be considered for development within the park.
	<b>Universal access standards</b> To ensure that persons with disabilities have equal rights of access to all tourism infrastructure, products and services, including employment opportunities and benefits that the park can provide.	To provide the same choices for all consumers to ensure the full participation of persons with disabilities, the elderly and parents with young children by creating appropriate facilities and providing dignified service.	Comply with the Corporate UA standards.
<b>Cultural Heritage Management</b> To effectively preserve, interpret and present the OUV of cultural heritage associated with the MCL through compliance with relevant legislation allowing access, engagement, research and responsible utilisation.	<b>Awareness and Interpretation</b> To create awareness through interactive presentation, improved co-ordinated access, development and sustainable utilisation of heritage resources for spiritual, educational, research and tourism purposes.		Develop Orientation Centres at key archaeological sites (Mapungubwe Hill, Schroda).
			Develop and operate rock art trail tours.
			Develop and operate main archaeological sites trail/s.
			Participate in the BoA project steering committee and implement approved projects.
<b>Stakeholder Engagement</b>	<b>Descendants</b>	To provide meaningful benefits to recognised descendants.	Allow access for performing rituals and other events in recognition of beliefs.

Proposed Development of Tourism and Educational Infrastructure

High-level Objective	Programme & Objective	Sub-objective	Actions
To build and sustain inclusive relationships and shared understanding through appropriate and meaningful engagement with stakeholders and descendants.	To provide a meaningful co-operative interface between the park and the descendants by facilitating the establishment and maintenance of appropriate and effective engagement structures.		Arrange annual cultural days / events for descendant communities.
<b>Access and Benefits</b> To promote equitable access to and create value from a range of tangible and intangible benefits through the sustainable use of ecosystem services.	<b>Knowledge, awareness and co-learning</b> To enhance co-learning, knowledge and awareness through implementing innovative education, facilitating relevant research and communicating effectively with a range of stakeholders.	To implement programmes that facilitate meaningful environmental / cultural education amongst communities, stakeholder groups, schools, and contribute to youth development and environmental awareness amongst staff.	Facilitate and / or participate in educator support and development initiatives with schools, universities, colleges and communities.
			Implement youth development programmes such as Children in the Wilderness and eco-schools.
			Implement campaigns to enhance environmental awareness amongst local communities and stakeholder groups.
			Implement programmes to enhance the environmental awareness amongst staff.
		To improve awareness and reputation of SANParks with visitors and the public in general.	Implement programmes for visitors and stakeholders as required, e.g. holiday programmes and activities for special interest groups.
		Plan, develop and implement a range of appropriate interpretive materials to enhance environmental awareness.	
<b>Effective Management</b> To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.	<b>Communication</b> To build, maintain and constantly improve relations between the park and all its relevant stakeholders, both internally and externally through various mediums.	To improve the park's image amongst its stakeholders through the provision of well planned, managed and coordinated events.	Promote environmental calendar days, corporate and brand awareness events.
	<b>Climate Change</b> To enable responsible action, adaptation and mitigation of climate change impacts on SANParks' ability to achieve its objectives by better understanding climate change and its effects in and around the park.	To implement measures to reduce carbon footprint over time	Facilitate and encourage appropriate lifestyle choices of both staff and tourists in order to manage behaviour (e.g. waste management, recycling, being water-wise) and reduce carbon footprint.

## Proposed Developments

This section will provide more detail about the proposed developments, the rationale for the chosen locations as well as other considerations taken during the planning phase. As infrastructure plans are included as part of the larger environmental assessment process, enclosure of the various architectural drawings will be limited to prevent excessive repetition.

### Development Location

Figure 1 shows the location of the Mapungubwe Hill and Schroda Archaeological Sites relative to other existing and proposed Park infrastructure. The Mapungubwe Valley Orientation Facilities and the Schroda Orientation Centre will be located within the applicable archaeological site.

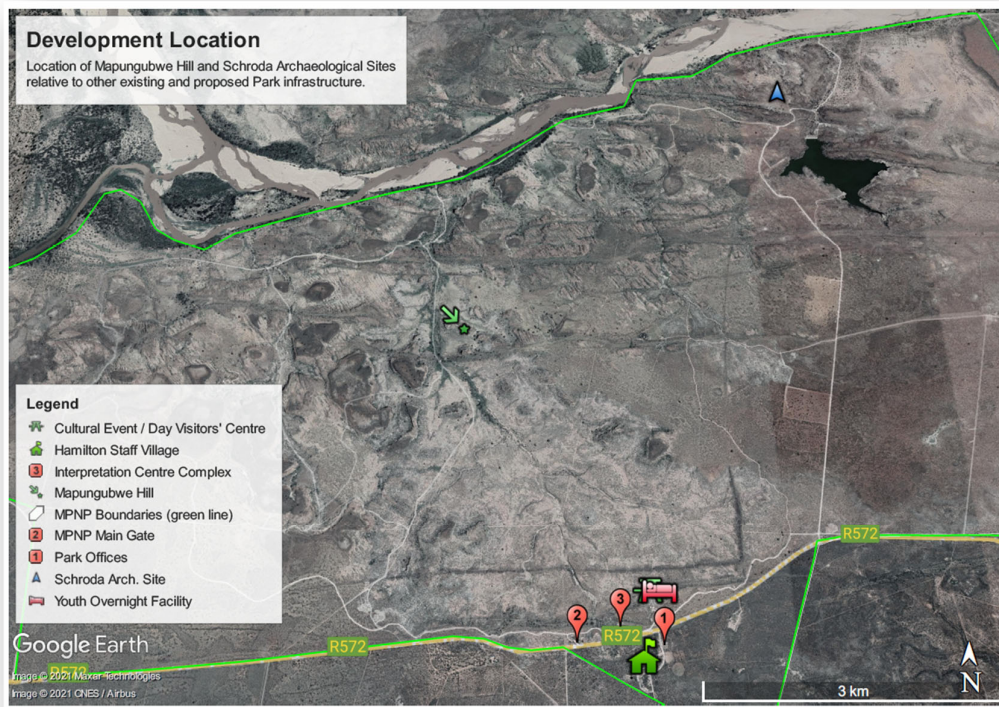


Figure 1 Location of Mapungubwe Hill and Schroda Archaeological Sites relative to existing and proposed park infrastructure.

Distances (measured in a direct line) from the MPNP Main Gate (MG) are as follows:

- to Mapungubwe Hill: approximately 3.7km;
- to Schroda Archaeological Site: approximately 7.3km;
- to Youth Overnight Facility: approximately 0.9km.

Figure 2 shows the location of the Youth Overnight Facility relative to other park infrastructure.

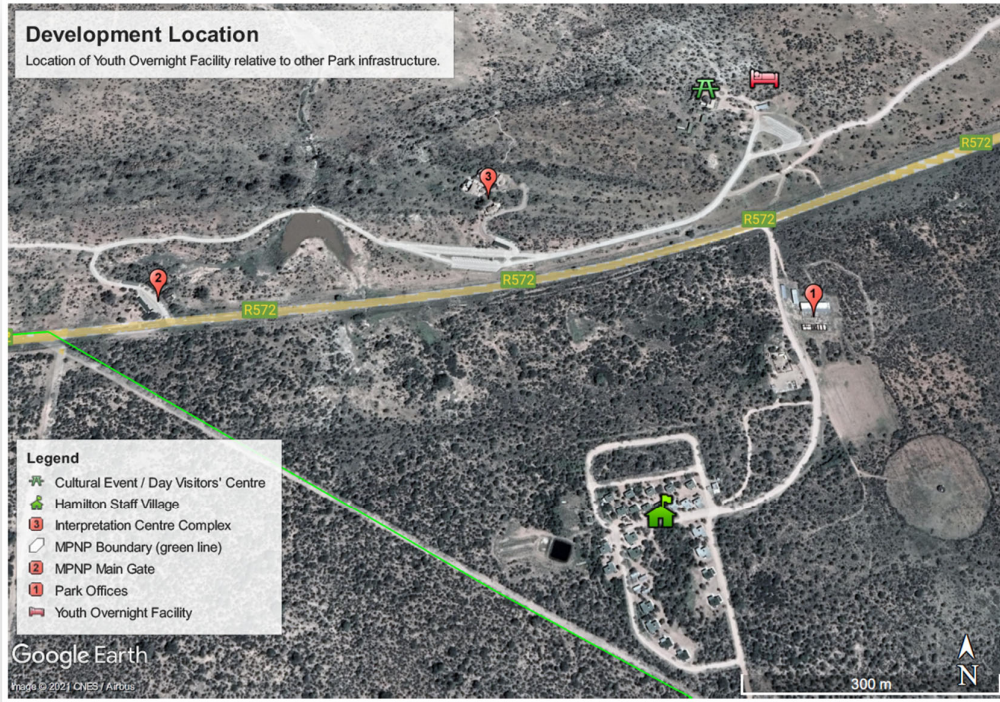


Figure 2 Location of proposed Youth Overnight Facility relative to other park infrastructure.

Distances (measured in a direct line) from the Youth Overnight Facility to other park infrastructure are as follows:

- to Cultural Event / Day Visitors' Centre: less than 100m;
- to Interpretation Centre Complex: less than 500m;
- to Park Offices: less than 400m.

## Zonation

Figure 3 shows the zonation map for the Mapungubwe National Park. Locations for Mapungubwe Hill, K8 and the Schroda/Zhizo<sup>19</sup> sites are indicated.

Table 5 provides the description for the various zones, along with the allowable developments or activities within each.

<sup>19</sup> As there are various operational facilities within the Schroda section of MPNP (e.g. Schroda Staff Housing, Schroda Pump Station etc.), park management differentiate the archaeological site from these operational facilities by referring to it as "Zhizo".



Table 5 Various visitor use zones within National Parks, with the description and allowable developments and activities for each zone.

Visitor use Zones	Description	Allowable developments / activities
<b>Wilderness / remote</b>	Wilderness conforms to the legal definition <sup>20</sup> . Pristine natural environment, essentially undeveloped and without roads.	Controlled non-motorised access - usually on foot. Could have paths where erosion is a problem or for safety.
<b>Primitive</b>	Almost completely natural state to be maintained. Development footprints absolute minimum. Generally, retains wilderness qualities, but with basic self-catering facilities. Access is controlled, or limited to 4x4 vehicles. Provide access to Wilderness / Remote Zones and can serve as a buffer to them.	Small, isolated, permanent but low spec infrastructure (such as dirt roads & low spec airstrips making use of existing road footprints) may be present. Infrastructure may be to help manage biodiversity or service tourist facilities. Distributed to avoid contact between users or limited concessions with limited numbers. 4x4 routes and guided hiking trails.
<b>Low intensity leisure (LIL)</b>	Motorised self-drive with basic facilities. The number of visitors is higher than that in the Wilderness / Remote and Primitive zones. Camps have a peaceful feel without large commercial facilities such as shops and restaurants. Access points are without large commercial facilities.	Facilities limited to basic self-catering, picnic sites, ablution facilities, information / education centres, parking areas. Small non-commercial entrance gates with basic facilities as well as small self-catering rest camps with ablution facilities. May contain small or seasonal convenience stores or tea gardens. Low spec access roads to provide a more wild experience.  Where this is anticipated to be a high usage zone in the park, management infrastructure should be concentrated here as far as is feasible, thus allowing management to make efficient use of existing high-volume infrastructure. To limit impacts, management infrastructure should be placed close to the park boundary.
<b>High intensity leisure (HIL)</b>	High-density tourism development node with more concentrated human activities, with commercial amenities. Camps have a relatively natural feel whilst providing activities and commercial facilities such as shops and restaurants. Access points may include large commercial facilities.	High-density tourist camps and entrance gates with commercial amenities. Footpaths, transport systems, accommodation, restaurants, curio and refreshments stall, information / education centres. High volume roads.  Where this is the highest usage zone anticipated in the park, management infrastructure should be concentrated here as far as is feasible; allowing management to make efficient use of existing high-

<sup>20</sup> **Wilderness area** means an area designated in terms of Section 22 or 26 of NEM:PAA, for the purpose of retaining an intrinsically wild appearance and character or capable of being restored to such and which is undeveloped and roadless, without permanent improvements or human habitation. In the classification scheme, wilderness areas are sub-types of national parks and nature reserves (DEA 2013).

Visitor use Zones	Description	Allowable developments / activities
		volume infrastructure. To limit impacts, management infrastructure should be placed close to the park boundary.

The MPNP currently only have areas zoned as primitive, low-intensity leisure and high-intensity leisure.

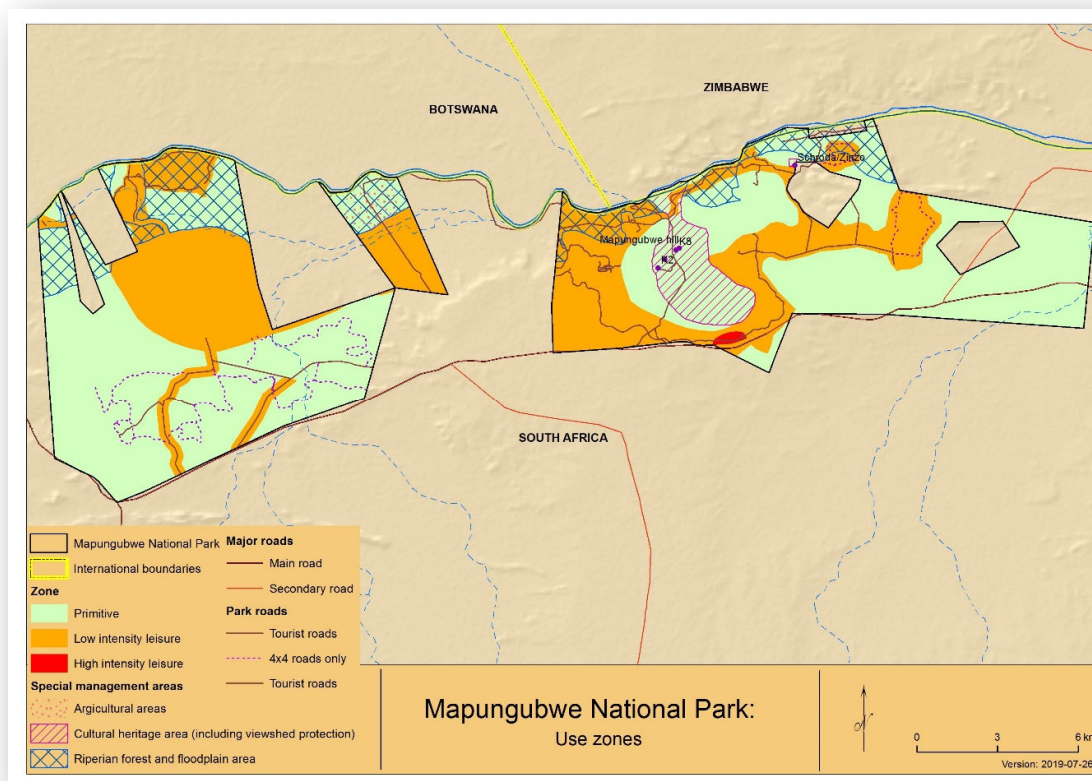


Figure 3 Zonation map for the Mapungubwe National Park. Locations for Mapungubwe Hill, K2, K8 and the Schroda/Zhizo sites are indicated on the map (SANParks 2018).

The proposed location for the Youth Overnight Facility falls within the high-intensity leisure zone and has a medium to low sensitivity value<sup>21</sup> as the site is on the periphery of the park with previous disturbance.

Mapungubwe Hill and K8 are located within the Primitive zone for the MPNP. The area has a high to very high sensitivity value, especially due to the high cultural heritage values associated with the Mapungubwe archaeological terrain.

<sup>21</sup> The zoning of the park is based on an analysis and mapping of the sensitivity and value of the park’s biophysical, heritage and scenic resources; an assessment of the regional context; and an assessment of the park’s current and planned infrastructure and tourist routes / products – all interpreted in the context of the park objectives. The zonation was undertaken in an iterative and consultative process (SANParks 2018).

The Schroda site is located in the Low-intensity Leisure zone for the MPNP. The site has a high to very high sensitivity value, especially due to the high cultural heritage values associated with these sites.

## Purpose

### Youth Overnight Facilities

Mapungubwe National Park received 34,543 day visitors during the 2019/20 reporting period. The inclusion of Mapungubwe's history<sup>22</sup> in the South African school curriculum furthermore makes school visits the norm for the park, with approximately 18,000 of the abovementioned visitors being part of educational visits (SANParks internal statistics).

MPNP furthermore has the opportunity to provide extensive cultural and environmental education, as there are additional relevant topics that can be addressed. For example, the Grade 5 curriculum includes the history of hunter-gatherers and herders<sup>23</sup> in southern Africa. There are furthermore numerous ways in which the life sciences curriculum can be linked to the SANParks mandate.

However, with educational groups traveling as far afield as KwaZulu-Natal (Dagada, personal communication 2021) and the remote location of MPNP (approximately 70-76km to the closest towns of Alldays and Musina alone), the time available for visits to the park interpretation facilities and other points of interest are very constrained. Per illustration, should a group from Thohoyandou travel by bus to MPNP, travel time alone will be in excess of six hours to and from the park, leaving little time for any constructive EIE to take place.

The lack of suitable overnight facilities furthermore makes it impossible to provide extended programmes for various stakeholders such as local communities during cultural events, VBR and GMTFCA events and outreach, to name a few. A need for low cost accommodation for special interest groups such as research institutions have also been identified and will greatly improve the continued research within the cultural and environmental fields, not only for the park but the TFCA and region as a whole.

### Education

*Education is not the filling of a bucket, but the lighting of a fire.*

WB Yeats, writer and poet

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<sup>22</sup> Grade 6 history looks at Mapungubwe with specific reference to: *An African kingdom long ago in southern Africa: Changes in societies in the Limpopo valley between 900 AD and 1300 AD; Settlements in the Limpopo Valley before Mapungubwe: K2 and Schroda; Mapungubwe: the first state in southern Africa 1220-1300; and Change and continuity* (SASHT 2014).

<sup>23</sup> Topics that are discussed in the Grade 5 history curriculum are amongst others: *San hunter-gatherer society in the later Stone age; Khoikhoi herder society in the Later Stone Age; The first farmers in southern Africa: When, why and where the first African farmers settled in Southern Africa; How early African farmers lived in settled chiefdoms; Tools; A heritage trail through the provinces of South Africa; What heritage is; and Examples of heritage from each province* (SASHT 2014).

The use of existing tourism facilities such as Leokwe Rest Camp etc. are not adequate in size to allow for medium to large groups (10 or more individuals). These facilities also does not have the required infrastructure such as communal, industrial-sized kitchens or safe play/activity areas for full EIE programmes. The use of these facilities for educational groups will furthermore negatively affect the existing income from the leisure tourism component, for which a higher tariff rate is chargeable.

Although the YOF will play a greater role as a catalyst to provide enhanced environmental education and engagement with relevant stakeholders, a need for low-cost accommodation within the park was also identified. The layout of the YOF lends itself to the possibility of allowing a backpacker style accommodation experience to visitors.

In view of the above factors and in the context of the Development Framework, it is therefore of vital importance for Mapungubwe National Park and the MCLWHS to play a more active role in the dissemination of environmental interpretation and education through the provision of overnight facilities for youth and other relevant stakeholders.

### **Mapungubwe Valley Orientation Facilities**

Mapungubwe Hill is undoubtedly the most recognisable heritage site within the MCLWHS. At present, this is also the only archaeological site<sup>24</sup> open to guided visitors within the MCLWHS.

During a reactive monitoring mission to the MCLWHS in 2012, it was however noted that there were no interpretative guidance at the top of Mapungubwe Hill and at Schroda. Although Eloundou and Avango (2012) states that this absence of interpretation leaves the landscape at the sites unaffected, they also reflect on the fact that visitors to the site will need interpretative guidance in order to understand what they are observing.

Mapungubwe Hill and the MCLWHS, an iconic southern African cultural heritage site, attracts visitors from all walks of life. Although the site is only accessible accompanied by trained cultural heritage guides, these visitors may only have a superficial understanding of the history surrounding this remarkable snapshot of human endeavour and therefore not able to understand the significance of the site without appropriate interpretation aids. On-site interpretation facilities are however lacking and very different



Figure 4 The Sterkfontein Caves Interpretation Centre exhibitions are of a high standard and successfully imparts knowledge to visitors (maropeng.co.za accessed 10/11/2021).

<sup>24</sup> Excluding five rock art sites opened to the public in the western section of the park and the Kaoxa Shelter situated on private property within the core of the MCLWHS.

from that of other iconic world heritage sites such as the Cradle of Humankind. Here, apart from the expansive Maropeng Interpretation Centre, the Cradle of Humankind also has an interpretation centre and other facilities situated adjacent to the Sterkfontein Caves. Figure 4 below shows some of the high standard exhibitions at the Sterkfontein Caves centre.

The South African school curriculum for Grade 6 learners furthermore also discuss the occupation of sites such as K2 and Schroda. These sites are therefore of equal significance, however, Schroda, K2 (and Bambandyanalo) currently only forms a small part of interpretation by guides, as these sites are not generally accessible by visitors. Discussion of these sites' significance without visual aids are also difficult and resulted in the envisioning of site models to better explain the connectedness of the various sites, in time and space. These envisioned site models provided the provisional name of these facilities, namely Orientation Area or Facility. The use of Orientation Area/Facility also intends to create a distinction between smaller interpretation centres in the park and the main Interpretation Centre Complex located on the park periphery. The addition of these orientation facilities will provide visitors with a better understanding of the Mapungubwe Cultural Landscape as being more than the Mapungubwe Hill.

As a rule, no children under 12-years old are allowed to partake in SANParks tourism activities such as night drives and walks. The availability of a safe, covered space may however make it possible for younger visitors to access the site safely. The provision of an easily accessible (compared to the steep steps onto the Hill itself) covered area will furthermore greatly facilitate the access to the site by visitors that would normally not be able to experience the Mapungubwe Hill or its surrounds, such as the elderly, mobility impaired or visitors that otherwise may find the climb to the Hill daunting. The availability of safe, covered spaces will therefore make it possible for a diverse range of visitors to access the site.

The Limpopo-Shashe Valley is furthermore extremely hot during the height of summer (the South African summer is also a popular vacation period for many tourists), which makes visitation to the Mapungubwe Hill (including the K8 interpretation area) somewhat uncomfortable, even to those who are accustomed to the climate. The provision of covered resting spaces will therefore greatly enhance the visitor experience to this site.

### **Schroda Orientation Centre**

The Schroda Archaeological Site, although an extremely important part of the cultural landscape's story, has not featured prominently in the available access and interpretation available to park visitors. Even though the main Mapungubwe Interpretation Centre does have interpretive information about and artefacts from the Schroda site, it is not easily put into context for those visitors that does not have a good understanding of the landscape. In other words, most of the general park visitors and educational groups.

The Schroda site also provides tangible cultural interpretation options (possibly more so than Mapungubwe Hill) for general visitors, due to the vast number of stone engravings that can be found on the site. Figure 5 shows a few of the engravings and other prominent features that can be found throughout the Schroda site.

The South African school curriculum for Grade 6 learners furthermore discusses the occupation of sites such as K2 and Schroda. However, Schroda currently only forms a small part of interpretation by guides during excursions to the Mapungubwe Hill and in the main



Figure 5 Some of the engravings and other prominent features that can be seen on the Schroda archaeological site (Coetzee 2017).

Interpretation Centre. Opening the Schroda archaeological site will greatly enhance the general understanding of the Mapungubwe Cultural Landscape's occupation history.

As a rule, no children under 12-years old are allowed on SANParks activities. The availability of a safe, covered space may however make it possible for younger visitors to access the site. The provision of an easily accessible covered area will furthermore greatly facilitate the access to the site by visitors that would normally not be able to experience cultural heritage sites in their entirety, such as the elderly or mobility impaired. The availability of a safe, covered space will therefore make it possible for a diverse range of visitors to access the site.

The Limpopo-Shashe Valley is furthermore extremely hot during the height of summer, which makes visitation to heritage sites uncomfortable, even to those who are accustomed to the climate. The provision of a covered space where guides can give talks will therefore also greatly enhance the visitor experience to this site.

## Education

*When educating the minds of our youth, we must not forget to educate their hearts.*

Dalai Lama

## Description of Products and Services

### **Youth Overnight Facilities**

The Youth Overnight Facilities were primarily envisioned to introduce young minds to the park as the ideal accommodation for extended school tours. However, the facility with its planned kitchen and dining hall, also bring the opportunity to provide low-cost accommodation for tourists and connect to the broader society and local communities.

Key goals with the design of the facility is that it –

- must reflect the principles of SANParks;
- encourage a lifelong relationship and appreciation for South Africa's national parks;
- create a deep emotional bond by positive experiences;
- create an environment that influences the student's identity;
- a character of place that encourages positive behaviour;
- must promote use by academic, social, local and wider communities;
- must be energy efficient and environmentally friendly; and
- cultural heritage must persist and be celebrated. A strong connection with the Mapungubwe Interpretation Centre Complex and Cultural Events / Day Visitors' Centre will therefore be required.

SANParks appointed the award winning Jeremie Malan Architects & Interiors to design the Youth Overnight Facility, with the above goals in mind.

The following are some of the key considerations that were used in the rationale for the YOF's placement –

- The park property on the south of the R572 is regarded as part of the buffer zone for the MCLWHS. However, this also makes the site ideal for MPNP operational infrastructure such as staff housing, security monitoring, park offices, possible technical workshops etc.
- Due to the Air Traffic Navigation Services (ATNS) radar station being located on the south of the R572, developments need to be of such a nature and at an appropriate distance to not interfere with the functioning of the station.
- As far as reasonably possible, tourism and education related infrastructure should be separated from staff and operational use zones to prevent any conflict that may occur due to the different and incompatible uses.
- The proximity to the park main gate will provide ease of access for large busses transporting pupils and other users.
- The relatively low sensitivity of the receiving environment regarding cultural heritage aspects as well as previous disturbance to the natural vegetation makes it more appropriate than other sites.
- The site slope falls north-west to south-east. The development footprint can therefore be placed to be less visible from the northern portions of the park.
- The development on the periphery of MPNP will ensure that the remainder of the park is less intensely affected and the sense of place protected.
- The YOF will be in close proximity to established tourism facilities and can therefore make use of the existing infrastructure for water and electricity provision, including the emergency-use generator for power outages.

- The proximity to the Interpretation Centre Complex, Day Visitor Centre and retail facilities will provide ease of access to these facilities for more complex EIE and other programmes.
- The proximity to the Hamilton Staff Village will ease transport for park personnel that are tasked with the EIE programmes and possible catering of events after normal gate closure times. After-hours driving through the park and travel distance will therefore be limited.
- The placement adjacent to the existing Day Visitors' Centre will allow for various supplementary stakeholder engagement, educational and tourism orientated programmes such as community open days, celebration of environmental and cultural days, marketing events and linkages with GMTFCA<sup>25</sup> or VBR initiatives.
- Ease of access to existing facilities may improve sales of retail items, food and beverages.

Figure 6 provides the contextual connection between the YOF and the existing Day Visitors' Centre.



Figure 6 Overlay of proposed Youth Overnight Facility layout onto satellite imagery of the development site. The contextual connection with the existing Day Visitors' Centre is highlighted in red.

Although this was not a consideration at the time of planning, the proposed location furthermore creates easy access to the archaeological workshop<sup>26</sup>, which will form part of the

<sup>25</sup> Such as International Ranger Day celebrations with GMTFCA rangers from all three countries, the WildRun and Tour du Tuli events.

<sup>26</sup> The archaeological workshop will be sponsored through the Vele Biodiversity Offset Agreement (BOA).



proposed administrative office complex on the south of the R572. Cultural heritage research groups making use of the YOF will therefore be in close proximity to an appropriate workspace and/or able to access collections in MPNP care.

A description of the facilities and specific considerations taken during the planning phase follows –

- The existing bus road and parking providing access to the Day Visitors' Centre will also be utilised for the YOF.
- A landscaped arrival area will be adjacent to the paved entrance path. Pathing is vital to ensure less adverse effects on the receiving environment due to human foot traffic.
- A commercial kitchen and dining block will be situated centrally adjacent to a laundry, the latter on the location of the current steel construction store found on the site. This block will also house a reception office and visitor bathrooms.
- A utility space for offloading catering requirements and storage of waste will be placed between the laundry and kitchen.
- An open-air function space will be centrally located between the kitchen/dining hall, student blocks and teachers' block. This will provide ease of access for all EIE and other programme attendees, while providing privacy from the adjoining Day Visitor Centre and other park tourism facilities.
- The entire development will be contained within walls and fencing to provide protection against roaming dangerous animals and to limit damage to the area surrounding the development.
- Six student blocks are planned, with five proposed to be constructed at the start of the development.
- A teachers' block is planned to provide for appropriate space for adult supervision during the EIE programmes.

The complex was designed to accommodate two full 60-seater buses and therefore will accommodate 24 students in each of the five student blocks. Each student block has four single beds and four bunkbeds divided into two separate sleeping areas (thus each sleeping up to 12 people). Each sleeping area also have their own ablution facilities to be shared among the users (two showers, two hand basins and two toilets). This therefore allows for the division of male and female students etc.

The block for teachers has seven two-bed bedrooms, each with their own bathroom and workspace.

Design for the disabled were incorporated as per SANS10400, Part S. This includes a toilet and basin in each student block (additional to those mentioned above) with a further guest toilet provided at the dining hall. One of the bedrooms in the teachers' block can also accommodate users with disabilities, including students that may need additional support from teachers.

The kitchen and dining hall can accommodate 130 students and teachers per sitting. The dining hall can furthermore also be utilised for other EIE activities or functions such as special events, dances, theatre, conferences etc. as the tables are demountable and can be stored in the covered utility yard.

Additional considerations that were made to mitigate the potential visual impact the YOF may have on the receiving landscape include –

- Subtle placement of the buildings, to rest discretely into the natural terrain. This influenced the low-rise typology of the buildings.
- The building style will furthermore limit visibility from the north (towards Mapungubwe Hill, etc.) and will not detract from the beautiful architecture of the Interpretation Centre Complex development<sup>27</sup>.
- To limit visibility further, the design mass is broken up into separate buildings serving specific purposes.
- The buildings are designed horizontally with low-slung roof pitches and clear-storey windows that provide natural light and ventilation.
- The material used should be reminiscent of the coloured sand and earthy tones of the natural surroundings. This will include facebrick walls to replicate the sandstone rock faces in the MCLWHS, supplemented by rough painted plaster and dark, subtle grey roof tiles with no reflective elements.
- Indigenous landscaping will be enlisted to diminish any further visible areas of the development.

Consideration concerning energy efficiency was also incorporated into the building design, as per Building Regulations/ South African National Standards (SANS) requirements.

### ***Mapungubwe Valley Orientation Facilities***

SANParks appointed Jeremie Malan Architects & Interiors to design the Mapungubwe Valley Orientation Facilities. As final placement of the different facilities will ultimately be determined by the results from the various impact assessments, only a general discussion of the design, layout and associated activities will be made here.

The MVOF consists of five distinct areas, namely –

- The main orientation centre consisting of a covered deck, display area, serving area and bathrooms. This modern building will provide unobstructed views to the surrounding terrain through large windows. The use of modern materials are intentional so as not to create any doubt concerning what constitutes the heritage site's structures or new infrastructure. Materials used also intends to ease construction with minimal impact on site and will furthermore minimise maintenance thereafter.
- Resting spots adjacent to the main orientation area to be utilised by groups to Mapungubwe Hill or by the proposed cultural heritage trail-goers. The location of the main orientation centre is envisioned to be in direct line with the K2 archaeological site, thereby enabling both these guided activities.
- A covered and enclosed boma space provides a second area for guided interpretation of the landscape. This site is envisioned to be in line with the Bambandyanalo walls to incorporate its interpretation. The structure could furthermore be utilised for other exclusive tourism activities such as bush-braais<sup>28</sup>, story-telling evenings, etc. The pergola-style shade cover is reminiscent of seating areas on the Limpopo River Boardwalk. This nod to existing infrastructure in the park ensures continuity between new and older designs and thereby provides a harmonious link between park facilities.

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<sup>27</sup> Nefdt (2021) writes that both the Mapungubwe (12<sup>th</sup>) and the Cradle of Humankind's Maropeng (4<sup>th</sup>) Interpretation Centres are on the BBC's "Africa's Iconic Architecture in 12 Buildings" list.

<sup>28</sup> Bush-braais are catered events for general tourists done in the evening and are especially popular at full moon. Bookings are essential and restaurant staff and armed field guards accompany groups.

- The current metal rollaway cover for the K8 excavation profile is not conducive to engaged interpretation as it is cumbersome to open, has some safety concerns for visitors and does not protect the excavation profile from natural weathering or animal impact, with water and especially rodents entering the area and causing damage to the profile. Due to the hot and humid weather during the summer season, a covered space will also provide more comfort to visitors. It is expected that with more comfort to guests and themselves, guides will be able to keep the attention of the group much better and enhanced understanding of the site and profile can be created.

The final interpretation area will be Mapungubwe Hill itself. After the various stops below the Hill, it is not envisioned that any further infrastructure will be required here.

The facilities will be of appropriate size to accommodate group sizes of up to 30 individuals (Strauss personal communication 2021).

### **Schroda Orientation Centre**

SANParks appointed the award winning Jeremie Malan Architects & Interiors to design the Schroda Orientation Centre. As final placement of the centre will ultimately be determined by the results from the various impact assessments, only a general discussion of the design, layout and associated activities will be made here.

The SOC will consist of the following distinct areas, namely –

- The main orientation centre consisting of a covered deck, display area, serving area and bathrooms. This modern building will provide unobstructed views to the surrounding terrain through large windows. The use of modern materials are intentional so as not to create any doubt concerning what constitutes the heritage site's structures or new infrastructure. Materials used also intends to ease construction with minimal impact on site and to minimise maintenance thereafter.
- Boardwalks to be placed for access to the archaeological terrain, thereby preventing unintentional damage to the natural vegetation and artefacts.

To ensure continuity of developments within the park, the Mapungubwe and Schroda Orientation Centres will have the same design. However, interpretation displays and posters will provide information appropriate to the specific site. For instance, apart from generating understanding of the site, appropriate interpretation at Schroda can include TFCA linkages, interpretation on rock art or palaeontological significance of the area (with reference to the MCL as well as finds within the larger GMTFCA).

## **Comparative Developments**

Apart from an environmental interpretation centre in the Polokwane Game Reserve (approximately 230km from the park) and the cycad interpretation centre in the Modjadji Nature Reserve close to Tzaneen (approximately 280km from the park), there are no comparative developments directed to environmental education in close proximity to MPNP. Other educational facilities in the region are mostly focused on research and targets international students with some community outreach projects being conducted. The most notable of these are the Lajuma Research Centre in the Soutpansberg, the Mogalakwena Research Centre and the Alldays Wildlife and Communities Research Centre (AWCRC).

Within SANParks, the Marakele National Park (Thutong Environmental Learning Centre, 376km from MPNP) in the Waterberg Region of the Limpopo Province and Golden Gate Highlands National Park (Wilgenhof Environmental Education Centre, 826km from MPNP) in the Free State Province hosts the closest environmental education centres with overnighting capacity.

Thutong Environmental Learning Centre has the following amenities (Letsoalo personal communication 2021) –

- Conference hall with adjoining ablution facilities;
- Dorms, sleeping up to 120 people;
- Six educator rooms with two single beds each and with their own bathrooms;
- Ablution facilities for the dorms;
- Fully equipped kitchen and scullery;
- Fire place and braai area.

Wilgenhof Environmental Education Centre has the following amenities (sanparks.org accessed 21/10/2021) –

- Spacious conference hall;
- Four dorm rooms sleeping 20 people each for a total of 80 people;
- Six facilitator rooms with two single beds each;
- Well-equipped kitchen providing for catered or self-catering options;
- Grounds including a sports field and lapa with views across the valley.

The Kruger National Park currently only host formal school groups in dormitory-style accommodation within the Skukuza Rest Camp (Redman personal communication 2021) around 540km from MPNP, although there are a number of interpretative centres and/or displays throughout the park.

The Golden Gate Highlands National Park also hosts the Basotho Cultural Village where visitors can learn more about the Basotho culture and is furthermore in the process of establishing an interpretation centre to highlight significant palaeontological finds within the park.

The proposed YOF development as well as orientation facilities are therefore consistent with other products within SANParks and does not infringe on any existing developments in the region, but will rather enhance EIE and general tourism within the Limpopo Province.

## Potential Impacts

Due to the sensitive nature of especially the cultural heritage layer of the MCLWHS, specific attention has to be given to the potential impact of the proposed developments on the receiving environment (whether on its environmental or cultural heritage components). Protection of the receiving environment will also ensure that the OUVs of the MCL will be preserved.

The protection of natural resources will have many similar interventions to the protection of archaeological resources, e.g. preventing indiscriminate walking on sites will not only protect the archaeological resources but also prevent damage to vegetation and soil structure and therefore also prevent erosion. As a result, protection of one component (environmental or cultural heritage) will more often than not also protect the other.

A brief assessment of potential impact on especially cultural heritage attributes and how this may be addressed during the operational phase of the various facilities follows below. As far as possible information already contained in the applicable Heritage and Palaeontological Impact Assessments (HIA & PIA), especially for the construction phase, will not be repeated.

### Youth Overnight Facilities

The YOF is placed on the periphery of the MPNP intentionally to thereby lessen the possible impact of this high-use facility on the remainder of the park and MCL. The sloping nature of the receiving environment makes it possible to place the development in such a way that visual impact towards the more sensitive heritage areas will be limited. Breaking up the footprint into various low-rise buildings, the use of materials that will blend into the natural landscape and the use of indigenous landscaping will further lessen any residual visual impact.

Access to areas outside the YOF will be restricted by the use of walls and fences. This will also ensure safety of users from roaming dangerous wildlife. Security guards stationed at the Interpretation Centre Complex and park's main gate, SET/Interpretation Officers as well as the park's patrolling law enforcement personnel, will further prevent any unauthorised movement outside of allowable spaces.

It is proposed that site management and monitoring form part of the general tourism<sup>29</sup> management within the park. However, should any significant archaeological remnants be exposed during the construction phase of the project, a more extensive site-specific management plan will be essential to include more detailed requirements with regards to the cultural heritage needs.

### Mapungubwe Valley Orientation Facilities

The final placement of these facilities will depend on the combined results from the environmental and heritage impact assessments. The construction method is however intended to be rapid and waste free. The modular design of the Orientation Centre and K8

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<sup>29</sup> This includes general tourism matters such as cleaning of facilities and maintenance of grounds, maintenance of infrastructure as well as environmental monitoring of littering etc.

interpretation area will also ease construction and thereby limit time spent on the site by contractors.

The low-rise buildings uses horizontal lines to reduce visual impact and are placed on piling foundations with floating floors suspended above the ground, which further intends to limit impact on this, more sensitive site especially from an archaeological point of view.

The smaller footprint of the boma and picnic/resting spots will ensure that environmental degradation from indiscriminate walking is limited. This in turn will ensure that in situ archaeological resources are not disturbed by human activity.

The Mapungubwe Hill is furthermore already open to the public and existing walkways and roads will be used to access the additional interpretation facilities. It is proposed that monitoring of potential impacts resulting from the additional structures be incorporated into the Site Management Plan<sup>30</sup>, which is due for review.

## Schroda Orientation Centre

The final placement of the orientation centre and boardwalks will depend on the combined results from the environmental and heritage impact assessments. The construction method is however intended to be rapid and waste free. The modular design of the Orientation Centre will also ease construction and thereby limit time spent on the site by contractors.

The low-rise buildings uses horizontal lines to reduce visual impact and are placed on piling foundations with floating floors suspended above the ground, which further intends to limit impact on this, more sensitive site. The floating nature of the structure further provides additional security to visitors from dangerous animals on the site.

The use of boardwalks through the site will not only protect environmental degradation from indiscriminate walking by visitors, but will also protect in situ archaeological resources.

It is proposed that monitoring of potential impacts resulting from the additional structures be incorporated into the Site Management Plan, which is due for review.

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<sup>30</sup> As prepared by Khensani Heritage Consulting in 2015. According to Maluleke (2015) this plan focuses on the archaeological areas which were identified and seen as core to the maintenance of the Outstanding Universal Values of the MCLWHS, namely Mapungubwe Hill, K2 and Schroda. The plan also refers to Bambandyanalo separately from the K2 site.

SANParks furthermore conducts regular Risk Analyses (Figure 7 shows an excerpt from the SANParks Risk Register as example) for all parks. Risk factors associated to cultural heritage sites are incorporated to the risk assessment for MPNP. This ensures swift action is possible for the mitigation of potential negative impacts.

KPA	Corporate Strategic Objectives	Strategic Measures	Target	Risk	Impact	Likelihood	Residual Risk 2016	Risk Response (current actions/new plans, initiatives)	Custodian
Improving the state of the conservation estate	SOT: Strategic Objective 1: Conservation Management	Average State of Area Integrity Management (SoAIM) Rating	3	Decline in previous assessed score due to non-implementation and non-compliance with previous assessment report - High section ranger turnover, Under-staffed - Vacant position not timeously filled, limited operational vehicles for mandate, firearm issues	3	3	3	Implement corrective action as stated in the assessment report - building into KPA  Admin Officer position being filled to assist to fill the vacant section ranger positions  Motivation for more staff submitted to Head Office  Corporate process to address the firearm issues	Senior Section Ranger (Section Rangers), Park Manager Conservation Manager
		Average METT Rating of the park	75%	Not reaching set target (Legal status, bio-diversity etc.)	3	2	6	Implement plans as set out in METT report	Park Manager Head of Departments
		Alien/Invasive species removal and rehabilitation programme	100%	Insufficient funding to continue with program AND follow up from BSP - that will lead to species (eat too much water), kill other plants, spreads, change soil structure etc.	2	1	2	Timeous submitting of needs to BSP during budget cycle	Conservation Manager BSP Project Manager
		Working on Land Rehabilitation Programme	Initial = 143.6 ha Follow-up = 0 ha	Dependence on external funding from BSP to continue with programs and follow up (Lack of capacity to maintain internally)	2	2	4	Submit APD plans on time Identify needs - prioritize	Park Manager Conservation Manager BSP Project Manager

Figure 7 Excerpt from the SANParks Risk Register and Response Plan, used as a risk mitigation tool in national parks.

The remainder of the document will highlight additional mitigation measures built into the general tourism site management to ensure negative impacts are limited and/or prevented. Where appropriate, the various tourism and other operational measures will be discussed in unison, as the same systems are largely applicable for the three different areas of development.

## Site Management

The main objective of site management is to establish and conserve the unique heritage value of the park and to ensure effective long-term management. As two out of the three sites proposed for development will be governed by site-specific management plans, only a general statement of intent will be provided here.

### General considerations

#### **Site vegetation and firebreaks**

The natural vegetation for the various sites are not prone to fires. However, users may cause unintentional fires. This can be mitigated by only guided access to the heritage sites and clear user protocols being provided (through signage, brochures etc.) especially at the YOF.

Fire-fighting equipment is furthermore envisioned for all facilities, as per safety regulations. A Working on Fire (WoF) team stationed at Rhodesdrift in the Western Section, has as specific purpose the safety of life and infrastructure within the area and therefore may be utilised to clear development perimeters from vegetation that could pose a fire hazard.

#### **Wildlife**

Possible encounters with wildlife during activities in the park are highly likely. However, potential risks to visitors are mitigated by the use of accredited tourist guides<sup>31</sup>. Training such as first aid and the handling of firearms are therefore prerequisites for field guides in the employment of SANParks.

The enclosed facilities provided will furthermore not only provide protection against the elements, but also afford some protection against dangerous animals on terrain. The suspended structures with rails proposed for the archaeological sites furthermore prevents easy access to predators.

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<sup>31</sup> A tourist guide means any person registered under Section 50 of the Tourism Act (Act No. 3 of 2014) and who for reward accompanies any person who travels within or visits any place within South Africa and who furnishes such person with information or comments.



Walls and fences will enclose the YOF, thereby limiting access to most wildlife. However, there is still a possibility of primates accessing the area. Strict rules regarding feeding of animals being prohibited etc. will therefore be required, as is standard practice for tourism facilities. This is communicated through signage and other tourism communication tools. As example, Figure 8 shows a poster used in various parks across the organisation, prohibiting the feeding of vervet monkeys.

### Access arrangements

Visitor access to the Eastern Section of the park is only possible through the main manned security gate at Hamilton.

Access to the MVOF and SOC will only be allowed after prior arrangement (such as booking of an applicable tourism activity or EIE programme), in the company of the applicable SANParks officials, under appropriate supervision (teachers etc. if required) and the MPNP guides and armed field guard/s.

Access is furthermore controlled by means of signage prohibiting entry and facilities will be locked to prevent further unauthorised access. Guides and other relevant SANParks staff will be provided with keys for access, maintenance and cleaning purposes.

Access to the YOF will only be allowed after booking of the applicable facility and/or programme. Access will be controlled by means of signage prohibiting access and facilities will be locked to prevent further unauthorised access. Relevant SANParks staff will be provided with keys for access, maintenance and cleaning purposes. Reception infrastructure is also planned (within the kitchen/ dining hall block) at the YOF and will provide SET officials with the space to oversee the facility as well as prevent unauthorised access.

Control of visitor numbers will be achieved by the use of the SANParks reservation system (Roomseeker) and visitor group sizes to the archaeological sites will be controlled as per maximum allowable passengers for the available SANParks vehicles as well as specifications for armed field guards/rifleman per number of visitors.

Roomseeker also allows for certain facilities or activities to only be booked at the applicable rest camp, thereby providing greater control over access and numbers of visitors allowed at any given point in time. This allows facilities to be closed for maintenance as may be required from time to time or to restrict numbers of visitors to specific areas, the latter limiting potential harm to both guests and a specific site. Limiting numbers of visitors also ensures “sense of place” is maintained. An example of SANParks’ efforts to maintain sense of place is the Day Visitor permit restrictions applicable in Kruger National Park.



Figure 8 Poster prohibiting the feeding of vervet monkeys in various national parks (sanparks.org accessed 04/11/2019).

Standard SANParks disclaimer signage and indemnity forms will be required.

### Education infrastructure

The main intention of the YOF will be to enhance environmental and cultural education within the MCL. As such, various interpretation displays and/or interactive learning experiences are planned. Figure 9 shows some preliminary designs for signboards as per the architectural design team.

The MPNP SET Officer and Interpretation Officers will develop and direct EIE programmes based on the needs identified by various groups utilising the YOF, such as curriculum specific activities etc. Appendix 1 shows examples of the various programme and theme options offered by the Wilgenhof Environmental Education Centre in the Golden Gate Highlands National Park as well as Thutong Environmental Learning Centre in the Marakele National Park.



Figure 9 Architectural design team preliminary proposal for YOF educational signs.

The Curator and Assistant Curator will continue to direct interpretation for the main Interpretation Centre.

The possibilities for education and interpretation are also vast for the proposed Orientation Centres at Mapungubwe Hill, K8 and Schroda. None of the interpretative and/or educational displays, posters etc. have however been finalised at this stage of development. Interpretation should follow the SANParks Visitor Interpretation Framework (Moore and Slabbert 2015) as well as the MPNP Visitor Interpretation Plan<sup>32</sup>.

Recognition of donor funding for the construction of the proposed developments will also be required through the appropriate signage.

Furthermore, as per Section 44(2) of the National Heritage Resources Act<sup>33</sup> (NHRA), all applicable materials must be developed in consultation with the heritage resources authority (i.e. SAHRA) regarding the contents of interpretive material or programmes, at least 60 days prior to the implementation of interpretive measures or the manufacture of associated material.

<sup>32</sup> This plan is due for review during the 2022/23 period.

<sup>33</sup> Act 25 of 1999.

## **Staff and training requirements**

The park's Interpretation Officers will operate the YOF. It is not anticipated that additional appointments will be required in the short term as it is expected that present employees would be better utilised through the extended programmes. However, the park currently has a vacant Interpretation Office position on the approved establishment table, which may be reinstated when the need arises (Strauss personal communication 2021).

Existing personnel could manage the cleaning of the YOF as well as the upkeep of grounds, as it is expected that staff will be better utilised during the short to medium term. It is furthermore generally acceptable practice that especially youth groups are responsible for the cleaning and clearing of the facilities during the group visit<sup>34</sup> (Scheepers and Letsoalo personal communication 2021) and that linen has to be supplied by the group themselves (SANParks undated, Mofokeng personal communication 2021).

Temporary staff will however be required during peak school visitation, namely August and September (according to SANParks internal statistics) as these months are also generally busy tourism months due to Heritage Month celebrations and long weekends. Furthermore, as the Mapungubwe YOF will be utilised for youth outreach programmes such as Kids in Parks, Junior Rangers, the GMTFCA Children in the Wilderness initiative, research groups, marketing events etc. for which linen provision and cleaning may be required daily, additional personnel will be needed. It is consequently expected that the facility will require the appointment of at least three additional permanent staff members in the medium to long term (Strauss personal communication 2021).

Catering for standard EIE programmes are not generally provided<sup>35</sup> by parks. It is however expected that the existing Golden Rhino Café personnel will be involved with the catering for other groups and/or events. This team is well versed in the catering for community and marketing events. However, it is expected that the additional space provided by the commercial kitchen at the YOF, will improve their functioning greatly.

It is not currently envisioned that any additional guides will be required for the near future. The MVOF will enhance an existing activity (Mapungubwe Hill) and the addition of the SOC may entice visitors to stay longer to allow both activities to be done. Some internal training may however be required on the additional interpretation displays etc. once these have been finalised.

The use of local guides (not in the employ of SANParks) will be investigated in due course, with the prohibition that local guides will have to conform to the stringent safety training and measures as per SANParks visitor safety standards. Therefore, apart from having Heritage Guide accreditation, guides will have to be trained in aspects such as first aid and firearm use.

Although it is expected that the various facilities will create additional employment opportunities directly (through construction, permanent or temporary appointments in the park) and indirectly (through local business stimulation), park management prefer to use a precautionary approach when deliberating these as there are unfortunately many examples of community participation

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<sup>34</sup> Amongst others, Grantham Environmental Education Centre in Karoo National Park and Thutong Environmental Learning Centre in Marakele National Park.

<sup>35</sup> As per Camdeboo National Park Environmental Education Centre's visitor Guidelines (SANParks undated) and others.

projects that fail due to unsustainable promises. Community guides for the interpretation of rock art in the uKhahlamba/Drakensberg World Heritage Site (Duval and Smith 2013) is one example.

### Maintenance of site infrastructure

Extensive maintenance of the various sites' infrastructure will be scheduled as per the park's annual infrastructure maintenance plan. Emergency repairs may be required from time to time and will be dealt with within reasonable timeframes by the park's technical department.

Cleaning of facilities will largely be dictated by usage. However, cleaning of the MVOF and SOC will be incorporated into the cleaning schedule as currently in place for the Confluence View Point facilities.

### Visitor monitoring

Monitoring of visitors (statistics and experience) will mainly be done through the tourism and marketing department as well as the Section Ranger Planning and Development. The SET department furthermore also keeps records for all educational visitors and interventions done.

Visitor statistics will be kept through use of the SANParks Roomseeker Reservation System. This system allows various reports to be drawn to thereby interrogate visitation to the park. Figure 10 shows an example of a report drawn to show visitor numbers over the course of one month in one of MPNP's camps.

Gate or Camp	Nation Type	Province / Country	Total Arrivals	Day Visitors	Overnight
LEOKWE CAMP	International	Australia	1	0	1
	International	France	48	18	30
	International	Germany	45	15	30
	International	Holland	1	1	0
	International	Iraq	3	3	0
	International	Netherlands	15	7	8
	International	Norway	6	6	0
	International	Spain	1	1	0
	International	Switzerland	2	2	0
	International	United Kingdom	21	11	10
	International	United States	13	13	0
	SADC	Botswana	3	1	2
	SADC	Namibia	1	1	0
	SADC	Zimbabwe	1	0	1
	South-Africa	Eastern Cape	5	0	5
	South-Africa	Free State	2	2	0
	South-Africa	Gauteng	91	30	61
	South-Africa	KwaZulu-Natal	3	0	3
	South-Africa	Limpopo	1060	969	91
	South-Africa	Mpumalanga	2	2	0
	South-Africa	North West	1	1	0
	South-Africa	Northern Cape	2	2	0
	South-Africa	Western Cape	2	0	2
		<b>Totals for Gate / Camp</b>	<b>1329</b>	<b>1085</b>	<b>244</b>

Figure 10 An example of a report drawn to show visitor numbers over the course of one month to the Leokwe Rest Camp and Main Gate (SANParks internal statistics).

Customer Care surveys are conducted electronically and voluntarily with visitors to the national parks, with feedback requested relating to various aspects, e.g. the visitor's experience relating to activities. The standard SANParks Customer Care feedback format and policy will be used,

with feedback deposited centrally, thereafter applicable departments is informed of the feedback received, for their management action as may be required. Applicable managers are also required to give a response to customers within 14 days concerning any customer complaints and/or compliments. Records are kept, which provide essential information to ensure quality of service and maintenance of facilities to the best standards possible.

Customer satisfaction is not generally ascertained for EIE activities; however, it is proposed that a similar questionnaire to the one developed for the Interpretation Centre be instated for EIE programmes. Figure 11 shows the Questionnaire as developed for the Interpretation Centre.

Figure 11 Questionnaire concerning Interpretation Centre experience that can be adapted for general EIE purposes (Coetzee 2017).

A survey with all customers making use of the MVOF and SOC is also proposed for the first year of operation. The Section Ranger Planning and Development will do the survey, in conjunction with MPNP Activities and Hospitality Services Managers. This survey will be relevant to what visitors expect of the activity, offerings such as refreshments, opinion of the displayed information, etc. and has as objective the “rounding off” of the activities to better cater to its users. Such a survey needs to be handled with caution though, as many guests may not complete the SANParks survey as a result and feedback relating to other aspects (and improvements required) of their visit may not be received.

## Marketing

Marketing is vital to ensure the various developments becomes sustainable and does not create a financial burden to the organisation. Marketing will therefore be conducted through the various SANParks channels developed. This includes, but is not limited to the SANParks website, Wild Magazine, Facebook and Instagram pages (SANParks and Mapungubwe), Twitter accounts etc. It is furthermore proposed that a dedicated page for the YOF and

associated programmes be created on the SANParks.org webpage dedicated to Mapungubwe.

Marketing in the Limpopo Province will be conducted as part of the Stakeholder Engagement and Marketing Plans for the park and region. Stakeholders such as the various research centres, municipal authorities and local schools will be informed of developments through appropriate channels.

Partner platforms such as the Limpopo Tourism Agency, Limpopo Economic Development, Environment and Tourism (LEDET), VBR and GMTFCA will furthermore be utilised to promote the various developments.

SANParks furthermore has longstanding relationships with notable publication houses and marketing will be arranged as the opportunity arise in magazines such as Getaway, Country Life and Weg!/Go!

Inclusion on portals specific to heritage will also be investigated.

### ***Refuse***

In its endeavour for sustainable tourism, SANParks promotes the responsible disposal of household refuse (Moore and Slabbert 2016), based on the National Responsible Tourism Development Guidelines for South Africa (DEAT 2002)<sup>36</sup>. As such, existing refuse bins will in due course be replaced with recycling bins. Recycling bins are generally only stationed at facilities or areas with higher than usual human traffic, for example receptions, rest camps and day visitor facilities. The Youth Overnight Facility will therefore be earmarked to receive recycling bins. These will also enforce the need for sustainable practices among the youth and other stakeholders.

Due to the remoteness of the Mapungubwe and Schroda facilities, making regular refuse removal difficult and therefore possibly promote scavengers raiding bins, it is proposed that all refuse be removed as a standard practice with the specific groups. A possible exception may be sanitary bins within toilet facilities.

### ***Permits***

Section 35(4) (Archaeology, palaeontology and meteorites) of the NHRA notes that:

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;*

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<sup>36</sup> SANS 1162 was approved by the SABS as a South African National Standard on 28 March 2011 and includes 41 criteria divided into four categories, namely Sustainable operations and management, Economic-, Social and cultural- and Environmental criteria (tourism.gov.za accessed 15/11/2021).

Apart from the initial construction phase for the various proposed developments, no permit requirements are currently foreseen during the operational phase. However, further monitoring (as outlined in the applicable Site Management Plan) will inform the need for any additional interventions and if so required, should follow the NHRA permit process.

## Financial Projections

Financial projections were prepared for the proposed developments based on SANParks budget outlines and using relevant cost codes as standard for the organisation. Both operational and once-off capital/donor input was included. MPNP visitor statistics for the past 13 years (April 2007 up to March 2020) were furthermore interrogated to calculate the potential revenue created from the proposed facilities. Appendix 2 provides some of the statistical graphs generated through this process. However, due to the proposed developments still having to go through the formal tender process, financial details will not be provided at this stage and only the methodology used during financial projections will be highlighted.

### Methodology

MPNP has seen an average annual increase in activity usage of 13% for the period April 2007 to March 2020. Total visitor numbers shows a growth rate of approximately 8% from April 2013 to March 2020. Total overnight visitors shows an average growth of nearly 4%, while day visitors stands at 9.2% for the same period.

Due to an exponential increase in visitor numbers during the 2012/2013 reporting period, preceding statistics were not included to calculate the above percentages. However, the 641% (24,292) growth experienced in the total visitor numbers from the 2011/2012 (3,277) period is highly significant as the Mapungubwe Interpretation Centre was officially opened during September 2012 (brandsouthafrica.com accessed 14/11/2021), an indicator of the power of positive marketing campaigns.

The initial visitor numbers used in calculations are based on the average visitors over the course of the past 10 to 13 years. Costing is further based on a minimum of six people per activity. Thus, any smaller tour parties will result in lowering of cost effective use of guides and other operational input. Tour parties larger than six will result in more cost effective use of resources. The latter should therefore be promoted where possible<sup>37</sup>.

Various programmes and overnight rate options are proposed for the Youth Overnight Facility. These include day uses (such as meetings or conferences) and various overnight options for educational and other users (e.g. including and excluding linen). Proposed tariffs are based on similar facilities within SANParks. It is furthermore proposed that a minimum rate should be instated to recoup operational costs. As example, the cleaning needs for the kitchen and dining hall will be more or less similar whether a group of 10 or 30 individuals uses it. This will be in line with other comparative EIE facilities in SANParks as well as the use of “base rates” for tourism accommodation.

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<sup>37</sup> Such as only providing the Mapungubwe Heritage tour on certain days or times while the Schroda Heritage tour will be available on alternate times or days.

Personnel are already appointed within MPNP to conduct activities, provide interpretation, clean facilities, maintain grounds and do maintenance. Operational requirements such as game viewing vehicles, etc. are also available for various park needs and these line items' rates are therefore only proportionately allocated to the management of the proposed developments.

A 6% inflation rate is used where appropriate, including for the tariffs charged. However, the actual rates will change to some extent as tariff and operational budgetary increases are established on an annual basis as per the SANParks budget guidelines.

VAT at a rate of 15% is excluded, as the organisation is VAT registered.

Under the above conditions, the proposed developments should recoup operational costs within a reasonable timeframe. This is deemed acceptable to the park, as the funding for construction is not liable to financing repayments. No other major capital input is furthermore envisioned for the near future. However, with the Covid-19 pandemic still not having run its full course, it is difficult to predict in which timeframe tourism and general visitations such as conferences will fully recover to pre-2020 levels<sup>38</sup> for established infrastructure, let alone making forecasts for new ones.

The importance of providing a holistic depiction of the MCL as well as a positive influence with regards to environmental practices and cultural heritage within the lives of the youth, local communities and the national and international society, should however be seen as compensation for any deficiencies in the short-term financial goals.

It is also envisioned that a good presentation of activities and overnighting options, offers incentives for visitors to extend their stay in the park and surrounding area. This has further income generating and social development values for the MCL and broader communities (Conrad Strauss personal communication 2021), which is not measurable within the scope of this report.

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<sup>38</sup> The United Nations World Tourism Organisation (UNWTO) notes that most experts do not see a return to pre-pandemic levels happening before 2023, with 43% of respondents pointing to 2023, while 41% expect a return to 2019 levels will only happen in 2024 or later. UNWTO's extended scenarios for 2021-2024 indicate that it could take two-and-a-half to four years for international tourism to return to 2019 levels (UNWTO 2021).



## Findings and Recommendations

The objective for the provision of a Youth Overnight Facility, the Mapungubwe Valley Orientation Facilities and the Schroda Orientation Centre, is to realise (in part) the SANParks mandate as a conservation entity as well as Mapungubwe National Park's management plan objectives as per the 2019-2028 management plan. The provision of these facilities will contribute positively towards environmental and cultural education within the region as well as the park's greater sphere of control as part of the VBR and GMTFCA. As the Management Authority for the MCLWHS, SANParks also endeavour to enhance the MCL and keep cultural heritage relevant in an ever-changing society.

The provision of the various proposed developments are therefore directly linked to promoting access for educational groups, general tourists, communities and research bodies, thereby not only creating a greater understanding of the MPNP, GMTFCA and environmental principles in general, but also the National and World Heritage Site's significance.

As a secondary objective, opening of heritage sites also endeavours to create sustainable tourism opportunities and income generating streams to sustain the management of the WHS into perpetuity. Without highlighting the unique heritage value of the MCL, it would also be close to impossible to ensure it remains relevant in an era where there is all too much pressure on sustaining heritage, both natural and cultural.

Although it is expected that the various facilities will create additional employment opportunities directly (through construction and appointments in the park) and indirectly (through local business stimulation), park management uses a precautionary approach when discussing these as there are many examples of community participation projects that fail due to unsustainable promises.

By opening heritage sites to public visitation, there is however potential for negative impacts on archaeological resources and thus the heritage value and integrity of the site and the OUVs of the MCL. Nevertheless, these can be mitigated effectively by various preventative measures, including but not limited to: the gathering of baseline information on the different sites; limiting visitor numbers per month and/or annum; guided visitation only; educational and/or tourism information materials; boardwalks to protect cultural materials; regular monitoring and; continues maintenance of sites. These measures should be incorporated into the applicable site management plans where it is not already addressed.

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## Appendices

Appendix 1: Programme options offered by the Wilgenhof Environmental Education Centre in Golden Gate Highlands National Park and the Thutong Environmental Learning Centre in Marakele National Park.

### List of Programme Options for Wilgenhof EE Centre

*Biotic, A-biotic, Parks and Conservation, People and the Past, Walks, Other*

#### Biotic:

- Eco Moods: Concentrates on Ecology and the Pyramid of Life
- Mammal Game: Fun and interactive way for learners to learn about mammals in Golden Gate.

#### Abiotic:

- Stones and Bones- PowerPoint Presentation
  - Includes a Hike to Mushroom Rock where the learners can see examples of the unique Geology of the area as well as fossil Site.
- Resource Use: Water and/or Electricity- PowerPoint Presentation
- Waterways: Focuses on the importance of water Catchments areas and healthy river ecosystems. Activity includes a walk to nearby river where the learners are able to search the stream for life (crabs, bugs etc.) and use ID charts to see what they have found.

#### Parks and Conservation:

- National Parks and Conservation – PowerPoint and Game
- Careers Presentation in National Parks.
- Fire Awareness - PowerPoint and Demonstrations- Working on Fire Team
- Wetland and Alien PowerPoint and Site Visit by Biodiversity Social Projects
- Vulture Talk - Site Visit to Vulture Restaurant
- Enviro-Picture Building Game on Wetland and Water Issues.
- Enviro-Picture Building Game on Maloti Drakensberg Transfrontier Conservation Area
- Snakes Awareness - PowerPoint Presentation.

#### People and the Past:

- Basotho Cultural Village Tour- +/- 25 Km Drive from the Park at R 20.00 p/p
- Presentation and Reflections on how the Basotho lived

#### Walks: Guided Interpretive

- Brandwag Orientation- Overview of Golden Gate
- Mushroom Rock – Geology of the park
- Cathedral Cave – ( closes each year in winter from 01 June- 31 August )
- Rhibbok Trail- (Overnight) 2 Days Hiking Trail 28 km R180.00

#### Others:

- Campfire Concert
- 9 m Abseiling@ R20.00 pp.
- Canoeing in a dam R20.00 pp
- Horse - Full ride 1 hr @ R200.00 pp & Half ride @ R100.00 pp
- Site Visit to the ash river outfall in Clarens (Lesotho Highlands water project) +/- 25 Km Drive from the EE Centre.

#### **Thutong Environmental Learning Centre**

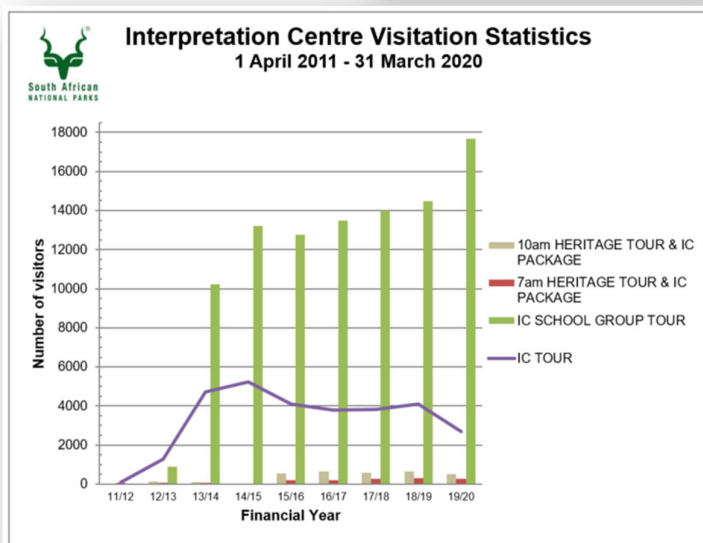
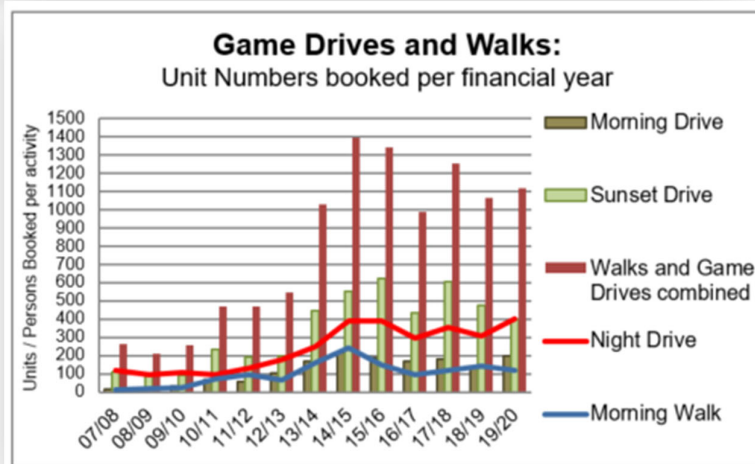
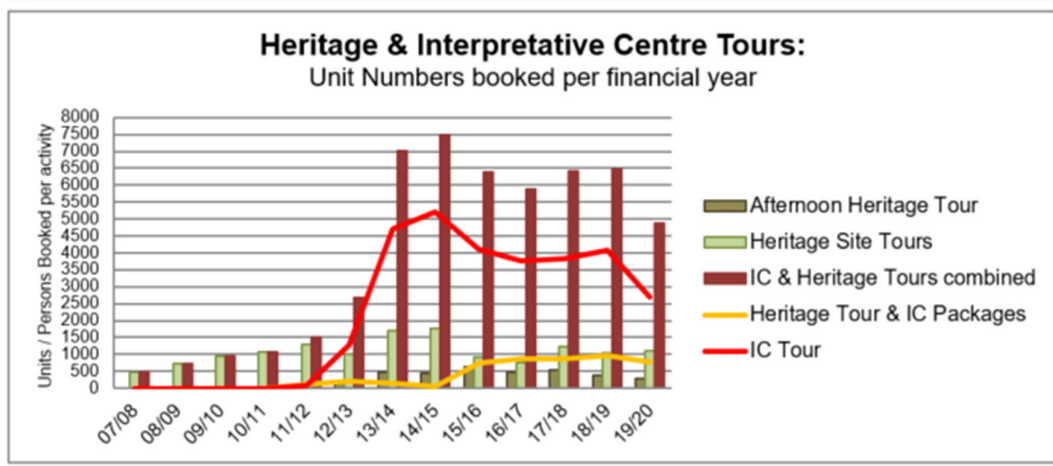
##### **Themes include:**

- ◊ Ecology – (Biodiversity, ecosystems, biomes)
- ◊ Water—Water pollution ,water cycle , water conservation , alien plants vs indigenous plants
- ◊ Cultural heritage – Park orientation , know your National Parks , Heritage sites
- ◊ Conservation –conservation practises
- ◊ Responsible tourism – tourist attractions
- ◊ Climate change –Tracing down carbon footprint , changing attitude towards environment , ways to combat climate change
- ◊ Career Guidance presentations
- ◊ Endangered & indigenous species

(Machavi 2021)

(Mofokeng 2021)

## Appendix 2: Statistical graphs and tables showing SANParks statistics for MPNP activities and visitor numbers.



Appendix 2(a) MPNP statistics for various activities, including general tourism and educational.

Proposed Development of Tourism and Educational Infrastructure

Month	total visitors per month										Average
	2010.2011	2011.2012	2012.2013	2013.2014	2014.2015	2015.2016	2016.2017	2017.2018	2018.2019	2019.2020	
April	160	330	387	1870	1936	2420	1831	2050	2066	2167	1841
May	467	272	246	2053	2747	3223	2856	3256	4211	3252	2731
June	386	188	274	2229	2625	2734	3105	1797	2129	2394	2161
July	209	327	2652	2742	2770	3973	3102	3219	3978	3598	3254
August	205	325	8976	8712	8474	9051	9601	10287	11261	12660	9878
September	229	339	4541	3304	6489	5649	6898	5943	6573	6239	5680
October	235	398	1872	1263	2013	2188	1908	1747	1839	1982	1852
November	172	220	1048	1252	1200	1211	1271	1233	1512	1291	1252
December	264	290	3883	2629	3208	4397	3205	3061	2739	2810	3242
January	137	92	148	885	1159	1573	1620	1392	995	1175	1118
February	101	141	108	459	961	820	828	1007	1325	1565	884
March	153	355	157	1626	2277	2020	1931	2091	1418	1329	1606
<b>Total</b>	<b>2718</b>	<b>3277</b>	<b>24292</b>	<b>29024</b>	<b>35859</b>	<b>39259</b>	<b>37956</b>	<b>37083</b>	<b>40046</b>	<b>40462</b>	<b>26184</b>
<b>YoY % growth</b>	-	21%	641%	19%	24%	9%	-3%	-2%	8%	1%	8.0%

Month	overnight visitors per month										Average
	2010.2011	2011.2012	2012.2013	2013.2014	2014.2015	2015.2016	2016.2017	2017.2018	2018.2019	2019.2020	
April	152	271	379	369	527	636	451	452	581	626	503
May	164	206	242	473	557	687	440	544	667	512	515
June	275	188	265	656	557	581	601	679	694	531	571
July	206	323	749	734	855	850	816	1018	1015	647	836
August	205	321	717	711	691	858	809	939	1058	533	790
September	229	324	533	572	611	592	897	855	837	578	684
October	230	384	631	525	599	803	748	976	764	630	710
November	159	218	382	387	445	425	401	507	547	494	449
December	241	247	747	726	703	1763	670	661	589	479	792
January	133	84	143	218	236	331	438	394	214	331	288
February	95	98	85	208	313	323	329	409	381	314	295
March	142	225	157	505	506	552	456	663	351	244	429
<b>Total</b>	<b>2231</b>	<b>2889</b>	<b>5030</b>	<b>6084</b>	<b>6600</b>	<b>8401</b>	<b>7056</b>	<b>8097</b>	<b>7698</b>	<b>5919</b>	<b>6878</b>
<b>YoY % growth</b>	-	29%	74%	21%	8%	27%	-16%	15%	-5%	-23%	3.9%

Month	day visitors per month										Average
	2010.2011	2011.2012	2012.2013	2013.2014	2014.2015	2015.2016	2016.2017	2017.2018	2018.2019	2019.2020	
April	8	59	8	1501	1409	1784	1380	1598	1485	1541	1338
May	303	66	4	1580	2190	2536	2416	2712	3544	2740	2215
June	111	0	9	1573	2068	2153	2504	1118	1435	1863	1590
July	3	4	1903	2008	1915	3123	2286	2201	2963	2951	2419
August	0	4	8259	8001	7783	8193	8792	9348	10203	12127	9088
September	0	15	4008	2732	5878	5057	5801	5088	5736	5661	4995
October	5	14	1241	738	1414	1385	1160	771	1075	1352	1142
November	13	2	666	865	755	786	870	726	965	797	804
December	23	43	3136	1903	2505	2634	2535	2400	2150	2331	2449
January	4	8	5	667	923	1242	1182	998	781	844	830
February	6	43	23	251	648	497	499	598	944	1251	589
March	11	130	0	1121	1771	1468	1475	1428	1067	1085	1177
<b>Total</b>	<b>487</b>	<b>388</b>	<b>19262</b>	<b>22940</b>	<b>29259</b>	<b>30858</b>	<b>30900</b>	<b>28986</b>	<b>32348</b>	<b>34543</b>	<b>20385</b>
<b>YoY % growth</b>	-	-20%	4864%	19%	28%	5%	0.14%	-6%	12%	7%	9.2%

Appendix 2(b) MPNP statistics indicating total visitor numbers, overnight and day visitors. Visitor numbers include educational visits to the park.