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**External Legal Compliance Audit for the
Droogfontein 2 Solar PV Energy Facility,
Northern Cape Province**

DEA Reference: 12/12/20/2024/1/1

Report No : 19133-46-Rep-001

Submitted to:

Droogfontein 2 Solar (Pty) Ltd
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DOCUMENT APPROVAL

ACTION	DESIGNATION	NAME	DATE	SIGNATURE
Prepared	Lead Auditor	M Vosloo	02-12-2019	
Reviewed	Senior EAP	T Mapinga	02-12-2019	
Approved	Technical Lead	M Vosloo	04-12-2019	

EXECUTIVE SUMMARY

Droogfontein 2 Solar (Pty) Ltd appointed Zitholele Consulting to undertake an Environmental Compliance Audit in terms of Section 54A(3) which stipulates that “*all Environmental Authorisations (EAs) issued prior to the promulgation of the 2014 Environmental Impact Assessments Regulation must be audited by the 07 December 2019*”.

The project of which the audit was to be conducted is referred to as the Droogfontein 2 Solar PV Energy Facility. The project site is located on Portion 1 of the farm Droogfontein No. 62 in Kimberly, within the Northern Cape Province. Zitholele Consulting (Pty) Ltd conducted the environmental audited on 30 October 2019.

The audit was conducted as per Appendix 7 of the Environmental Impact Assessment Regulations dated December 2014 (as amended), to evaluate the following:

- Compliance with the Environmental Authorisation (EA) issued on the 14 September 2014 (including EA amendments which were issued subsequently), and the approved Environmental Management Programme (EMPr) dated 08 February 2017;
- Assess the extent to which the avoidance, management, and mitigation measures provided for in the EMPr, and achieve the objectives and outcomes of the EMPr;
- Identify and assess any new impacts and risks as a result of undertaking the activity;
- Evaluate the effectiveness of the EMPr;
- Identify shortcomings in the EMPr; and
- Identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr.

Based on review of audit documentation and site inspection, the auditor found that the EMPr is sufficient to effectively manage all identified impacts and ensure compliance with the requirements of the EA and EMPr, while enforcement of the requirements of the EA and EMPr is proactive, focused and effective.

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LIST OF ACRONYMS

DEA	Department of Environmental Affairs
EA	Environmental Authorisation
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
ELO	Environmental Liaison Officer
EMPr	Environmental Management Programme
NCR	Non-Conformance Report
PV	PhotoVoltaic

1 INTRODUCTION

The project of which the audit was to be conducted is referred to as the Droogfontein 2 Solar PV Energy Facility. The project site is located on Portion 1 of the farm Droogfontein No. 62 in Kimberly, within the Northern Cape Province. Zitholele Consulting (Pty) Ltd conducted the environmental audit on 30 October 2019.

The audit was conducted as per Regulation 34 and Appendix 7 of the Environmental Impact Assessment (EIA) Regulations dated December 2014 (as amended), to evaluate the following:

- Compliance with the Environmental Authorisation (EA) issued on the 14 September 2012 (including EA amendments which were issued subsequently), and the Environmental Management Programme (EMPr) dated 23 November 2016;
- Assess the extent to which the avoidance, management, and mitigation measures provided for in the EMPr achieve the objectives and outcomes of the EMPr;
- Identify and assess any new impacts and risks as a result of undertaking the activity;
- Evaluate the effectiveness of the EMPr;
- Identify shortcomings in the EMPr; and
- Identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr.

2 OBJECTIVE, SCOPE AND LOCATION OF THE AUDIT

2.1 Objective

Droogfontein 2 Solar (Pty) Ltd appointed Zitholele Consulting (Pty) Ltd to undertake an Environmental Compliance Audit in terms of Regulation 54A(3) which stipulates that “*all Environmental Authorisations (EAs) issued prior to the promulgation of the 2014 Environmental Impact Assessments Regulations must be audited by the 07 December 2019*”.

The focus of the audit was therefore to measure compliance with the conditions of EA12/12/20/2024/1A¹ and requirements stemming from this EA, subsequent amendments and the approved EMPr.

2.2 Scope

The scope of the audit comprised of the following:

1. To undertake an external independent audit of the Droogfontein 2 Solar PV Energy Facility Development’s compliance with the conditions and requirements of its EA and approved EMPr.

¹ Note that the DEA Reference Number was subsequently amended to 12/12/20/2024/1/1

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2. Assess the effectiveness of the approved EMPr for the development of the facility, measured against observations and findings concluded from the audit.
 3. Identify shortcomings and propose recommendations, where needed, to ensure impacts are effectively managed and mitigated.
 4. Conclude whether the approved EMPr is sufficient to mitigate all impacts, or whether amendments are required to ensure compliance.
 5. The audit must be undertaken in accordance with Regulation 34, in Part 3 of Chapter 5 of the EIA Regulations of 2014, as amended. This includes:
 - i) Prepare an environmental audit report, which must fulfill the requirements of Regulation 34(2) & 34(3) and Appendix 7 of the EIA Regs; and
 - ii) Notify all Interested and Affected Parties once the Audit report has been submitted to DEA, and make report available on website, in accordance with Regulation 34(6).

2.3 Location

The location of the audit was within the fenced and security controlled the Droogfontein 2 Solar PV Energy Facility and associated infrastructure which is situated on on Portion 1 of the farm Droogfontein No. 62, Northern Cape. The final Layout Map, as approved by the Department of Environmental Affairs (DEA) on 08 February 2017 and subsequently amended on 29 May 2018 (12/12/20/2024/1/1/AM8) is shown in **Figure 2-1**.

3 METHODOLOGY

Zitholele approached the external (independent second party) audit in the following phases:

3.1 Planning and Information

The first phase of the audit was to gather the required information and to arrange/confirm the audit. The EA and EMPr were studied and organised into a comprehensive checklist as attached as Appendix A. The details of the audit are provided below in Table 3-1.

Table 3-1: Audit details

Date of Audit:	30 October 2019
Auditees:	Mr. Nkosikhona Yeko (Senior Construction Manager) Mr. Reino Le Fleur (Environmental Liaison Officer)
Auditors:	Dr. Mathys Vosloo – Lead Auditor
Reference Documents:	Environmental Authorisation Ref No.: 12/12/20/2024/1A ² ; Subsequent amendments to EA 12/12/20/2024/1A ² ; and Approved EMPR dated 08 February 2017.
Total audit days of Audit:	1 day site visit & 2 days reporting

Once the audit details were accepted by the Auditee, Zitholele distributed an informal audit schedule for acceptance.

3.2 Audit

Zitholele conducted an on-site audit for one (1) day in order to collect verifiable evidence for determining compliance against the audit criteria, viz. the Environmental Authorisations and the EMPr's conditions. The audit continued off-site for a further 2 days where final verifications were made regarding the evidence provided and to compile an audit report.

3.3 Draft Audit report

Zitholele prepared this draft Audit report combining all information gathered during the audit. This report will be submitted to the Auditee to provide any comments if so required.

² Note that the DEA Reference Number was subsequently amended to 12/12/20/2024/1/1

3.4 Final Audit Report

The audit report will be finalised once comments are received and considered. This report must be read in conjunction with the checklist included in Appendix A.

3.5 Assessment Methodology

The audit checklist (Attached as Appendix A) defines the following criteria for different non-compliances as per Table 3-2 below.

Table 3-2: Non-conformance definitions

Criteria	Rating (Colour coded)	Description
Not applicable	N/A	The requirement is not applicable, will not be implemented or not discussed/assessed.
Non-Compliance	0	Relates to the absence of a requirement needed to be implemented or the total breakdown of a process.
Partial Compliance	1	The requirement or section only is partially implemented.
Observation	2	Relates to a matter about which the Assessor is concerned but which cannot be clearly stated as non-compliance. Observations also indicate trends which may result in a future non-compliance.
Full Compliance	3	The project management plans and procedures are executed in a managed fashion (planned, tracked, verified and adjusted) based upon defined activities, inputs and outputs. Objective evidence is available for each process.

4 AUDITING TEAM

The auditing team comprised of an experienced auditor in order to add value to, and also ascertain compliance against the EA and EMPr. The team consisted of the following individual:

Dr Mathys Vosloo (Lead Auditor) holds a PhD in Zoology and is a natural and environmental scientist with more than 14 years of environmental management experience. His experience includes Environmental Impact Assessments (EIAs) and the development of Environmental Management Programmes during environmental assessments of construction projects, environmental compliance monitoring and reporting, and Environmental Control Officer (ECO) services for construction projects. Recent experience includes project management and execution of large waste-related projects, such as the application for the development of Ash Disposal Facilities, and large linear projects such as the management EIA process for the implementation of extensive power lines for renewable projects.

Ms Tebogo Mapinga is a Senior Environmental Scientist, holds a BSc degree with 9 years of experience in the environmental field in both public and private sectors. He holds a BSc Degree (Major in Physiology and Zoology) from the University of Limpopo (Turfloop Campus) and she is in the process of completing her Honours Degree in Environmental Management with the University of South Africa. She has 12 years working experience years of experience in the environmental field in both public and private sectors. Her competencies lie in environmental impact assessments, Basic Assessment, Environmental Screening, Environmental Management Programs, compliance monitoring and obtaining permits for small- and large-scale project. She is a member of the International Association for Impact Assessments (IAIA) and is a registered professional natural scientist (*Pr. Sci. Nat.*) in the field of Environmental Science with the South African Council for Natural Scientific Professionals (SACNASP) since 2017. Tebogo is ideally positioned to manage this environmental authorisation process with integrity and independence, while advising the client toward alternatives that have less potential for environmental impact.

5 DECLARATION OF INTEREST

I, Dr Mathys Vosloo, declare that –

- I act as the independent environmental assessment practitioner in this external audit;
- I have expertise in conducting environmental impact assessments and environmental compliance audits, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I will perform the work relating to the Auditee in an objective manner, even if this results in views and findings that are not favourable to the Auditee;
- I will take into account, to the extent possible, the matters listed in Regulation 13 of the Regulations when preparing the application and any report relating to the project
- I undertake to disclose to the Auditee and the Competent Authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the Competent Authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the Competent Authority, unless access to that information is protected by law, in which case it will be indicated that such information exists and will be provided to the Competent Authority;
- I will perform all obligations as expected from an environmental assessment practitioner/ external auditor in terms of the Regulations; and
- I am aware of what constitutes an offence in terms of Regulation 48 and that a person convicted of an offence in terms of Regulation 48(1) is liable to the penalties as contemplated in Section 49B of the Act.

Disclosure of Vested Interest (delete whichever is not applicable)

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulations.



Dr Mathys Vosloo

04/12/2019

6 ASSUMPTIONS AND LIMITATIONS

The following assumptions and/or limitations are applicable to the audit process and resulting findings:

- The findings and observations set out in this report are based on the site observations, verbal and documented information provided to the auditor during the assessment. Interviews were only held with key personnel that was available during the assessment.
- This audit is a snap-shot representation of the Droogfontein 2 Solar PV Plant Development and the audit period assessed includes activities during the pre-construction and planning phase and construction phase undertaken from the commencement of the project to November 2019.
- The compliance audit measures the compliance of the license holder to the requirements of the EA and EMPr at a specific stage of the project. Verifying compliance with all requirements may not be possible on site. In such cases the findings and conclusions reported in monthly ECO reports were assessed as a measure of the compliance of the license holder over time.
- The auditor assumed that the findings and conclusions of the ECO reports and previous audits are a true reflection of the compliance of the license holder at the time of the monitoring period or audit.
- The project is currently still in its construction phase, therefore no requirements relating to the operational phase could be assessed and was marked as Not Applicable.
- The auditor focused on visiting areas under construction and where rehabilitation was underway during construction. Given the time available on-site during the audit, not all areas could be visited during the site assessment.
- The findings, observations, conclusions, and recommendations set out in this Report are based on the best scientific methodology, the auditor's professional knowledge and such information as was made available to Zitholele Consulting during the Environmental Legal Compliance Audit.

7 AUDIT RESULTS

Zitholele has not raised any non-compliances during the audit which was undertaken on 30 October 2019. However, three (3) non-compliances, three (3) partial compliances and 2 observations were recorded. A breakdown of findings is summarised in Figure 7-1, Figure 7-2, Table 7-1 and Table 7-2 below.

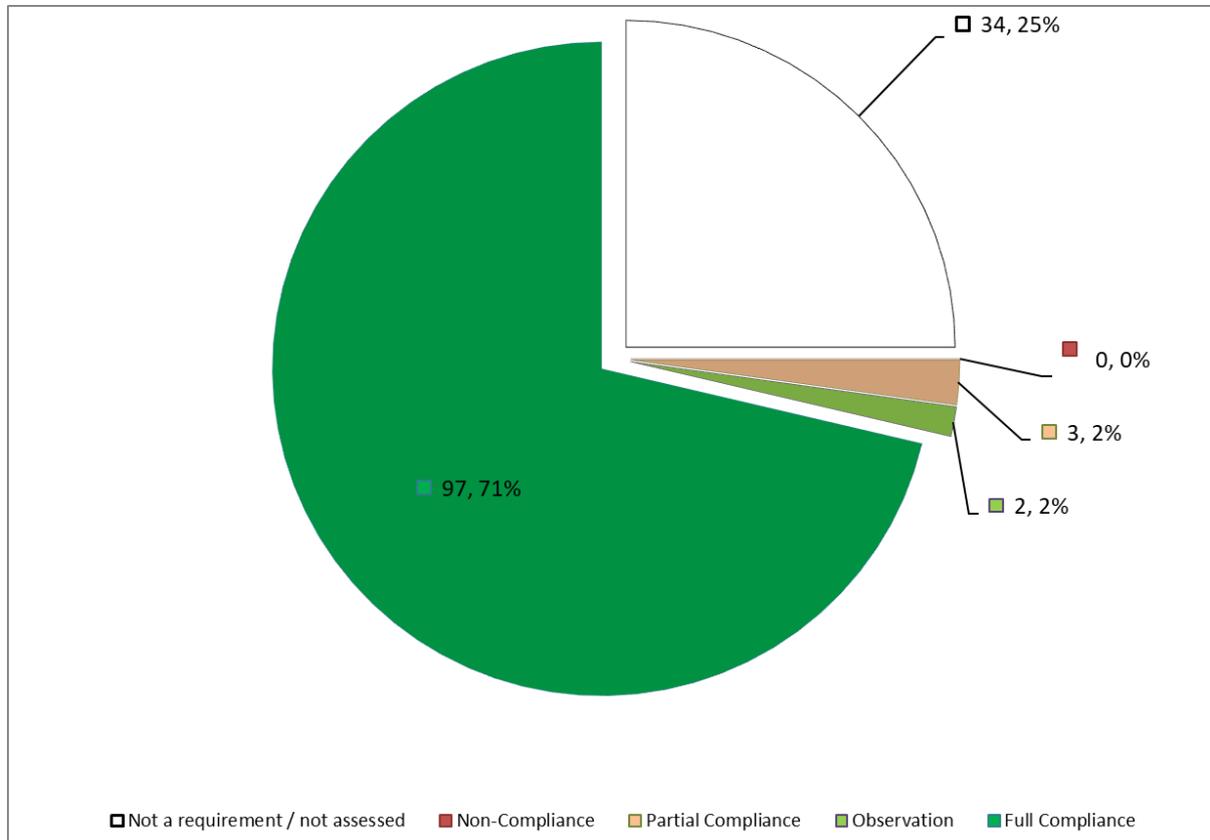


Figure 7-1: Compliance Breakdown

Audited compliance scored per category or section of the EMPr are provided in Table 7-1. The license holder obtained an overall compliance percentage of 97% for the Droogfontein 2 Solar PV Energy Facility.

Table 7-1: Audited compliance scored per section and total

EA and EMPr categories/sections audited	Comp. Score	Max Score	Compliance % per section
EA 12/12/20/2024/1A - GENERAL CONDITIONS	39	39	79%
EA 12/12/20/2024/1A - SPECIFIC CONDITIONS	190	192	97%
EA 12/12/20/2024/1A - GENERAL	3	3	100%
EMPR 12/12/20/2024/1A – PRE-CONSTRUCTION PHASE	12	12	100%
EMPR 12/12/20/2024/1 - CONSTRUCTION PHASE	54	60	90%
EMPR 12/12/20/2024/1A - OPERATIONAL PHASE	0	0	
EMPR 12/12/20/2024/1A - DECOMMISSIONING PHASE	0	0	
Overall Compliance with EA and EMPr	289	306	97%

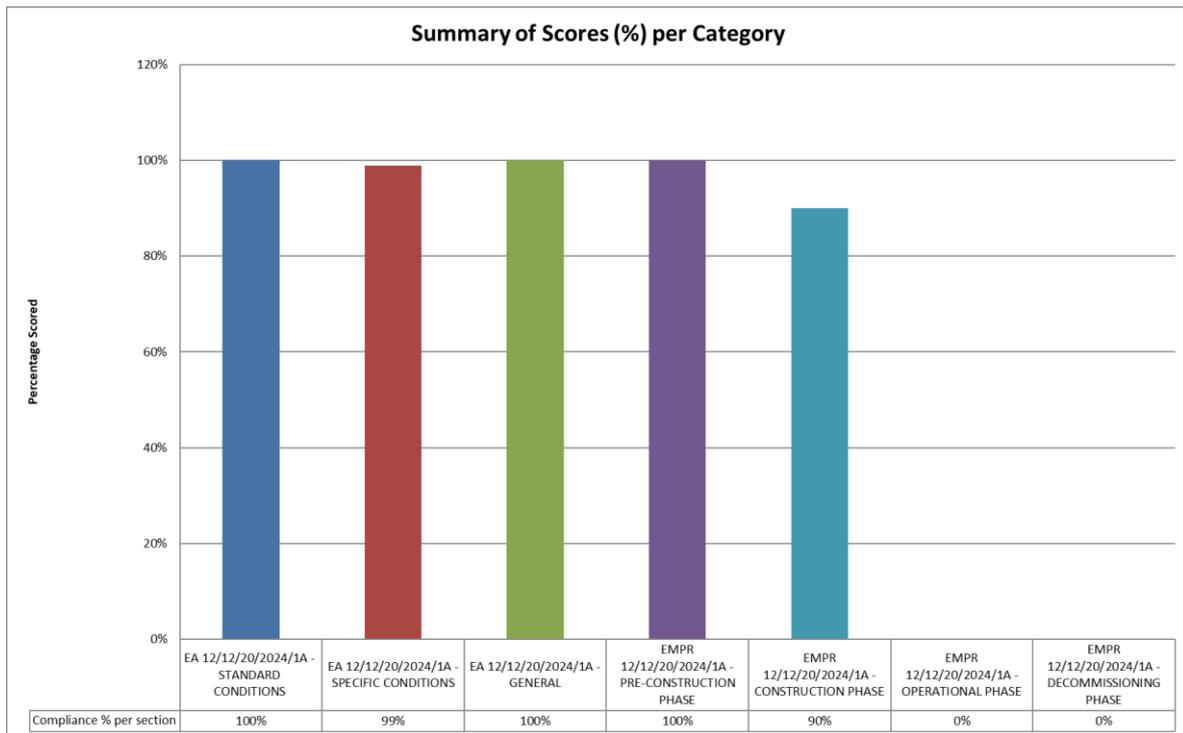


Figure 7-2: Summary of scoring (%) per category

Table 7-2: Summary of findings for EA and EMPr

No	Condition	Compliance	Findings / Remarks	Recommendation
EMPR dated 08 February 2017				
5	<p>Construction Camp</p> <p>Management aspects include:</p> <ul style="list-style-type: none"> -Site of construction camp -Storage of materials -Drainage of construction camp 	1– Partial Compliance	Full compliance with the requirements of this section was confirmed on site at the time of the audit. One requirement stipulating that fuel storage areas must be roofed was noted in the EMPr, however, standard procedure that fuel storage areas must be appropriately bunded to contain any spillages and prevent contamination of watercourses have been complied with. The monthly ECO reports, however, found that the contractor was non-compliant on more than one occasion. Partial compliance with this section of the EMPr is therefore evident over the course of the construction period to date.	The auditor considered the non-compliances raised in the ECO reports in relation to the effectiveness of the EMPr in managing this aspect of the construction activity but could not conclude that the reoccurrence of the non-compliance was as a result of the ineffectiveness of the management and mitigation measures included in the approved EMPr. The auditor, therefore, recommend that the implementation of the management measures relating to the management of the contractor's camp should continue, especially management measures relating to environmental awareness and training.
12	<p>Waste Management</p> <p>Management aspects include:</p> <ul style="list-style-type: none"> -Litter Management -Hazardous Waste Management -Sanitation" 	1– Partial Compliance	Appropriate handling, separation, and storage of general and hazardous waste were observed on-site, while certificates of safe disposal of waste were verified during the audit. Upon reviewing the ECO monitoring reports, it was noted that non-	The auditor considered the non-compliances raised in the ECO reports in relation to the effectiveness of the EMPr in managing waste management aspects on-site, but could not conclude that the reoccurrence of the non-compliance was as a result of the ineffectiveness of the

No	Condition	Compliance	Findings / Remarks	Recommendation
			<p>compliance with this waste management section in the EMPr was recorded by the ECO on four occasions. It was thus concluded that only partial compliance with this section of the EMPr has been maintained over the course of the construction phase.</p>	<p>management and mitigation measures included in the approved EMPr. The auditor, therefore, recommend that the implementation of the management measures relating to waste management at the construction site should continue, especially management measures relating to environmental awareness and training.</p>
13	<p>"Flora Management aspects include: -Existing vegetation -Rehabilitation -Demarcation of construction and laydown areas -Utilisation of resources -Herbicides and alien invasive management)"</p>	1 – Partial Compliance	<p>Good management of existing vegetation was observed on site, while relevant permits were verified on site for removal/pruning of Camel Thorn trees and relocation of the Gifbol plants. Rehabilitation activities has commenced on one of the sub-contractor (Raubex) laydown area, however the ECO recorded that the process followed was not in line with the requirements of the EA and EMPr. Since a sizable area has been affected by the incorrect rehabilitation procedure, partial compliance is recorded. The presence of alien invasive growth next to the internal roads were also recorded.</p>	<p>The recorded non-compliance with the rehabilitation procedures was reported recently not long prior to this external audit. The auditor can therefore not assess whether this non-compliance was a recurring event. It s recommended that the contractor rectify the inappropriate rehabilitation activities by following the rehabilitation protocol as stipulated in the approved EMPr. No deficiency in the approved EMPr was identified by the auditor in terms of the stipulated rehabilitation procedure.</p>

8 AUDIT FINDINGS

8.1 Overall compliance with the requirements of the EA and EMPr

The license holder obtained an overall compliance percentage of 97% for the Droogfontein 2 Solar PV Energy Facility. Compliance by the license holder with regards to the EA and EMPr requirements is therefore considered very good.

8.2 Additional impacts identified during the audit

The auditor did not identify any additional impacts that require specific management and mitigation measures during the audit.

8.3 Effectiveness of the EMPr in avoidance, management, and mitigation of environmental impacts

Review of the EMPr by the auditor during the preparation phase of the compliance audit highlighted the following:

- The EMPr is a very comprehensive document and sufficiently identifies actual and possible impacts that may result from the development of the Solar PV Plant;
- The EMPr sufficiently provides management and mitigation measures and requirements to successfully mitigate identified impacts;
- Detailed and specific management plans and programmes for various impact management aspects/areas are included in section 4 of the EMPr and include, amongst others, an Alien Invasive Management Plan, Re-vegetation and Habitat Rehabilitation Plan, Erosion Management Plan and Stormwater Management Plan;;
- Record keeping by the EPC Contractor and its sub-contractors was found to be commendable;
- The ELO (Environmental Liaison Officer), who is designated with ensuring implementation with the requirements of the EA and EMPr on the license holder's behalf, was found to be proactive in the management of the development site. Evidence of NCRs that was issued by the ELO and proof that the transgressions were rectified within an acceptable timeframe was observed during the audit; and
- The EMPr, however, contains overlapping and duplicated management and mitigation measures which may present a challenge for implementation by the contractor. Nonetheless, compliance with these requirements by the contactors was found to be good.

Based on the review of audit documentation and site inspection, the auditor found that the EMPr is sufficient to effectively manage all identified impacts and ensure compliance with the requirements of the EA and EMPr, while enforcement of the requirements of the EA and EMPr is proactive, focused and effective.

APPENDIX A: Audit Checklist