

Project:

SHANGONI GATE

Contracts:

Construction Phase - Mashilo Lambrechts Architects
Kruger National Park

Proponent:



Environmental Control Officer:



ACRONYMS

CMR	Compliance Monitoring Report
DFFE	Department of Forestry, Fisheries and the Environment
DE:	Design Engineer
DWS:	Department of Water and Sanitation
EA:	Environmental Authorisation
ECO:	Environmental Control Officer
EIA:	Environmental Impact Assessment
EM:	Environmental Manager
EMPr:	Environmental Management Programme
EMS:	Environmental Management System
EO:	Environmental Officer
EP:	Environmental Planner
I&AP:	Interested and Affected Party
IEM:	Integrated Environmental Management
IEMF:	Integrated Environmental Management Framework
LEDET:	Limpopo Department of Economic Development, Environment & Tourism
PM:	Project Manager
PSP:	Professional Service Provider
SABS:	South African Bureau of Standards
SANPARKS:	South African National Parks
SE:	Site Engineer
SUP:	Sustainable Utilisation Plan

EXECUTIVE SUMMARY

The purpose of this report is to monitor environmental compliance during the Constructional Phase of the project. In this way an environmental standard may be defined, established and contractually enforced during implementation. The Monitoring Report represents a record of whether these environmental standards were adhered to for the duration of the project.

The Environmental Control Officer (ECO) will monitor the project for compliance with the Project Specific Environmental Management Programme (EMPr) which was approved by the Department of Forestry, Fisheries and the Environment (DFFE) together with the conditions contained in the Environmental Authorisation.

Monitoring will take place monthly during the Construction Phase. Completed Monitoring Reports will be submitted to SANParks who will then attend to issues raised. These reports must be kept on record and be made available upon request by any Environmental Authority or I&AP requesting such.

Compliance Monitoring Reports will be submitted to the DFFE every month.

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1. METHODOLOGY

A scoring system is being utilised to compile the monitoring report. Each condition of the EA and EMP is being scored on the following basis:

SCORE	DESCRIPTION
3	Best practice/full compliance
2	Satisfactory (viz >50% compliance)
1	Unsatisfactory (viz <50% compliance)
0	Nothing in place

Other abbreviations used:

NOTED -	is used for conditions that cannot be evaluated like statements of fact, or which have not been triggered.
N/A -	is assigned to conditions that are not applicable to that monitoring period.
CNV -	refers to a condition that could not be verified at the time of the compliance site survey.
NLR -	indicates conditions that are no longer relevant to the monitoring phase because a specific activity has ceased indefinitely.
DUP -	indicates that the condition is being duplicated elsewhere in the EA or EMP which creates bias by weighting particular conditions and increases/decreases the compliance score.

The total score, average score and percentage compliance for each aspect (condition) is calculated.

The Summary of Results tabulates the results (total score, average and percentage compliance of each environmental aspect).

Monitoring is being done by way of a drive through site inspection where photographs of the project progress is taken as well as compliance and non-compliance issues - where appropriate.

Interviews are also held with the relevant personnel on site for example site agents, foremen and Health & Safety Officers.

Checklists containing the conditions of the EA and EMP are used to check compliance and scores are allocated to each condition.

Take note that some of the conditions in the EA and EMP are duplicated and creates a bias by weighting particular conditions and increases/decreases the compliance score.

The Conclusion highlights environmental non-compliances (risks) and recommends how these non-compliances might be improved. The non-compliances are also ranked according to priority and a timeframe is given to institute corrective action.

2. PROJECT INFORMATION

Project Name and Reference:

PROPOSED DEVELOPMENT OF THE SHANGONI GATE DEVELOPMENT AND IT ASSOCIATED INFRASTRUCTURE IN
KRUGER NATIONAL PARK

GREATER GIYANI LOCAL MUNICIPALITY AREA, MOPANI DISTRICT MUNICIPALITY

Project Reference Number: 14/12/16/3/3/1/1730

Proponent:



Project Location:

Kruger National Park North No. 449
Greater Giyani Local Municipality
Mopani District Municipality
Limpopo

Monitoring Report Number:

2

Date:

12-Oct-22

Name and Particulars of Monitor:

Mr. Anton von Well
Environmental Control Officer - ECO
EAPASA - Registered EAP Ref. 2019/934



3. EA CONDITIONS - SCOPE OF AUTHORISATION

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
1	The preferred alternatives for the Gate entrance position, bridge crossings (Shingwedzi River and Tshanga Tributary), reception facility, picnic area, tented camp site, camp site, new tarred access road and its associated bridges and the loop road along the Shingwedzi River loop for the proposed Shangoni Gate development situated within the Kruger National Park, Greater Giyani Local Municipality and LIM 345 Local Municipality in the Limpopo Province is hereby approved as per the geographic coordinates.	NOTED	Some of the coordinates of the camping site, tented camp and the picnic site which are approved in the Environmental Authorisation, fall within the Shingwedzi River.
2	Authorisation of the activity is subject to the conditions contained in the EA, which forms part of the EA and is binding on the holder of the authorisation.	NOTED	
3	The holder of the authorisation is responsible for ensuring compliance with the conditions contained in the Environmental Authorisation. This includes any person acting on the holder's behalf, including, but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.	NOTED	
4	The activities authorised may only be carried out at the property as described above.	NOTED	
5	Any changes to, or deviations from, the project description set out in the EA must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further Environmental Authorisation in terms of the Regulations.	NOTED	Some of the coordinates of the camping site, tented camp and the picnic site which are approved in the Environmental Authorisation, fall within the Shingwedzi River. We will apply for amending of the EA.
6	The holder of an EA must apply for an amendment of the EA with the competent authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.	NOTED	
7	This activity must commence within a period of five (05) years from the date of issue of the EA. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.	3	This activity commenced within a period of five (5) years from the date of issue of the EA.
8	Construction must be completed within five (05) years of the commencement of the activity on site.	NOTED	
9	Commencement with one activity listed in terms of this EA constitutes commencement of all Authorised activities.	3	Commencement of road clearance and clearance for the construction of the reception site was done.

	2
TOTAL SCORE	6
AS AVERAGE	3,0
AS PERCENTAGE	100,0

4. EA CONDITIONS - NOTIFICATION OF EA AND RIGHT TO APPEAL

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
10	The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this EA, of the decision to authorise the activity.	3	The EAP who did the original Impact Assessment Study for this project, notified every registered interested and affected party in writing of the EA that was issued.
11	The notification referred to must- 11.1 specify the date on which the authorisation was issued. 11.2 inform the interested and affected party of the appeal procedure provided for in the national appeal regulations, 2014. 11.3 advise the interested and affected party that a copy of the authorisation will be furnished on request: and 11.4 provide the reasons of the Competent Authority for the decision.	3	The EAP who did the original Impact Assessment Study for this project, notified every registered interested and affected party in writing of the EA that was issued.
12	The holder of the authorisation must publish a notice- 12.1 informing interested and affected parties of the decision; 12.2 informing the interested and affected parties where the decision can be accessed; and 12.3 drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in terms of the National Appeal Regulations, 2014.	3	The EAP who did the original Impact Assessment Study for this project, notified every registered interested and affected party in writing of the EA that was issued.

3

TOTAL SCORE	9
AS AVERAGE	3,0
AS PERCENTAGE	100,0

5. EA CONDITIONS - COMMENCEMENT OF THE ACTIVITY

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
13	The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal regulations, 2014, and no appeal has been lodged against the decision. In terms of section 43(7), an appeal under section 43 of the National Environmental Management Act, Act 107 of 1998, as amended will suspend the Environmental Authorisation or any revision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.	3	The appeal period has lapsed.

	1
TOTAL SCORE	3
AS AVERAGE	3,0
AS PERCENTAGE	100,0

6. EA CONDITIONS - MANAGEMENT OF THE ACTIVITY

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
14	The Environmental Management Programme (EMPr) submitted as part of the application for environmental authorisation is hereby approved.	NOTED	
15	The EMPr must be implemented and strictly enforced during all phases of the project.	NOTED	
16	The EMPr must be seen as a dynamic document and must be included in all contract documentation for all phases of the development.	NOTED	
17	The provisions of the EMPr are an extension to the conditions of the environmental authorisation and therefore non-compliance with the EMPr shall constitute non-compliance with the environmental authorisation.	NOTED	

0

TOTAL SCORE	N/A
AS AVERAGE	
AS PERCENTAGE	

7. EA CONDITIONS - FREQUENCY AND PROCESS OF UPDATING THE EMPR

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
18	The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 28 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the EA or EMPr.	NOTED	The EMPr will be updated if necessary.
19	The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.	NOTED	
20	The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per regulation 34 of GN R982 of 4 December 2014, as amended. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to the submission of the updated EMPr to the Department for approval.	NOTED	
21	In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of GN R982 of 4 December 2014 as amended. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.	NOTED	
22	The holder of the authorisation may apply for an amendment of an EMPr, if such amendment is required before an audit is required. In assessing whether to grant such approval or not, the Department will consider the processes and requirements prescribed in Regulation 37 of GN R982 of 4 December 2014, as amended.	NOTED	

0

TOTAL SCORE	N/A
AS AVERAGE	
AS PERCENTAGE	

8. EA CONDITIONS - MONITORING

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
23	The holder of the authorisation must appoint an experienced Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures referred to in this EA are implemented and to ensure compliance the the provisions of the approved EMPr.	3	Mr. Anton von Well of AGES Limpopo (Pty) Ltd has been appointed as the ECO for this project. Mr. Anton von Well is a registered EAP at EAPASA.
23.1	The ECO must be appointed before the commencement of any authorised activities.	3	Mr. Anton von Well was appointed as the ECO for this project, prior any commencement of any authorised activities.
23.2	Once appointed, the name and contact details of the ECO must be submitted to the Director: Compliance Monitoring of the Department.	3	The name and contact details of Mr. Anton von Well was submitted to the Director: Compliance Monitoring of the Department on 25 July 2022.
23.3	The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.	3	The ECO will give monthly feedback to DFFE via the Compliance Monitoring Report of all activities on construction site.
23.4	The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.	NOTED	

4

TOTAL SCORE	12
AS AVERAGE	3,0
AS PERCENTAGE	100,0

9. EA CONDITIONS - RECORDING AND REPORTING TO THE DEPARTMENT

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
24	All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the department in terms of the EA, must be submitted to the Director: Compliance Monitoring of the Department at Directorcompliance@environment.gov.za.	3	Compliance monitoring reports are submitted monthly to the Director: Compliance Monitoring of the Department.
25	The Holder of the EA must, for the period during which the EA and EMPr remains valid, ensure that project compliance with the conditions of the EA and EMPr are audited, and that the audit reports are submitted to the Director: Compliance Monitoring of the Department at Directorcompliance@environment.gov.za.	NOTED	Compliance monitoring reports will be submitted monthly to the Director: Compliance Monitoring of the Department.
26	The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GN R982 of 4 December 201, as amended.	NOTED	Compliance monitoring reports will be submitted monthly to the Director: Compliance Monitoring of the Department.
27	The holder of the authorisation must in addition submit an environmental audit report to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.	NOTED	
28	The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014, as amended, and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the EA conditions as well as the requirements of the approved EMPr.	NOTED	
29	Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and Competent Authority in respect of this development.	NOTED	

1

TOTAL SCORE	3
AS AVERAGE	3,0
AS PERCENTAGE	100,0

10. EA CONDITIONS - NOTIFICATIONS TO AUTHORITIES

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
30	A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.	3	The ECO has notified the Department that commencement will take place on 17 August 2022. Site handover. Another email was sent on 18 August to the Department notifying them of the site handover meeting that took place.

	1
TOTAL SCORE	3
AS AVERAGE	3,0
AS PERCENTAGE	100,0

11. EA CONDITIONS - OPERATION OF ACTIVITY

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
31	A written notification of operation must be given to the Department no later than fourteen(14) days prior to the commencement of the activity operational phase	NOTED	The Department will be notified on the commencement of the activity operational phase.

0

TOTAL SCORE	N/A
AS AVERAGE	
AS PERCENTAGE	

12. EA CONDITIONS - SITE CLOSURE

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
32	Should the activity ever cease or become redundant, the holder of EA must undertake the required actions as prescribed by legislation at the time and comply with all relevant regulations administered by any relevant and competent authority at that time.	NOTED	

0

TOTAL SCORE	N/A
AS AVERAGE	
AS PERCENTAGE	

13. EA CONDITIONS - SPECIFIC CONDITIONS

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
33	No activities will be allowed to encroach into a water resource without a water use authorisation being in place from the Department of Water and Sanitation (DWS).	NOTED	Some of the coordinates of the camping site, tented camp and the picnic site which are approved in the Environmental Authorisation, fall within the Shingwidzi River. We will apply to amend the EA.
34	The holder of the environmental authorisation must ensure all units are developed outside the 100 year flood line.	NOTED	The holder of the environmental authorisation will ensure that all units are developed outside the 100 year flood line.
35	The holder of the environmental authorisation must ensure that a minimum buffer of 100m from the edge of the ephemeral river boundaries and 50m from the edge of the episodic river boundaries is maintained.	NOTED	
36	Units must be spaced in such a way that the open spaces in the bush within the approved site are fully utilized in order to minimise damage, disturb, cut or destroy of any trees which could act as a visual buffer between units. This must be done in conjunction with the ecological specialist.	NOTED	Minimum disturbance will be allowed on the indigenous vegetation.
37	The holder of this environmental authorisation must restrict the construction activities to the footprint area.	NOTED	Development will only take place in the footprint area.
38	The holder of this environmental authorisation must take note that no temporary site camps will be allowed outside the footprint of the development area as the establishment of such structures might trigger a listed activity as defined in the Environmental Impact Assessment Regulations, 2014, as amended.	NOTED	No temporary site camps will be constructed.
39	Construction activities must be restricted to demarcated areas in order to restrict impacts on sensitive environmental features (e.g. Shingwidzi River).	NOTED	Development will only take place in the demarcated areas.
40	Relevant permits must be obtained from relevant authorities for any removal or destruction of Threatened or Protected Species (TOPs).	NOTED	Relevant permits will be obtained where necessary.
41	Before the clearing of the site, the appropriate permits must be obtained from the Department of Agriculture, Forestry and Fisheries (DAFF) for the removal of plants listed in the National Forest Act and from the relevant provincial department for the destruction of species protected in terms of the specific provincial legislation. Copies of the permits must be kept by the ECO.	NOTED	Appropriate permits will be obtained from the Department of Forestry, Fisheries and the Environment (DFFE) prior the removal of protected trees.
42	During construction, the holder of the authorisation must ensure that light is limited and discouraged on site after hours to minimise visual impacts.	NOTED	
43	All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities shall be undertaken according to the rehabilitation plan indicated in the Final EMPr.	NOTED	Disturbed areas will be rehabilitated.

44	Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.	NOTED	
45	No exotic plants must be used for rehabilitation purposes, only indigenous plants of the area must be utilised.	NOTED	Only indigenous trees will be used for rehabilitation.
46	Removal of alien invasive species or other vegetation and follow-up procedures must be in accordance with the Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983).	NOTED	Alien invasive species will be removed from the construction site when observed.
47	Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing, but must be temporarily stored in a demarcated area.	NOTED	Alien invasive species will be temporarily stored in demarcated area.
48	Contractors and construction workers must be clearly informed of the 'no-go' areas. The 'no-go' areas must be clearly demarcated and must be avoided.	NOTED	The 'no-go' areas will be demarcated.
49	Disturbed areas must be rehabilitated as soon as possible after construction with locally indigenous plants to enhance the conservation of existing natural vegetation on site.	NOTED	Disturbed areas will be rehabilitated.
50	Watercourses outside the approved footprint of the Shingwidzi River and Tshanga Tributary must be treated as 'no-go' areas and demarcated as such. No vehicles, machinery, personnel, construction material, fuel, oil, bitumen or waste must be allowed into these areas without the express permission of and supervision of the ECO, except for rehabilitation work in these areas.	NOTED	
51	The holder of the authorisation must ensure that the aquatic species within the Shingwidzi River and Tshanga Tributary are not affected by the development.	NOTED	
52	No discharge of effluents or polluted water must be allowed into the Shingwidzi River and Tshanga Tributary.	NOTED	
53	The ECO must conduct a routine monitoring of the site for any spillages and water pollution / contamination that can have potential impacts on fauna and flora.	3	Monthly compliance monitoring is done by the ECO.
54	Workers must be made aware of the importance of not polluting the Shingwidzi River and Tshanga Tributary and of not undertaking activities that could result in such pollution, and this awareness must be promoted throughout the construction phase.	NOTED	An induction will be done by SANParks for all contractors and the workers.
55	Workers must be made aware of not destroying or damaging the vegetation along Shingwidzi River and Tshanga Tributary and this awareness must be promoted throughout the construction phase.	NOTED	An induction will be done by SANParks for all contractors and the workers.
56	Existing road infrastructure must be used for providing access to the site.	3	Existing roads are currently use to access the development sites.
57	Signs must be placed along construction road to identify speed limits, travel restrictions, and other standard traffic control information.	NOTED	
58	All construction vehicles must adhere to a low speed limit to avoid collisions with vulnerable species such as snakes and tortoises within the Park.	NOTED	

59	Animals crossing the road must always be given a right of way.	NOTED	
60	Hunting is not permitted within the Kruger National Park.	NOTED	
61	No unlicensed fishing shall be permitted on site, Viz; Shingwidzi River and Tshanga Tributary.	NOTED	
62	The holder of the environmental authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers.	NOTED	
63	No unsupervised open fires for cooking or heating must be allowed on site and within the Park.	NOTED	
64	Appropriate dust suppression techniques must be implemented on all exposed surfaces to minimise and control airborne dust. Such measures must include amongst others wet suppression, chemical stabilisation, the use of a wind fence, covering surfaces with straw chippings and re-vegetation of open areas.	NOTED	
65	Hazardous waste such as bitumen, oils, oily rags, paint tins etc. must be disposed of at an approved waste landfill site licensed to accept such waste.	NOTED	
66	No dumping or temporary storage of any materials may take place outside designated and demarcated laydown areas, and these must all be located within areas of low environmental sensitivity.	NOTED	
67	Hazardous substances must not be stored where there could be accidental leakage into the surface or Shingwidzi River and Tshanga Tributary.	NOTED	
68	Leakage of fuel must be avoided at all times and if spillages occurs, it must be remedied immediately.	NOTED	
69	Spill kits must be made available on-site for the clean-up of spills.	NOTED	
70	An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling and re-use options where appropriate. Where solid waste is disposed of, such disposal shall only occur at a landfill licensed in terms of Section 20 (b) of the National Environment Management Waste Act, 2008 (Act 59 of 2008).	NOTED	
71	On site chemical ablation facilities must be available for the use of construction workers at the times during the construction period.	3	Portable toilet facilities are on site.
72	The ablation facilities must be removed from the site when the construction phase is completed as well as associated waste to be disposed of at a registered waste site.	NOTED	The ablation facilities will be removed from site when the construction phase is completed.
73	The ablation facilities must be placed far enough away from the Shingwidzi River and Tshanga Tributary to prevent any pollution of the streams.	3	The ablation facilities are placed far enough away from the Shingwidzi River and Tshanga Tributary.

74	If concentrations of archaeological heritage material, fossils and human remains are uncovered during construction, all work must cease immediately and be reported to the South African Heritage Resources Agency (SAHRA), or a qualified archaeologist must be informed of such discovery so that a systematic and professional investigation / excavation can be undertaken.	NOTED	
75	Construction managers/foremen must be informed before construction starts of the possible types of heritage sites and cultural material that may be encountered and the procedures to follow when they find sites.	NOTED	
76	The holder of this environmental authorisation must draw up a maintenance management plan which is in line with the approved management plan of the Park for maintenance purposes. The maintenance management plan must be submitted for approval by this Department prior to commencement of construction of any activities on site.	NOTED	A maintenance management plan will be submitted to the Department once the operational phase commence.

4

TOTAL SCORE	12
AS AVERAGE	3,0
AS PERCENTAGE	100,0

14. EA CONDITIONS - GENERAL

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
77	The recommendations of the EAP in the Final BAR dated July 2017 and the specialist studies attached must be adhered to. In the event of any conflicting mitigation measures and conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preferences.	NOTED	
78	A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying - 78.1 at the site of the authorised activity 78.2 to anyone on request 78.3 where the holder of the EA has a website, on such publicly accessible website	NOTED	
79	National Government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.	3	The ECO has notified the Department that commencement will take place on 17 August 2022. Site handover. Another email was sent on 18 August to the Department notifying them of the site handover meeting that took place.

	1
TOTAL SCORE	3
AS AVERAGE	3,0
AS PERCENTAGE	100,0

15. EMPr - CONSTRUCTION PHASE

ITEM	DESCRIPTION	SCORE	NOTES / ACTION
1	Final Specialist Walk-through An ecological specialist, fauna specialist, surface water specialist, visual specialist and heritage specialist must be commissioned to perform a final walkthrough of the site. Recommendations by the specialists must be made regarding the final positioning of the respective proposed developments. These recommendations must cover buffer identification, sensitive sites identification, no-go areas identification, fine scale mapping and site specific mitigation measures within the development footprint.	NOTED	The ECO will identify the no-go areas once the various development sites are pegged.
2	Appointment and duties of the ECO The Developer must appoint an independent Environmental Control Officer (ECO) who must monitor the contractor's compliance with the EMPr.	3	Mr. Anton von Well from AGES Limpopo (Pty) Ltd has been appointed as the ECO for this project. Mr. Anton von Well is a registered EAP at EAPASA.
	The developer must provide the ECO and contractor with a copy of the EMPr.	3	The ECO and the contractors have copies of the EMPr.
	The priority of the ECO is to maintain the integrity of the development conditions outlined in the EMPr.	NOTED	The ECO will maintain the integrity of the development conditions outlined in the EMPr.
	The ECO must form part of the project management team and attend all project meetings.	3	The ECO forms part of the project management team and attends the monthly progress meetings.
	The contractor must ensure that the construction crew attend an environmental briefing and training session presented by the ECO prior to commencing activities on site.	NOTED	SANParks will do an environmental induction for all construction staff.
	Report on environmental compliance at the monthly site meetings.	3	Monthly compliance monitoring reports are submitted to the Department.
3	Appointment and duties of the ELO The contractor must appoint an Environmental Liaison Officer (ELO). This person will be required to monitor the situation with a direct hands-on approach, and ensure compliance and co-operation of all personnel. He/She should be fluent in the languages of the employees.	NOTED	
	This EMPr must be made binding to the main contractor as well as individual contractors and should be included in tender documentation for the construction contract.	3	The contractors are monitored monthly according to the EMPr.
4	Training of Site Personnel All Contractor teams involved in construction work are to be required to undergo some form of environmental induction on their obligations towards environmental controls and methodologies in terms of this EMP, prior to commencing of the works.	NOTED	SANParks will do an environmental induction for all construction staff.

		The Contractor shall ensure that all site personnel have a basic level of environmental awareness training. Topics covered should include; - What is meant by "Environment" - Why the environment needs to be protected and conserved - How construction activities can impact on the environment - What can be done to mitigate against such impacts - Awareness of emergency and spills response provisions - Social responsibility during construction of the fire station	NOTED	SANParks will do an environmental induction for all construction staff.
		It is the Contractor's responsibility to provide the site foreman with environmental training and to ensure that the foreman has sufficient understanding to pass this information onto the construction staff.	NOTED	SANParks will do an environmental induction for all construction staff.
		Training should be provided to the staff members in the use of the appropriate fire-fighting equipment. Translators are to be used where necessary. - Use should be made of environmental awareness posters on site. - The need for a "clean site" policy also needs to be explained to the workers. - Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitised to any potential hazards associated with their tasks.	NOTED	
		The Contractor must monitor the performance of construction workers to ensure that the points relayed during their introduction have been properly understood and are being followed.	NOTED	
		Environmental inductions may take the form of onsite talks and demonstrations by the Contractor and the ECO. Induction report will be signed by the Contractor as well as the Employee undergoing Induction, and records kept for auditing purposes and copies given to the ECO for filing. The education / awareness programme should be aimed at all levels of management and staff within the Contractor's team, and particularly labour drawn from surrounding communities.	NOTED	SANParks will do an environmental induction for all construction staff.
5	Record Keeping	It is recommended that photographs are taken of the site prior to, during and immediately after construction as a visual reference. These photographs should be stored with related documents and other records related to this EMP.	3	Monthly compliance monitoring reports are submitted to the Department.
		All specialists reports (Vegetation, Wetland Delineation, Fauna, Geotechnical, Socio-economic, Heritage Impact Assessment) must be kept on site.	NOTED	
		The Contractor shall ensure that all pertinent permits, certificates and permissions have been obtained prior to any activities commencing on site and ensure that they are strictly enforced / adhered to. This includes, for example, updating the Department of Water Affairs and Sanitation (DWS) Water Use licence and other monitoring programs.	3	Environmental Authorisation is in place. General Authorisation is in place. Environmental Management Program is approved.
		All records related to the implementation of this management plan (e.g. site instruction book, ECO reports, induction records, method statements, must be kept together in an office where it is safe and can be retrieved easily.	NOTED	

		All relevant records should be kept for a minimum of two years after construction and should at any time be available for scrutiny by any relevant authorities or stakeholder.	NOTED	
6	Layout Plan	The Environmental sensitivity maps compiled during the Basic Assessment and present in the vegetation report, fauna and wetland report should be used as a decision tool to guide the final layout design of the proposed development.	NOTED	
		The extent of the construction sites and access roads should be demarcated on site layout plans and should be restricted to disturbed areas or those identified with low conservation importance. Therefore, no construction personnel or vehicle may leave the demarcated area except those authorised to do so. Those areas surrounding the construction site that are not part of the demarcated development area should be considered as "no-go" areas for employees, machinery or even visitors.	2	The construction site for the proposed reception area is demarcated.
7	Environmental Protection Plan	Within 21 days of the Commencement Date, the Site Contractor shall prepare and submit to the Project Manager for approval in consultation with the ECO an Environmental Protection Plan. The Plan shall cover all environmental protection works and shall also include descriptions of environmental safeguards and emergency procedures.	NOTED	
		The Plan shall include a description of the administrative structure and lines of communication which shall be established between the Contractor's and his subcontractors' workforce for the implementation of environmental protection procedures. Details of the expertise available for the implementation of environmental protection procedures must also be provided.	NOTED	
		In addition this plan must have a site layout plan and showing the final positions and extent of all permanent and temporary site structures and infrastructure, including: - Buildings. - Contractors" camp. - Roads and access routes, gates and fences. - Essential services (permanent and temporary water, electricity and sewage). - Rubble and waste rock storage and disposal sites. - Site toilets and ablutions. - Firebreaks. - Excavations and trenches. - Topsoil stockpiles. - Spoil areas. - Construction materials stores. - Vehicle and equipment stores. - Sensitive and No go areas & applicable buffers. This must include all areas of Environmental sensitivity (natural environment, sensitive habitats wetland areas and protected species). - All temporary and permanent water management structures including bunds and sumps.	2	Construction drawings were issued to the contractor by the architect and the engineer.

8	Existing Services and Infrastructure	The Contractor shall ensure that existing essential services (e.g. solar hybrid structures, boreholes etc) are not damaged or disrupted unless required by the contract and with the permission of the PE.	3	No services were damaged when the foundations for the reception area was excavated.
		The Contractor shall be responsible for the repair and reinstatement of any existing infrastructure that is damaged or services which are interrupted.	NOTED	
		Such repair or reinstatement will be to the Contractor"s cost and shall receive top priority over all other activities.	NOTED	
		A time limit for the repairs may be stipulated by the RE in consultation with the Contractor.	NOTED	
9	Emergency Preparedness	If chemicals in sufficient quantity and toxicity have the potential to be released on the construction sites, emergency contingency plans should be prepared as safety measures (Bunded areas). These safety measures should be communicated to the relevant personnel on the construction site. All hazardous installations require a Risk Assessment in terms of the Occupational Health and Safety Act, (Act No.85 of 1993) for construction sites.	NOTED	

10	Method Statements	<p>The Contractor shall submit written Method Statements to the RE for the activities identified by the RE or ECO. Activities that will require method statements include:</p> <ul style="list-style-type: none"> - Logistics for the Environmental Awareness Training Course - Location and Layout of Construction Camp - Construction procedures - Cement and concrete batching - Solid and Hazardous Waste Management - Drainage and Storm water planning - Dust Control - Stockpiling area - Vegetation removal - Materials and equipment to be used - Getting the equipment to and from the site - How the equipment material will be moved while on site - How and where material will be stored - The containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur - Timing and location of activities - Compliance/non compliance with Specifications - Site camp establishment - Concrete pre-cast and batching operation - Emergency procedures - Materials, equipment and staffing requirements - Transporting the materials and/or equipment to, from and within the site - Stockpiling of rubble - General and Hazardous waste management on site - The storage provisions for the materials and/or equipment - The proposed construction procedure designed to implement the relevant Environmental Specifications - Other information deemed necessary by the RE and/or ECO. 	NOTED	
		Method Statements shall be submitted at least ten working days prior to the proposed commencement of work on an activity to allow the RE (and/or ECO) time to study and approve the method statement.	NOTED	
		Contractor shall not commence work on that activity until such time as the Method Statement has been approved in writing by the RE contract.	NOTED	
		The Contractor shall carry out the activities in accordance with the approved Method Statement.	NOTED	
		Under certain circumstances, the RE may require changes to an approved Method Statement. In such cases the proposed changes must be agreed upon in writing between the Contractor and the RE, and appropriate records retained.	NOTED	

		Approved Method Statements shall be readily available on the site and shall be communicated to all relevant personnel. Approval of the Method Statement shall not absolve the Contractor from any of his obligations or responsibilities in terms of the EMPr specifications.	NOTED	
11	Site Establishment	The contractor shall establish his construction camp, office/s and any other infrastructure as per the agreed site layout plan in a manner that does not adversely affect the environment.	3	The construction camp does not adversely affect the environment.
		The contractor shall submit a method statement for site clearance for approval by the RE in consultation with the ECO. Site establishment shall take place in an orderly manner and all required amenities shall be installed at Camp site before the main workforce move onto site.	NOTED	
		Designate access roads during the planning phase allowing only wetland crossing at designated points.	NOTED	Existing access roads are used.
		The Construction camp shall have the necessary ablution facilities with chemical toilets at commencement of construction activities to the satisfaction of the Project Manager. The Contractor shall inform all site staff to make use of supplied ablution facilities and under no circumstances shall indiscriminate sanitary activities be allowed other than in supplied facilities.	3	Portable toilets are on site.
		Safe drinking water for human consumption shall be available at the site offices and at other convenient locations on site. All water used on site must be taken from a legal source and comply with the recognised standards for potable and other uses.	NOTED	
		No fires on site will be allowed. Activities which may pose a risk of fire must be identified and suitable measures must be put in place to prevent any possible damage by fire. Contractors must inform the staff of the risk of fires and fire prevention and emergency procedures in the event of a fire. Fire fighting equipment shall be supplied by the Contractor at suitable locations.	NOTED	
		The construction camp must preferably be positioned where it will not visually impact on adjacent landowners and should not be located in an environmentally sensitive area.	3	The construction camp does not visually impact on the adjacent landowners and it is not located in an environmentally sensitive area.
		All sensitive areas, heritage (if encountered), wetland, drainage lines, should be demarcated and fenced off before development commences. These areas should be treated as "no go" areas.	NOTED	All sensitive areas will be demarcated.
		Invasive alien plant species should be treated in an appropriate manner.	NOTED	Invasive alien plant species should be treated in an appropriate manner.
		Alien plant eradication and follow-up control activities prior to construction.	NOTED	
12	Protection of Vegetation	Limit disturbance of natural vegetation to a minimum.	3	Trees were remained around the reception area.

	Avoid removal of large trees.	NOTED	Trees were remained around the reception area.
	No protected trees or plants may be removed without the relevant permits from the Department of Agriculture, Forestry and Fisheries (DAFF).	NOTED	
	Do not plant any non-indigenous trees or shrubs or any garden ornamentals at the gate, use KNP indigenous plant species only.	NOTED	
	Remove and control all alien woody plant species that may appear during construction.	NOTED	
	The clearing of vegetation must be kept to a minimum and remain within the footprint of the particular picnic site, camping and tented camp site.	3	Clearing of vegetation took only place within the footprint of the reception area.
	The clearing of vegetation must be kept to a minimum and remain within the footprint of the bridge – erosion of the river banks must be avoided at all times.	NOTED	
	The clearing of vegetation must be kept to a minimum and remain within the footprint of the road.	NOTED	
	Disturbed areas must be rehabilitated immediately after construction has been completed in that area by sowing appropriate indigenous grass species, this is to avoid erosion of the river banks.	NOTED	
	Disturbed areas on road shoulder must be rehabilitated immediately after construction has been completed in that area (e.g.by sowing appropriate indigenous grass species).	NOTED	
	During the construction phase workers must be limited to areas under construction and access to the undeveloped riparian areas must be strictly controlled.	NOTED	
	Areas which have been disturbed will be quickly colonised by invasive alien species. An ongoing management plan must be implemented for the clearing/eradication of alien species.	NOTED	
	Monitor all sites disturbed by construction activities for colonisation by exotics or invasive plants and control these as they emerge.	NOTED	Monitoring will take place at disturbed sites.
	Implement fines for the damage or destruction of marked and protected specimens.	NOTED	
	Staff may not tamper or remove flora and neither may anyone collect seed from the plants without permission from the local authority.	NOTED	
13	Protection of Fauna and Habitat		
	The standard SANParks speed restrictions (50km/h on tar roads and 40km on dirt roads) are deemed adequate if it is enforced.	NOTED	
	The tented camp, camp site and picnic site terrain should preferably be planned according to the "light footprint" / rustic principle.	NOTED	

Normal precautionary measures included in the SANParks construction and operational modus operandus would suffice viz. unwarranted use of natural resources (viz. poaching, trapping, harvesting plant materials).	NOTED	
Impacts can be offset by providing extraordinary opportunities such as bat hotels, sufficiently-sized drainage pipes supporting bridges to coincidentally serve as daytime roosts for cave-dwelling bats, nooks and crannies as refuge for reptiles, nesting, educational amenities (such as at the reception facility), bird baths etc.	NOTED	
All staff and contractors must undergo an environmental induction course held by the ECO as well as faunal education and awareness programmes.	NOTED	SANParks will do an environmental induction for all construction staff.
None other than the standard precautionary measures incorporated in SANParks best-practice development protocol in a conservation area.	NOTED	
Runoff rain water from the black-topped road will influence grass and seedling germination that in turn will require the standard maintenance procedures developed by SANParks over time.	NOTED	
Education and awareness campaigns on faunal species and their habitat are recommended to help increase awareness, respect and responsibility towards the environment for all staff and contractors.	NOTED	
The spatial extent of construction activities must be minimized, and as far as possible must be restricted to the areas on which buildings, roads etc will actually be located.	NOTED	
No poaching or snaring of any game is permitted. The operator must implement fines in this regard.	NOTED	
The boundaries of the development footprint areas are to be clearly demarcated and it must be ensured that all activities remain within the demarcated footprint area.	3	The boundaries of the development of the reception area is clearly demarcated and development takes place only inside the demarcated area.
The development should maintain connectivity between ecologically important habitats by retaining natural corridors for the movement of fauna.	NOTED	
Pets and livestock are not allowed on site.	3	No pets or livestock are on construction site.
Any bird nests that are found during the construction period must be reported to the Environmental Control Officer (ECO).	NOTED	
Movement of construction vehicles and workers beyond the boundary of the site must be minimized. In addition, workers must be instructed to minimize disturbance of birds at all times, and steps must be taken to ensure that no illegal hunting occurs.	NOTED	

		The Critically Endangered White-backed Vultures that are breeding in the vicinity of the proposed camp site and tented camp site require special consideration in terms of mitigation. A 500-m buffer zones must be maintained around each nest site, within which no activity takes place.	NOTED	
		Driving at night on the new road by SANParks staff must be kept to a minimum.	3	No driving occur at night as the contractor and workers stay outside the Park.
14	Protection of Wetlands and other Watercourses	Construction affecting watercourses must be restricted to the dryer winter months.	NOTED	
		A temporary fence or demarcation must be erected around No-Go Areas outside the proposed works area prior to any construction taking place as part of the contractor planning phase when compiling work method statements to prevent access to the adjacent portions of the watercourse.	3	Temporary fence is put up around the construction area. No development is taking place in wetland or watercourses.
		Effective stormwater management should be a priority during both construction and operational phase. This should be monitored as part of the EMP. High energy stormwater input into the watercourses should be prevented at all cost. Changes to natural flow of water (surface water as well as water flowing within the soil profile) should be taken into account.	NOTED	Stormwater management will be in place.
		No impeding water flow during construction.	3	No impeding of water into excavated foundation.
		Consider the various methods and equipment available and select whichever method(s) that will have the least impact on watercourses.	NOTED	
		Water may seep into trenching and earthworks. It is likely that water will be contaminated within these earthworks and should thus be cleaned or dissipated into a structure that allows for additional sediment input and slows down the velocity of the water thus reducing the risk of erosion. Effective sediment traps should be installed.	NOTED	
		Retain vegetation and soil in position for as long as possible, removing it immediately ahead of construction / earthworks in that area.	NOTED	
		Remove only the vegetation where essential for construction and do not allow any disturbance to the adjoining natural vegetation cover.	3	Clearing of vegetation took only place within the footprint of the reception area.
		Rehabilitation plans must be submitted and approved for rehabilitation of damage during construction and that plan must be implemented immediately upon completion of construction.	NOTED	
		During the construction phase measures must be put in place to control the flow of excess water so that it does not impact on the surface vegetation.	NOTED	
		Protect all areas susceptible to erosion and ensure that there is no undue soil erosion resultant from activities within and adjacent to the construction camp and work areas.	NOTED	

		Runoff from the construction area must be managed to avoid erosion and pollution problems.	NOTED	
		Where construction occurs in the demarcated watercourse and buffer, extra precautions should be implemented so as to minimise watercourse loss.	NOTED	
		Provision of adequate sanitation facilities located outside of the watercourse or its associated buffer zone.	3	Portable toilets are on site.
		Implementation of appropriate stormwater management around the excavation to prevent the ingress of run-off into the excavation and to prevent contaminated runoff into the watercourse.	NOTED	
		The development footprint must be fenced off from the watercourses and no related impacts may be allowed into the watercourse e.g. water runoff from cleaning of equipment, vehicle access etc.	3	Temporary fence is put up around the construction area. No development is taking place in wetland or watercourses.
		Maintenance of construction vehicles / equipment should not take place within the watercourse or watercourse buffer.	NOTED	
		The wetland rehabilitation- and monitoring plan must be used in conjunction with this EMP to mitigate the construction related impacts.	NOTED	
15	Erosion and Sedimentation	Do not allow erosion to develop on a large scale before taking action.	NOTED	Action will be taken as soon as erosion is visible.
		Increased run-off during construction must be managed using berms and other suitable structures as required to ensure flow velocities are reduced; this must be done in consultation with the ECO.	NOTED	Berms will be used in construction sites where necessary.
		Where possible, no construction activities should be undertaken within the moist grasslands.	NOTED	
		The extent of wetland conditions should be verified by a wetland specialist and no activities should take place within these areas without that a Water Use License was granted by the Department of Water and Sanitation (DWS) for these activities.	NOTED	
		Make use of existing roads and tracks where feasible, rather than creating new routes through vegetated areas.	3	Existing access roads are used.
		Leave as much natural vegetation as possible intact during construction.	3	Clearing of vegetation took only place within the footprint of the reception area.
		Retain vegetation and soil in position for as long as possible, removing it immediately ahead of construction / earthworks in that area.	NOTED	
		Remove only the vegetation where essential for construction and do not allow any disturbance to the adjoining natural vegetation cover. The grassland can be removed as sods and re-established after construction is completed.	3	Clearing of vegetation took only place within the footprint of the reception area.

		Colonisation of the disturbed areas by plants species from the surrounding natural vegetation must be monitored to ensure that vegetation cover is sufficient within one growing season. If not, then the areas need to be rehabilitated with a grass seed mix containing species that naturally occur within the study area.	NOTED	
		Protect all areas susceptible to erosion (especially the sloped rocky grassland) and ensure that there is no undue soil erosion resultant from activities within and adjacent to the construction camp and work areas.	NOTED	
16	Alien Invasive Plant Species	An alien invasive management programme must be incorporated into the Environmental Management Programme.	NOTED	
		Ongoing alien plant control must be undertaken during construction.	NOTED	Monitoring will take place at disturbed sites.
		Monitor all sites disturbed by construction activities for colonisation by exotics or invasive plants and control these as they emerge.	NOTED	Monitoring will take place at disturbed sites.
		The clearing of vegetation must be kept to a minimum and remain within the footprint of the bridge – erosion of the river banks must be avoided at all times.	NOTED	
		Disturbed areas must be rehabilitated immediately after construction has been completed in that area by sowing appropriate indigenous grass species, this is to avoid erosion of the river banks.	NOTED	
		During the construction phase workers must be limited to areas under construction and access to the undeveloped riparian areas must be strictly controlled.	NOTED	
		Rehabilitated areas must be monitored to ensure the establishment of re-vegetated areas.	NOTED	
		An on-going management plan must be implemented for the clearing/eradication of alien species.	NOTED	Monitoring will take place at disturbed sites.
		The clearing of vegetation must be kept to a minimum and remain within the footprint of the new road.	NOTED	
		Disturbed areas on road shoulder must be rehabilitated immediately after construction has been completed in that area (e.g.by sowing appropriate indigenous grass species).	NOTED	
		During the construction phase workers must be limited to areas under construction and access to the undeveloped areas must be strictly controlled.	NOTED	
		No large trees may be removed (they are needed for shade).	NOTED	Large trees will remain on site where possible to minimise visual impact of the new development.

17	Hazardous materials storage and protection of soil and ground water	Materials storage areas should not be allowed in close proximity to ecologically sensitive areas.	NOTED	Storage areas will be evaluated prior implementing.
		Provide the ECO with a list of all petroleum, chemical, harmful and hazardous substances and materials on site, together with storage, handling and disposal procedures for these materials.	NOTED	
		Ensure that all hazardous substances (chemicals, oils, etc.) are stored in appropriate, tamper proof containers in locked stores.	NOTED	
		Petroleum, chemical, harmful and hazardous materials must be stored in enclosed, bunded areas. The bunded areas shall be clearly marked.	NOTED	
		The bund must have a volume of 10% of the volume of the largest tank in the storage area plus 10% of the volume of all other tanks.	NOTED	
		The slab must be sloped towards a sump to enable any spilled fuel and water to be removed.	NOTED	
		Any wastewater collected at the sump shall be disposed of as hazardous waste.	NOTED	
		Ensure that all hazardous substances are used and handled by qualified personnel on bunded surfaces.	NOTED	
		Ensure that no oil, petrol, diesel etc. is discharged onto the ground.	NOTED	
		All hazardous products to be dispensed from 200 litre drums shall be transferred by pump, and not dispensed by tipping of the drum.	NOTED	
		Tanks containing fuel must have lids, which are to remain firmly shut.	NOTED	
		Gas and liquid fuel may not be stored in the same storage area.	NOTED	
		No smoking is allowed inside the stores or within 3m of a bund.	NOTED	
		The Contractor must ensure that there is adequate fire-fighting equipment at the fuel stores.	NOTED	
		Fuels and chemicals may not be stored under trees.	NOTED	
		Exercise extreme care with the handling of diesel and other toxic solvents so that spillage is minimised.	NOTED	
Vehicles and machinery may not veer from the dedicated roads and tracks.	NOTED			
Once construction is complete, obsolete roads should be obliterated by breaking the surface crust and erecting earth embankments to prevent erosion, while the natural species composition should be re-established.	NOTED			

18	Concrete and cement mixing	Ensure that concrete and cement works are undertaken in specified areas only.	NOTED	Concrete and cement works will be undertaken in specified areas.
		Ensure that all operations that involve the use of cement and concrete are carefully controlled. Water and slurry from concrete mixing operations must be contained to prevent pollution of the ground surrounding the mixing points.	NOTED	
		Use plastic trays or liners when mixing cement and concrete: Do not mix cement and concrete directly on the ground.	NOTED	
		Excess concrete from mixing must be deposited in a designated area awaiting removal to an approved landfill site.	NOTED	
		All visible remains of excess concrete shall be physically removed immediately and disposed of as waste. Washing the visible signs into the ground is not acceptable. All excess aggregate shall also be removed.	NOTED	Visible remains of excess concrete will be physically removed from construction site.
19	Handling and disposal of contaminated water	No discharge of pollutants such as cement, concrete, lime, chemicals, fuels or oils will be allowed into any water resource.	NOTED	
		Only above ground temporary storage tanks will be allowed on site.	NOTED	
		Contaminated or potentially contaminated water will be kept separated from unpolluted stormwater and no unpolluted stormwater will be allowed into the conservancy tank.	NOTED	
20	Visual Impacts	Buildings are to be simple in form and deliberately separated to lessen impact on the environment and allow for placement adjustments during construction to preserve large trees and protected specimens.	NOTED	Large trees will remain on site where possible to minimise visual impact of the new development.
		Subtle walkways between buildings to connect without overpowering.	NOTED	
		Locate construction camps outside the borders of the KNP in areas that is already disturbed to avoid additional disturbance inside the park.	3	Nobody stays on site. The contractor and the workers stay outside the Park.
		In the event that construction camps are located in the KNP, put stringent restrictions in place to contain the footprint of the camp by temporarily fencing it and clearly demarcating the entire construction area to minimise disturbance of areas outside the construction site.	3	Nobody stays on site. The contractor and the workers stay outside the Park.
		Keep the construction camp and construction area neat and tidy at all times. Remove any waste products from the site or contain it in an enclosed area to avoid wind blowing waste into the bush.	NOTED	
		Implement dust suppression measures during earthworks to minimise the impact of dust clouds.	NOTED	
		Appoint a suitable architect and landscape architect to design the infrastructure and the adjoining surroundings with sensitivity towards the environment and its current character.	3	Suitable architect is appointed - Mashilo Lambrechts Architects.

		No structure may exceed the height of the surrounding vegetation.	NOTED	
		Additional trees and shrubs can be planted around the structures as an offset measure to the loss in vegetation in the footprint of the infrastructure.	NOTED	
		All signage should be non-intrusive but clear. No sign boards will be placed on separate frameworks higher than 2 m above the ground level to avoid it exceeding the height of the vegetation.	NOTED	
21	Lighting	Working hours shall generally be restricted to daylight hours.	3	Working hours is during daylight hours. No work is permitted after hours.
		Security lights shall be directed from the perimeter wall towards the centre of the camp with a down angle.	NOTED	
22	Solid Waste Management	Litter generated by the construction crew must be collected in rubbish bins and disposed of weekly at registered waste disposal sites.	NOTED	
		Where feasible, collect waste paper, glass and metal waste separately and arrange for collection by recycling contractors.	NOTED	
		Litter bins must be equipped with a closing mechanism to prevent their contents from blowing out or being scavenged on by the surrounding animals.	NOTED	
		Ensure that personnel make use of the litter bins provided. Keep all Work Sites and at the Contractors camp tidy and litter free at all times.	NOTED	
		All building rubble, solid and liquid waste etc must be disposed of as necessary at an appropriately licensed refuse facility.	NOTED	
		Ensure that no refuse wastes are burnt on the premises or on surrounding premises. No fires will be allowed on site.	NOTED	No burning of waste on site is permitted.
		The construction site must be kept in a clean and orderly state at all times.	NOTED	The construction site will be monitored.
		Ensure that no litter, refuse, wastes, rubbish, rubble, debris and builders wastes generated on the site be placed, dumped or deposited on adjacent/surrounding veld during or after the construction period of the project and that they are disposed of an approved at an approved registered waste facility.	NOTED	
23	Storm Water Management	No stockpiles or construction materials may be stored or placed within any drainage lines.	NOTED	
		Should a freak storm displace the temporary earth embankments or other erosion control structures, a visual inspection of the site must be made and any damage be recorded. Any damage and loss of soil resulting from a storm is to be remedied immediately. Should the temporary walls collapse due to construction error, the contractor is to fund the remediation process.	NOTED	

Storm water at the construction crew camp must be managed so as to reduce the silt loads into the ecological environment. Measures must be implemented to distribute storm water as evenly as possible to avoid point sources of erosion.	NOTED	
The site must be managed in a manner that prevent pollution of drains, downstream watercourses or groundwater, due to suspended solids, silt or chemicals.	NOTED	
Make use of erosion control measures to minimise erosion at excavation / clearing sites or aggregate storage sites. Earth moving construction activities to take place in dry season as far as possible.	NOTED	Erosion control measures will be implemented where necessary.
The protective buffer around the watercourses must be respected as it acts as a trap for sediment and contaminants. Measures must be put in place around sensitive areas to protect these from sediment and contaminants.	NOTED	
Remove only vegetation essential for construction and do not allow any disturbance to the adjoining natural vegetation cover.	3	Clearing of vegetation took only place within the footprint of the reception area.
Ensure that measures are in place to control the flow of excess water so that it does not impact on the surface vegetation.	NOTED	
The accumulation of water on the surface should be prevented. The drainage of the surface should be done in such a way that storm water will be led away quickly and efficiently without any erosion taking place.	NOTED	
Do not allow surface water or storm water to canalize or be concentrated.	NOTED	
Storm water outflows should not be allowed to enter directly into watercourses.	NOTED	
Runoff from roads must be managed to avoid erosion and pollution problems.	NOTED	
Place and maintain erosion control barriers as appropriate to prevent sedimentation.	NOTED	
Prevent storm water or contaminated water directly entering any watercourse.	NOTED	
Install waste traps to catch litter conveyed by surface runoff.	NOTED	
All waste traps within the storm water system will be emptied / cleaned regularly to ensure their efficient functioning.	NOTED	
Proactively protect steep access roads, cuttings against and other areas susceptible to erosion by installing all the necessary temporary and permanent drainage works as soon as possible and by taking such other measures as may be necessary to prevent surface water being concentrated in water sources and from scouring the slopes, banks or other areas.	NOTED	

		Repair all erosion damage as soon as possible. Do not allow erosion to develop on a large scale before effecting repairs.	NOTED	Erosion damage will be fixed as soon as possible when necessary.
		The stabilisation of disturbed areas, access roads and / or steep cuttings is very site specific and could include reno mattresses, mitre drains, drainage pipes, benches, gabions; scarifying (ripping) areas along the natural contours or packing branches and rocks.	NOTED	
		Monitor all rehabilitated areas for at least a year following the completion of rehabilitation works for failure of vegetation to establish and / or erosion. Immediately implement remedial measures as required.	NOTED	
24	Noise Management	Construction activities must be limited to normal KNP hours and according to KNP policy.	3	Working hours is during daylight hours. No work is permitted after hours.
		The contractor must ensure that noise levels remain within acceptable limits.	NOTED	
		Complaints register will be maintained, in which any complaints from the community will be logged. Complaints will be investigated and, if appropriate, acted upon.	NOTED	
		The operational layout shall be designed so as to control noise at source by the selection and positioning of temporary and permanent plant. Appropriate directional and intensity settings should be maintained on hooters and sirens.	NOTED	
		Silencer units on plant and vehicles shall be maintained in good working order where feasible for use.	NOTED	
		Where required, the contractor shall provide noise attenuation measures in the form of cladding and earth beams between sources of on-site noise and surrounding fauna and avifauna.	NOTED	
		Ensure that employees and staff conduct themselves in an acceptable manner while on site, both during work hours and after hours.	NOTED	
		No loud music is permitted on site or in the Camp.	3	No loud music observed on site.
25	Dust Control	Wet all unprotected cleared areas and stockpiles with water to suppress dust pollution during dry and windy periods.	NOTED	Cleared areas will be wet to minimise dust pollution.
		Ensure proper rehabilitation of disturbed areas in order to minimise bare patches.	NOTED	Disturbed areas will be rehabilitated.
26	Crime, Safety and Security	Ensure that the construction vehicles are under the control of competent personnel and are in proper working order.	NOTED	
		Ensure that only suitably qualified personnel use construction vehicles.	NOTED	

Ensure that the contact details of the police or security company and ambulance services are available on site.	NOTED	
Limit access to the construction crew camp to construction workers through access control.	NOTED	
Comply with the requirements of the Occupational Health and Safety Act, 1993 (Act No.85 of 1993) requirements.	NOTED	
Ensure that the handling of equipment and materials is supervised and adequately instructed.	NOTED	
Vehicular traffic during construction activities must be limited to a maximum speed limit of 40 km/hr.	NOTED	
Site notices informing the tourists of the planned activities must be placed at visible locations a few days prior to new sections being started.	NOTED	
The safety and security fence around the development site must be completed before construction commences internally.	3	The reception construction site is fenced with temporary fence.
Security fence is to be inspected daily to ensure no illegal entry points are created.	NOTED	
The site and crew are to be managed in strict accordance with the Occupational Health and Safety Act, 1993 (Act No.85 of 1993) and the National Building Regulations.	NOTED	
The contractor must supply his own security arrangements in consultation with SANParks for the construction camp within the framework of the EMPr.	3	No construction camp in Kruger, only laydown areas for construction material.
Equipment and materials must be handled by staff that have been supervised and adequately trained.	NOTED	
Staff must be regularly updated about the safety procedures.	NOTED	
Emergency facilities must be available and adequately supplied for use by staff and tourists.	NOTED	
Ensure that the handling of equipments and materials is supervised and adequately instructed.	NOTED	
Limit access to the construction crew camp only to the workforce.	NOTED	
Do not allow the movement of public within the development site by posting notices at the entrance gates, and where necessary on the boundary fence.	NOTED	The public does not have access to the construction site.
Appropriate notification signs must be erected, warning the residents and visitors about the hazards around the construction site and presence of heavy vehicles.	NOTED	The public does not have access to the construction site.

27	Fire Prevention	The contractor must take all the necessary precautions to ensure that fires are not started as a result of activities on site.	NOTED	
		No open fires will be permitted anywhere on site.	NOTED	
		No incineration or burning of waste will be permitted anywhere on site.	NOTED	No burning of waste on site is permitted.
		Provide personnel and staff with gas for cooking purposes in demarcated, safe areas within the construction camp.	NOTED	
		Establish and maintain a fire break around the perimeter of the construction site prior to the commencement of construction activities. The input of SANParks must be sought in terms of required width and timing. The actual execution of the firebreak must be co-ordinated with SANParks. The contractor may not act independently in this regard.	NOTED	
		The contractor should contact all of the adjacent farm owners prior to the commencement of the construction phase and ensure that he/she has the contact numbers so that they can be contacted in the event of a fire.	NOTED	
		Contractor to ensure that construction related activities that pose a potential fire risk, such as welding, are properly managed and are confined to areas where the risk of fires has been reduced.	NOTED	
		Measures to reduce the risk of fires include clearing working areas and avoiding working in high wind conditions when the risk of fires is greater. In this regard special care should be taken during the high risk dry, winter months.	NOTED	
		The contractor shall supply all site offices, kitchen areas, workshop areas, material stores and any other areas identified with suitable, tested and approved fire-fighting equipment.	NOTED	
		All equipment shall be maintained in good operating order.	NOTED	
		Contractor to provide fire-fighting training to selected construction staff.	NOTED	
		In the event of a fire being caused by construction workers and or construction activities, the appointed contractors must compensate SANParks and private lodge owners for any damage caused by the fire. The contractor should bear the costs associated with fighting the fire.	NOTED	
The control of fires within the KNP is the responsibility of SANParks. The contractor should not attempt to control natural fires without the consent and direction of SANParks.	NOTED			
28	Excavation Work	Topsoil is to be handled twice only – once to strip and stockpile, and once to replace and level.	NOTED	
		Position topsoil stockpiles on the higher side of a disturbed area, and above a 1:50 year flood line wherever possible.	NOTED	

		Ensure that all topsoil is stored in such a way and in such a place that it will not cause the damming up of water, erosion gullies, or wash away itself.	NOTED	
		Undertake excavations carefully, incorporating appropriate drainage.	NOTED	
		For significant trees (as indicated by the ELO / ECO), trenching must 3m away from the stem.	NOTED	
		Excavate and backfill trenches on a progressive basis.	NOTED	
		Ensure that no trench longer than 1000m is exposed at any one time.	NOTED	
		Do not allow excavations to stand open for longer than 2 days where at all possible. Excavations should preferably be opened and closed on the same day.	NOTED	
		Trenching through wetlands and drainage lines may only be undertaken upon instruction by the ELO / ECO. In such a situation be sure to return the profile of the wetland / drainage line to one similar to the pre-construction profile. No ridge or channel feature may remain.	NOTED	
		During construction through a wetland, the majority of the flow of the wetland must be allowed to pass down the stream (i.e. no damming must be allowed to take place). In-stream diversions should be used rather than the construction of new channels.	NOTED	
29	Stockpiling Soil	The areas where excavated soil will be stockpiled must be bordered by berms to prevent soil loss caused by rain.	NOTED	
		Do not stockpile topsoil in drainage lines.	NOTED	
		Do not stockpile topsoil in heaps exceeding 2m in height.	NOTED	
		Protect topsoil stockpiles from erosion.	NOTED	
		Remove exotic / invasive plants and broad leaf weeds that emerge on topsoil stockpiles.	NOTED	
		Ensure that topsoil is at no time buried, mixed with spoil (excavated subsoil), rubble or building material, or subjected to compaction or contamination by vehicles or machinery. This will render the topsoil unsuitable for use during rehabilitation.	NOTED	
		The Contractor will be held liable for the replacement of any topsoil rendered unsuitable for use during rehabilitation, for reasons due to his negligence or mismanagement on site.	NOTED	
30	Heritage Impacts	Should archaeological sites or graves be exposed during construction work, it must immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made.	NOTED	Work will be halted and an archaeologist will be contacted should any archaeological sites be exposed during construction.

		Upon receipt of such notification, the heritage practitioner will arrange for the excavation to be examined by an Archaeologist as soon as possible.	NOTED	
		Under no circumstances shall archaeological artefacts be removed, destroyed or interfered.	NOTED	
		Any archaeological sites exposed during construction activities may not be disturbed prior to authorisation by the South African Heritage Resources Agency or Archaeologist.	NOTED	
31	Sewage and Effluent	Ensure that the facility sewage system is maintained in a sanitary and operational state.	NOTED	
		Ensure that the facility sewage system is not overloaded, and that it functions within its design capacity.	NOTED	
		Take action to reduce output or increase capacity if necessary.	NOTED	
		Ensure that measures are put in place to prevent all leaks and spills.	NOTED	
		Repairs to the sewage system must be done immediately.	NOTED	
		In the event of a failure or overflow situation at the waste water treatment plant, implement a back-up system which will ensure that no sewage is discharged into the environment.	NOTED	
		Regular removal of sludge from the septic tanks by a licenced contractor (if required).	NOTED	
		Ensure that all treated effluent meets or exceeds South African water quality regulations prior to discharge or reuse.	NOTED	
		Undertake monthly wastewater monitoring to ensure that the output quality of the water complies with the minimum standards as prescribed by DWS. Ensure that these records are kept up to date and are available upon request.	NOTED	
32	Hazourdous Waste	The disposal of hazardous waste must comply with all relevant Regulations, Norms and Standards pertaining to waste classification in order to ensure disposal at the correct landfill class.	NOTED	
		Avoid the generation of hazardous waste wherever possible through procurement processes e.g. purchasing of less toxic / environmentally friendly products.	NOTED	
		Petroleum, chemical, harmful and hazardous waste must be stored in enclosed, banded areas. The banded areas shall be clearly marked. Such waste shall be disposed of off-site at a licensed hazardous waste disposal site.	NOTED	
		Hazardous waste may be temporarily stored on site in vessels equipped with secondary containment structures to prevent contamination of soil, groundwater and surface waters due to accidental spills or releases.	NOTED	

Forecast and prevent potential situations in which accidents and spills can mitigate against unwarranted waste emissions.	NOTED	
Hazardous waste must be separated at source from the general waste stream. Common potential hazardous wastes include chemicals, used oils, oil contaminated waste, used cooking oils, fats and greases from extraction fans/filters, paint waste, fluorescent bulb waste, battery waste and E-waste.	NOTED	
Effective grease traps should be installed at all kitchen or cooking facilities and these should be regularly serviced and checked for functionality.	NOTED	
Certain hazardous wastes, including used oil, batteries and light bulbs, can be recycled through reputable agents. Where possible, all hazardous wastes, including hydrocarbon wastes such as oils, should be recycled either by a recognized recycling company or returned to the supplier.	NOTED	
All hazardous wastes that cannot be reused or recycled should be labelled correctly and stored in the designated waste storage area until collected for correct disposal.	NOTED	
Load and unload any solid hazardous materials in a manner that reduces potential spills.	NOTED	
Ensure that a spills containment kit is available on site and that personnel are trained in spills clean up procedures.	NOTED	
No spills may be hosed down into the surrounding natural environment.	NOTED	
Immediately clean leaks and spills of hazardous substances and dispose of as hazardous waste.	NOTED	
The EO and ECO should be notified immediately if a hazardous waste spill occurs, to ensure proper cleanup and disposal.	NOTED	
Any contaminated soil / substrate must be removed and stored in a skip until it can be disposed of at a permitted disposal site.	NOTED	
Report major spills to the regional DWS office.	NOTED	Major spills will be reported to the regional DWS office.
Hazardous waste disposal must be undertaken by an approved waste contractor, and waste must be disposed of at a permitted hazardous waste disposal facility on a regular basis.	NOTED	
All hazardous waste transported from the site must be reconciled with safe disposal certificates to be issued by the waste management service provider. These should be kept on file for inspection by the environmental authorities if required.	NOTED	

33	Socio-Economic Impact	Where possible, the applicant should make it a requirement for contractors to implement a "locals first" policy for construction jobs, specifically semi and low-skilled job categories. This will reduce the potential impact that this category of worker could have on local family and social networks.	NOTED	
		Maximise the use of local labour from surrounding communities for low – semi skilled jobs far as possible.	NOTED	
		The appointment of local suppliers and contractors.	NOTED	
		Implement mitigation measures to monitor and control the activities of construction workers and for the control of nuisance impacts.	NOTED	
		Access to the construction site must be strictly controlled.	NOTED	SANParks has a security guard at the access gate.
		Where feasible, training and skills development programmes for surrounding community locals should be run throughout the construction period.	NOTED	
		The Contractor shall provide sanitation facilities in the form of chemical toilets, at all camps, offices, workshops and construction sites for staff and visitors. No other form of sanitation will be permitted unless a connection with a local sewer main is possible. The provision of this facility will comply with current legislation. A minimum of one toilet per 11 people or within 100 meters of the work site in order to prevent any breach of sanitary bylaws or offence to public decency.	3	Portable toilets are on site.
34	Traffic Impact	Appropriate traffic control and warning signage must be implemented during the entire construction phase.	NOTED	
		No vehicles will be allowed within the 30m buffer of sensitive environments (wetland, pans, drainage lines).	NOTED	
		Sufficient maintenance of roads.	NOTED	
		Establish a speed reduction awareness campaign to the contractor to keep speeds below 50 km/h.	NOTED	
		The maximum speed limit on the surfaced road inside the park is 50 km/h. Generally, slower vehicle speeds tend to reduce the occurrence of severe traffic accidents.	NOTED	
		Traffic speed signs must be established at sufficient intervals along the construction footprint.	NOTED	
		Establish a speed reduction awareness campaign for the contractors.	NOTED	SANParks will do an environmental induction for all construction staff.

		No construction vehicles allowed on the roads after between 06:00-18h00.	NOTED	Construction only take place during daylight. No work is permitted after hours.
		Implement penalty fines to speed violators.	NOTED	
		The maximum speed limit on the surfaced road inside the park is 50 km/h. Generally, slower vehicle speeds tend to reduce the occurrence of severe traffic accidents.	NOTED	
		The physical design of the road inside the park should ensure sufficient visibility to allow for reaction and deceleration so as to provide adequate stopping distance.	NOTED	
		The road traffic signs inside the park should be visible.	NOTED	
35	Palaeontological Impact	The overburden and inter-burden must always be surveyed for fossils during construction. Special care must be taken during the digging, drilling, blasting and excavating of foundations, trenches, channels and footings and removal of overburden during construction not to intrude fossiliferous layers.	NOTED	
		The Environmental Control Officer must familiarise him- or herself with the Clarens Formation fossils.	NOTED	

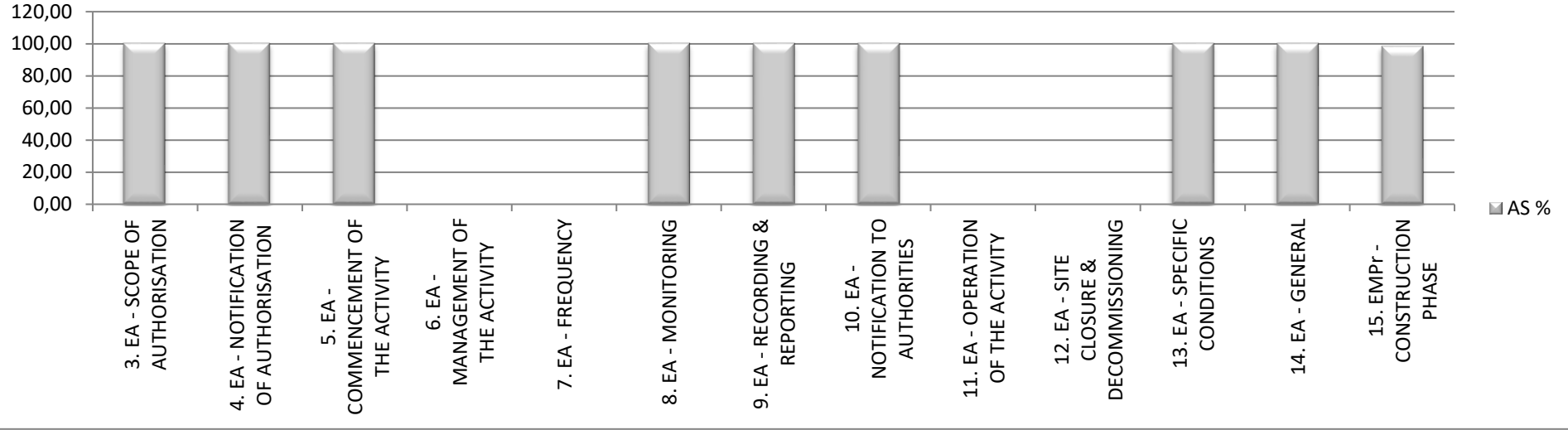
36

TOTAL SCORE	106
AS AVERAGE	2,9
AS PERCENTAGE	98,1

16. SUMMARY OF RESULTS

COMPLIANCE WITH:	TOTAL SCORE	COUNT	AS AVERAGE	AS %	COMMENTS
3. EA - SCOPE OF AUTHORISATION	6,00	1,00	3,00	100,00	
4. EA - NOTIFICATION OF AUTHORISATION	9,00	1,00	3,00	100,00	
5. EA - COMMENCEMENT OF THE ACTIVITY	3,00	1,00	3,00	100,00	
6. EA - MANAGEMENT OF THE ACTIVITY	N/A				
7. EA - FREQUENCY	N/A				
8. EA - MONITORING	12,00	1,00	3,00	100,00	
9. EA - RECORDING & REPORTING	3,00	1,00	3,00	100,00	
10. EA - NOTIFICATION TO AUTHORITIES	3,00	1,00	3,00	100,00	
11. EA - OPERATION OF THE ACTIVITY	N/A				
12. EA - SITE CLOSURE & DECOMMISSIONING	N/A				
13. EA - SPECIFIC CONDITIONS	12,00	1,00	3,00	100,00	
14. EA - GENERAL	3,00	1,00	3,00	100,00	
15. EMPr - CONSTRUCTION PHASE	36,00	1,00	106,00	98,15	
TOTAL	87,00	9,00	14,44	99,79	

% COMPLIANCE



17. CONCLUSION

The table below indicates the amount of conditions for which the contractor is complying or not complying:

	Total number of conditions	Number of conditions monitored	SANPARKS	
			Compliant	Non-Compliant
3. EA - SCOPE OF AUTHORISATION	9	2	2	0
4. EA - NOTIFICATION OF AUTHORISATION	3	3	3	0
5. EA - COMMENCEMENT OF THE ACTIVITY	1	1	1	0
6. EA - MANAGEMENT OF THE ACTIVITY	4	0	0	0
7. EA - FREQUENCY	5	0	0	0
8. EA - MONITORING	5	4	4	0
9. EA - RECORDING & REPORTING	6	1	1	0
10. EA - NOTIFICATION TO AUTHORITIES	1	1	1	0
11. EA - OPERATION OF THE ACTIVITY	1	0	0	0
12. EA - SITE CLOSURE & DECOMMISSIONING	1	0	0	0
13. EA - SPECIFIC CONDITIONS	44	4	4	0
14. EA - GENERAL	3	1	1	0
15. EMPr CONSTRUCTION PHASE	295	36	36	0
TOTAL	378	53	53	0

Thus the percentage compliance with regard to the amount of conditions (performance) being monitored is as follows:

SANParks:

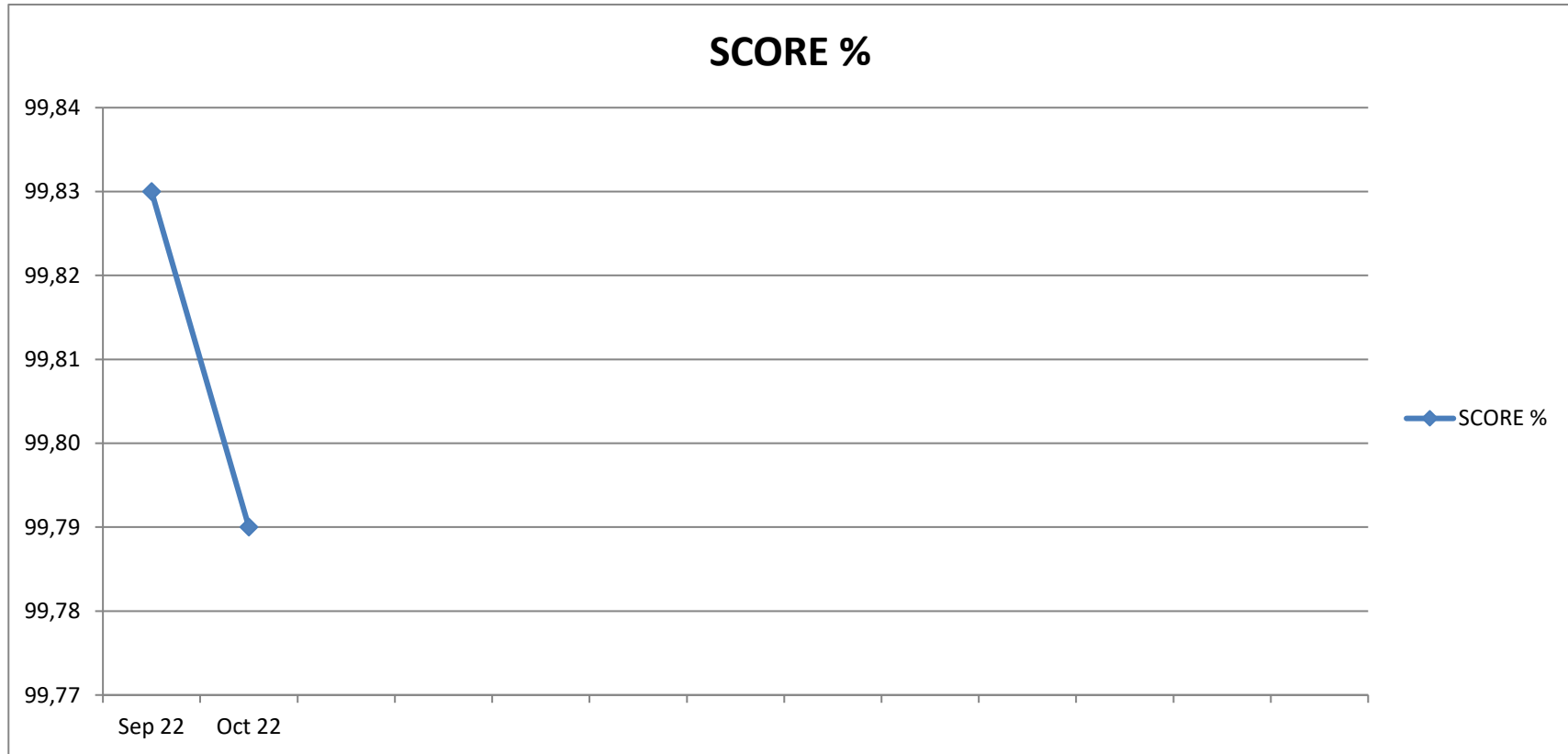
$$53/53 \times 100 = 100,00\%$$

SANParks:

53 out of 53 conditions were scored as compliant and 0 conditions were non-compliant.

13. COMPARISON OF AVERAGES

MONTH	Sep 22	Oct 22											
SCORE %	99,83	99,79											



14. PHOTO RECORD



Container housing construction tools.



Container housing construction tools.



Portable toilets at construction site (Reception Site).



Portable toilets at construction site (Reception Site).



The construction area is temporary fenced.



The construction area is temporary fenced.



Mopani Trees were remained outside construction site.



Existing access road is use for acces to the construction site.



The foundations are excavated.



The foundations are excavated.



Building bricks are on site.



Building sand is on site.