



# Generic Environmental Management Programme for the Kruger National Park

Prepared by: Department of Forestry, Fisheries and the Environment

Prepared for: South African National Parks (SANParks)

Generic Environmental Management Programme to be cited as:

Department of Forestry, Fisheries and the Environment, 2023 Generic Environmental Management Programme for the Kruger National Park (version 0 of February 2024).

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## DEFINITIONS AND TERMINOLOGY

Definition	Description
Activity (ies)	This entails an activity identified in any notice published by the Minister or MEC, with the concurrence of the Minister, in terms of section 24D(1)(a), read with section 24(2)(a) and (b) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) as a listed or specified activity
Annual Infrastructure Project Implementation Plan	Means the yearly plan detailing the tasks, financial, and personnel resources to undertake specific tasks that will lead to the achievement of the objectives of the Kruger National Park as reflected in the approved management plan and accessible at <a href="https://www.dffe.gov.za/projectprogrammes/environmental_management_instruments">https://www.dffe.gov.za/projectprogrammes/environmental_management_instruments</a> .
Archaeological material/ remains	Material remains (such as tools, pottery, jewellery, stone walls, and monuments) of past human life and activities
Competent authority	“Competent authority” means the organ of state that would have been designated by section 24C of the National Environmental Management Act, 1998 (Act No. 107 of 1998) with considering an application for environmental authorisation in respect of a listed or specified activity.
Clearance	The action or process of clearing or removing natural vegetation cover to make way for development
Development	Development means the building, erection, construction or establishment of a facility, structure or infrastructure, including associated earthworks or borrow pits, that is necessary for the undertaking of a listed or specified activity, but excludes any modification, alteration or expansion of such a facility, structure or infrastructure, including associated earthworks or borrow pits, and excluding the redevelopment of the same facility in the same location, with the same capacity and footprint
Environmental Control Officer	During the implementation of projects, the Environmental Control Officer is the specific person who will ensure the implementation of tasks in line with the approved Generic Environmental Management Programme to ensure projects and activities achieve overall environmental objectives in line with the Generic Environmental Management Programme
Environmental Monitor	Appointed by SANParks to offer conservation assistance and working in conjunction with the Section Ranger responsible for a range of functions including: undertaking routine patrols on foot, bicycle or vehicle; close liaison with and reporting to the Section Ranger; assisting the Section Ranger with monthly administrative and other tasks; gathering conservation-related information and reporting back on those; executing anti-poaching operations, including field deployments; and assisting with other conservation tasks such as alien plant control; as well as compiling progress reports on key deliverables
Expansion	"Expansion" means the modification, extension, alteration or upgrading of a facility, structure or infrastructure at which an activity takes place in such a manner that the capacity of the facility or the footprint of the activity is increased
General authorisation	An authorisation to use water without a licence, provided that the water use is within certain limits and complies with conditions set out in the Gazetted general authorisation. This authorisation requires a registration with the Department of Water and Sanitation prior to exercising the water use(s)
Heritage Resources	“heritage resource” means any place or object of cultural significance

Impact management action	Impact management actions are basically the methods one uses to achieve the desired outcome
Impact management outcome	The intended outcome of a specific set of actions that will individually or collectively result in the achievement of the desired outcome of management interventions
Indigenous vegetation	"Indigenous vegetation" refers to vegetation consisting of indigenous plant species occurring naturally in an area, regardless of the level of alien infestation and where the topsoil has not been lawfully disturbed during the preceding ten years
Invasive alien plant	Invasive alien plant species are species whose introduction and/or spread outside their natural distribution threaten biological diversity. They are non-native to an ecosystem and may cause economic or environmental harm
Listing Notices	In accordance with section 24(2) of the National Environmental Management Act, 1998 (Act No. 107 of 1998), the listing notices contain activities published in Listing Notices 1, 2 and 3 of the Environmental Impact Assessment Regulations of 2014, as amended, identified by the Minister, or an MEC with the concurrence of the Minister
Maintenance	"Maintenance" means actions performed to keep a structure or system functioning or in service on the same location, capacity and footprint
Park Management Plan	"Park Management Plan" means the Kruger National Park: Park Management Plan for the period 2018 – 2028, as approved by Mr D.A. Hanekom, MP, Acting Minister of Environmental Affairs, 22 November 2018, in terms of sections 39, 40 and 41 of the NEM: PAA, and updated every 10 years
Mitigation measures	Mitigation measures are means to prevent, reduce or control adverse environmental effects of a project, and include restitution for any damage to the environment caused by those effects through replacement, restoration, compensation or any other means
Palaeontological	Relating to fossils and the structure and evolution of extinct animals and plants and the age and conditions of deposition of the rock strata in which they are found
Park Environmental Compliance Officer	means an official appointed by SANParks and working in similar role to the Environmental Control Officer who is responsible for assessing proposed developments and activities within the Kruger National Park, monitoring compliance with environmental legislation, auditing the requirements of the Generic Environmental Management Programme, as well as assessing developments and review of management plans
Watercourse	In the context of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Listing Notices, "watercourse" means - (a) a river or spring; (b) a natural channel in which water flows regularly or intermittently; (c) a wetland, pan, lake or dam into which, or from which, water flows; and any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse as defined in the National Water Act, 1998 (Act No. 36 of 1998); and a reference to a watercourse includes, where relevant, its bed and banks
Water use licence	A water use licence is required when the risk of impact to a water resource is too high and the proposed activity does therefore not comply with the conditions of any gazetted general authorisation published by the Minister responsible for water and sanitation
Wetland	"Wetland" means land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically

	covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil
Zoning scheme	“Zoning scheme” refers to the protected area zoning which is legally required in terms of section 41(2)(g) of the National Environmental Management: Protected Areas Act, 2003 (Act No. 53 of 2003)

## ACRONYMS AND ABBREVIATIONS

<b>Acronym</b>	<b>Descriptions</b>
AEL	Atmospheric emission licence
DFFE	Department of Forestry, Fisheries and the Environment
DWS	Department of Water and Sanitation
EA	Environmental authorisation
ECO	Environmental Control Officer
EIA	Environmental impact assessment
EM	Environmental Manager
EMPr	Environmental management programme
ERAP	Emergency Response Action Plan
GA	General authorisation
GEMPr	Generic Environmental Management Programme
IAP	Invasive alien plant
I&AP	Interested and affected party
KNP	Kruger National Park
MEC	Member of the Executive Council
MSDS	Material safety data sheets
MS	Method statement
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM: BA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NEM: PAA	National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003)
NEM: WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NFA	National Forest Act, 1998 (Act No. 84 of 1998)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NWA	National Water Act, 1998 (Act No. 36 of 1998)
OHS Act	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)
PECO	Park Environmental Compliance Officer
PMP	Park Management Plan
PPE	Personal protective equipment
SANParks	South African National Parks
WML	Waste management licence
WUL	Water use licence

## **1 PART A: BACKGROUND**

The Minister has declared a number of protected areas and national parks as provided for in sections 9, and 20 of the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (NEM: PAA), respectively. The Minister has assigned the South African National Parks (SANParks) as the management authority charged with the management of national parks in terms of section 38(1)(aA) of NEM: PAA, which provides that the Minister must assign the management of a national park to SANParks. As the assigned management authority, SANParks must, in terms of sections 39, 40 and 41 of the NEM: PAA prepare Park Management Plans (PMPs) for all protected areas under their management, and SANParks has complied with this requirement. The PMPs are required to ensure that the parks are protected, conserved and managed in accordance with objectives of the NEM: PAA and the purpose for which they were declared.

Part of the management actions undertaken by SANParks within the national parks include among others, the development of facilities including a variety of accommodation options, the development of infrastructure including access roads, picnic spots, bird hides, lookout and viewing points, water pipelines as well as the undertaking of maintenance and vegetation management and rehabilitation. These actions and the presence of tourists in these protected areas may result in undesirable impacts on the environment. These negative impacts must be avoided where possible, managed where avoidance is not possible, and rehabilitated if necessary.

## **2 PURPOSE AND INTENTION**

This document constitutes a Generic Environmental Management Programme (GEMPr) for the avoidance, management and rehabilitation of environmental impacts that would result from the activities undertaken in the Kruger National Park (KNP). This GEMPr has been prepared in line with the requirements of section 24N of NEMA and Appendix 4 of the Environmental Impact Assessment Regulations, 2014, as amended.

Based on compliance with this GEMPr once adopted as an environmental management instrument, the KNP will be excluded from the requirement to obtain environmental authorisation (EA) prior to commencement for all NEMA section 24(2)(a) and (b) activities identified in the Annual Infrastructure Project Implementation Plan, all activities related to maintenance, operational activities and all activities related to conservation projects or rehabilitation, with the exception of those activities indicated under paragraph 2.2.2 below.

The requirement to obtain permits or licences in terms of other legislation [such as the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA), National Water Act, 1998 (Act No. 36 of 1998) (NWA), National Forests Act, 1998 (Act No. 84 of 1998) (NFA), and National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEM: BA)], will still apply as required by these laws, unless decisions have been issued indicating otherwise.

### **2.1 Objective**

The objective of this GEMPr is to prescribe and pre-approve generally accepted impact management outcomes and impact management actions, which can commonly and repeatedly be used for the avoidance, management and mitigation of impacts and risks associated with the implementation of projects. These are projects within the Annual Infrastructure Project Implementation Plan, as well as all



identified activities related to maintenance, conservation and rehabilitation within the Kruger National Park. The use of this GEMPr is intended to reduce the need to prepare and review individual EMPs for activities of a similar and predictable nature.

## **2.2 Scope**

This GEMPr applies to the following activities identified in terms of section 24(2)(a) and (b) of NEMA:

### **2.2.1 Activities;**

2.2.1.1 all activities listed in the Annual Infrastructure Project Implementation Plan;

2.2.1.2 all activities related to maintenance; and

2.2.1.3 all activities related to conservation projects or rehabilitation.

2.2.2 The following activities do not form part of the exclusion contemplated in paragraph 2.2.1:

2.2.2.1 all energy activities related projects for which an atmospheric emission licence (AEL) is required under the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004); and

2.2.2.2 all waste management activities for which a waste management licence (WML) is required under the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM: WA).

All projects must be signed off by the Managing Executive or the relevant delegated official in the park before commencement and be undertaken within the approved zoning scheme of the PMP. This GEMPr applies to projects being undertaken within the KNP.

## **3 ROLES AND RESPONSIBILITIES**

The effective implementation of this GEMPr is dependent on established and clear roles, responsibilities, and reporting lines within an institutional framework. This section of the GEMPr gives guidance on the various environmental roles and responsibilities, however, project-specific requirements will ultimately determine the need for the designation of specific person(s) to undertake specific roles and responsibilities. The KNP is ultimately responsible for the successful implementation on this GEMPr.

Responsible person (s)	Roles and Responsibilities
<p><b>Competent authority</b></p>	<p>Role:</p> <p>The Minister of Forestry, Fisheries and the Environment is the competent authority for development activities within the boundaries of national parks in terms of section 24C(2)(e) of NEMA. The provincial environmental MECs are the competent authorities when activities are undertaken in private game reserves or contractual game reserves that are adjacent to national parks.</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> <li>• The compliance unit of the competent authority will receive the list of projects signed off by the Managing Executive or the relevant manager in the KNP who is responsible for the sign off of the Annual Infrastructure Project Implementation Plan, in which projects that are part of the exclusion will be identified.</li> <li>• Compliance auditing of all projects that are part of the exclusion.</li> <li>• Review of annual environmental audit reports submitted by the KNP.</li> <li>• Where there is evidence of non-compliance with the GEMPr, issue fines to the parties at fault. Non-compliance with the GEMPr constitutes an offence in terms of section 49A(1)(d) of NEMA which would lead to enforcement action being undertaken by the relevant competent authority.</li> </ul>
<p><b>Proponent/ SANParks</b></p>	<p>Role:</p> <p>SANParks is the proponent for all development activities within KNP.</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> <li>• Implement or manage all infrastructure development and maintenance in the park.</li> <li>• Is responsible for overall implementation and compliance with the GEMPr.</li> </ul>

<p><b>Environmental Manager (EM) or the relevant designated official</b></p>	<p>Role:</p> <p>The EM or relevant designated official and the Environmental Control Officer (ECO) or Park Environmental Compliance Officer (PECO) as the case may be, must, on behalf of SANParks, ensure the compliance of all projects within the KNP to the GEMPr during all phases of projects.</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> <li>• Ensure that the contractor and subcontractors receive the necessary induction and environmental awareness training.</li> <li>• Ensure that the contractor and subcontractors receive all the documentation prior to signing the GEMPr template and all contract documents.</li> <li>• Receive and assess all incident reports from the ECO/PECO and ensure that appropriate remedial action is taken timeously.</li> <li>• Ensure implementation of the GEMPr by all contractors and staff working on projects in the KNP.</li> <li>• Approve and sign off method statements (MSs)<sup>1</sup> for all projects.</li> </ul>
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<sup>1</sup> MSs are detailed plans that outline the steps and procedures to be followed for a specific task or project. These statements are commonly used in industries such as development, manufacturing, and engineering to ensure that work is carried out safely and efficiently. The purpose of MSs is to ensure that work is done in a consistent and controlled way, reducing the risk of accidents, errors, or delays.

<b>Park Environmental Compliance Officer (PECO)</b>	<p>Role:</p> <p>Appointed by SANParks and working closely with the EM or designated official, the PECO oversees monitoring of the implementation of projects in the KNP to ensure that the projects comply with all environmental specifications as well as best-practice environmental measures as practiced in the parks (i.e. in line with all park environmental management policies and rules). The PECO is responsible for the implementation of the GEMPr, environmental monitoring and reporting, and liaison with the contractor and subcontractors as well as general staff working on projects in the KNP.</p> <p>Responsibilities:</p> <p>Among other things, the PECO is responsible for:</p> <ul style="list-style-type: none"><li>• Being conversant with the GEMPr and all the mitigation measures and be able to implement them.</li><li>• Monitor the implementation of the mitigation and management measures in the GEMPr.</li><li>• Ensure that all stipulations in the GEMPr are communicated to contractors and subcontractors and complied with fully.</li><li>• Assist the ECO appointed on each project to address environmental challenges on site.</li><li>• Assist Park officials in incident management (i.e. assist the contractor in investigating environmental incidents and compile investigation reports).</li><li>• Conduct environmental awareness training and induction to all park officials working on projects in the park.</li><li>• Receive and assess monitoring and audit reports from the ECO and assess quality thereof.</li><li>• Maintain ongoing communication with the ECO linked to projects to ensure full compliance of projects with the GEMPr.</li></ul>
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<b>Environmental Control Officer (ECO)</b>	<p>Role:</p> <p>The ECO is appointed by the contractor. The ECO must have appropriate training and experience in the implementation of environmental management specifications. The project proponent will see to it that an ECO is appointed for each project within the KNP. For projects implemented by the KNP for which no ECO is in place, the PECO or the relevant Section Ranger with suitable induction training in environmental procedures and specifications will play the role of the ECO.</p> <p>The primary role of the ECO is to act as a quality controller and monitoring agent regarding all environmental concerns and associated environmental impacts. In this respect, the ECO will conduct site inspections, attend regular site meetings, pre-empt problems and suggest mitigation measures and be available to advise on incidental issues that arise.</p> <p>Responsibilities:</p> <ul style="list-style-type: none"><li>• The ECO shall ensure full compliance with the requirements of the GEMPr.</li><li>• Be conversant with environmental legislation, policies and procedures and ensure full compliance with them.</li><li>• Environmental awareness training of contractor and subcontractor staff, to convey the contents of the GEMPr through an induction process.</li><li>• The ECO will also conduct general environmental awareness training to clarify all environmental issues that may be unclear.</li><li>• The ECO will be available on site and will be responsible for managing the implementation of projects to ensure compliance with the GEMPr.</li><li>• Keep a record of deviations and incidents on the incidents register.</li><li>• Conduct inspections of all project sites.</li><li>• Conduct annual compliance audits and quarterly monitoring reports.</li><li>• Compile an environmental audit report and highlighting any non-compliance issues as well as satisfactory or exceptional compliance with the GEMPr.</li></ul>
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<p><b>Contractor</b></p>	<p>Role:</p> <p>The contractor is responsible for implementation of projects in the KNP where projects have been outsourced. In some cases, the contractor may bring in subcontractors to work on projects.</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> <li>• Sign acceptance and understanding of conditions of projects as per the contractual agreements and the GEMPr.</li> <li>• Prepare and sign MSs to ensure appropriate implementation of projects with the guidance of the PECO /ECO where necessary.</li> <li>• Project implementation in keeping with the impact management outcomes and impact management actions in the KNP GEMPr.</li> </ul>
<p><b>GIS Unit (Scientific Services)</b></p>	<p>Role:</p> <p>There are various subject matter experts in the KNP within the Scientific Services section who support policy development and input of scientific information into biodiversity conservation in the park.</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> <li>• Confirm the zoning of sites identified for proposed projects as part of the site sensitivity verification and suitability assessment exercise undertaken during the preparation of the site plan for each proposed development site.</li> <li>• Where requested, accompany the team conducting the site walkthrough as part of the site sensitivity verification for identified project sites with the EM, Section Rangers, heritage experts, as well as any other personnel who may be deemed relevant based on the specific circumstances of each park.</li> <li>• Assist with data layers required for the preparation of the final site layout maps.</li> </ul>

<p><b>Technical Services and Planning/ Implementation Unit.</b></p>	<p>Role:</p> <p>The final design layout of projects is done by the Technical Services and Planning department and the Development and Environmental Committee (where this is in place) of the KNP.</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> <li>• Prepare final layout maps of development sites showing the location of sensitive features.</li> <li>• Final design layout maps for project sites.</li> </ul>
<p><b>Park officials working on projects</b></p>	<p>Role:</p> <p>Some project activities are undertaken by park officials on a day-to-day basis. This includes repair work and general maintenance activities in the KNP. The Section Ranger and Technical Services project manager are the lead persons supervising the implementation of activities supported by Field Rangers, Environmental Monitors and general workers. The Section Ranger or the PECO will ensure full compliance with the requirements of the GEMPr.</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> <li>• Repair work on roads and other facilities in the park.</li> <li>• Undertake general maintenance activities under supervision of the PECO or the relevant officials in the park.</li> <li>• Implement impact management actions and outcomes as articulated in the GEMPR and other relevant park plans/documents.</li> </ul>

## **4 ENVIRONMENTAL DOCUMENTATION AND REPORTING OF COMPLIANCE WITH THE PARK MANAGEMENT PLAN AND THE GENERIC EMPR**

### **4.1 Register of projects**

The KNP EM must maintain a register of all projects that are subject to this exclusion and keep such a register up to date to ensure compliance of individual projects with the PMP and GEMPr. The Register will also serve to provide a status update on the implementation of projects that have been signed off and are the subject of the exclusion.

### **4.2 GEMPr project file**

As part of the register of projects above, provision must be made for a GEMPr file that will contain information for each project that is part of the exclusion. The PECO or ECO for each project will be responsible for collating all the information for the project sites. The GEMPr file must be kept up to date and made available to officers from the competent authority's compliance section on request. The GEMPr file must contain information on the following for each of the projects that are part of the exclusion:

- An up-to-date register of sites;
- Site plan for each site;
- Baseline report and photolog;
- A photographic record of the development site, recording especially the condition of the proposed development area footprint, which will be used to show the state of the environment on the site before, during, and after the development or rehabilitation activities;
- Any areas understood to be sensitive must be cordoned off as "no go" areas;
- All areas designated as work areas, camp areas, development sites and storage / lay-down areas must be photographed before, during and after the set-up of the site;
- Identified access roads;
- Development-related waste management sites;
- An up-to-date environmental incident log;
- A copy of all corrective actions signed off (i.e. the corrective actions must be filed in such a way that a clear reference is made to the non-compliance record);
- Complaints register [i.e. complaints from all stakeholders/ tourists];
- Copies of any applicable permits or authorisations other than the PMP and GEMPr;
- Filled GEMPr template - **PART B: PRE-APPROVED GEMPr TEMPLATE** with each page signed and dated, with a code used for the MSs consistent with the paragraph numbers in the GEMPr template. A Microsoft Word version of the GEMPr template will be made available for filling in; and
- Signed MSs and copies of Standard Operating Procedures (SOPs) (if relevant).

### **4.3 Site plan**

Each proposed project must be located in the appropriate zone in terms of the zoning scheme in the PMP for the KNP. A site plan must be provided for each project site where the exclusion will be applied. The GIS unit or the Technical Planning Services unit will assist contractors to prepare site maps of the proposed development as well as a spatial representation of all environmentally sensitive features on the proposed development sites based on a site sensitivity verification.



The site plan must be accompanied by detailed photographs taken from all compass directions on the site. The site plan for the proposed development or maintenance sites must include the following as a minimum:

- Detailed site description (with photos from all compass directions);
- Site locality;
- Site layout map indicating the project site, access point(s), areas of sensitivity, no-go areas (if applicable); and
- Position of activities on the site, including temporary versus permanent activities, waste storage sites including any bunding areas that may be required, location of ablution facilities, temporary infrastructure, plus any phasing of development (i.e. development and/or operation), illustrated at an appropriate resolution.

#### **4.4 Method Statements (MSs)**

MSs set out the plant, materials, labour and methods that the contractor will use to carry out an activity. MSs must contain sufficient detail to enable the EM/ ECO to assess whether the contractor's proposal is in accordance with the requirements of the GEMPr. The contractor must sign each MS along with the EM/ ECO to formalise the approved MS.

Any changes to the method of works must be reflected by amendments to the original approved MSs. Any changes in this regard must be approved by the ECO in consultation with the EM on the understanding that such changes are environmentally acceptable and in line with the requirements of this GEMPr.

MSs must address the following aspects:

- **What** – a brief description of the work to be undertaken;
- **How** – a detailed description of the process of work, methods and materials;
- **Where** – a description of the location of the work (if applicable); and
- **When** – the sequencing of actions with commencement and completion date estimates.

MSs may be replaced by SOPs for specific development types or aspects at the discretion of the contractor/ECO. This may for instance be of value to multiple development sites under one contractor's control. Such SOPs should be approved upfront following the same requirements as per the MS.

#### **4.5 Compliance monitoring**

Once the PMP and GEMPr have been adopted and implemented and the exclusion in terms of section 24(2)(e) of NEMA is in effect, the KNP and contractor is required to comply with **Part B of the GENERIC EMPr**. The requirements of the GEMPr are binding for projects that fall within the scope of the Government Notice and the exclusion from the requirement to obtain EA for identified activities undertaken in the KNP, as contemplated in paragraph 2.2. of this GEMPr. Compliance with the requirements of **Part B of the GENERIC EMPr** must be monitored by the PECO/ECO. The frequency of the compliance inspections will be at the discretion of the ECO/EM but this must be agreed upon upfront with the contractors during the induction phase for each project. The competent authority will also monitor compliance as required. Non-compliance will constitute an offence in terms of section 49A(1)(d) of NEMA.

The following must take place as far as compliance monitoring is concerned:

- Incidents of non-compliance must be recorded in the incidents register by the ECO or the PECO.

- In the event of non-compliance, the principle is to resolve issues as quickly as possible. Where there is non-compliance, the following is proposed:
  - **Step 1:** The ECO/PECO will discuss issues with the contractor/ subcontractor or park officials and identify corrective measures to be implemented. Timeframes are then decided upon and the date for follow up site inspections agreed upon.
  - **Step 2:** If non-compliance persists, the ECO/PECO will discuss the problem with the EM about ways to rectify the situation. The non-compliance will be recorded in the site file.
- A complaints register must be maintained during all phases of developments to document complaints received from all stakeholders. The register will contain a detailed description of each complaint with supporting documentation, a written response to each complaint with a description of any associated corrective action, and the responsible official or authority who implemented the corrective action.

#### **4.6 Annual internal audit**

It is anticipated that the following will take place as far as the annual internal audit is concerned:

- Monitoring of the implementation of project activities and compliance with mitigation and management measures in the GEMPr must be undertaken.
- The ECO/PECO will conduct environmental monitoring inspections throughout the development and operational phases of projects and note any incidents and corrective measures implemented. The frequency of this will be at the discretion of the EM/ECO/PECO.
- An annual internal audit report of all projects implemented under this exclusion must be prepared annually and submitted to the compliance section of the competent authority. The purpose of the audit will be to assess the compliance of all projects with the GEMPr. The annual internal audit report ought to take the site monitoring, incidents and complaints reports for projects across the park in general into consideration. The compliance unit of the competent authority may visit project sites at any time without warning and will require that inspection and monitoring reports for project sites be accessible.
- The inspection reports for sites will form the basis of the audit reports to be prepared annually, which must be submitted to the compliance unit of the competent authority. KNP must conduct an annual environmental audit, commencing within 12 months of the coming into effect of this exclusion, which determines the compliance with the conditions of the Government Notice and the Generic Environmental Management Programme, which audit report is to be submitted to the compliance monitoring unit of the competent authority within 2 months of completion of such an audit.

##### **4.6.1 Requirements of an annual internal audit report**

The following must be included in the annual internal audit reports:

- (i) Complaints received from stakeholders/ tourists and actions taken;
- (ii) Environmental incidents, such as oil spills, concrete spills, etc. and actions taken;
- (iii) Corrective actions; and
- (iv) The level of performance against and compliance with the GEMPr requirements.

The contractor (or subcontractors) is deemed not to have complied with the GEMPr if:

- Within the boundaries of the site, site extensions and haul / access roads there is evidence of contravention of the GEMPr confirmed and verified by the ECO/PECO;
- Environmental damage ensues due to non-compliance with the GEMPr requirements.
- The contractor fails to comply with corrective or other instructions issued by the ECO/EM within a specific time; and
- The contractor fails to respond adequately to complaints from the general stakeholders or tourists in line with the requirements of the GEMPr.

## **5 PART B: ENVIRONMENTAL MANAGEMENT PROGRAMME**

### **5.1 Impact Management Outcomes and actions**

This section provides a pre-approved GEMPr template with impact management outcomes and impact management actions that must be complied with. The GEMPr contains general interventions applicable to most project sites as well as specific activities associated with certain types of development activities. Impact management outcomes are fixed while impact management actions can be amended, where necessary, to achieve the impact management outcomes. Impact management actions refer to the methods one uses to achieve the outcome. The outcomes in the GEMPr are fixed (e.g. no dust or no pollution), but the impact management actions or methods to achieve this outcome may vary according to what is best on the site or based on advanced technologies that may be available to achieve a desired outcome (e.g. dust suppression may be achieved in a variety of ways such as wetting of soils in development areas, mulching to minimise dust pollution, etc.).

The template provided below is to be completed by the contractor, ECO or the PECO providing the information under each heading for each environmental management action. The completed template must be signed and dated on each page by the contractor before commencement with each activity. The MSs must be appended to the template as **Table 1: Example of MS** with each MS duly signed and dated. This template, once signed and dated, is legally binding.

The main impacts associated with development and maintenance activities will include the following:

- The destruction of biodiversity (impacts on natural vegetation, fauna and flora, the risk of spread of invasive alien species, etc.) because of a whole suite of activities such as:
  - Maintenance of tracks, boardwalks and decks;
  - Maintenance of pipelines;
  - Repair work after fires and floods;
  - Upgrading of tourism facilities;
  - Development of picnic facilities in transformed areas;
  - Development of infrastructure; and
  - Stabilisation of embankments;
- Impacts on watercourses (rivers, wetlands, groundwater);
- Soil erosion, degradation and sedimentation;
- The generation of dust;
- The generation of noise;
- Negative impacts on the heritage/ archaeological/ palaeontological and the conservation value of the park;
- Visual impacts;

- Traffic and movement of vehicles in development and maintenance sites (i.e. vehicles moving in and out of the park and impacting on the sense of place and the experience of tourists or visitors in the park);
- Pollution through disposal of materials, leakage and/or spillage of liquid waste and/or hazardous substances; and
- Stormwater pollution through litter clogging stormwater drains, chemical seepage, and contamination of groundwater resources.

## **5.2 Planning phase**

The pre-development phase is the planning phase for developments and refers to the period leading up to and just before commencement of development activities related to developments. This phase is included to inform proactive planning and incorporation of best-case environmental practices at the outset to ensure optimal environmental performance throughout all phases of development projects. The bulk of the measures will go into the development phase of the development.

As part of the planning phase for projects, the following will be undertaken:

- Appointment of service providers and signing of contracts where the following sets of information will be made available where relevant:
  - Standard Health and Safety Policy;
  - The GEMPr for KNP;
  - The PMP;
  - Local Beneficiation Goals (if applicable);
  - Ensure environmental protection measures form part of the technical specifications for projects;
  - Site map reflecting the location of the project in the appropriate user zone and the final design layout;
  - Sustainable Procurement Policy (if there is any in place);
  - Disaster Management Plan;
  - Invasive Alien Species Management Programme (if applicable);
  - Code of Conduct for the KNP;
  - Fire Management Programme;
  - Bush Encroachment Programme; and
  - Park Waste Management Plan/SOP.

## **5.3 Development phase**

The development phase of projects will take place on all areas targeted by developments which are covered by the PMP and this GEMPr. Most of the impacts associated with projects are likely to occur during the development phase (i.e. noise generation, clearing of vegetation, generation of dust, water pollution, contamination of groundwater, littering of rubble, etc.). The successful implementation of activities identified in the planning phase as well as the development phase will ensure seamless environmental management and sustainability in the park in line with the approved PMP and operational plans for the park.

#### **5.4 Operational phase (including maintenance related activities)**

The operational phase commences when developments are used for their intended purpose. This will for the large part entails good housekeeping and best-case environmental management practices in the installed structures and built infrastructure.

#### **5.5 Post-operational/ decommissioning phase**

The decommissioning phase includes activities following cessation of the operational phase and may be associated with dismantling and removal of materials and infrastructure as well as rehabilitation of sites that may have been transformed or modified during development activities. The end point of restoration is to re-establish conditions that pre-existed before the establishment of infrastructure and facilities. The objectives of decommissioning will very much be aligned with those of the restoration programme for the park. Dams that have been set up will need to be decommissioned following cessation of operations and this will very much be in sync with the conditions in any water use licences or the general authorisations (GA) granted by the Department of Water and Sanitation (DWS).

The important measures to consider during the decommissioning phase include the following:

- Implementation of restoration/ rehabilitation activities and maintenance of biodiversity.
- Socio-economic activities.
- Air quality issues arising out of the dismantling of infrastructures.
- Waste management and handling of leftover material from the dismantling of structures/infrastructure.
- Sustainable development post closure of the operational phases of development.

**6 PRE-APPROVED GEMPR TEMPLATE TO BE COMPLETED**

**6.1 Induction and Environmental awareness training**

<b>Impact management outcome:</b> Contractors, subcontractors and all onsite staff are aware of and understand their individual responsibilities in terms of the PMP and this GEMPr.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• All staff must receive environmental awareness training prior to commencement of the activities that should cover, among others the following:                             <ul style="list-style-type: none"> <li>○ Description of environmental impacts related to work activities;</li> <li>○ Mitigation measures to be implemented;</li> <li>○ Familiarise staff with the contents of the GEMPr as well as MSS;</li> <li>○ Emergency preparedness and response procedures; and</li> <li>○ Procedures to be followed when working in or near sensitive areas.</li> </ul> </li> <li>• Training to be made accessible to all contractors and staff by using the appropriate language and medium relevant to the target groups.</li> <li>• Induction training on the Standard and Code of Conduct for the KNP.</li> <li>• All staff are aware of the controls in the GEMPr and made aware of their individual roles and responsibilities in achieving compliance with the GEMPr.</li> <li>• Training on basic fauna and flora and common types of species in the national park that may be encountered during operations and what to do.</li> </ul>						

<ul style="list-style-type: none"> <li>• General measures to prevent pollution and control the spread of litter outlined.</li> <li>• Training on Occupational, Health and Safety matters.</li> <li>• Social responsibility training (no excessive noise, no alcohol or illegal substances in the development sites, good housekeeping, and clean-up of site, etc.).</li> </ul>						
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## 6.2 Site establishment

<p><b>Impact management outcome:</b> Negative impacts on the environment are avoided as far as possible and minimised where avoidance is not possible during site establishment and the development footprint is limited to the demarcated development area.</p>						
Impact Management Actions	Implementation			Monitoring		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• The site plan must show the layout of the development camp and all key infrastructure and services including: offices, overnight vehicle parking areas, stores, the workshop, stockpile and laydown areas, hazardous material storage areas including fuels, the batching plant, designated access routes, equipment cleaning areas and placement of staff accommodation, cooking and ablution facilities, waste and wastewater management.</li> <li>• Location of camps must be within approved areas to ensure that the site does not impact on sensitive sites identified in the site map.</li> <li>• Camps must be fenced in accordance with <b>6.5 (Fencing and demarcation of sites)</b></li> <li>• Sites must be located on previously disturbed area or within existing camps.</li> <li>• Site to be demarcated with construction tape or other suitable demarcation material such as netting and all development equipment.</li> </ul>						



<ul style="list-style-type: none"> <li>• Labour to remain within the boundaries of the development sites.</li> <li>• Where feasible, chemical toilets to be used and must not be placed adjacent to any watercourses or areas of high sensitivity.</li> <li>• Development workers will not eat outside of the demarcated development or work areas and to avoid feeding animals.</li> <li>• The work teams will always adhere to the SANParks Occupational Health and Safety Policy with a safety rep on site.</li> <li>• The use of existing accommodation for contractor staff is encouraged.</li> </ul>						
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### 6.3 Access restricted areas

Impact management outcome: Access to restricted areas prevented or where not possible to prevent, controlled and mitigated.						
Impact Management Actions	Implementation			Monitoring		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• The identification of access restricted areas to be informed by site assessment, site walkthrough as well as any sensitive areas that may be identified during development.</li> <li>• Erect, demarcate and maintain a temporary barrier with clear signage around the perimeter of any access restricted areas with colour coding used as appropriate.</li> <li>• Unauthorised access and any development related activities inside access restricted areas is prohibited.</li> </ul>						

#### 6.4 Access roads and traffic management

<b>Impact management outcome:</b> Minimise negative impacts when using access roads through planned and restricted movements of vehicles in the park.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• Access roads and paths shall be maintained in an acceptable condition for safe travel.</li> <li>• Tourist traffic in the park not to be allowed access to development sites.</li> <li>• Roads to be maintained in such a way as to minimise erosion and surface damage.</li> <li>• No off-road driving is permitted unless allowed by the Park Conservation Manager or relevant Section Ranger.</li> <li>• Spills of chemicals and oils onto access roads to be always prevented.</li> <li>• Vehicle speeds to be managed or controlled so as not to lead to dust generation or emissions.</li> <li>• Vehicles on development sites to be well maintained and serviced so as not to cause excessive emissions and nuisance.</li> <li>• Protection services department – fines for people who exceed speed limits and the rules in the Code of Conduct for the KNP for working in national parks to be strictly enforced.</li> <li>• All contractors to receive induction training on driving in the park (rules for working and driving in national parks).</li> <li>• Use must be made of existing access routes in the park and no new roads to be created unless unavoidable.</li> </ul>						

### 6.5 Fencing and demarcation of development sites

<b>Impact management outcome:</b> Avoiding impacts where possible and minimising impacts on the environment where avoidance is not possible to ensure safe and controlled access to the park and fencing off development areas where required.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• Vehicles used for development activities to be restricted to the demarcated areas except when driving in and out of the park but ought to do so only during the visitor access hours in the park, unless authorised by EM/ Section Ranger/ or the designated person to exit the Park outside official gate closing hours (i.e. 06:00 – 18:00).</li> <li>• Use existing gates to gain access to the park and all parts of the development area.</li> <li>• All gates must be fitted with locks and be kept locked at all times during the development phase unless special provision has been given by the park. All demarcation fencing and barriers must be maintained in good working order for the duration of the development activities.</li> <li>• Suitable fencing must be erected around the development camp, batching plants, hazardous substances storage areas, and all designated access restricted areas where applicable.</li> <li>• Any temporary fencing to restrict the movement of game must only be erected with the permission of the relevant Section Ranger and/or Biodiversity Manager</li> <li>• The use of razor wire as fencing must be avoided.</li> <li>• On completion of the development phase, all temporary fences and demarcation must be removed.</li> </ul>						

## 6.6 Water supply management

<b>Impact management outcome:</b> Responsible water usage and conservation measures are implemented to prevent pollution of water resources						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• All abstraction points or boreholes must be registered with the DWS and suitable water meters installed to ensure that the abstracted volumes are measured on a daily basis.</li> <li>• The Contractor must ensure that:                             <ul style="list-style-type: none"> <li>○ Vehicles abstracting water from a river does not enter or cross it and does not operate from within the river;</li> <li>○ No damage occurs to the riverbed or banks and the abstraction of water does not entail stream diversion;</li> <li>○ All reasonable measures taken to limit pollution or sedimentation of the downstream watercourse are implemented.</li> </ul> </li> <li>• Ensure water conservation is practiced by:                             <ul style="list-style-type: none"> <li>○ Minimising water use during cleaning of equipment;</li> <li>○ Undertaking regular audits of water systems, and</li> <li>○ Include discussion of water usage and conservation during the awareness training sessions.</li> </ul> </li> <li>• Place bulk fuel storage tanks away from watercourses in areas where they do not pose a threat of leaking and contamination of the environment.</li> <li>• Where practical, use recycled, treated wastewater for non-consumptive activities such as dust suppression and cleaning of equipment and vehicles.</li> </ul>						

<ul style="list-style-type: none"> <li>• Development activities not to be allowed in water crossings where there will be negative impacts on water resources unless properly planned for and impacts adequately controlled and managed.</li> <li>• During development, stockpiled topsoil and subsoil to be stored away from water resources such as wetlands and rivers.</li> <li>• Where activities are to take place in watercourses or across river crossings or wetlands, excavations to be avoided at all costs so as not to trigger the requirement for water use licences (WULs).</li> <li>• Maintenance work to only be allowed in river crossings and across watercourses when there is a WUL or a General Authorisation (GA) from the DWS. The mitigation and management measures stipulated in the WUL or GA ought to be followed and implemented to protect biodiversity.</li> <li>• Implementation of anti-erosion and stormwater control measures in areas that are susceptible to erosion.</li> <li>• No ablution, disturbance of natural habitat, waste storage or disposal may be permitted in any wetland, watercourses, or riparian areas.</li> <li>• Ensure that water in camps within the park is regularly tested for pollution and the necessary interventions implemented where the test results show contamination by <i>E. Coli</i> or other undesirable substances.</li> </ul>						
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### 6.7 Storm and wastewater management

<b>Impact management outcome:</b> Impacts on the environment caused by stormwater and wastewater discharges during development are avoided.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• A stormwater management plan shall be developed to prevent erosion and the contamination of water, and deal with stormwater release into the environment.</li> <li>• Runoff from the cement/ concrete batching areas must be strictly controlled and contaminated water must be collected, stored and either treated or disposed of offsite at a location approved by the EM or relevant official.</li> <li>• All spillage of oil onto concrete surfaces must be controlled by the use of an approved absorbent material to be disposed of at an appropriate waste disposal facility.</li> <li>• Natural stormwater runoff not contaminated during the development and clean water can be discharged directly to watercourses and water bodies subject to approval by the relevant management authority.</li> <li>• Install drainage diversion system to divert runoff from areas of potential pollution.</li> <li>• Reduce impervious surfaces; install permeable pavement.</li> <li>• Stormwater shall be directed towards stabilised areas which can dissipate the energy of the water flow.</li> <li>• No handling of hazardous substances in close proximity to water resources and storm water drains.</li> </ul>						

### 6.8 Solid and hazardous waste management

<b>Impact management outcome:</b> Wastes are appropriately stored, handled and safely disposed of at a licenced waste facility						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• An integrated waste management approach must be followed.</li> <li>• The waste collection site must be maintained in a clean and orderly manner.</li> <li>• Waste must be segregated into separate bins and clearly marked for each waste type for recycling and safe disposal.</li> <li>• Staff must be trained in waste segregation.</li> <li>• Bins must be emptied regularly.</li> <li>• Sufficient, covered waste collection bins (scavenger and weather-proof) must be provided.</li> <li>• General waste produced on site must be disposed of at a registered waste disposal sites/recycling company.</li> <li>• Records shall be kept of all waste generated and what proportions thereof are reused or recycled, disposed of at landfill sites, with disposal certificates or receipts obtained from the landfill sites where the waste is disposed of.</li> <li>• Provide sufficient closed containers in strategic locations around the development site to handle the amount of litter, waste, rubble, debris and all waste generated on the site.</li> <li>• No burying of any waste on development sites or in the surrounding bushes.</li> <li>• General waste shall be stored separately from hazardous waste with general waste stored in weather-proof bins or skips or similar containers.</li> </ul>						

<ul style="list-style-type: none"> <li>• All officials handling hazardous substances must always wear Personal Protective Equipment (PPE).</li> <li>• Store hazardous wastes in leak-proof, secured storage containers, clearly labelled, indicating the contents and safety requirements in well-ventilated areas.</li> <li>• All hazardous substances should be kept under lock and key and in a bunded, impenetrable, fire-proof area.</li> <li>• Display required safety signs on the development sites depicting “No smoking”, “No naked lights”, “Danger”.</li> <li>• Firefighting equipment must be available at all hazardous substances’ storage areas.</li> <li>• Provide training to all employees handling hazardous substances for safe use of the substances and potentially hazardous impacts if not correctly handled.</li> <li>• Maintain alphabetical Hazardous Chemicals Substances control sheet on a continuous basis.</li> <li>• Store hazardous substances not in use in bunded storage areas at least 32 m away from watercourses to prevent soil and groundwater contamination.</li> <li>• Remove hazardous substances when required and dispose of at a hazardous waste disposal facility in line with the park’s hazardous waste management guidelines and policies.</li> <li>• Contaminated material to be disposed of at a registered hazardous waste facility approved by the relevant management authority.</li> <li>• Should any asbestos waste material be discovered on site in the park, rehabilitation of the sites should be conducted in conjunction with the National Department of Labour.</li> </ul>						
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<ul style="list-style-type: none"> <li>All herbicides and pesticides to be used under the supervision of a Pest Control officer in terms of the Fertilisers, Farm Feeds, Seeds and Remedies Act, 1947 (Act No. 36 of 1947) and its Regulations.</li> </ul>						
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## 6.9 Protection of watercourses and wetlands

Impact management outcome: Pollution and contamination of watercourses and wetlands prevented.						
Impact Management Actions	Implementation			Monitoring		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>All watercourses must be protected from spillage of pollutants such as solid waste, sewerage, cement, soils, fuels, chemicals, aggregate tailings, wash and contaminated water or organic materials from Contractors' activities.</li> <li>In the event of a spill, prompt action must be taken to clear the polluted or affected areas.</li> <li>Where possible, no development equipment must traverse any seasonal or permanent wetlands.</li> <li>There must not be any impact on the long-term morphological dynamics of watercourses or wetlands.</li> <li>Existing crossing points must be favoured over the new crossings (including for temporary access).</li> <li>When working near watercourses, the following controls and considerations must be taken:                             <ul style="list-style-type: none"> <li>Water levels during period of development – no altering of the bed, banks, course or characteristics of a watercourse.</li> <li>During the execution of the works, appropriate measures to prevent</li> </ul> </li> </ul>						

<p>pollution must be implemented, including ensuring that development equipment is well maintained.</p> <ul style="list-style-type: none"> <li>○ Where earthwork is being undertaken in close proximity to any watercourses, slopes must be stabilised using suitable material, i.e., sandbags, or geotextile fabric, to prevent sand or rock from entering the channel.</li> <li>○ Appropriate rehabilitation and revegetation measures for the watercourse banks must be implemented timeously. The banks must be appropriately and incrementally stabilised as soon as development allows.</li> </ul>						
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### 6.10 Vegetation clearance

<b>Impact management outcome:</b> Vegetation clearance is restricted to the development footprint						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• Site map for each development site to display spatial layout and location of sensitive species to be protected from developments.</li> <li>• Indigenous vegetation which does not interfere with the development/ maintenance/ expansion activity must be left undisturbed.</li> <li>• Special care must be taken to protect endangered or protected species that may occur close to development sites.</li> <li>• Search and rescue and replanting of all protected and endangered species by the curator of the nursery in the park before commencement of development activities.</li> <li>• The environmental audit report must confirm that all identified species have been rescued and replanted and that the location of planting is compliant with the types of species and their natural habitats.</li> <li>• Trees felled during development must be documented and form part of the Environmental Audit Report.</li> <li>• Trees and shrubs to be screened off from development activities by building around them as much as possible.</li> <li>• Clearance of trees and herbaceous vegetation to be avoided as much as possible and only allowed where mapping has confirmed that areas are disturbed and contain fewer sensitive plant species.</li> <li>• No introduction of IAP because of development related activities.</li> </ul>						

<ul style="list-style-type: none"> <li>• Limit introduction of foreign gravel material to the development areas.</li> <li>• The clearance of IAP from all development and adjacent areas in the park following cessation of development activities.</li> <li>• Removal or treatment of IAP using herbicides, mechanical methods or biological agents.</li> <li>• Maintenance of rehabilitated areas to ensure that vegetation composition is re-established as per the rehabilitation plans and interventions under site rehabilitation in <b>6.31 Landscaping and rehabilitation</b>.</li> </ul>						
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### 6.11 Biodiversity management

Impact management outcome: Biodiversity is maintained in line with the Management Plan for the park.						
Impact Management Actions	Implementation			Monitoring		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• No unnecessary cutting of trees and shrubs in development areas.</li> <li>• Topsoil stockpiles are monitored for the presence of IAP.</li> <li>• Mechanical control of IAPs (i.e. using chain saws, brush cutters, hand cutters).</li> <li>• Chemical control of IAPs (using herbicides) where such herbicides shall be biodegradable. The use of such herbicides shall be at the supplier's recommended application rates and in accordance with the regulatory requirements (i.e. such as the Fertiliser, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947).</li> <li>• Biological control of IAPs (i.e. biological control agents).</li> <li>• Where possible, if extra materials are brought onto site for use in development, this material must not contain topsoil that might contain</li> </ul>						

<p>seeds of exotic plant species that will lead to spread of IAPs on site.</p> <ul style="list-style-type: none"> <li>• Mechanical control of trees to prevent encroachment (manually through use of chain saws, etc.)</li> <li>• Chemical control of bush encroachment through use of herbicides that may already be in use in the park to control known tree species with bush encroachment potential.</li> </ul>						
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### 6.12 Protection of fauna

<b>Impact management outcome:</b> Disturbance of fauna is avoided where possible and minimised where avoidance is not possible.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• Poaching, hunting and/or intentional killing of any animals is strictly prohibited and constitute a criminal offence and offenders are subject to arrest by law enforcement officials.</li> <li>• The breeding sites of raptors and other wild bird species must be taken into consideration during the planning of the development activities.</li> <li>• Qualified people to be called in to remove wildlife and snakes in houses or built infrastructure for safe release into the wild.</li> <li>• No threatened protected fauna species as listed according to the National Environmental Management: NEM:BA and relevant provincial Ordinances may</li> </ul>						

be removed or relocated without appropriate authorisations or permits.						
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### 6.13 Protection of heritage resources

Impact management outcome: Impact on heritage, archaeological and palaeontological resources avoided or where cannot be avoided are minimised						
Impact Management Actions	Implementation			Monitoring		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>Identify, demarcate and prevent impact on all known sensitive heritage features on site (<b>see Access Restricted Areas 6.3</b>).</li> <li>All heritage resources encountered during development shall be avoided and a heritage specialist consulted to offer advice on what to do.</li> <li>Carry out general monitoring of excavations for potential fossils, artefacts and material of heritage importance.</li> <li>All staff to be trained on chance encounters and what they need to do should such be found during excavation processes.</li> <li>Under no circumstances must archaeological artefacts be destroyed when found and work must cease, and the advice of the park heritage specialist sought on what to do.</li> <li>Record must be kept of all heritage/ archaeological/ palaeontological finds.</li> <li>All work must cease immediately if any human remains and/ other archaeological, palaeontological and historical material are uncovered. Such material if uncovered must be reported to the nearest museum, archaeologist, palaeontologist so that a systemic and professional investigation can be undertaken.</li> </ul>						

### 6.14 Safety of the public (health and safety)

<b>Impact management outcome:</b> All precautions are taken to minimise risks of injury, harm or complaints						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• Identify fire hazards, demarcate and restrict public access to these areas and put danger signs to alert tourists of any potential threats.</li> <li>• All unattended open excavations must be adequately fenced or demarcated.</li> <li>• Adequate protective measures must be implemented to prevent unauthorised access to and climbing of partly constructed towers and protective scaffolding.</li> <li>• All staff to always wear PPE in the development sites.</li> <li>• Members of the workforce on projects should refrain from taking alcohol or narcotic substances while operating vehicles and equipment in development sites.</li> <li>• Safety training shall be provided to all staff and workers on projects.</li> <li>• Ensure compliance with the Occupational Health and Safety Act, 1993 (Act No. 85 of 1994) (OHS Act) and all relevant Regulations.</li> <li>• Access to the development sites by people not involved in the project shall be controlled.</li> </ul>						

### 6.15 Sanitation

<b>Impact management outcome:</b> Clean and well-maintained ablution facilities are available to all staff to minimise risk of the spread of diseases and impacts on the environment						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• Mobile chemical toilets are installed onsite if no other ablution facilities are available.</li> <li>• Ablution facilities and/or mobile toilets must be always used.</li> <li>• The use of the veld for ablutions purposes is prohibited.</li> <li>• Where mobile toilets are required, the following to be ensured:                             <ul style="list-style-type: none"> <li>○ The toilet facilities must be maintained by a qualified service provider.</li> <li>○ Toilets are located no closer than 32 meters to any watercourse.</li> <li>○ Toilets are secured to the ground to prevent them from toppling over due to wind or any other cause.</li> <li>○ No spillages occur when toilets are cleaned or emptied and the contents are managed in terms of the EMPr.</li> <li>○ Toilets have an external closing mechanism and are closed and secured from the outside when not in use to prevent toilet paper from being blown off.</li> <li>○ Toilets are emptied before long weekends and workers holidays and must be locked after working hours.</li> <li>○ Toilets are serviced regularly and the ECO/ PECO must inspect toilets to ensure compliance with health standards.</li> </ul> </li> </ul>						



<ul style="list-style-type: none"> <li>The Code of Conduct for the KNP must be followed for guidance on toilets and ablution in the park.</li> </ul>						
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### 6.16 Prevention of diseases

Impact management outcome: All precautions linked to the spread of diseases are taken.						
Impact Management Actions	Implementation			Monitoring		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>Undertake environmentally friendly pest control measures in the development camp areas.</li> <li>Ensure that the workforce is sensitised of the effects of sexually transmitted diseases and HIV-Aids.</li> <li>Malaria control measures such as wearing protective clothes, malaria prophylaxis, taking anti-malaria pills, using appropriate insect repellents, etc. to be practiced.</li> <li>The contractor must ensure that information posters on AIDS are displayed in the contractor camp area.</li> <li>Information and education relating to sexually transmitted diseases to be made available to both development workers and tourists, where applicable.</li> <li>Medical support must be provided.</li> </ul>						

<ul style="list-style-type: none"> <li>• Provide access to voluntary HIV Testing and Counselling Services.</li> <li>• Provide sanitisers and material for COVID-19.</li> </ul>						
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### 6.17 Emergency procedures

<b>Impact management outcome:</b> Emergency procedures are in place to enable rapid and effective responses to all types of environmental emergencies						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• Compile an Emergency Response Action Plan (ERAP) prior to commencement of the proposed project.</li> <li>• An emergency plan must deal with accidents, potential spillages and fires in line with relevant legislation.</li> <li>• All staff must be made aware of emergency procedures as part of environmental awareness training.</li> <li>• The relevant local authority or Fire Protection Association (FPA) must be made aware of a fire as soon as it starts.</li> <li>• In the event of an emergency, the necessary mitigation measures to contain the spill or leak must be implemented (see <b>Hazardous Substances section 6.18</b>).</li> </ul>						

### 6.18 Hazardous substances

<b>Impact management outcome:</b> Safe storage, handling and disposal of hazardous substances						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• The use and storage of hazardous substances to be minimised and non-hazardous and nontoxic alternatives substituted where possible.</li> </ul>						

<ul style="list-style-type: none"> <li>• All officials handling hazardous substances must always wear PPEs.</li> <li>• Store hazardous wastes in leak-proof, secured storage containers, clearly labelled, indicating the contents and safety requirements in well-ventilated areas.</li> <li>• Containers of hazardous material must be disposed of at registered landfill sites outside the National Parks.</li> <li>• All hazardous substances should be kept under lock and key and in a bunded, impenetrable, fire-proof area.</li> <li>• All hazardous chemicals that will be used on site must have Material Safety Data Sheets (MSDS).</li> <li>• An Alphabetical Hazardous Chemical Substance (HCS) control sheet must be drawn up and kept up to date on a continuous basis.</li> <li>• Display required safety signs on the development sites depicting “No smoking”, “No naked lights”, “Danger”.</li> <li>• Firefighting equipment must be available at all hazardous substances’ storage areas.</li> <li>• Provide training to all employees handling hazardous substances for safe use of the substances and potentially hazardous impacts if not correctly handled.</li> <li>• Store hazardous substances not in use in bunded storage areas at least 32 m away from watercourses to prevent soil and groundwater contamination.</li> <li>• Remove hazardous substances when required and dispose of at a hazardous waste disposal facility in line with the parks’ hazardous waste management guidelines and policies.</li> <li>• Sufficient number of and type of spills to be provided at all development work sites.</li> </ul>						
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<ul style="list-style-type: none"> <li>• Spills to be contained and removed by suitably trained staff.</li> <li>• Contaminated material to be disposed of at a registered hazardous waste and fill facility approved by or used by the park (or located close to the park if details of the facility currently being used by the park is not readily available).</li> <li>• Should any asbestos waste material be discovered on site in the park, rehabilitation of the sites should be conducted in conjunction with the National Department of Labour.</li> <li>• All herbicides and pesticides to be used under the supervision of a Pest Control officer in terms of the Fertilisers, Farm Feeds, Seeds and Remedies Act, 1947 (Act No. 36 of 1947) and its Regulations.</li> <li>• Appropriate number of spill kits must be available and must be located in all areas where activities are being undertaken.</li> <li>• In the event of a spill, contaminated soil must be collected in containers and stored in a central location and disposed of according to the NEM: WA (refer to Storm and wastewater management section 6.7).</li> </ul>						
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### 6.19 Workshop, equipment maintenance and storage

<b>Impact management outcome:</b> Soil, surface and groundwater contamination is avoided or where avoidance is not possible, minimised.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• All maintenance and repair work to be carried out within areas designated for this purpose and equipped with the necessary pollution control measures (i.e. in the workshop area).</li> <li>• A suitable drip tray must be used to prevent spills onto the soil.</li> <li>• The workshop area must be monitored for oil and fuel spills.</li> <li>• The workshop area must have a bunded concrete slab that is sloped to facilitate runoff into a collection sump or suitable oil/water separator where maintenance work on vehicles and equipment can be performed.</li> <li>• Water drainage from the workshop must be contained and managed in accordance with <b>Storm and wastewater management in Section 6.7.</b></li> <li>• The OHS Act to be complied with in the handling of material and equipment used in development sites.</li> <li>• Petrochemicals, oils and identified hazardous substances to be stored under controlled conditions.</li> <li>• Storage of hazardous substances in suitable containers approved by the ECO and in line with the Hazardous Waste policy of SANParks.</li> <li>• All spillages are to be immediately reported to the ECO and a spill-kit should be on standby according to nature and quantity of hazardous material present.</li> </ul>						

<ul style="list-style-type: none"> <li>Fuel to be stored in a secured area in a steel tank supplied and maintained by the fuel suppliers.</li> <li>Gas welding cylinders and LPG cylinders should be stored in a secure, well-ventilated area.</li> <li>The ground under the servicing and refuelling areas must be protected against pollution by spills and tank overfills.</li> <li>Development vehicles are to be maintained in an acceptable state of repair.</li> <li>No vehicles or equipment with leaks or causing spills will be permitted to operate in the development sites.</li> </ul>						
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## 6.20 Batching plants

<b>Impact management outcome:</b> Avoid spillages and contamination of soil, surface water and groundwater and where avoidance is not possible, minimise spillages and contamination of soil, surface water and groundwater.						
Impact Management Actions	Implementation			Monitoring		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>Concrete mixing must be carried out on an impermeable surface.</li> <li>Batching plants must be fitted with a containment facility for the collection of cement laden water.</li> <li>Dirty water from the bathing plant must be contained to prevent soil and groundwater contamination.</li> <li>Bagged cement must be stored in an appropriate facility and at least 10 meters away from watercourses.</li> <li>Hardened concrete from the washout facility or concrete mixer can either be reused or disposed of at an appropriate licenced disposal facility.</li> </ul>						

<ul style="list-style-type: none"> <li>• Empty cement bags must be secured with adequate binding material if these will be temporarily stored on site.</li> <li>• Sand and aggregate containing cement must be kept damp to prevent the generation of dust (refer to <b>Dust Emissions 6.21</b>).</li> <li>• Any excess sand, stone and cement must be removed or reused on site on completion of development and disposed of at a licenced disposal facility.</li> <li>• Temporary fencing of development camps must be erected around batching camps in accordance with <b>6.5 Fencing and demarcation of development sites</b>).</li> </ul>						
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## 6.21 Dust emissions

<b>Impact management outcome:</b> Dust prevention measures are applied to avoid or where avoidance is not possible minimise the generation of dust						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• Take all reasonable measures to avoid or where avoidance is not possible minimise the generation of dust because of project development activities.</li> <li>• Excavation, handling and transport of erodible materials must be avoided under high wind conditions or when a visible dust plume is present.</li> <li>• Monitoring of dust fallout to be conducted as prescribed in the National Environmental Management Air Quality Act, 2004 (Act No. 39 of 2004) - National Dust Control Regulations of 2018.</li> <li>• Dust generating material in the development sites shall be covered when transported.</li> </ul>						

<ul style="list-style-type: none"> <li>• Strict dust control to limit impacts on sensitive receptors (i.e. nearby camps and built-up areas for instance).</li> <li>• Dust suppression techniques such as wetting of soils in development areas, mulching to minimise dust pollution, etc.</li> <li>• Potable water to not be used for dust suppressions and alternative measures must be sourced.</li> <li>• Water and/ or spray roads and development areas with environmentally friendly dust suppressant chemical during dry and windy conditions to control dust fallout.</li> <li>• Clearance of indigenous vegetation to be avoided at all costs and where it cannot be avoided it should be kept to an absolute minimum to prevent exposed surfaces where soil may be blown off.</li> <li>• Where erosion of stockpiles becomes a problem, erosion control measures must be implemented at the discretion of the ECO/PECO.</li> <li>• Vehicle speeds must not exceed the specified speed limit along dust roads when traversing unconsolidated and non-vegetated areas (i.e. speed limit on the tourist roads is 50km/h, and on the gravel roads 40km/h).</li> <li>• Straw stabilisation must be applied at a rate of one bale /10m<sup>2</sup> and harrowed into the top 100mm of top material for all completed earthworks.</li> </ul>						
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## 6.22 Blasting

<b>Impact management outcome:</b> Impacts on the environment minimised through safe blasting practices						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>Any blasting activity must be conducted by licenced blasting contractor, and</li> <li>Notification of tourists in surrounding camps, emergency services site personnel of blasting activity 24 hours prior to such activity taking place on site.</li> </ul>						

## 6.23 Noise

<b>Impact management outcome:</b> Prevent unnecessary noise levels in the park through ensuring that the noise from the development activity is mitigated.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>The contractor must keep noise levels within acceptable limits (i.e. the acceptable sound rating levels for the park as defined in their Code of Conduct for the KNP and reduce the use of sound amplification equipment for communication and emergency only.</li> <li>Where feasible, all vehicles and machinery to be fitted with appropriate silencing technology and must be properly maintained.</li> <li>Any complaints received by the Contractor regarding noise must be recorded and communicated.</li> <li>The Code of Conduct for the KNP and the stipulated noise levels must be adhered to at all times by Contractors.</li> </ul>						

### 6.24 Fire prevention

<b>Impact management outcome:</b> Prevention of uncontrolled fires in the park						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• Take all reasonable steps to ensure that fires are not started as a result of development or maintenance activities on sites.</li> <li>• No fires for heating or cooking will be permitted on site.</li> <li>• Liaise with and join the local Fire Protection Association and the fire management programme for the park.</li> <li>• Fire extinguishers shall be made available at all points of storage of flammable products.</li> <li>• Fire extinguishers shall be checked monthly to confirm they are properly serviced and in good conditions.</li> <li>• All staff involved in projects to undergo basic firefighting training as part of the induction and environmental awareness training.</li> <li>• A designated fire control officer to be responsible for actions during the event of a fire, including contacting emergency services for assistance.</li> <li>• Grass in the vicinity of development sites shall be trimmed at regular intervals to reduce risk of fire.</li> <li>• Conduct fire emergency drills often with one coinciding with the onset of the fire season.</li> <li>• Ensure that all the materials and equipment for dealing with oil, fuel and hazardous substance spills and leaks are on site and up to date.</li> </ul>						

### 6.25 Stockpiling and stockpile areas

<b>Impact management outcome:</b> Avoid erosion and where avoidance is not possible reduce erosion and sedimentation of stockpiles						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>All materials that are excavated during the project must be stored appropriately on site in order to minimise impacts on watercourses and water bodies.</li> <li>Stockpiles and storage yards should be demarcated in areas already disturbed where they will cause minimum disturbance.</li> <li>All stockpiled material must be maintained and kept clear of weeds and alien vegetation by undertaking regular weeding and implementing suitable control methods.</li> </ul>						

### 6.26 Civil works

<b>Impact management outcome:</b> Access to restricted areas prevented.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>The identification of access restricted areas to be informed by site assessment, site walkthrough as well as any sensitive areas that may be identified during development.</li> <li>Erect, demarcate and maintain a temporary barrier with clear signage around the perimeter of any access restricted areas with colour coding used as appropriate.</li> <li>Unauthorised access and any development related activities inside access restricted areas is prohibited.</li> </ul>						

### 6.27 Excavation of foundations, cable trenching and drainage systems

Impact management outcome: Access to restricted areas prevented.						
Impact Management Actions	Implementation			Monitoring		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>The identification of access restricted areas to be informed by site assessment, site walkthrough as well as any sensitive areas that may be identified during development.</li> <li>Erect, demarcate and maintain a temporary barrier with clear signage around the perimeter of any access restricted areas with colour coding used as appropriate.</li> <li>Unauthorised access and any development related activities inside access restricted areas is prohibited.</li> </ul>						

### 6.28 Visual impacts

Impact management outcome: No negative visual impacts (i.e. unsightly structures) as a result of development activities.						
Impact Management Actions	Implementation			Monitoring		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>Development works to be restricted to daylight hours so as not to impact negatively on game in the park.</li> <li>Where lighting is used or considered necessary, lights must face down and not into the surrounding environment to provide adequate lighting for health and safety requirements.</li> <li>Lights should not be mounted very high, i.e. 3m above ground.</li> <li>There must be proper disposal of litter and control of dust, neatness and tidiness at all times in development sites.</li> </ul>						

<ul style="list-style-type: none"> <li>• Rehabilitation and reinstatement of soils to be done as soon as development related activities have been finalised.</li> <li>• Equipment and material to be neatly packed.</li> <li>• All vehicles to travel at speeds that will not generate dust.</li> <li>• Waste to be properly managed as per the solid waste management plan to make sure there is no unsightly litter and rubble.</li> <li>• Alien invasive plant species to be cleared from all development sites.</li> </ul>						
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### 6.29 Socio-economic impacts

Impact management outcome: Enhanced socio-economic impacts of the developments						
Impact Management Actions	Implementation			Monitoring		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• Create work and training opportunities for local communities and stakeholders.</li> <li>• As much as possible, prioritise the sourcing of materials and equipment from surrounding communities to the park.</li> <li>• Develop and implement a collaborative and constructive approach to conflict resolution as part of external stakeholder engagement process.</li> <li>• Sustain continuous communication and liaison with neighbouring communities and residents.</li> </ul>						

### 6.30 Dismantling of old equipment

<b>Impact management outcome:</b> Impacts on the environment to be avoided or where avoidance is not possible, minimised during dismantling, storage and disposal of old equipment						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• All equipment removed during the project must be stored in such way as to prevent pollution.</li> <li>• Prioritise the separation and recycling of materials in sites being decommissioned.</li> <li>• Dispose of unusable materials that cannot be recycled in line with the solid waste disposal policies of the park and into licenced waste disposal sites.</li> <li>• Trucks transporting materials to have appropriate cover to reduce risks of material being blown off by wind.</li> <li>• Denuded sites to be watered to reduce risks of wind and dust.</li> <li>• Anti-erosion measures to be implemented in all decommissioned sites where materials are being removed.</li> <li>• Following cessation of the operational phase, all the old structures, materials and equipment shall be removed and recycled or disposed of in line with appropriate environmental standards.</li> <li>• The disposal contractor must ensure that any equipment containing pollution causing substances is dismantled and transported in such a way as to prevent spillage and pollution of the environment.</li> </ul>						

### 6.31 Landscaping and rehabilitation

<b>Impact management outcome:</b> Areas disturbed during the development phase are returned to a state that approximates the original condition.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Person responsible	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>• All areas disturbed by development activities must be subject to landscaping and rehabilitation.</li> <li>• All spoil and waste must be disposed of at a registered waste site.</li> <li>• All soils shall be reinstated in the reverse order in which they have been removed to restore the original soil profiles (i.e., with intact seedbanks and natural viability).</li> <li>• All disturbed areas shall be reseeded using approved seed mix of locally occurring indigenous species (where necessary the approved seed mixes can be supplemented with seed mixes obtained from the SANParks Nursery or the nearest nursery available where there is no SANParks nursery).</li> <li>• The clearance of IAP re-establishing on cleared areas, stockpiles and through rehabilitated areas shall be undertaken using methods referred to in <b>6.11 in the Biodiversity Management</b> section regarding the control of IAP.</li> <li>• Anti-erosion measures shall be implemented on all rehabilitated areas.</li> <li>• Following completion of development or maintenance works, the sites shall be cleared of all equipment and materials emanating from the works.</li> <li>• All soils shall be reinstated in the reverse order in which they have been removed to</li> </ul>						

<p>restore the original soil profiles (i.e., with intact seedbanks and natural viability).</p> <ul style="list-style-type: none"> <li>• All disturbed areas shall be reseeded using approved seed mix of locally occurring indigenous species (where necessary the approved seed mixes can be supplemented with seed mixes obtained from the SANParks Nursery).</li> <li>• The clearance of IAP re-establishing on cleared areas, stockpiles and through rehabilitated areas shall be undertaken using methods referred to in <b>6.31 in the Landscaping and rehabilitation</b> section.</li> <li>• Anti-erosion measures shall be implemented on all rehabilitated areas.</li> </ul>						
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**Table 1: Example of method statement**

Ref no. MS_EMPr template biodiversity protection - vegetation clearance					
<b>Activity or intervention: Biodiversity is maintained or protected in line with the management plan for the park</b>					
<b>Environmental Impact:</b> Vegetation removal					
<b>Impact Management Outcome:</b> No indiscriminate removal of natural vegetation in development areas					
<b>Location of the works:</b> Satara camp, KNP			<b>Plant (equipment needed):</b> N/A		
<b>Materials:</b> Danger tape for development footprint demarcation, chain saws, fertilizer, seed mix			<b>Labour:</b> As needed		
<b>Impact Management Actions</b>	<b>Implementation of intervention</b>		<b>Monitoring</b>		
<ul style="list-style-type: none"> <li>• Work is contained/ restricted to the approved development footprint</li> <li>• Site demarcation is maintained for the duration of development works</li> <li>• Vegetation clearance is limited in the sensitive areas</li> <li>• No site camps, laydown or stockpile areas in high sensitivity areas</li> <li>• Plants of conservation concern are relocated</li> </ul>	<b>Responsible Person</b>	<b>Timeframe for Implementation</b>	<b>Responsible Person</b>	<b>Frequency</b>	<b>Evidence of Compliance</b>

<p>where possible and feasible</p> <ul style="list-style-type: none"> <li>• Temporary footprint areas as rehabilitated once work in an area has been completed</li> <li>• Topsoil is removed and managed properly to aid in successful rehabilitation</li> <li>• Search and rescue</li> <li>• Walkthrough of sites and demarcation</li> <li>• Screening of trees, sensitive ecosystems</li> <li>• Control of invasive alien species</li> <li>• Excavation and stockpiling of topsoil</li> </ul>					
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