

# KRUGER SHALATI: DRAFT BASIC ASSESSMENT REPORT



# PROJECT:

Draft Basic Assessment Report for the Proposed Development of the Kruger Shalati Up-market Tourism Accommodation on and adjacent to the Selati Railway Bridge at Skukuza in the Kruger National Park.

# **REPORT DATE:**

Draft Basic Assessment Report as Submitted on 13 March 2018.

# **REFERENCE NUMBER:**

# **CONSULTANT:**

EMROSS Consulting P.O. Box 507 White River 1240

# RESPONSIBLE ENVIRONMENTAL ASSESSMENT PRACTITIONER:

Kevan Zunckel





# **Table of Contents**

1	INT	RODUCTION	6
2	AS	SESSMENT DETAILS	6
	2.1	THE ENVIRONMENTAL ASSESSMENT PRACTITIONER	6
	2.2	NAMES AND EXPERTISE OF SPECIALISTS	6
	2.3	LOCALITY OF THE ACTIVITY	7
3	DE	SCRIPTION OF PROPOSED ACTIVITY	7
	3.1	GENERAL DESCRIPTION	7
	3.2	LISTED ACTIVITIES	11
	3.3	PROJECT SECTOR	11
4	NE	ED AND DESIRABILITY	11
5	AC	TIVITY CONTEXT AND ENVIRONMENTAL FACTORS	12
	5.1	LEGAL AND POLICY FRAMEWORK	12
	5.2	ACTIVITY COMPATIBILITY	13
	5.3	SITE DESCRIPTION	13
	5.3.	1 Gradient	13
	5.3.	2 Location in the Landscape	15
	5.3.	Groundwater, Soil and Geological Stability of the Site	15
	5.3.	4 Vegetation Cover	15
	5.3.	5 Land Use Character of Surrounding Area	16
	5.3.	6 Cultural / Historical Features	17
6	AU'	THORISATION TIME FRAMES	20
	6.1	VALIDITY PERIOD	20
	6.2	ACTIVITY SCHEDULE	21
	6.3	COMPLIANCE MONITORING	21
	6.3.	1 Development Phase	21
	6.3.	2 Operational Phase	22
7	SIT	E SELECTION PROCESS / CONSIDERATION OF ALTERNATIVES	22
	7.1	ALTERNATIVE 1: SANPARKS RFP	22
	7.2	ALTERNATIVE 2: KRUGER SELATI PROPOSAL	24
	7.3	ALTERNATIVE 3: NO-GO OPTION	25
8	AN	ALYSIS OF POTENTIAL IMPACTS	25
	8.1	DEVELOPMENT PHASE	29

8.2	OPERATIONAL PHASE3
8.3	SUMMARY OF IMPACT ANALYSIS4
9 PUBI	LIC PARTICIPATION PROCESS4
9.1	SUMMARY OF COMMENTS AND RESPONSES4
10 AS	SUMPTIONS AND LIMITATIONS4
11 EA	P RECOMMENDATIONS4
12 CO	ONCLUSION4
13 RE	FERENCES4
	A: SUMMARY OF QUANTIFIERS AND QUALIFIERS USED FOR ASSESSMENT ES4
ANNEX B	3: EVIDENCE OF PUBLIC NOTICE PUBLICATION AND PLACEMENT 4
ANNEX C	5:
	List of Figures
Figure 1:	The locality of the proposed Kruger Selati development
Figure 2:	The components of the Kruger Selati development concept with B and D being
those sub	ject to environmental authorisation1
Figure 3:	Skukuza Rest Camp Use Zones (Source: SANParks)1
Figure 4:	The south – north gradient of the site
Figure 5:	The west – east gradient of the site1
Figure 6:	Vegetation cover in the Selati Precinct (© K. Zunckel)1
Figure 7: Zunckel).	The Selati Railway Bridge with its sandstone pillars and the pump house (© K
Figure 8:	Locomotive No. 3638 at the disused Selati Restaurant in the Skukuza Rest cam (© A. van Vollenhoven).
Figure 9:	One of the excavated features at the Sabi Bridge site of Steinaecker's Horse whic probably has links to both the war and the building of the railway (© A. va Vollenhoven).
Figure 10	: The day (top) and night (bottom) time options for the positioning of the railwa carriages as per the SANParks RfP (Source: SANParks, 2016a)
Figure 11	: The existing pump trolley on the Selati Railway Line in the Selati Precinct (© I Zunckel)24
Figure 12	: The optimal model and configuration proposed by Kruger Selati (Pty) Ltd 25
Figure 13	: Public notice at the Phabeni Gate reception (© K Zunckel)
Figure 14	: Public notice at the Paul Kruger Gate Reception (© K. Zunckel)4

Figure 15:	Public notice at the Skukuza Rest Camp Reception (© K. Zunckel)	49
Figure 16:	Public notice at the Skukuza Day Visitor Facility (© K. Zunckel).	49
Figure 17:	Public notice at the Skukuza Rest Camp Reception (© K. Zunckel)	50
Figure 18:	Public notice at the Skukuza Conference Centre (© K. Zunckel)	50
	List of Tables	
Table 1:	Impact assessment score allocation guide.	28
Table 2:	Potential environmental impacts and recommended mitigation measures for	the
	proposed Kruger Selati development during the Development Phase	29
Table 3:	Potential environmental impacts and recommended mitigation measures for	the
	proposed Kruger Selati development during the Operational Phase	37

# 1 INTRODUCTION

Emross Consulting was appointed by Kruger Selati (Pty) Ltd. to undertake the required actions to apply for environmental authorisation from the National Department of Environmental Affairs (DEA: the Competent Authority (CA)) for the proposed development of up-market tourism accommodation on the Selati Railway Bridge and adjacent area in the Skukuza Rest Camp of the Kruger National Park (KNP).

This proposal comes as a direct result of a Request for Proposals issued by South African National Parks in respect of the "proposed public private partnership project (PPP) for the establishment of accommodation on the Selati Bridge and development of the Selati Precinct in the Kruger National Park", dated November 2016 (SANParks, 2016a). The tender was won by Sithole Restoration Services (Pty) Ltd., who subsequently changed their name to Kruger Shalati (Pty) Ltd.

Insert more introductory comments as the process develops.

#### 2 ASSESSMENT DETAILS

## 2.1 The Environmental Assessment Practitioner

The Environmental Assessment Practitioner (EAP) responsible for undertaking the environmental impact assessment and compiling this report is Mr. Kevan Zunckel working on behalf of Emross Consulting (Pty) Ltd., based in White River, Mpumalanga. Mr Zunckel has more than 30 years of experience as an ecologist and environmental scientist with an MSc Environmental Science from the University of Cape Town and affiliation with the South African Chapter of the International Association of Impact Assessments (IAIAsa – Membership number: 2396). His contact details are as follows:

Postal address: 7 Annthia Road, Hilton, 3245

Telephone: (033) 343 1739 Cell: 082 929 4270 Fax: 086 517 5582

Email: <u>kevanzunckel@gmail.com</u>

# 2.2 Names and Expertise of Specialists

Doctor Anton van Vollenhoven undertook a Heritage Impact Assessment. He is the Director of Archaetnos Heritage based in Pretoria and is Professor in History at the Northwest University, Mafikeng. He is affiliated to the Association of Southern African Professional Archaeologists (ASAPA). His contact details are as follows:

Postal address: P.O. Box 55, Groenkloof, 0027

Telephone: (012) 343 0509 Cell: 083 291 6104

Email: antonv@archaetnos.co.za

# 2.3 Locality of the Activity

The proposed development (as described in Section 3 and illustrated in Figure 1 below) is located on the Selati Railway Bridge adjacent to and within the Skukuza Rest Camp, in the KNP. Skukuza falls within the portion of the KNP that is within the Mpumalanga Province, the Ehlanzeni District Municipality and the City of Mbombela Local Municipality (MP326). The 21 digit Surveyor General code is T0JU00000000014200000. It has as its central focus the existing Selati Restaurant (-24.993495° and 31.595942°) and the Selati Railway Bridge (-24.991340° and 31.596891°), with some components of the proposed development concept being immediately adjacent to these localities (see Figure 2).

# 3 DESCRIPTION OF PROPOSED ACTIVITY

# 3.1 General Description

The development concept, within which are two listed activities which are detailed below and highlighted in **bold text**, is based on existing infrastructure that is within and immediately adjacent to the Skukuza Rest Camp in the KNP. This infrastructure comprises the Selati Restaurant, the Selati Railway Bridge and Railway Line, and the Waterkant Guest Houses 1 and 2. The concept proposes the following on the basis of this existing infrastructure and as illustrated in Figure 2:

- A. The existing Selati restaurant building was build circa late 1980s to resemble a station and to house the historic locomotive and carriages of which only one remains: public access is required to the restaurant and to view the train itself. The concessionaire has exclusive rights to the part of the facility for booked guests. The whole facility operated by the concessionaire will include a fine dining restaurant for overnight guests, a family restaurant for the general public with access to the locomotive, and an edutainment area styled to reflect and enhance the heritage value of the Selati Railway Line.
- B. The bridge: 12 sleeper carriages, lounge car and pool deck for exclusive use by concession guests. Emergency access for public transit to cross the river to be provided in the event of flooding. Access to carriages and transit is via a clip on steel walkway attached to the western side of the bridge and build in the same style. All guest facilities look eastward away from Skukuza camp. All west facing lights and windows to be shrouded and or obscured. Carriages to be refurbished off site and transported by road for placement on the railway line off an existing access road just to the south of the bridge.
- C. The existing Waterkant guest houses to be included in the accommodation offering by the concessionaire and the existing buildings refurbished appropriately.
- D. Replacement accommodation: the concessionaire is required to construct replacement accommodation including 12 beds on a site identified and approved by SANParks to maintain the same inventory for SANParks in Skukuza.
- E. Access from the restaurant, lounge, boma facilities for concession guests, to and from accommodation on the bridge, is via the existing rail track and an adjacent paved pedestrian / golf cart path and using the existing "pomp trolley" (hand powered cart on rails) which will be electrified (solar).

- F. Existing yard and portion of the existing Distribution Centre is to be leased from SANParks to provide storage and laydown, work areas during construction and as a service area and theatre / media centre for guests in operational phase. Access of staff and deliveries etc. (construction and operations) is via the existing service routes and eliminates all disruptive non visitor traffic through the Skukuza camp.
- G. South: Offloading and final fitment area for rail carriages delivered by road. Temporary tracks to be laid on the existing foundation / ballast of the original rail line. All major refurbishment of carriages will be done off site in JHB prior to delivery and setting on tracks, shunting into position; and North: Position proposed for a stationary box carriage as storage and backdrop for bush diner functions and departure return of game drives (subject to agreement with neighbouring concessionaire) Rail tracks existing as a continuation of those over the bridge.
- H. Existing position of transformer for connection to existing Skukuza electrical supply with warranted capacity as well as approximate connection to existing sewer reticulation for centralized treatment at existing facility, as with the supply of treated water.

In addition to the above the development is estimated to require 15000 litres of water per day for all of the aspects described above. This is based on an allocation of 250 litres per guest bed per day considering that high consumption activities such as laundry are offsite, and water conservation technologies will be applied throughout. Note that the current water allocation for concession operations in the Kruger National Park is 350 litres per guest bed per day.

Water consumption by staff is estimated at 150 litres per day and the current estimate is a total of 34 staff remaining in the Park. This equates to 5100 litres per day and thus a total daily consumption for the proposed development of 20 000 litres per day.

From a waste water perspective it is assumed that 80% of the water supplied will return as contained waste for treatment via and within the Skukuza waste water treatment facility.

All water and waste water aspects are covered under Skukuza's existing General Authorisation.

Further detail related to staff numbers and staff accommodation and movements are that the development will require a total staff compliment of approximately 122, with approximately 87 on duty at any one time. Given shift times, not all the 87 will physically be in the Park at any one time. The 34 staff who will be accommodated in the Park will be senior and essential staff for which accommodation will be developed in the existing Skukuza staff village. The draft concession agreement makes provision for this.

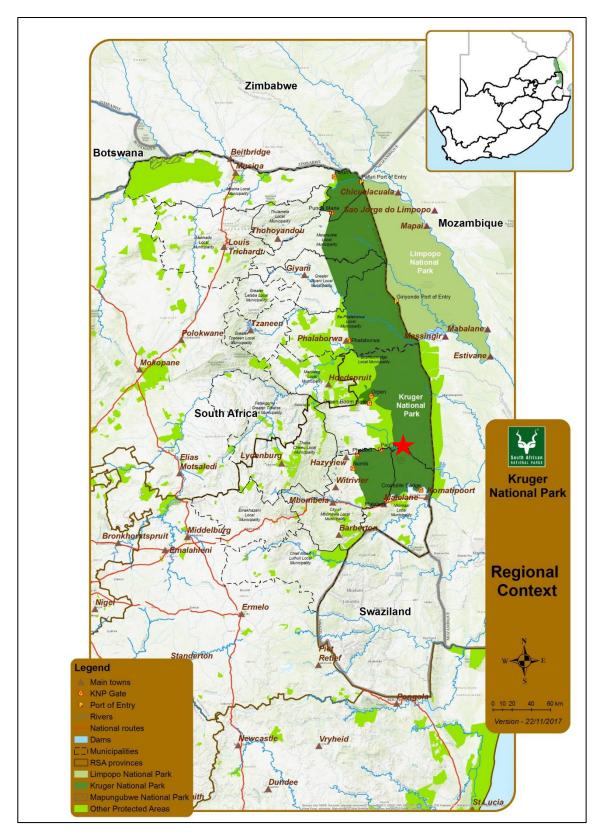


Figure 1: The locality of the proposed Kruger Selati development



Figure 2: The components of the Kruger Selati development concept with B and D being those subject to environmental authorisation.

#### 3.2 Listed Activities

It must be noted that the activities listed below form two components of the full development concept and that their being subject to the environmental authorisation process does not preclude the other components from being implemented. This is particularly relevant to the refurbishment and operation of the existing Selati Restaurant.

The activities for which environmental authorisation is being sought are as follows:

Description of project activity	Listed activity as described in GN R 324
The development of a 12 bed Guest House immediately adjacent and to the west of the existing Nyati Guest House in the Skukuza Rest Camp in the Kruger National Park.	GNR 324, Listing notice 3, <b>Activity 5</b> : The development of resorts, lodges, hotels, tourism or hospitality facilities that sleeps 15 people or less in Mpumalanga i. Outside urban areas:  (aa) A protected area identified in terms of NEMPAA, excluding conservancies; and (hh) Areas within a watercourse or wetland, or within 100 metres of a watercourse or wetland.
The placement of a 48 bed upmarket tourism accommodation facility in the form of 12 restored and refurbished railway carriages, a lounge and dining carriage and a stationary box carriage on and adjacent to the Selati Railway Bridge over the Sabie River adjacent to the Skukuza Rest Camp in the Kruger National Park.	GNR 324, Listing notice 3, <b>Activity 6</b> : The development of resorts, lodges, hotels, tourism or hospitality facilities that sleeps 15 people or more in Mpumalanga i. Outside urban areas: (aa) A protected area identified in terms of NEMPAA, excluding conservancies; and (hh) Areas within a watercourse or wetland, or within 100 metres of a watercourse or wetland.

# 3.3 Project Sector

The sector within which the project falls is "Tourism + strengthening linkages between cultural industries and tourism".

# 4 NEED AND DESIRABILITY

The SANParks commercialization strategy aims to increase income to the organisation through Public Private Partnerships (PPP's) and decrease dependency on the state for funding of National Parks. According to SANParks (2016a) it is intended that by them entering into the PPPs with Private Parties, they may be able to generate additional revenue through PPP fees paid to them by the Private Parties, while enabling SANParks to focus on its core activity of conservation. It is intended that the project will be initiated/developed by the Private Party in compliance with strict environmental standards maintained by SANParks. In keeping with SANParks' objectives, particular attention will be paid to the implementation of broad-based Black Economic Empowerment ("BEE"), particularly those from local communities adjacent to the Parks as well as identified land claimants. In this regard, SANParks will require that Interested Parties confirm their willingness to promote BEE by entering into an agreement with a local community/land claimant trust partner. SANParks (2016b) has specific requirements related to this aspect to

which the applicant will need to commit and perform. Failure to do so will entitle SANParks to terminate the agreement.

From an environmental management perspective SANParks has set very clear and stringent operating protocols for concessionaires in the Kruger National Park. These are captured in detail in the Request for Proposals (SANParks, 2016a) and the draft PPP agreement (SANParks, 2016b). Section 6.3 also addresses the extent to which adherence to these requirements will be monitored. The applicant has indicated their commitment to meet and exceed these requirements as stated in their proposal (SRS, 2017).

The site has strong historical and heritage values (see Section 5.3.6) which are currently not available to the public and are not being maintained by SANParks. This proposal will capitalise on these features, enhancing them through their refurbishment and providing access to both the general public and overnight guests. In the absence of this development going ahead, these features will continue to degrade and will eventually be lost. The positioning of railway carriages on the Selati Railway Bridge has the potential of enhancing the historical value of this feature.

It is important to note that since the Selati Restaurant has been closed, SANParks receives regular requests from the general public for it to be reopened. At present there is only one restaurant in the Skukuza Rest Camp and it would be desirable to have an additional option for visitors which offers an alternative dining experience coupled with the added advantage of experiencing the historical aspects of the Selati Railway Line.

# 5 ACTIVITY CONTEXT AND ENVIRONMENTAL FACTORS

As discussed above, the proposed development falls within the context of the SANParks commercialisation strategy and is governed by the legal and policy framework pertaining to the existence and management of protected areas in South Africa.

# 5.1 Legal and Policy Framework

SANParks (2016b) states that SANParks is bound by a number of statutes with relevance to environmental management of [National] Parks, including (without limitation) the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (NEMPAA); the National Water Act 36 of 1998 (NWA); the Water Services Act, 108 of 1997; the National Environmental Management Act, 107 of 1998 (NEMA); the National Environmental Management: Air Quality Act (NEM:AQA); the Hazardous Substances Act, 15 of 1973; and the National Heritage Resources Act, 25 of 1999 (NHRA).

In addition to these are the internal policies of SANParks as these relate to the development and operation of commercial ventures in the KNP. While an over-arching Environmental Management System is still to be developed for the KNP the Selati Accommodation PPP Agreement (SANParks, 2016b) includes clear guidelines in Schedule 8 of the document entitled "Environmental Specifications for the Operation of Selati Precinct Facility within the Protected Areas". These guidelines have been developed from the basis of documents such as the KNP

Management Plan and internal multi-disciplinary workshops and are available on the SANParks website (www.sanparks.org).

# 5.2 Activity Compatibility

The location and nature of the proposed development is compatible with surrounding activities and developments in the KNP as well as the zonation plan as illustrated in Figure 3 below, i.e. high intensity leisure (HIL) zone. According to the draft KNP Park Management Plan (SANParks, in process) this zone is a tourist orientated zone where the main objective is "the concentration and containment of commercial, tourism, managerial and operational park activities in a restricted and designated area, which is robust enough to tolerate development, and where these diverse activities can piggyback off multi-use infrastructure (roads, plumbing, power), thus reducing their overall footprint." The draft Plan goes on to state that "The main focus of management is to ensure high quality visitor facilities and experience whilst ensuring that the activities have a minimal impact on the surrounding natural environment. As impacts and particularly cumulative impacts are higher, where possible the HIL zone should be placed on the periphery of the park, and in areas that have low sensitivity values, and are robust enough to tolerate development."

Of specific significance to this report and the environmental impact assessment are the "Limits of acceptable change as set by the KNP Park Management Plan for the HIL zones, namely;

- Biophysical environment: The greatest level of deviation from a natural / pristine state is
  allowed in this zone, and it is accepted that damage to the biophysical environment
  associated with tourist activities and facilities will be inevitable. However, care must be taken
  to ensure that the zone still retains a level of ecological integrity consistent with a protected
  area.
- Aesthetics and recreational environment: Although it is inevitable that the high visitor numbers, activities and facilities will impact on the wild appearance and reduce the wilderness characteristics of the area (solitude, remoteness, wildness, etc.), these should be managed and limited to ensure that the area generally still provides a relatively natural outdoor experience.

# 5.3 Site Description

No alternative sites have been considered for this proposed development, as discussed in Section 7, and therefore the site description excludes the description of alternative sites.

#### 5.3.1 Gradient

The gradient of the site is considered in terms of that which encompasses the Selati Railway Bridge, i.e. in a south – north alignment across the Sabie River (see Figure 4); and that which encompasses the Selati Precinct in a west – east alignment (see Figure 5). These gradients have been determined using the 'path' function in Google Earth and are therefore estimates that serve as illustrations. As far as the former alignment is concerned it begins at approximately 268 masl, dropping to 260 masl in the Sabie River channel, and then rising to approximately 279 masl. Given that the Selati Railway Bridge is level it is safe to assume that the south and



Figure 3: Skukuza Rest Camp Use Zones (Source: SANParks)

north elevations should be the same and that the base of the bridge is approximately 8 to 10 meters above the Sabie River.

As the Selati Precinct runs parallel to the Sabie River its west – east gradient shows a gentle slope to the east dropping approximately 3 meters from an elevation of 275 masl in the west to 272 masl in the east.

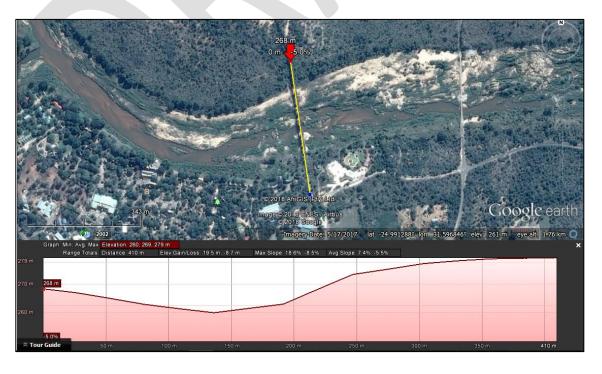


Figure 4: The south – north gradient of the site.



Figure 5: The west – east gradient of the site.

#### 5.3.2 Location in the Landscape

The landforms within which the site is located include the lowest slopes of an open valley, a flood plain and a perennial water course.

# 5.3.3 Groundwater, Soil and Geological Stability of the Site

As the site can be described as a 'brown fields' site, i.e. not in its pristine state and within an area already developed for the purpose of this proposed development, it is not deemed necessary to provide in depth and specialist comment and opinion in regards to these site attributes. However it can be assumed on the basis of the site history and current use that ground water and geological stability are not aspects that may cause any concern. However, soil stability is an issue that will need to be carefully considered and all aspects of the development and operation will need to be managed in order to prevent accelerated soil erosion.

The draft KNP Park Management Plan for 2018 – 2028 and which is out for public comment at the time of writing (SANParks, in process), states that this area of the KNP has a geology and soil that may be described as Archain gneiss and granite; sandy soils in uplands and clayey soils with high Na in lowlands.

### 5.3.4 Vegetation Cover

Again the 'brown fields' nature of the site almost precludes the need for detailed description of the groundcover, but in consideration of the locality within a National Park it is deemed necessary to highlight that where the natural vegetation cover is still intact within the development footprint, that this needs careful consideration in the planning and implementation of the proposed development.

Broadly the vegetation cover is recognised in the national vegetation cover classification as SV1 3 Granite Lowveld which covers 16.8% of the KNP and which is dominated by "tall shrubland with few trees to moderately dense low woodland on deep sandy soils (uplands), dense thicket to open savanna on lowlands with dense herbaceous layer, *Terminalia sericea* and *Eragrostis gummiflua* on seeplines (midslope). (SANParks, in process). More specifically the site is characterised by riverine vegetation which includes large specimens of trees typical of this setting such as *Trichilia emetic* (Natal Mahogany), *Kigelia africana* (Sausage Tree), *Vachellia xanthophloea* (Fever Tree) and *Ficus sycomorus* (Sycamore Fig), with a dense under-story of shrubs such as *Bauhinia galpinii* (Pride of De Kaap) and a variety of *Rhus species*. Otherwise much of the area has been maintained in a park-like landscape as illustrated in Figure 6 below.



Figure 6: Vegetation cover in the Selati Precinct (© K. Zunckel)

# 5.3.5 Land Use Character of Surrounding Area

As stated in Section 5.2 the Selati Precinct is within the area of the KNP that has been zoned as high intensity leisure zone. It is thus surrounded by tourism infrastructure that includes shops, restaurants, self-catering hutted and tented accommodation of varying standards, a camping area, ablution facilities, viewing platforms, parking areas, conference centre, a hotel in the making, Park management infrastructure inclusive of areas akin to small industry, staff village inclusive of recreation facilities, a golf course, bulk services such as roads, water and waste management facilities.

The land immediately to the north of the site is within the Jakkelsbessie Concession area and is thus undeveloped and is a low intensity leisure zone, although the Skukuza Airport is included in this zone, but as a HIL zone.

#### 5.3.6 Cultural / Historical Features

Professor Anton van Vollenhoven undertook a heritage impact assessment of the proposed development site in February 2018 and states that there are three features of historical heritage value; namely the Selati Railway Bridge, the steam locomotive currently positioned at the purpose build Selati Railway Station restaurant, and Steinaecker's Horses' Sabi Bridge post that lies approximately 80 m towards the east of the northern side of the bridge. Prof van Vollenhoven provides the following descriptions of these three heritage features:

#### 5.3.6.1 The Selati Railway Bridge

The Selati Railway Bridge was built in 1912 and therefore is older than 60 years. It is the most important heritage element within the development. The bridge is in a reasonably good condition. Although somewhat rusted, the steel construction and sandstone pillars are still sturdy and likely will still be able to hold its weight as well as that of the proposed railway carriages. A few changes were made to the bridge over the years. These mainly include services, which are mostly reversible. One exception is a pump house on the bridge. All of these features are visible in Figure 7.

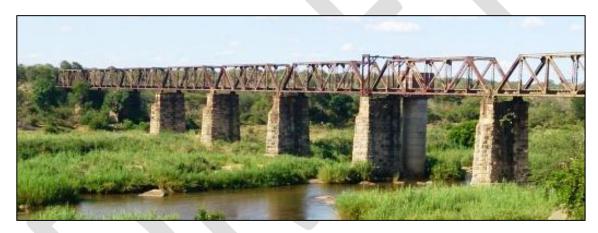


Figure 7: The Selati Railway Bridge with its sandstone pillars and the pump house (© K. Zunckel).

The railway bridge forms part of the historical Selati Railway Line, which was an extension to the Eastern Railway Line between Pretoria and Komatipoort. The latter was built since the ZAR wanted to make use of Lourenco Marques (Maputo) as harbour so that they did not need to rely on the harbours under British rule (Cape Town and Durban). In 1874 the Government appointed President TF Burgers to enter into discussions with the Portuguese Government in this regard (Bornman 2004: 1).

Eventually the railway engineers commenced surveying the route on the ZAR side in 1884. In 1884 the government drafted an agreement with the `Nederlandsche Zuid-Afrikaansche Spoorweg-Maatskappij' (NZASM or ZASM) to build the line. The line was first completed from Lourenco Marques to Komatipoort and construction on the ZAR side started in 1891, after which it was continued towards Pretoria. On 20 October 1894 the first test train from the east reached Pretoria (Bornman 2004: 1-3). The railway line was therefore completed in 1894 (Kruger National

Park n.d.: 4). During the construction of the line many people and livestock lost their lives because of tsetse fly, malaria, being eaten by lions or other reasons (Bornman 2004: 3).

The Selati line was needed to link the Selati Gold Fields close to Gravelotte with the main line (Bornman 2004: 4; Kruger National Park n.d.: 4). The line was built to link the Soutpansberg with the Eastern Line via the Selati Goldfields. The name Selati is derived from Chief Shalati, who lived near this river in the region of Ofcolaco. The proposed route, from Komatipoort in the south to Zoekmekaar in the north, passed through untamed bushveld with almost no habitation (Woolmore 2006: 17; Bornman 2004: 4; Kruger National Park n.d.: 4). Construction began in 1893 (Bornman 2004: 4; Kruger National Park n.d.: 4).

After 120 km of track had been laid, the `Big Railway Scandal', as it was headlined in 1894, brought all work on the Selati line to an abrupt stop at the Sabie River (Woolmore 2006: 18; Bornman 2004: 4; Kruger National Park n.d.: 5). The then uncompleted Sabi Bridge later became known as `Reserve', named after the Sabi Game Reserve, today known as Skukuza (Bornman 2004: 4; Kruger National Park n.d.: 5). The incomplete line ran from Komatipoort to a point known as Kilo 104, about 21 miles north of the Sabi River (Woolmore 2006: 18).

The outbreak of the Anglo-Boer War (1899-1902) was responsible for another delay, although the completed section briefly attained military importance in 1900. The ZAR Government used the completed section to the Sabi Bridge to organise and store its rolling stock, as it was ideally situated away from the advancing British forces. Towards the end of the war the British managed to get control of the line, but after the end of the war the Selati line still remained uncompleted for a few more years (Bornman 2004: 4; Kruger National Park n.d.: 5). This railway line between Komatipoort and Sabi Bridge was however also used by Steinaecker's Horse on a weekly basis during the War (Stevenson-Hamilton 1952: 28).

Only after the Union of South Africa came into being in 1910 and the three railway administrations (Cape, Natal and Central Railways) amalgamated to form the South African Railways, work on the Selati line started again and by 1912 the line reached Tzaneen (Woolmore 2006: 18; Bornman 2004: 4; Kruger National Park n.d.: 5). The inaugural ceremony was held on 25 October 1912, starting at Komatipoort with festivities at all major stops (Bornman 2004: 4; Kruger National Park n.d.: 5).

The Selati Goldfields came to an end, placing a burden on the economic viability of the line. This led to a promotional drive which included the very popular roundabout through Eastern and Northern Transvaal, called "Round in 9 days". In 1925 the first of these tourist train journeys took place, starting at Johannesburg station. The highlight of the tour was the section through the Kruger National Park with a camp fire concert at Huhla station, near Reserve (Skukuza) (Bornman 2004: 4; Kruger National Park n.d.: 5). This station is north of the Sabie Bridge.

However, traffic on the line increased resulting in high costs involved in maintaining the line, as well as the killing of wild animals. It was therefore decided to divert the line to outside the Park. In 1972 the last train travelled through the Park. It was drawn by steam engine No 3638. This locomotive was donated to the Park in October 1978 by the SAR Administration and stands at

Skukuza as a monument to the rail builders of yesteryear (Bornman 2004: 4; Kruger National Park n.d.: 6).

#### 5.3.6.2 The Steam Locomotive

As indicated above, this locomotive was used in the last trip through the Kruger Park when the railway line was decommissioned in 1972. This locomotive, no. 3638, was donated to the Park in October 1978. It therefore commemorates an historical event and as such has heritage significance.

This particular locomotive is a Class 24 and was originally as no. 26350 in 1949. It was combined with tree carriages from the same time period (a kitchen, dining car and lounge car) and became part of the newly built Selati Restaurant complex during the 1980's. A fire in 1995 however destroyed two of the carriages. Only the lounge car remained (<a href="http://steam-locomotives-south-africa.blogspot.co.za">http://steam-locomotives-south-africa.blogspot.co.za</a>).

The locomotive is in a reasonable condition but needs some restoration work. This goes for both the interior as the exterior (Figure 8). It is a pity for instance that SANParks left it open for animals to enter and mess inside.



Figure 8: Locomotive No. 3638 at the disused Selati Restaurant in the Skukuza Rest camp (© A. van Vollenhoven).

# 5.3.6.3 Steinaecker's Horses' Sabi Bridge post

This site lies approximately 80 m towards the east of the northern side of the bridge (see point G on Figure 2 – the storage and backdrop facility for bush diners as well as game drive departure point). It is likely that this infrastructure will impact on the site (Figure 9).

Steinaecker's Horse was a volunteer military unit that fought on the side of the British. It operated mainly in the Lowveld and Swaziland (Pienaar 1990: 343). Apart from its role during the War, it created a suitable environment for the establishment of the Kruger National Park. It therefore is an important part of the history of the park.

The Sabi Bridge post was one of a number of outposts established by the unit. The unit was formed by Francis Christiaan Ludwig von Steinaecker (Van Vollenhoven et.al.1998: 6). They occupied the site since 1900 and between 1901 and 1902 operated the train between Komatipoort

and Kilo 104. The railway bridge was not yet completed, but a temporary wooden bridge on a diversion line was used (Woolmore 2006: 18).

After September 1902 the blockhouse at the site, built by Steinaecker's Horse (south of the temporary bridge), was used by Major J Stevenson-Hamilton as his office, when he started working as the first warden of the Park (Stevenson-Hamilton 1952: 55-56).

The Steinaecker's Horse Unit and some of its members greatly influenced the history of the Park. This refers to their using of the site, later to become known as Skukuza, but mostly their efforts to prevent local people from indiscriminate hunting activities in the area. In fact, the second-incommand of Steinaecker's Horse, Major A Greenhill-Gardyne, wrote a report about the preservation of the wildlife in the area. Not only did this report put an end to these practices since it clearly stated rules to the members of Steinaecker's Horse to stop them from these practices, but it was also used as a guide when the Park was started after the Anglo Boer War (Van Vollenhoven 2010: 43-46 ). In fact, Stevenson-Hamilton relied heavily on this document in establishing principles for the preservation of wildlife in the area.

Some of the members of Steinaecker's Horse Unit were later employed as game rangers in the park as they knew the area and the local people well. These included EG (Gaza) Gray, and the famous HC (Harry) Wolhuter as well as some of the black troops (unfortunately unnamed) who associated with them (Van Vollenhoven 2010: 43-46).



Figure 9: One of the excavated features at the Sabi Bridge site of Steinaecker's Horse which probably has links to both the war and the building of the railway (© A. van Vollenhoven).

#### 6 AUTHORISATION TIME FRAMES

# 6.1 Validity Period

According to the PPP Agreement" The Project Term shall commence on the Operation Commencement Date, and shall continue thereafter for a period of Twenty (20) years." However, given that the equity share requirements imposed by SANParks on the proponent speak of a 25 year period, it is recommended that environmental authorisation be valid for at least 25 years in

the operational phase, plus an additional 18 months for the construction phase, i.e. a total validity period of 26.5 years.

# 6.2 Activity Schedule

The activity schedule envisaged by the proponent at this stage of the process is captured below.

Activity	Time Period	Details
1. Contractor	30 days	Install electric fence to SANP standards to
establishes on site		secure construction site and bridge access.
		Receive first materials to stockpile.
2. Site works	120 days	Lay carriage offload tracks to existing
		abandoned line foundations.
		Assemble and fit walkway to west side of bridge
		for construction access.
		Install electrical, water, waste services to
		bridge, and trench to existing connection points
		via existing servitude.
		Install winch mechanism on north side.
		Construction of pool deck on water tower.
<ol><li>Assembly of train</li></ol>	90 days	Received phase delivery of refurbished
		carriages.
		Sequential winching of carriages into position
		on the bridge.
		Connection of services.
4. Commissioning and	60 days	Final fix of furniture fittings and operational
handover.		equipment.
		Handover to operator.

As can be seen from the above, project implementation is envisaged to be over a 10 month period from the date of the date on which the environmental authorisation is granted. However, in reality these processes do take longer and it is envisaged that 18 months would be a more realistic construction period.

### 6.3 Compliance Monitoring

# 6.3.1 Development Phase

During the development phase monitoring of compliance with the Environmental Management Plan Report (EMPr) approved as part of the Environmental Authorisation process will be undertaken by a suitably qualified EAP who will be appointed by Kruger Selati (Pty) Ltd. as an Environmental Compliance Officer (ECO). This person will work in collaboration with the relevant SANParks environmental management officials based in Skukuza to ensure primarily that:

- a) Site management and labour are trained in the requirements of the EMPr;
- b) Regular compliance monitoring is carried out at least on a monthly basis;
- More frequent compliance monitoring may be carried out by SANParks Environmental Management personnel who may provide feedback to the ECO;
- d) Any non-compliance issues are addressed immediately with follow up action being implemented relative to the severity of the non-compliance; and
- e) Compliance reports are generated after each site inspection and submitted to the Compliance
   Directorate of the National Department of Environmental Affairs.

In addition to the above it is recommended that a heritage expert undertake regular inspections (Watching Brief) during the construction phase to ensure that the integrity of the three features mentioned in Section 5.3.6 are not compromised in any way and that development be undertaken according to requirements specified in a Conservation Management Plan (CMP) approved by the South African Heritage Resources Agency (SAHRA).

#### 6.3.2 Operational Phase

During the operational phase Kruger Selati (Pty) Ltd. will appoint a suitably qualified EAP who will work in close collaboration with the relevant SANParks officials to audit operational compliance with the environmental management requirements as specified in and developed on the basis of the PPP Agreement (SANParks, 2016b). Such compliance auditing will take place every four months on dates determined by the SANParks Project Manager: Concessions. The EAP will work closely with the Concessionaire and relevant SANParks officials to ensure that the environmental management performance reaches and is sustained at the highest level and that any non-compliance issues are immediately addressed.

# 7 SITE SELECTION PROCESS / CONSIDERATION OF ALTERNATIVES

No alternatives were considered in terms of the locality of the proposed development as the infrastructure upon which the development concept is based has been in existence for many years (see discussion in Section 5.3.6). In addition to this, much of the development concept relates to the resurrection of activities that were in place in the recent past, such as the Selati Restaurant within the Selati Precinct which includes associated infrastructure such as access roads, parking, water provision and waste management.

On the basis of the existence of this infrastructure, SANParks identified the Selati Precinct as an area that could accommodate a PPP initiative related to their commercialisation efforts. A Request for Proposals (RfP) was published in November 2016 (SANParks, 2016a) and the procurement process resulted in the awarding of a tender to Kruger Selati (Pty) Ltd. as per the PPP Agreement (SANParks, 2016b).

# 7.1 Alternative 1: SANParks RfP

The original concept as put forward in the SANParks RfP suggested that proponents could consider placing refurbished railway carriages on the Selati Railway Line to accommodate overnight guests in upmarket luxury and that these carriages may include one to serve as a lounge carriage complete with a swimming pool. It also suggested that the carriages could be kept at the purpose build station at the Selati Restaurant during the day and that they could then be moved out onto the Bridge for the night using a pulley/cable system. Access for overnight guests would be via the Selati Restaurant where they would have their meals, although the option of serving breakfast in the carriages while the train was still in the bridge in the morning was put forward.





Figure 10: The day (top) and night (bottom) time options for the positioning of the railway carriages as per the SANParks RfP (Source: SANParks, 2016a).

It is important to note that the pulley / cable system has been ruled out as a result of railway safety requirements and that SANParks has agreed to the use of an electric locomotive to move the carriages (SANParks, undated).

Further to this the RfP stated that "SANParks has determined provisionally that the train that will be parked on the Selati Bridge may not consist of more than 10 coaches (maximum is to be cleared by the Rail Safety Regulator but not exceeding 10 coaches). With an anticipated 7 of the coaches earmarked for accommodation, it is likely that between 42 and 76 people could sleep on the train at any given night (bidder to determine optimal model and configuration)".

# 7.2 Alternative 2: Kruger Selati Proposal

Alternative 2 is that which has been described in Section 3.1, i.e. the Selati Precinct still being used as proposed by SANParks in their RfP, but with the variation being that the railway carriages be permanently positioned on the bridge. Access to the carriages for overnight guests and staff will be via the existing 'pump trolley' to secure the historic value of this feature (see Figure 11) but with the addition of an electric motor.



Figure 11: The existing pump trolley on the Selati Railway Line in the Selati Precinct (© K Zunckel).

Having been given the opportunity to determine the optimal model and configuration, Kruger Selati (Pty) Ltd. have proposed that the total number of carriages on the Bridge be 13, with 12 of these being sleeper carriages and one being a lounge carriage (see Figure 12). The sleeper carriages are to be configured to include two on suite bedrooms thus accommodating 4 overnight guests each, with a total of 48 beds being provided.

It is further proposed that the lounge carriage does not include a swimming pool, but that this feature is constructed, together with a deck, on and around the existing pump station infrastructure that is immediately adjacent to the bridge on its eastern side, as illustrated in Figure 12.



Figure 12: The optimal model and configuration proposed by Kruger Selati (Pty) Ltd.

In addition to the accommodation proposed in the railway carriages, Kruger Selati (Pty) Ltd. put forward a bid that has been accepted by SANParks, to include the existing Waterkant 1 and 2 guest houses into their offering for overnight guest accommodation. It is proposed that these be refurbished in order to meet the high standard of accommodation and catering that will be offered to overnight guests in the train carriages, but also to ensure that potential disturbances to both Kruger Selati and SANParks guests are prevented. In accepting this proposal SANParks has requested that a replacement environmentally friendly guesthouse of same size be built for SANParks to the west of the existing Nyathi guest house. These components of the development concept are marked as C and D in Figure 2.

# 7.3 Alternative 3: No-go Option

In the absence of any development within the Selati Precinct, and in and on the existing infrastructure, there will be little incentive to maintain it and its current rate of degradation may continue unchecked. Also public calls for access to an alternative food and beverage facility in Skukuza will also not materialise. In the short-term, implementation of this alternative will negate any negative impacts that may occur during the construction phase, but in the long-term there will be opportunity costs related to SANParks failure to fully realise the benefits from their commercialisation policy. Considering the global trend of declining state support for protected area management (Emerton et al, 2006), implementation of the no-go alternative could have a negative impact on the financial capacity of SANParks to manage the KNP effectively. Potential social benefits that may be realised through local job and business opportunities will also be lost.

Provide additional inputs after the impact assessment scores are complete ...

# 8 ANALYSIS OF POTENTIAL IMPACTS

This section provides a discussion on the potential impacts of the proposed development and an indication of their significance through superimposing it on the environmental aspects discussed in Section 5.3 above. In addition to this is an indication of the extent to which these impacts may be avoided, mitigated or offset; as well as an indication of potential fatal flaws. The assessment has considered the proposed development as a whole, i.e. the accumulative development footprint, and has generally not distinguished between the various components. Where

necessary, impacts that relate to specific components are specified as such in the impact assessment table.

The detailed analysis of potential impacts was guided by the scoring allocations as listed in



Table 1 and explained in detail in Annex AError! Reference source not found. All the impacts that retain a post-mitigation score of higher than 40, i.e. those colour coded from yellow to red, may be recognised as potential fatal flaws that could render the proposed development environmentally unsustainable, and/or which may require further detailed specialist studies.



Table 1: Impact assessment score allocation guide.

		PRE-MI	TIGATION			POST-MIT	IGATION
Extent	Duration	Intensity	Probability	Weighting factor (WF)	Significance rating (SR) <sup>1</sup>	Mitigation efficiency (ME)	Mitigated aspects (MA) <sup>2</sup>
Site	Short term	Low	Unlikely	Low	Low	High	Low
1	(0-3 years)						
	1	1	1	1	0-19	0.2	0-19
Local 2	Short to medium		Possible	Medium Iow	Medium low	Medium High	Medium low
	(3-5 years) 2		2	2	20-39	0.4	20-39
Regional 3	Medium term (5-10	Medium	Likely	Medium	Medium	Medium	Medium
	years) 3	3	3	3	40-59	0.6	40-59
National 4	Long term (10-30		Highly Likely	Medium High	Medium High	Medium low	Medium High
	years) 4		4	4	60-79	0.8	60-79
International 5	Permanent (>30 years)	High	Definite	High	High	Low	High
	5	5	5	5	80-100	1.0	80-100

8.1 Potential impacts have been considered according to the development and, operational phases of the proposed development and for each of the alternatives identified and discussed in Section 7. Within these each environmental aspect that is considered relevant to the receiving environment has been considered. The outcome of this process is captured in Development Phase

# 8.2 Table 2 and Operational Phase

Table 3 below.

Note that the tables were originally configured to address negative impacts but have been adapted to include positive impacts as well. Where these have been listed, the scoring for 'mitigation efficiency' has been applied conversely in order to cater for the positive effect of the enhancement recommendation. The colour code is also adapted here where only green is used to retain the denoting of a positive impact.

The tables have been completed by the EAP on the basis of their understanding of both the development proposal and the receiving environment. This understanding has been generated through the interrogation of relevant documents and reports (mostly referenced in this report), a site visit on 30 January 2018 in the company of the SANParks environmental management official based at Skukuza, and consideration of comments received from registered I&APs.

<sup>&</sup>lt;sup>1</sup> Significance Rating (without mitigation) = SUM (Extent, Duration, Intensity, Probability) \* Weighting Factor

<sup>&</sup>lt;sup>2</sup> Significance Rating (with mitigation) = Significance Rating (without mitigation) \* Mitigation Efficiency

# 8.3 Development Phase

Table 2: Potential environmental impacts and recommended mitigation measures for the proposed Kruger Selati development during the Development Phase.

POTENTIAL IMPACTS AND RECO	OMMENDED MITIGATION MEASURES		DURATION	INTENSITY	PROBABILITY	WEIGHTING FACTOR	SIGNIFICANCE RATING	MITIGATION EFFICIENCY	NHANCEMENT POTENTIAL	MITIGATED ASPECTS
IMPACT	MITIGATION / ENHANCEMENT	EXTENT	DUR	INTE	PROB,	WEIG	SIGNIF RA	MITIG	ENHANG	MITIG
	Alternative 1: SANParks RfP									
	SOCIAL									
Increased number of employment opportunities.	Ensure opportunities are made available to adjacent communities and where skills are not present, that relevant capacity building is carried out.	2	1	2	5	5	50		H: 1	50
Increased number of business opportunities.	As above.	2	1	2	5	5	50		H: 1	50
Community members are exposed to the principles of sustainability and may carry these with them for implementation in their own homes and businesses.	Implement a continuous programme of environmental awareness and responsibility training.	2	3	2	3	5	50		H: 1	50
	BIOPHYSICAL									
Clearing of vegetation cover leading to the loss of plant species and animal habitat.	Limit clearing to the immediate development footprint and ensure no encroachment on adjacent natural areas. Also retain all trees and plan and develop to integrate these into the development footprint. SANParks biodiversity specialist to survey the site prior to clearing and any threatened species which may occur on the site are to be removed and stored in the Skukuza Nursery for rehabilitation purposes.	1	1	1	5	2	16	H: 0.2		3.2

POTENTIAL IMPACTS AND RECOM	POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES		DURATION	INTENSITY	PROBABILITY	WEIGHTING FACTOR	SIGNIFICANCE RATING	MITIGATION EFFICIENCY	ENHANCEMENT POTENTIAL	MITIGATED ASPECTS
IMPACT	MITIGATION / ENHANCEMENT	EXTENT	DUR	INTE	PROB/	WEIG	SIGNIF	MITIG	ENHAN	MITIG
Noise and human movements on site impacting on the ability of fauna to access areas immediately adjacent to the development site.	Train all personnel in the need to be aware of all fauna species and the need to minimise noise and disturbance and ensure that these requirements are met at all times. Ensure that construction equipment exhausts are baffled and reverse alerts disengaged.	2	1	2	5	3	30	ML: 0.8		24
Dust generated from earth works coating adjacent vegetation and decreasing its palatability for grazing and browsing fauna.	Screen the site to the height of at least 2m with dense shade cloth and put dust suppression measures in place.	2	1	1	5	3	27	MH: 0.4		10.8
Loss of ground cover will expose the surface to erosion and runoff of sediments.	Apply a progressive rehabilitation process where soil exposure is limited to that which can be rehabilitated as frequently as possible given the limitations of the construction process. Also ensure that a storm water management plan is in place and is implemented.	2	2	1	5	3	30	M: 0.6		24
Disturbance of the vegetation cover may allow a foothold for invasive alien plant species which are transported down and are prevalent in the Sabie River.	Limit disturbance to vegetation cover as discussed above, ensure progressive and rapid rehabilitation and implement a long-term strategy of invasive alien plant eradication.	1	3	1	3	5	40	MH: 0.4		16
Pollution of the site and surrounding area through the increase in solid waste generated on site, i.e. both that related to the construction process, as well as human waste.	Compile and implement a strict solid waste management strategy which applies the "reduce, reuse and recycle" policy and integrate this into the Skukuza waste management facility.  No construction equipment and materials to be stored on site.	2	1	1	5	3	27	H: 0.2		5.4

POTENTIAL IMPACTS AND RECO	MMENDED MITIGATION MEASURES	EXTENT	DURATION	INTENSITY	PROBABILITY	WEIGHTING FACTOR	SIGNIFICANCE RATING	MITIGATION EFFICIENCY	ENHANCEMENT POTENTIAL	MITIGATED ASPECTS
IMPACT	MITIGATION / ENHANCEMENT	EXI	DUR.	INTE	PROB/	WEIG	SIGNIF	MITIG	ENHAN	MITIG
Pollution of the site and surrounding area through the increase in liquid waste and/or dangerous substances generated on site i.e. both that related to the construction process, as well as human waste.	No construction equipment to be services and/or repaired on site.  All construction equipment to be maintained regularly and monitored for leaks and spills, which are to be addressed immediately.  Mixing of cement to be done on impervious surface and in a contained area, preferably within an area that is within the construction footprint. Any spills to be dealt with immediately and contaminated soils removed and the site rehabilitated.  Ablution facilities must either tie into the existing sewage reticulation for Skukuza, or to be self-contained and removed from the KNP for treatment at a registered facility outside of the Park.	2	2	1	5	4	40	H: 0.2		8
Atmospheric pollution caused by construction activities other than dust.	All construction equipment to be serviced regularly to ensure emissions are as clean as possible and schedule use of construction equipment so that running times are limited to as short as possible and that machinery is not left idling unnecessarily.	2	1	1	3	3	21	MH: 0.4		8.4
	VISUAL / AESTHETIC				ı					
Proximity of the point at which the railway carriages are to be lifted on to the Selati Railway Line to the day visitor area will impinge of the day visitor's experience of the Park.	A perimeter fence to the height of approximately 2m and of dense shade cloth to be erected to screen the point from the day visitor facility.  Time the transfer of carriages on to the railway line to occur once the day visitor facility has closed for the day, i.e. after 15h30.	1	1	3	5	3	30	L: 0.8		24
Transportation of the railway carriages by abnormal load through the Park during game drive times will impact on visitor experience.	Time the transportation of the railway carriages to occur outside of game drive times and use the shortest route possible within the Park.	2	1	4	5	4	48	MH: 0.4		19.2

	EXTENT	EXTENT	INTENSITY	PROBABILITY	WEIGHTING FACTOR	SIGNIFICANCE RATING	MITIGATION	CEMENT INTIAL	MITIGATED ASPECTS	
IMPACT	MITIGATION / ENHANCEMENT	E	DUR	INTE	PROB/	WEIG	SIGNIF RA'	MITIG	ENHAN	MITIG
Increase in the transportation of building material into and through the Park will impact on visitor experience.	Ensure that all suppliers and service providers are well aware of and trained in the rule, regulations and etiquette of driving in the Park.  Ensure that all loads are adequately covered to prevent loose materials from being blown off and from other construction material being exposed to the general public. Limit delivery of construction materials to outside of game drive times.	2	1	2	5	3	30	MH: 0.4		12
Increased risk of light pollution impacting on the game drive experience of guests to the Jakkalsbessie Concession.	No construction work to be carried out after dark and no exposed lighting to be erected on the construction site.	2	1	3	3	5	45	H: 0.2		9
and through the Park will impact on visitor experience.  aware of and trained in the rule, regulations and etiquette of driving in the Park.  Ensure that all loads are adequately covered to prevent loose materials from being blown off and from other construction material being exposed to the general public. Limit delivery of construction materials to outside of game drive times.  Increased risk of light pollution impacting on the game drive experience of guests to the Jakkalsbessie  No construction work to be carried out after dark and no exposed lighting to be erected on the construction site.  Potential damage to heritage features through construction of the CMP and Watching Brief.  Implementation of the CMP and Watching Brief.  Increased risk of light pollution impacting on the game drive times.  HERITAGE  Potential damage to heritage features through construction of the CMP and Watching Brief.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk of light pollution impacting on the game drive times.  Increased risk										
	Implementation of the CMP and Watching Brief.	1	1	3	4	4	36			7.2
Discarding of waste materials.	Implementation of the CMP and Watching Brief.	1	1	4	4	4	40	H: 0.2		8
Clearing of vegetation cover may unearth archaeological material.	Implementation of 'chance find' procedure.	1	1	2	3	2	14	H: 0.2		2.8

POTENTIAL IMPACTS AND RECOM	MMENDED MITIGATION MEASURES	EXTENT	DURATION	INTENSITY	PROBABILITY	WEIGHTING FACTOR	SIGNIFICANCE RATING	MITIGATION EFFICIENCY	ENHANCEMENT POTENTIAL	MITIGATED ASPECTS
IMPACT	MITIGATION / ENHANCEMENT	EXT	DUR/	INTE	PROB/	WEIG	SIGNIFI	MITIG	ENHANG	MITIG
	Alterative 2: Kruger Selati Proposa									
	SOCIAL									
Increased number of employment opportunities.	Ensure opportunities are made available to adjacent communities and where skills are not present, that relevant capacity building is carried out.	2	1	2	5	5	50		H: 1	50
Increased number of business opportunities.	As above plus ensure BEE obligations are fulfilled.	2	1	2	5	5	50		H: 1	50
Community members are exposed to the principles of sustainability and may carry these with them for implementation in their own homes and businesses.	Implement a continuous programme of environmental awareness and responsibility training.	2	3	2	3	5	50		H: 1	50
	BIOPHYSICAL									
Clearing of vegetation cover leading to the loss of plant species and animal habitat.	Limit clearing to the immediate development footprint and ensure no encroachment on adjacent natural areas. Also retain all trees and plan and develop to integrate these into the development footprint. SANParks biodiversity specialist to survey the site prior to clearing and any threatened species which may occur on the site are to be removed and stored in the Skukuza Nursery for rehabilitation purposes.	1	2	2	5	3	30	MH: 0.4		12
Disturbance of the vegetation cover may allow a foothold for invasive alien plant species which are transported down and are prevalent in the Sabie River.	Limit disturbance to vegetation cover as discussed above, ensure progressive and rapid rehabilitation and implement a long-term strategy of invasive alien plant eradication.	1	3	3	3	5	50	MH: 0.4		20
Noise and human movements on site impacting on the ability of fauna to access areas immediately adjacent to the development site.	Train all personnel in the need to be aware of all fauna species and the need to minimise noise and disturbance and ensure that these requirements are met at all times. Ensure that construction equipment exhausts are baffled and reverse alerts disengaged.	2	1	3	5	3	33	ML: 0.8		26.4
Dust generated from earth works coating adjacent vegetation and decreasing its palatability for grazing and browsing fauna.	Screen the site to the height of at least 2m with dense shade cloth and put dust suppression measures in place.	2	1	3	5	3	33	MH: 0.4		13.2

POTENTIAL IMPACTS AND RECO	MMENDED MITIGATION MEASURES	EXTENT	DURATION	INTENSITY	PROBABILITY	WEIGHTING FACTOR	SIGNIFICANCE RATING	MITIGATION	ENHANCEMENT POTENTIAL	MITIGATED ASPECTS
IMPACT	MITIGATION / ENHANCEMENT	EXT	DUR/	INTE	PROB/	WEIG	SIGNIFI	MITIG	ENHANG	MITIG
Loss of ground cover will expose the surface to erosion and runoff of sediments.	Apply a progressive rehabilitation process where soil exposure is limited to that which can be rehabilitated as frequently as possible given the limitations of the construction process. Also ensure that a storm water management plan is in place and is implemented.	2	2	3	5	3	36	M: 0.6		21.6
Pollution of the site and surrounding area through the increase in solid waste generated on site, i.e. both that related to the construction process, as well as human waste.	Compile and implement a strict solid waste management strategy which applies the "reduce, reuse and recycle" policy and integrate this into the Skukuza waste management facility.  No construction equipment and materials to be stored on site.	2	1	3	5	3	33	H: 0.2		6.6
Pollution of the site and surrounding area through the increase in liquid waste and/or dangerous substances generated on site i.e. both that related to the construction process, as well as human waste.	No construction equipment to be services and/or repaired on site.  All construction equipment to be maintained regularly and monitored for leaks and spills, which are to be addressed immediately.  Mixing of cement to be done on impervious surface and in a contained area, preferably within an area that is within the construction footprint. Any spills to be dealt with immediately and contaminated soils removed and the site rehabilitated.  Ablution facilities must either tie into the existing sewage reticulation for Skukuza, or to be self-contained and removed from the KNP for treatment at a registered facility outside of the Park.	2	2	3	5	4	48	H: 0.2		9.6
Atmospheric pollution caused by construction activities other than dust.	All construction equipment to be serviced regularly to ensure emissions are as clean as possible and schedule use of construction equipment so that running times are limited to as short as possible and that machinery is not left idling unnecessarily.	2	1	2	3	3	24	MH: 0.4		9.6

POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES		EXTENT	DURATION	INTENSITY	PROBABILITY	WEIGHTING FACTOR	SIGNIFICANCE RATING	MITIGATION	ENHANCEMENT POTENTIAL	MITIGATED ASPECTS
IMPACT	MITIGATION / ENHANCEMENT	ЕХТ	DUR	INTE	PROB4	WEIGI	SIGNIFI	MITIG	ENHANG	MITIG
VISUAL / AESTHETIC										
Proximity of the point at which the railway carriages are to be lifted on to the Selati Railway Line to the day visitor area will impinge of the day visitor experience of the Park.	A perimeter fence to the height of approximately 2m and of dense shade cloth to be erected to screen the point from the day visitor facility.  Time the transfer of carriages on to the railway line to occur once the day visitor facility has closed for the day, i.e. after 15h30.	1	1	3	5	3	30	L: 0.8		24
Transportation of the railway carriages by abnormal load through the Park during game drive times will impact on visitor experience.	Time the transportation of the railway carriages to occur outside of game drive times and use the shortest route possible within the Park.	2	1	4	5	4	48	MH: 0.4		19.2
Increase in the transportation of building material into and through the Park will impact on visitor experience.	Ensure that all suppliers and service providers are well aware of and trained in the rule, regulations and etiquette of driving in the Park.  Ensure that all loads are adequately covered to prevent loose materials from being blown off and from other construction material being exposed to the general public. Limit delivery of construction materials to outside of game drive times.	2	1	2	5	3	30	MH: 0.4		12
Construction of and the movement of building material to the site for SANParks accommodation adjacent to the existing Nyathi Guest House will impact on the sense of place for those using the adjacent accommodation as well as the pool area.	Screen the site with a 2m high fence of dense shade cloth. Retain as much of the dense shrubby vegetation on the perimeter of the site. Ensure that construction staff are aware of the need to behave in a way that ensures construction noise and related impacts are minimised at all times. Ensure that construction activities are limited to day light hours only. Provide for access to the site directly for the Distribution Centre and not via the visitor access roads in the camp.	2	1	2	5	3	30	M: 0.6		18

POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES		EXTENT	DURATION	NTENSITY	PROBABILITY	WEIGHTING FACTOR	SIGNIFICANCE RATING	MITIGATION EFFICIENCY	ENHANCEMENT POTENTIAL	MITIGATED ASPECTS
IMPACT	MITIGATION / ENHANCEMENT	EX	EA:	INT	PROB/	WEIG	SIGNIF	MITIG	ENHAN	MITIG
Increased risk of light pollution impacting on the game drive experience of guests to the Jakkalsbessie Concession.	No construction work to be carried out after dark and no exposed lighting to be erected on the construction site.	2	1	3	3	5	45	H: 0.2		9
HERITAGE										
Potential damage to heritage features through construction activities.	Implementation of the CMP and Watching Brief.	1	1	3	4	4	36	H: 0.2		7.2
Discarding of waste materials.	Implementation of the CMP and Watching Brief.	1	1	4	4	4	40	H: 0.2		8
Clearing of vegetation cover may unearth archaeological material.	Implementation of 'chance find' procedure.	1	1	2	3	2	14	H: 0.2		2.8
	Alternative 3: No-go option									
SOCIAL										
Opportunity costs associated with the loss of job and business opportunities for adjacent communities.	Implementation of the development proposal together with all the mitigation strategies listed in this assessment together with those specified in the PPP Agreement (SANParks, 2016b).	2	2	3	5	5	60	H: 0.2		12
BIOPHYSICAL										
None of the negative impacts listed under Alternatives 1 and 2 will materialise.	n/a									
VISUAL / AESTHETIC										
None of the negative impacts listed under Alternatives 1 and 2 will materialise.	n/a									
HERITAGE										
None of the negative impacts listed under Alternatives 1 and 2 will materialise, however the heritage features will continue to degrade, lose their value and remain unavailable for the general public to experience.	Implementation of the development proposal together with the recommendations in the HIA, its CMP and the Watching Brief.	2	3	3	4	4	48	H: 0.2		9.6

### 8.4 Operational Phase

Table 3: Potential environmental impacts and recommended mitigation measures for the proposed Kruger Selati development during the Operational Phase.

POTENTIAL IMPACTS AND RECO	MMENDED MITIGATION MEASURES	EXTENT	DURATION	INTENSITY	PROBABILITY	WEIGHTING FACTOR	SIGNIFICANCE RATING	MITIGATION EFFICIENCY	CEMENT	MITIGATED ASPECTS
IMPACT	MITIGATION / ENHANCEMENT	EXT	DUR	INTE	PROB/	WEIG	SIGNIF	MITIG	ENHAN	MITIG
Alternative 1: SANParks RfP										
	SOCIAL									
Increased number of employment opportunities.	Ensure opportunities are made available to adjacent communities and where skills are not present, that relevant capacity building is carried out.	2	4	2	5	5	65		H: 1	65
Increased number of business opportunities.	As above.	2	4	2	5	5	65		H: 1	65
Community members are exposed to the principles of sustainability and may carry these with them for implementation in their own homes and businesses.	Implement a continuous programme of environmental awareness and responsibility training.	2	5	2	3	5	60		H: 1	60
	BIOPHYSICAL									
Risk of pollution through the increased generation of solid waste.	As per SANParks (2016a): Solid waste will be recycled at the Selati restaurant area and transported to the Skukuza recycle plant outside Skukuza (adjacent to the compound).	2	4	2	3	5	55	M: 0.6		33

POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES			ENT		ENT		DURATION		PROBABILITY	WEIGHTING FACTOR	SIGNIFICANCE RATING	MITIGATION	ENHANCEMENT POTENTIAL	MITIGATED ASPECTS
IMPACT	MITIGATION / ENHANCEMENT	ЕХТ	PROB/	WEIG	SIGNIFI	MITIG			ENHANG	MITIG				
Risk of pollution through the increased generation of liquid waste and other dangerous substances.	As per SANParks (2016a): Sewerage needs to be disposed from the train into the main sewerage line at the Selati platform. No disposal of human waste or water will be allowed onto the tracks and a procedure needs to be implemented whereby the waste is extracted from the train and deposited into the sewerage system at Selati. An increase in capacity might be required. All the bulk and reticulation systems must conform to the guidelines set out in the Environmental Guidelines for Concessionaire's Operation within the South African National Parks.	2	4	3	3	5	60	M: 0.6		36				
The current disused Selati Restaurant will be recommissioned and no longer appear as a derelict site.	VISUAL / AESTHETIC  Design to ensure maintenance of the historical value of the station, railway line and train.	1	4	3	5	5	65		H: 1	65				
Increase in traffic and the threat of traffic congestion in and around the Selati Precinct.	SANParks to implement recommendations of the SIVEST Traffic Assessment (SIVEST, 2008) and to work with Kruger Selati to ensure that traffic flow and parking is planned to avoid congestion.	1	4	2	3	3	30	M: 0.6		18				
Increased risk of light pollution impacting on the game drive experience of guests to the Jakkalsbessie Concession.	All lighting to be subdued, shielded and focused downwards.	2	4	3	5	5	70	H: 0.2		14				
HERITAGE														
Discarding of waste material.	As per relevant mitigation measures listed above.	1	5	4	4	4	56	H: 0.2		11.2				
Increased visit pressure on heritage sites.	Implementation of CMP and Watching Brief.	1	5	2	5	3	39	MH: 0.4		15.6				

POTENTIAL IMPACTS AND RECO	COMMENDED MITIGATION MEASURES			INTENSITY	PROBABILITY	WEIGHTING FACTOR	SIGNIFICANCE RATING	MITIGATION EFFICIENCY	ENHANCEMENT POTENTIAL	MITIGATED ASPECTS
IMPACT	MITIGATION / ENHANCEMENT	EXTENT	DURATION	N T	PROB,	WEIG	SIGNIF RA	MITIG	ENHAN	MITIG
	Alterative 2: Kruger Selati Proposa									
	SOCIAL									
Increased number of employment opportunities.	Ensure opportunities are made available to adjacent communities and where skills are not present, that relevant capacity building is carried out.	2	4	2	5	5	65		H: 1	65
Increased number of business opportunities.	As above plus ensure BEE obligations are fulfilled.	2	4	2	5	5	65		H: 1	65
Community members are exposed to the principles of sustainability and may carry these with them for implementation in their own homes and businesses.	Implement a continuous programme of environmental awareness and responsibility training.	2	5	2	3	5	60		H: 1	60
	BIOPHYSICAL									
Risk of pollution through the increased generation of solid waste.	As per SRS (2017): Solid waste will be separated at source and placed [securely] in the Solid Waste Yard at Kruger Selati Station for collection by road to Skukuza Solid Waste Centre. The Kruger Selati business model will adopt a policy of minimising the generation of solid waste material wherever possible. Waste management will adopt the approach of reduce, reuse and recycle and will comply with the KNP waste management policy. The EMPr for the Selati Bridge will be aligned with the Skukuza Waste Management policy.	2	4	3	3	5	60	M: 0.4		24

POTENTIAL IMPACTS AND RECO	POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES		DURATION	ATION	ATION	ENT	INTENSITY	PROBABILITY	WEIGHTING FACTOR	SIGNIFICANCE RATING	MITIGATION EFFICIENCY	ENHANCEMENT POTENTIAL	MITIGATED ASPECTS
IMPACT	MITIGATION / ENHANCEMENT	EXTENT	DUR	IN THE	PROB/	WEIG	SIGNIF	MITIG	ENHAN	MITIG			
Risk of pollution through the increased generation of liquid waste and other dangerous substances.	As per SRS (2017): The liquid waste will be reticulate in a small bore system from the train into the Skukuza main system. Conservancy sewerage chambers with small bore pumps will be placed under the lounge carriages and sleeper carriages. These chambers will be connected to the small bore pipe network under the bridge walkway with parrot couplings. One way valves will be position upstream of each parrot connection and the small bore pumps will then pump the sewerage from the conservancy chamber directly to a larger collection tank on the south side of the bridge. The sewerage will then be pumped from this collection tank to the nearest Skukuza gravity manhole that forms part of the main Skukuza sewer reticulation. All conservancy chambers will have back-up pumps and both pumps will operate alternatively. In the event of a pump failure the second pump will kick in until repairs are executed. A warning/ pump management system will be provided. The Kruger Selati business model will adopt a policy to minimise the consumption of water wherever possible. Kitchen waste from preparation and cooking, used cooking oil and any other liquid waste will be handled in accordance with the EMPr and where appropriate a specialist contractor will be appointed to safely dispose of any wastes identified as hazardous. All chemical substances used in cleaning will be biodegradable, and environmentally friendly.	2	4	3	3	5	60	M: 0.4		24			
The surround discussed Colleti Dendament will be	VISUAL / AESTHETIC	1	I						· ·				
The current disused Selati Restaurant will be recommissioned and no longer appear as a derelict site.	Design to ensure maintenance of the historical value of the station, railway line and train.	1	4	3	5	5	65		H: 1	65			

Increase in traffic and the threat of traffic congestion in and around the Selati Precinct.	SANParks to implement recommendations of the SIVEST Traffic Assessment (SIVEST, 2008) and to work with Kruger Selati to ensure that traffic flow and parking is planned to avoid congestion.	1	4	2	3	3	30	M: 0.6	18
Increased risk of light pollution impacting on the game drive experience of guests to the Jakkalsbessie Concession and adjacent areas within the Skukuza Rest Camp.	As per SRS (2017): All the passages in the carriages will be located on the western side of the bridge. Blinds will be closed during sunset to reduce heat generation within the carriage and these blinds will remain closed for the night. This will reduce the light intrusion as seen from the Cattle Baron Restaurant and self-catering chalets on the south bank of the river [as well as to game drives in the Jakkalsbessie Concession]. The walkway will have foot lighting the will be hidden from the west and will be subdued to reduce glow.	2	4	4	5	5	75	H: 0.2	15
The permanent placement of the railway carriages on the Selati Bridge will change the vista as seen from both the west and the east which could impact negatively on the game viewing experience of visitors to the KNP and the Jakkalsbessie Concession.	As per SRS (2017): The change in vista may inspire a sense of adventure and enhance the visitor experience. Kruger Selati proposes the exterior colour of the train as beige and dark green, with discreet branding on the side of the train. The colour selection is in line with guidelines set by SANParks in the RFP document. We believe this colour combination blends in with the environment and will have the least visual impact. Kruger Selati undertakes to limit signage to only the necessary, and in line with SANParks' current style and requirements. This will be designed to be visually appealing, as well as to blend in with environment as does all other signage by SANParks. The colours will be limited to SANParks' dark green signboards with white writing. We are committed to the Selati project blending in with the environments as much as possible, to enhance the visitor experience and offering, while leaving as little visual footprint as possible.	2	4	3	5	3	42	M: 0.6	25.2
	HERITAGE	1							
Discarding of waste material.	As per relevant mitigation measures listed above.	1	5	4	4	4	56	H: 0.2	11.2
Increased visit pressure on heritage sites.	Implementation of CMP and Watching Brief.	1	5	2	5	3	39	MH: 0.4	15.6

Heritage features are restored, maintained, are accessible to the public and guests and preserved for future generations.		1	5	3	5	3	42		H: 1	42
	Alternative 3: No-go option									
	SOCIAL									
Opportunity costs associated with the loss of job and business opportunities for adjacent communities.	If the development does go ahead then the applicant will not be in a position to mitigate this negative social impact, therefore no 'mitigation efficiency' score has been allocated	2	2	3	5	5	60			60
BIOPHYSICAL										
None of the negative impacts listed under Alternatives 1 and 2 will materialise.	n/a									
	VISUAL / AESTHETIC									
The status quo of the Selati Precinct will remain, i.e. disused and degenerating and resembling a construction site in immediate proximity to chalets and the swimming pool in the Skukuza Rest Camp.	n/a	1	4	3	3	3	33	L: 1		33
HERITAGE										
Discarding of waste material.	As per relevant mitigation measures listed above.	1	5	4	4	4	56	H: 0.2		11.2
Increased visit pressure on heritage sites.	Implementation of CMP and Watching Brief.	1	5	2	5	3	39	MH: 0.4		15.6

#### 8.5 Summary of Impact Analysis

The following observations can be made from the above impact analysis:

- The two development alternatives may generate negative impacts during the construction
  phase related to the risk of pollution from solid and liquid waste as well as visual / aesthetic
  aspects. These are of medium to medium-low significance and mitigation measures are
  available with efficiencies that drop their significance rating post-mitigation to acceptable
  levels.
- A similar situation presents itself for the operational phase although some of the potential impacts related to waste and visual / aesthetics are more significant pre-mitigation. This serves to highlight the importance of the EMPr and regular and frequent compliance auditing during both construction and operation. None of the potential negative impacts remain significant post-mitigation.
- The No-go alternative will avoid any of the potential negative biophysical and visual / aesthetic
  impacts, but as these are shown to be mitigatable, the negative social consequences related
  to opportunity costs suggest that this alternative should not be considered.

#### 9 PUBLIC PARTICIPATION PROCESS

Public involvement in this impact assessment process was facilitated through the following actions:

- A notice of intention to apply for environmental authorisation was published as follows:
  - On the SANParks website and in selected social media platform managed by the SANParks media liaison personnel on 26 January 2018;
  - In the Mpumalanga News on 25 January 2018;
  - o In the Lowvelder on 26 January 2018; and
  - In the Hoedspruit Herald on 2 February 2018.
- Laminated A3 notices were posted at the following localities:
  - Phabeni Entrance Gate reception adjacent to reception entrance;
  - Paul Kruger Gate reception adjacent to reception entrance;
  - Skukuza Rest Camp reception notice board;
  - Skukuza Rest Camp shop notice board;
  - Skukuza Day Visitor Facility adjacent to entrance gate; and
  - Skukuza Conference Centre adjacent to reception entrance.

Evidence of the above is provided in Annex B.

In addition to the above the operators of the Jakkalsbessie Concession in the Kruger National Park we also informed directly as this concession area is immediately adjacent to the Kruger Selati initiative.

Public responding to these notices were registered in a contacts database (see Annex C) and were sent a copy of the Background Information Document (see Annex D).

Insert additional text as the process unfolds and comments are provided and responded to Include a paragraph on authorities...

#### 9.1 Summary of Comments and Responses

#### 10 ASSUMPTIONS AND LIMITATIONS

The Basic Assessment Report has been prepared on the strengths of the information available, from our field surveys and that provided by the applicant at the time of the assessment. The assessment was conducted as a desktop and field survey. Topographical and Ecological maps were used. The assumptions made and constraints that were prevalent did not obviously have any restrictive or negative implications on the study.

In undertaking this investigation and compiling the Basic Assessment Report, the following has been assumed:

- The information provided by the client is accurate;
- The scope of this investigation is limited to assessing the environmental impacts associated with the construction and operation of the proposed Kruger Selati upmarket tourism accommodation and associated restaurant and edutainment facilities; and
- Should the project be authorised, the applicant will implement any layout changes, recommendations and mitigation measures outlined in the BA and authorisation into the detailed design and construction contract specifications of the proposed project.

#### 11 EAP RECOMMENDATIONS

It is recommended that Alternative 2, i.e. the Kruger Selati Proposal, be granted environmental authorisation subject to all mitigation measures being strictly adhered to within the context of the compliance monitoring recommendations made in Section 6.3.

#### 12 CONCLUSION

#### 13 REFERENCES

Bornman, H. 2004 (2nd impression). Pioneers of the Lowveld (Unpublished manuscript).

Emerton, L., Bishop, J. and Thomas, L., 2006. Sustainable Financing of Protected Areas: A Global Review of Challenges and Options. Gland, Switzerland and Cambridge, UK: IUCN.

Kruger National Park, n.d. Die Selati-spoorlyn. The Selati Railway line (brochure).

Pienaar, U.de V. (ed.). 1990. Neem uit die verlede (Pretoria: Sigma Pers).

Sithole Restoration Services (SRS), 2017. Kruger Selati Bid: Environmental Proposal. January 2017. Sithole Restoration Services (Pty) Ltd., Johannesburg, South Africa.

- SIVEST (PTY) LTD. (SIVEST), 2008. Marula Region Strategic Environmental Assessment: Kruger National Park: Traffic Assessment. Report No. T2008/013, July 2008. Prepared by TraffTrans (Pty) Ltd., Pretoria, South Africa.
- South African National Parks (SANParks), 2016a. Request for Proposals: Request for Proposals Issued by South African National Parks in Respect of the Proposed Public Private Partnership Project for the Establishment of Accommodation on the Selati Bridge and Development of the Selati Precinct in the Kruger National Park. SANParks, Muckleneuk, Pretoria, South Africa.
- South African National Parks (SANParks), 2016b. Selati Accommodation PPP Agreement: Public Private Partnership Agreement for the Selati Train Hotel and Restaurant in the Kruger National Park. SANParks, Muckleneuk, Pretoria, South Africa.
- South African National Parks (SANParks), in process. Draft Kruger National Park, Park Management Plan, for the period 2018 2028. Management Plan compiled in terms of Sections 39 and 41 of the National Environmental Management: Protected Areas Act No. 57 of 2003 (NEM: PAA), and subject to public review and comment by 9 March 2018. SANParks, Muckleneuk, Pretoria, South Africa.
- South African National Parks (SANParks), undated. Request for Proposals Issued by South African National Parks in Respect of the Selati Accommodation and Precinct Development Opportunity Questions and Answers Document. SANParks, Muckleneuk, Pretoria, South Africa.
- Stevenson-Hamilton, J. 1952. South African Eden. From Sabi Game Reserve to Kruger National Park (London: Cassell & Company).
- Van Vollenhoven, A.C., Pelser, A.J. & Van den Bos, J.W. 1998. Historical archaeological investigation of the Northernmost outpost of Steinaecker's Horse Letaba district, Kruger National Park (Unpublished report, Sunnyside, National Cultural History Museum).
- Van Vollenhoven, A.C. 2010. Die Britse vrywilligerseenheid Steinaecker's Horse in die Anglo-Boereoorlog (1899-1902): 'n kultuurhistories studie. (Unpublished D.Phil -dissertation, Stellenbosch, University of Stellenbosch).
- Woolmore, W. 2006. Steinaecker's Horsemen South Africa 1899-1903. (Barberton: South African Country Life).

# ANNEX A: SUMMARY OF QUANTIFIERS AND QUALIFIERS USED FOR ASSESSMENT PURPOSES

CAREGORY	RATING	EXPLANATION
Sensitivity of	Low	The aspect has very little value in terms of its ecological
Aspect /		importance e.g. a highly disturbed area is rated as low);
Magnitude or	Medium	The aspect has certain qualities which make it ecologically
intensity of		valuable); or
impact:	High	The aspect is near pristine and has numerous qualities
		which make it extremely ecologically valuable).
Duration (time scale):	Short-term	Impact restricted to construction and early operation (0-5 years);
	Medium- term	Impact will cease on closure of the site (6-30 years);
	Long-term	Impacts will exist beyond the life of the site (>30 years); or
	Permanent	Impacts will have permanent potential.
Geographic	Site	The impact will be limited to within the site boundaries;
Spatial Scale:	Local	The impact will affect surrounding areas;
	Regional	The impact will affect areas far beyond the site boundary
		but limited to the Province of KwaZulu-Natal; or
	National	The impact will affect areas far beyond the site boundary within the South Africa.
Significance	Low	The impact will have a minimal effect on the environment;
rating pre / post-	Medium	The impact will result in a measurable deterioration in the
mitigation:		environment; or
	High	The impact will cause a significant deterioration in the
		environment.
Degree of		Definite (>90%);
certainty:		Probable (>70%);
		Possible (40%); or
		Unsure (<40%).
Mitigation:		No mitigation necessary;
	Full	Full mitigation/reversal of the impact is possible;
	Partial	Only partial mitigation/reversal of the impact is possible; or
	None	No mitigation or reversal of the impact is possible.

#### ANNEX B: EVIDENCE OF PUBLIC NOTICE PUBLICATION AND PLACEMENT

#### NOTICE: APPLICATION FOR ENVIRONMENTAL AUTHORISATION

Kruger Selati (Pty) Ltd, is applying in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), and the Environmental Impact Assessment Regulations, 2014 to the Chief Directorate: Integrated Environmental Authorisations of the National Department of Environmental Affairs; for environmental authorisation at the Basic Assessment level, to develop a 48 bed tourism facility comprised of 12 railway carriages and a lounge carriage on the Selati Railway Bridge over the Sabie River adjacent to the Skukuza Rest Camp in the Kruger National Park, at the GPS co-ordinates 24°59'28.93"S and 31°35'48.71"E. In addition to this the existing Waterkant Guest Houses will be refurbished as upmarket tourism accommodation comprising of 12 beds with associated lounge and dining facilities. These two guest houses will be replaced by the development of a 12 bed guest house available for use by the general public just to the west of the existing Nyati Guest House.

The development as a whole will reflect the historical and heritage value of the Selati Railway Line and will include additional facilities within the footprint of the existing Selati restaurant building, which is to the south of the Bridge and within the boundaries of the Skukuza Rest Camp, such as themed restaurants for both the general public and for exclusive use of the overnight guests to the facility, themed edutainment and interpretative areas for the general public and reception facilities for the overnight guests. These additional components may function independently of the upmarket tourism accommodation described above and are not part of the application for environmental authorization. To the north of the Bridge it is proposed that a stationary box carriage be positioned on the existing railway tracks to serve as storage and backdrop for bush diner functions and the departure/return of game drives.

The Skukuza Rest Camp in the Kruger National Park falls within the Bushbuckridge Local Municipality within the Ehlanzeni District Municipality (DC32) which is in the Mpumalanga Province.

You are invited to register as an Interested and Affected Party by contacting the Environmental Assessment Practitioner as per the details provided below:

#### Kevan Zunckel of Emross Consulting (Pty) Ltd.

Address: 7 Annthia Road, Hilton, 3245

Tel: 033-3431739 Fax: 086 517 5582 Cell: 082 929 4270

Email: kevan@emross.co.za.



In order to ensure that you are identified as an interested and/or affected party, if you so wish, please submit your name, contact information and interest in the above mentioned project to the contact person given above within 30 days of the publication date of this advertisement, i.e. before 26 February 2018. As part of this process a Heritage Impact Assessment is also being prepared by Archaetnos CC. Any interested or affected party who wishes to comment on this is invited to do

so in writing to the Heritage Consultant, Archaetnos, at antonv@archaetnos.co.za before the above date.



Figure 13: Public notice at the Phabeni Gate reception (© K Zunckel).



Figure 14: Public notice at the Paul Kruger Gate Reception (© K. Zunckel).

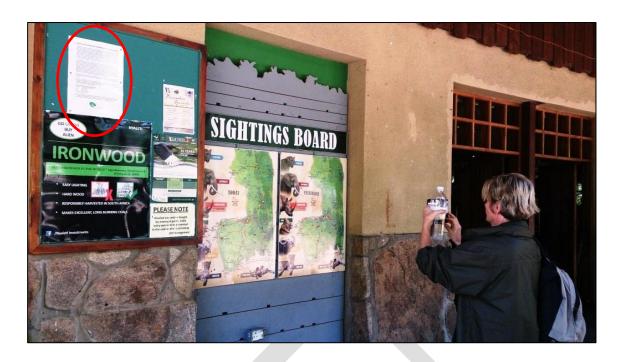


Figure 15: Public notice at the Skukuza Rest Camp Reception (© K. Zunckel).

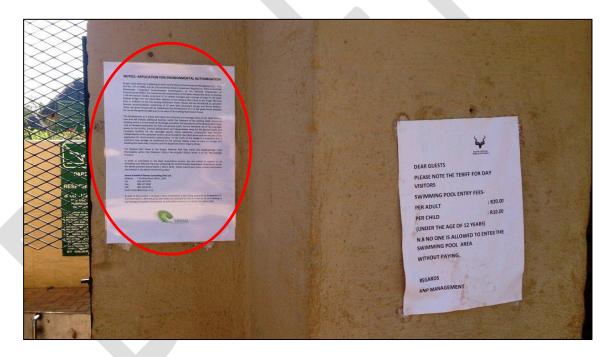


Figure 16: Public notice at the Skukuza Day Visitor Facility (© K. Zunckel).



Figure 17: Public notice at the Skukuza Rest Camp Reception (© K. Zunckel).



Figure 18: Public notice at the Skukuza Conference Centre (© K. Zunckel).



## ANNEX D: BACKGROUND INFORMATION DOCUMENT

