



**Lebalelo Water User Association**  
**Clapham Dam upgrades and associated infrastructure**  
**Fifth Construction Environmental Audit Report**

September 2022

*Alta van Dyk Environmental Consultants cc*  
*Postnet Suite # 745*  
*Private Bag X 1007*  
*Lyttelton*  
*0140*  
*Tel: +27 12 940 9457*  
[suzanne@avde.co.za](mailto:suzanne@avde.co.za)



**Lebalelo Water User Association**  
**Clapham Dam upgrades and associated infrastructure**  
**Fifth Construction Environmental Audit Report**

September 2022

Project Ref: 131-002

Prepared by: Tyla Smith/Suzanne van Rooy



The perusal, use, copying or storing of this Report is intended for the use of the recipient. As such, the information may be legally privileged and the unauthorized use is strictly prohibited and may be unlawful.

The opinions expressed in this Report have been based on the information supplied to Alta van Dyk Environmental Consultants cc (AvDEnvironmental) by company officials. The opinions in this Report are provided in response to a specific request from company officials to do so. AvDEnvironmental has exercised all due care in reviewing the supplied information. Whilst AvDEnvironmental has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. AvDEnvironmental does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them. Opinions presented in this report apply to the site conditions and features as they existed at the time of AvDEnvironmental's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report, about which AvDEnvironmental had no prior knowledge nor had the opportunity to evaluate.

VERSION CONTROL

Alta van Dyk Environmental cc

Version: Draft

Approved by: Alta van Dyk

Signed:

A handwritten signature in black ink, appearing to read "Alta van Dyk", is written over a faint, dotted line.

Position: Environmental Specialist

Date: September 2022

## *Executive Summary*

### **Introduction**

Alta van Dyk Environmental Consultants cc (AVDE) was appointed as the Environmental Control Officer (ECO) for Lebelelo Water User Association's (LWUA) Clapham Dam upgrades and associated infrastructure project. This environmental audit report was compiled in terms Appendix 7 of the Environmental Impact Assessment (EIA) Regulations (2014) of the National Environmental Management Act (Act No. 107 of 1998) (NEMA). The environmental audit was undertaken in order to comply with LWUA's approved Environmental Management Programme Report (EMPr) as well as the conditions as stipulated in the Environmental Authorisation received from the competent authority, the Department of Forestry, Fisheries and the Environment (DFFE). The environmental audit report serves as the fourth construction audit report.

### **Audit findings**

An overall compliance rating of 100% has been achieved for the September 2022 audit, which also serves as the fifth construction compliance audit for the project. Conditions and commitments from three documents were considered, namely the environmental authorisation, approved EMPr and final comments from SAHRA. Refer to the table below.

<b>Document</b>	<b>% Compliance</b>
Environmental authorisation	100%
EMPr	100%
SAHRA	100%
<b>Total % Compliance</b>	<b>100%</b>

### **Non-Conformances**

No non-conformances were observed during the environmental audit undertaken on 15 September 2022.

### **Recommendations:**

The following actions should be undertaken at all times during the construction phase of the project:

- Copies of audit reports and submission thereof to the Department must kept on site within the on-site compliance file.
- The general waste bins at the laydown area to be cleaned weekly or as required.
- Refuse bags to be provided to construction workers within in Matadi River. The bags to be replaced as required.
- All topsoil must be stockpiled for use during rehabilitation after construction. No vehicles are allowed to drive on topsoil stockpiles.

## *Table of Contents*

<b>Executive Summary .....</b>	<b>ii</b>
<b>Table of Contents.....</b>	<b>iii</b>
<b>Abbreviations .....</b>	<b>v</b>
<b>1 Introduction .....</b>	<b>6</b>
1.1 Scope and purpose of the report.....	6
1.2 Details of the holder of the environmental authorisation .....	6
1.3 Details and expertise of the person who prepared the environmental audit report .....	6
1.4 Audit report regulatory requirements.....	7
<b>2 Project Background and description.....</b>	<b>9</b>
2.1 Background to LWUA.....	9
2.2 Project location.....	9
2.3 Upgrades to be undertaken .....	11
2.4 Environmental related permits required.....	13
<b>3 Methodology .....</b>	<b>14</b>
3.1 Audit process.....	14
3.2 Documents for audit checklist.....	14
3.3 Audit scoring system .....	14
3.4 Assumptions and limitation .....	15
<b>4 Audit Findings .....</b>	<b>16</b>
<b>5 Conclusion and Recommendations .....</b>	<b>32</b>
<b>6 Annexures.....</b>	<b>35</b>
<b>Annexure A: Declaration.....</b>	<b>36</b>
<b>Annexure B: Attendance Register .....</b>	<b>37</b>
<b>Annexure C: Photographs of the Pre-Construction Status Quo .....</b>	<b>38</b>

## *List of Tables*

Table 1:1 Details of the applicant.....	6
Table 1:2: Details of the persons who prepared the environmental audit report .....	6

Table 1:3: Content of the environmental audit report.....	8
Table 2:1 Project location details .....	9
Table 2:2 Triggered listed activities for the Clapham Dam upgrades and associated activities .....	13
Table 3:1 Scoring system .....	14
Table 4:1 Audit findings of the environmental authorisation .....	17
Table 4:2 Audit findings of the EMPr .....	24
Table 4:3 Audit findings of SAHRA’s conditions.....	31

### *List of Figures*

Figure 2:1 Regional location of the Clapham dam upgrades and associated infrastructure project .....	10
Figure 2:2 Project layout.....	12
Figure 3:1 Overview of the audit process.....	14

## *Abbreviations*

APM	Archaeology, Palaeontology and Meteorites
AVDE	Alta van Dyk Environmental Consultants
BGG	Burial Grounds and Graves
DFFE	Department of Forestry, Fisheries and Environment
DWS	Department of Water and Sanitation
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme Report
EA	Environmental Authorisation
LWUA	Lebalelo Water User Association
NEMA	National Environmental Management Act
NHRA	National Heritage Resources Act
NWA	National Water Act
ORWRDP	Olifants River Water Resource Development Project
SACNASP	South African Council for Natural Science Professions
SAHRA	South African Heritage Resources Association
SAHRIS	South African Heritage Resources Information System

# 1 INTRODUCTION

## 1.1 Scope and purpose of the report

This report presents the findings of the fourth construction environmental audit for Lebalelo Water User Association's (LWUA) Clapham Dam upgrades and associated infrastructure project.

A Basic Assessment environmental process for the proposed project was undertaken in terms of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) (as amended), and the Final Environmental Management Programme Report (EMPr) was submitted to the Department of Forestry, Fisheries and the Environment (DFFE) as the competent authority on 20 January 2022. The Environmental Authorisation (EA) for the project was received from the DFFE on 15 March 2022 under reference number 14/12/16/3/3/1/2446.

This environmental audit report has been compiled in compliance with Section 34 of the NEMA Environmental Impact Assessment (EIA) Regulations and aims to assess LWUA's level of compliance of the conditions of the Environmental Authorisation, the commitments in the EMPr and conditions from South African Heritage Resources Association (SAHRA) for the project.

Alta van Dyk Environmental Consultants cc (AVDE) was appointed as the Environmental Control Officer (ECO) for the construction phase of the project and was responsible for the environmental audit.

## 1.2 Details of the holder of the environmental authorisation

The holder of the environmental authorisation is LWUA. The details of the contact person are shown in Table 1:1.

Table 1:1 Details of the applicant

<b>Authorisation holder</b>	Lebalelo Water User Association
<b>Address</b>	8 Charbury Road Lynnwood Manor 0700
<b>Contact person:</b>	Bertus Bierman
<b>Telephone number:</b>	082 462 7379
<b>Email address</b>	<a href="mailto:bierman@lebalelo.co.za">bierman@lebalelo.co.za</a>

## 1.3 Details and expertise of the person who prepared the environmental audit report

Suzanne van Rooy and Tyla Smith of AVDE were responsible for the fourth construction environmental audit. The site visit was undertaken on 15 September 2022.

Table 1:2 provides the details of the persons who prepared the environmental audit report

Table 1:2: Details of the persons who prepared the environmental audit report

<b>Environmental Control Officer</b>	Suzanne van Rooy	Tyla Leigh Smith
<b>Company</b>	Alta van Dyk Environmental Consultants cc	
<b>Qualifications</b>	MPhil Environmental Management (University of Stellenbosch)	BSc Geography and Environmental Management (University of Johannesburg)

<b>Professional Registrations</b>	Pr.Sci.Nat (Reg Nr.400378/11) EAPASA Registered EAP (Ref 2019/1079)	-
<b>Postal Address</b>	Postnet Suite # 745 Private Bag X 1007 Lyttelton 0140	
<b>Telephone number:</b>	012 940 9457	
<b>Fax number:</b>	086 634 3967	
<b>Email address</b>	<a href="mailto:suzanne@avde.co.za">suzanne@avde.co.za</a>	<a href="mailto:tyla@avde.co.za">tyla@avde.co.za</a>

Suzanne van Rooy holds a Master's Degree in Environmental Management from the University of Stellenbosch. In terms of professional affiliation, Suzanne is registered with the South African Council for Natural Science Professions (SACNASP - 400378/11) in Environmental Science field of practice. Suzanne's expertise is in the mining industry sector, focussing on Environmental Impact Assessments, Water Use Licence Applications, environmental performance assessments, water use licence audits, public participation and closure cost assessments. Her involvement in such projects varies from project management and co-ordination to the compilation and review of technical and environmental documents and reports. She has been involved in environmental authorisations for both underground and open cast mining operations, as well as the associated activities such as waste disposal facilities, conveyor routes, access roads, pollution control and other dams, undermining of wetlands and river crossings. She has also conducted various environmental feasibility reporting for potential mining projects.

Tyla Smith holds a B.Sc. in Geography and Environmental Management from the University of Johannesburg. Tyla has been involved as an environmental consultant in various EIAs in terms of NEMA, Water Use Applications in terms of the National Water Act (NWA) (No 36 of 1998) and external audits. Tyla's responsibilities include the overall management of projects, and the identification and assessment of environmental impacts.

Suzanne van Rooy and Tyla Smith meet the requirements for independence as they do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the EIA Regulations, 2017, and has no vested interest in the proposed activity proceeding, and also has no, and will not engage in, conflicting interests in the undertaking of the activity.

#### **1.4 Audit report regulatory requirements**

According to Appendix 7(2) of the NEMA EIA Regulations, the content of an environmental audit report should entail:

- Reporting on the level of compliance with the conditions of the environmental authorisation and the EMPr, as well as 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;
- Evaluation 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.

The content of the environmental audit report is specified in Appendix 7(3) of the NEMA EIA Regulations and set out in Table 1:3.



**Table 1:3: Content of the environmental audit report**

No	Description	Reference
1	An environmental audit report prepared in terms of these Regulations must contain–	
a)	details of the– (i) independent person who prepared the environmental audit report; and (ii) the expertise of the independent person that compiled the environmental audit report;	Section 1.3
b)	a declaration that the independent auditor is independent in a form as may be specified by the competent authority;	Annexure A
c)	an indication of the scope of, and the purpose of which, the environmental audit report was prepared;	Section 1.1
d)	a description of the methodology adopted in preparing the environmental audit report;	Section 3
e)	an indication of the ability of the EMPr, the closure plan in the case of a closure activity to– (i) sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity on and on-going basis; (ii) sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the closure of the facility in the case of a closure activity; and (iii) ensure compliance with the provisions of the environmental authorisation, EMPr and the closure plan in the case of a closure activity;	Section 5
f)	A description of any assumptions made, and any uncertainties or gaps in knowledge;	Section 3.4
g)	A description of any consultation process that was undertaken during the course of carrying out the environmental audit report;	Section 3
h)	A summary and copies of any comments that received during any consultation process; and	None received
i)	Any other information requested by the competent authority.	No additional information has been requested by the competent authority

## 2 PROJECT BACKGROUND AND DESCRIPTION

### 2.1 Background to LWUA

The LWUA is a water management institution established in terms of Section 92 of the National Water Act (Act 36 of 1998) (NWA) and its area of operation and constitution were approved by the Minister of Water Affairs and Forestry (as it was known then) in terms of Section 92 (1)(a) of the NWA as confirmed in Government Gazette Notice No. 89 of 1 February 2002. The area of operation of the LWUA was extended in terms of Section 92 (1)(b) of the NWA by Government Gazette Notice Number 1110 of 18 November 2005 and the amended LWUA Constitution was approved by the then Minister of Water Affairs and Forestry on 4 October 2005.

The LWUA was established with the following mandate:

- To operate and maintain a pipeline scheme to supply bulk raw water from the Olifants River to satisfy the water requirements of its members on the Eastern Limb of the Bushveld Igneous Complex within its licensed conditions;
- To supply bulk raw water from the pipeline and any extension thereof from the Olifants River to satisfy the requirements of other users within its licence conditions; and
- As a Corporate Social Responsibility undertaking to continue with its support to the Department of Water and Sanitation (DWS) and the Sekhukhune District Municipality in the operation and maintenance of their potable water schemes, provided that the schemes are situated within the area of operation of the LWUA.

The LWUA was established to supply raw water to mines along the Eastern Limb of the Bushveld Igneous Complex. The main aim of the project was to supply water to a number of existing and planned new mines in the area, and as a spin-off, to provide additional capacity in the water supply scheme to meet the requirements of the rural population in the area. Only raw water is provided by LWUA, and the responsibility of treatment to drinking water standards lies with the distribution authority. The water is abstracted from the Olifants River via the Flag Boshielo Dam and abstracted at the Havercroft weir. The users receiving the water from the pipeline make up the LWUA. The Lebalelo water supply forms part of the Olifants River Water Resource Development Project (ORWRDP). The water is currently sourced from the Olifants River via the Flag Boshielo Dam, with abstraction at the Havercroft weir, and in future will be from the Steelpoort River via De Hoop Dam.

The current pipeline runs from the Havercroft weir to the R37, and along the R37 to Clapham Dam where raw water is stored. From Clapham Dam, the pipeline runs to Marula Platinum Mine.

### 2.2 Project location

The proposed project is located on portion 0 of the farm Clapham 118 KT approximately 30 km north-west of Burgersfort in the Limpopo Province. Table 2:1 outlines the details relating to the location of the proposed project. Refer to Figure 2:1 for the regional locality map.

**Table 2:1 Project location details**

Site specific details	Description
Location of site	Clapham 118 KT Portion 0
Municipal jurisdiction	Fetakgomo Tubatse Local Municipality Sekhukhune District Municipality
Ward number	Ward 17

Site specific details	Description	
SG code	TOKT00000000011800000	
Nearest town	~30 km north-west of Burgersfort,	
Site coordinates	Latitude	Longitude
Outlet channel	24°29'5.01"S	30° 6'50.43"E
Gabion embankment (erosion protection)	24°29'5.20"S	30° 6'49.45"E
Outlet structure (pipe) Start	24°28'52.96"S	30° 7'9.74"E
Outlet structure (pipe) Middle	24°29'1.10"S	30° 6'57.38"E
Outlet structure (pipe)End	24°29'4.82"S	30° 6'50.67"E

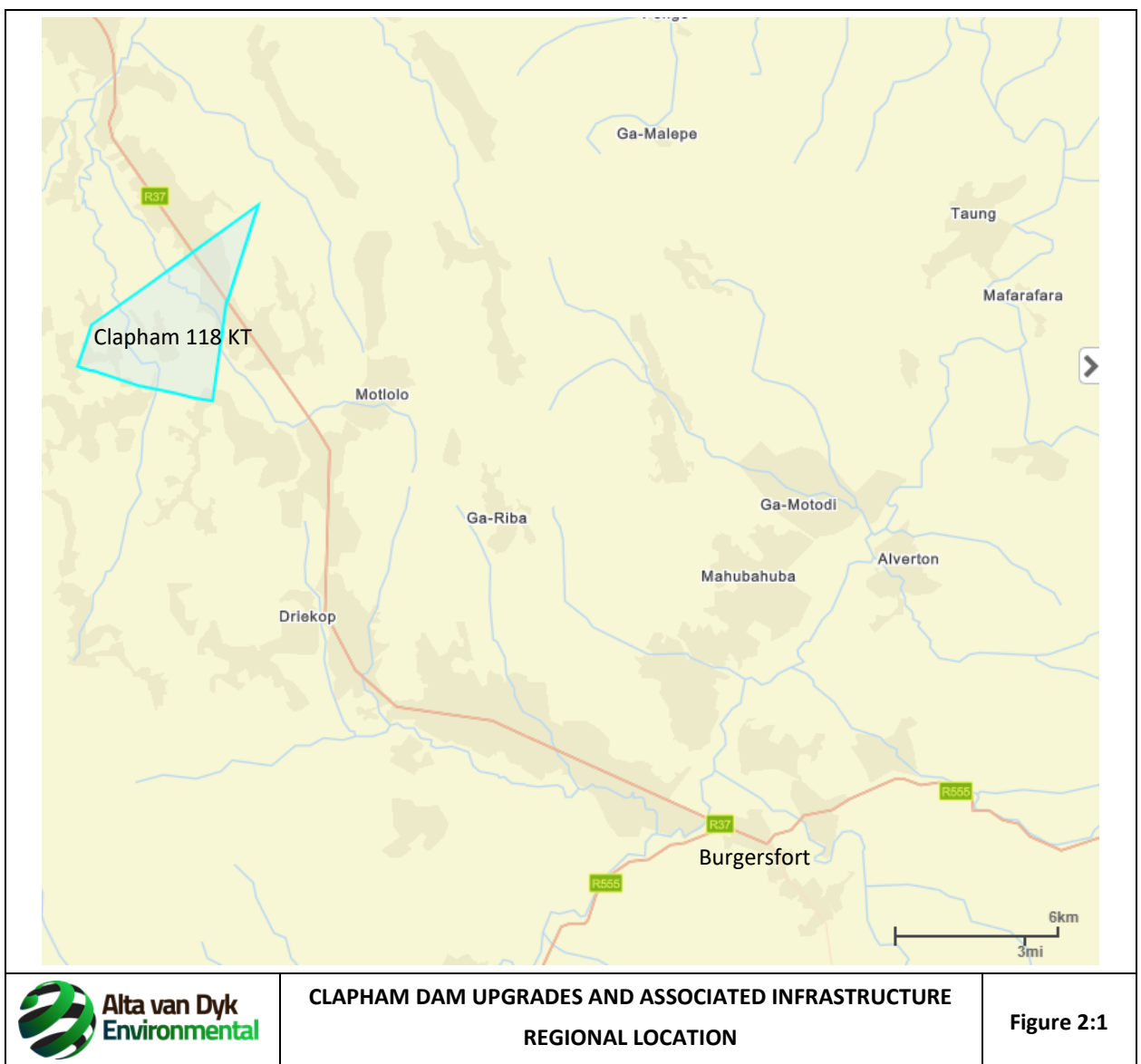


Figure 2:1 Regional location of the Clapham dam upgrades and associated infrastructure project

## 2.3 Upgrades to be undertaken

LWUA is undertaking upgrades at its Clapham Dam located near Burgersfort, Limpopo Province. The upgrades at LWUA's Clapham Storage Dam is required as several developments have taken place around the dam and LWUA wishes to take precautionary measures should the dam overflow. The purpose of the upgrades will ensure that if the dam overflows, water is handled in a controlled and safe manner to prevent damage to private property and ensure the safety of human lives.

The upgrades at the existing Clapham Dam and additional infrastructure project involves the following (the activities that trigger listed activities in terms of the NEMA EIA Regulations are underlined):

- New overflow structure (at Clapham Storage Dam);
- Inlet Structure (at Clapham Storage Dam);
- Repair of the damaged Clapham Storage Dam embankment undermined by rodents;
- Extension of scour outlet pipes along the bulk raw water pipelines in the vicinity of the Clapham Storage Dam to prevent damage to private properties when pipelines have to be scoured for maintenance purposes;
- Overflow pipeline to be constructed along the existing LWUA pipeline (~700m);
- Manholes located along the overflow pipeline route (7 manholes);
- **Outlet structure in close vicinity of the Matadi River;**
- **Channel from the outlet structure to the Matadi River;**
- **Erosion protection of the riverbank at proposed outlet (approximately 70m long);**
- Extension of concrete encasing around the existing LWUA pipeline and repair of damaged corrosion protection of the pipeline crossing the Matadi River; and
- Erosion protection of the pipeline crossing the Matadi River.

The approved project layout is shown in Figure 2:2.



Figure 2:2 Project layout

## 2.4 Environmental related permits required

An environmental authorisation was received from the DFFE on 15 March 2022. Table 2:2 details the authorised listed activities in terms of the NEMA EIA Regulations.

**Table 2:2 Triggered listed activities for the Clapham Dam upgrades and associated activities**

List and activity number	Listed activity	Description of activity
Listing 1, Activity 19	The infilling or depositing of any material of more than 10m <sup>3</sup> into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10m <sup>3</sup> from a watercourse;	Construction of the outlet structure, associated channel and erosion protection on the riverbed in the Matadi River will require the moving of more than 10m <sup>3</sup> of soil.
Listing 3, Activity 12	The clearance of an area of 300m <sup>2</sup> or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance managements plan.	Natural riparian vegetation will be cleared during the construction of the outlet structure, associated channel and erosion protection on the riverbed of the Matadi River.
Listing 3, Activity 14	The development of- (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 10 square metres; or (ii) <u>infrastructure or structures with a physical footprint of 10 square metres or more;</u> where such development occurs- (a) <u>within a watercourse;</u> (b) in front of a development setback; or (c) <u>if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.</u>	The outlet structure, associated channel and erosion protection on the riverbed in the Matadi River is greater than 10m <sup>2</sup> .

In addition, a General Authorisation was issued by the DWS on 2 November 2021 for the following Section 21 water uses in terms of the NWA:

- Section 21 (c) – impeding or diverting the flow of water in a watercourse; and
- Section 21 (i) – altering the bed, banks, course or characteristics of a watercourse.

The General Authorisation was issued for all infrastructure to be constructed within a horizontal distance of 100m from the edge of the Matadi River, as well as the construction of the gabion embankment, outlet channel and a section of the overflow pipeline.

### 3 METHODOLOGY

#### 3.1 Audit process

The following activities were undertaken as part of the environmental audit:

- Environmental audit preparation, including the compilation of an environmental audit checklist including the commitments contained in the EMPr, Environmental Authorisation and conditions received from SAHRA;
- An on-site assessment undertaken on 15 September 2022, to assess the level of compliance to the EMPr, environmental authorisation and conditions from SAHRA;
- Meeting with the on-site contractor (refer to Annexure B for the attendance register)
- Taking of photographs of observations made during the on-site assessment (Annexure C);
- Information gathered from the contractor;
- Relevant documentation reviewed on site;
- Compilation of the environmental audit report.

The audit process is illustrated in Figure 3:1.

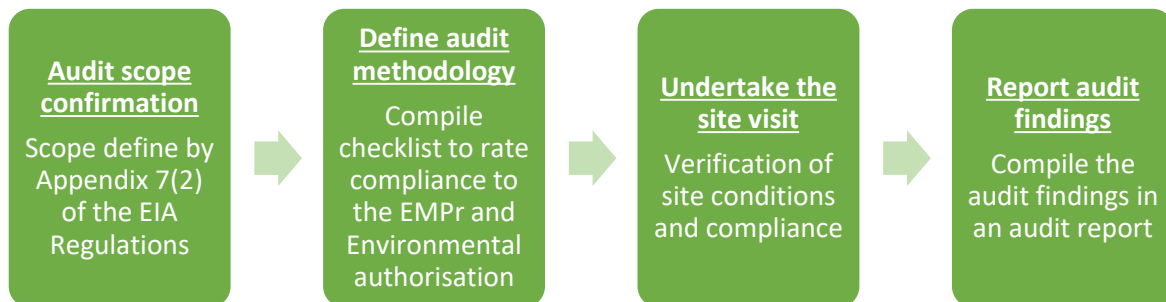


Figure 3:1 Overview of the audit process

#### 3.2 Documents for audit checklist

The following documents were used to create the audit checklist:

- Environmental authorisation received from the DFFE;
- Final Environmental Management Programme;
- Final comment letter form SAHRA.

#### 3.3 Audit scoring system

Table 3:1 provides the scoring system used to assess each of the conditions of the Environmental Authorisation, EMPr commitment and SAHRA conditions. Each section has a percentage of compliance on all the conditions/commitments to be able to provide an overall compliance review.

Table 3:1 Scoring system

Legend	Colour Coding
Fully Compliant	2
Partially Compliant	1
Non-Compliant	0

Legend	Colour Coding
Not Applicable	NA

### 3.4 Assumptions and limitation

The following assumptions and limitations applies to the this environmental audit report:

- All project information relevant to the audit has been provided by LWUA and Onset Construction;
- Information provided by LWUA is correct and valid at the time of the audit;
- The EMP, environmental authorisation and final comment letter from SAHRA represents all the documentation that contain mitigation measures and/or commitments/conditions.



## **4 AUDIT FINDINGS**

The results of the audit findings undertaken for the proposed project is shown as follows:

- Table 4:1 Audit findings of the environmental authorisation;
- Table 4:2 Audit findings of the EMP; and
- Table 4:3 Audit findings of SAHRA's conditions.

Table 4:1 Audit findings of the environmental authorisation

NR	ENVIRONMENTAL AUTHORISATION CONDITION	COMPLIANCE STATEMENT	OBSERVATIONS IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
<b>SCOPE OF AUTHORISATION</b>				
1	The proposed Clapham Dam and associated infrastructure located near Burgersfort in Limpopo is approved as per the geographic coordinates cited in the table above	2	The project does take place at the geographic co-ordinates sited within the Environmental Authorisation. <b>Co-ordinates:</b> 24°29'5.01" S 30°6'50.43" E	None
2	Authorisation of the activity is subject to the conditions contained in this Environmental Authorisation, which form part of the Environmental Authorisation and are binding on the holder of the authorisation.	2	LWUA understands that the environmental authorisation for the Clapham Dam and Associated Infrastructure project is subject to the conditions set out in this Environmental Authorisation. LWUA has appointed AVDE as the ECO for the construction phase of the project, to ensure compliance to the conditions in the environmental authorisation.	None
3	The holder of the authorisation is responsible for ensuring compliance with the condition contained in this Environmental Authorisation. This includes any person acting on the holders 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	2	LWUA understands that the responsibility to ensure compliance of the conditions in the environmental authorisation lies with them as the applicant and will ensure any person acting on their behalf to adhere to these conditions. LWUA has appointed Infraburo and Onset Construction to undertake the construction phase of the project. LWUA has ensured that the contractor is aware of the conditions of the environmental authorisation.	It is advised that all conditions of the environmental authorisation that need to be adhered to be included within a contactor pack to be given to all persons to ensure compliance with the conditions set out by the competent authorities.
4	The activities authorised may only be carried out at the property as described above.	2	The authorised activities are carried out on the farm Clapham 118 KT Portion 0 as sited within the Environmental Authorisation.	None
5	Any changes to, or deviations from, the project description set out in this Environmental Authorisation 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 Authorisations in terms of the regulations.	2	No change to the project description is required at the time of this audit.	LWUA to take cognisance of this condition and must inform the Department timeously of any changes to the project description and to obtain written approval from the Department for any proposed changes.
6	The holder of an Environmental Authorisation must apply for an amendment of the Environmental Authorisation with the Competent Authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.	2	No transfer or change of ownership of the property has taken place, and therefore an amendment of the environmental authorisation is not required.	LWUA to take cognisance that if the ownership rights change a formal environmental authorisation amendment needs to be applied for with the Department.
7	This activity must commence within a period of ten (10) years from the date of issue of this Environmental Authorisation. 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.	2	The authorised activities have commenced on 25 April 2022, which is within the required time period.	None
8	Construction must be completed within five (5) years of the commencement of the activity on site	2	The authorised activities have commenced on 25 April 2022, and construction is expected to last approximately 5 months, which is within 5 years of the commencement of the activity.	None
<b>NOTIFICATION OF AUTHORISATION AND RIGHT TO APPEAL</b>				

NR	ENVIRONMENTAL AUTHORISATION CONDITION	COMPLIANCE STATEMENT	OBSERVATIONS IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
9	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 Environmental Authorisation, of the decision to authorise the activity.	2	AVDE undertook the Basic Assessment process for this application and notified all I&APs of the environmental authorisation received for the Clapham Dam and associated infrastructure project via email on 17 March 2022, which was within 14 days of receipt of the environmental authorisation (15 March 2022).	None
10	The notification referred to must -			
10.1	specify the date on which the authorisation was issued;	2	The date of authorisation was included within the communication sent to all registered I&APs when notifying them of the approved Environmental Authorisation.	None
10.2	inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014	2	The appeal procedure was included within the communication sent to all registered I&APs when notifying them of the approved Environmental Authorisation.	None
10.3	advise the interested and affected party that a copy of the authorisation will be furnished on request; and	2	A copy of the Environmental Authorisation was included with the email sent to all registered I&APs when notifying them of the approved Environmental Authorisation.	None
10.4	give the reasons of the Competent Authority for the decision.	2	Reasons from the competent authority on the decision was included in the Environmental Authorisation emailed to all registered I&APs when notifying them of the approved Environmental Authorisation.	None
<b>COMMENCEMENT OF THE ACTIVITY</b>				
11	The authorised activity shall not commence until the period of 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 No. 107 of 1998, as amended will suspend the Environmental Authorisation or any provision 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.	2	It was confirmed with the DFFE on the 11 April 2022 that no appeals were received for the Clapham Dam and associated infrastructure project. The activity commenced on 25 April 2022.	None
<b>MANAGEMENT OF THE ACTIVITY</b>				
12	The site layout plans as attached as Appendix D of the BAR dated January 2022 is approved.	2	The site layout has not changed and is therefore approved as the final layout by the Environmental Authorisation.	None
13	The Environmental Management Programme (EMPr) submitted as part of the BAR dated January 2022 is approved and must be implemented and adhered to.	2	The EMPr conditions are audited with the Environmental Authorisation conditions to ensure all conditions and mitigation measures are implemented and adhered to.	None
14	The EMPr must be implemented and strictly enforced during all phases of the project. It shall be seen as a dynamic document and shall be included in all contract documentation for all phases of the development when approved.	2	The EMPr has been included within the on-site compliance file. LWUA has appointed Onset Construction and Infraburo as the site contractors and has ensured that the contractor understands and adheres to the conditions of the EMPr.	It is advised that all conditions that need to be adhered to be included within a contractor pack to be given to all persons to ensure compliance with the conditions set out by the competent authorities.

NR	ENVIRONMENTAL AUTHORISATION CONDITION	COMPLIANCE STATEMENT	OBSERVATIONS IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
15	Changes to the approved EMPr must be submitted in accordance to the EIA Regulations applicable at the time.	2	No changes to the EMPr is currently required.	LWUA to take cognisance that any changes to the EMPr must be submitted in accordance with the EIA Regulations applicable at the time.
16	The Department reserves the right to amend the approved EMPr should any impacts that were not anticipated or covered in the EIAR be discovered.	2	LWUA understands that the Department has the right to amend the EMPr if any impact not anticipated is discovered.	None
<b>FREQUENCY AND PROCESS OF UPDATING THE EMPR</b>				
17	The EMPr must be updated where the finding of the environmental audit reports, contemplated in Condition 24 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.	NA	This condition is not applicable, as at the time of the environmental audit of September 2022, no updates of the EMPr has been undertaken.	Lebalelo Water User Association to take cognisance that if any insufficient mitigation measures are identified the EMPr must be updated.
18	The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.	NA	This condition is not applicable, as at the time of the environmental audit of September 2022, no updates of the EMPr has been undertaken.	LWUA to take cognisance that if the EMPr is updated, the update must contain sufficient recommendations to rectify shortcomings identified.
19	The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of the EIA Regulations, 2014 as amended. The updated EMPr must have been subject to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMPr to the Department for approval.	NA	This condition is not applicable, as at the time of the environmental audit of September 2022, no updates of the EMPr has been undertaken.	LWUA to take cognisance that if the EMPr is updated a public participation process needs to be undertaken prior to submission to the Department.
20	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 the EIA Regulations, 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.	NA	This condition is not applicable, as at the time of the environmental audit of September 2022, no updates of the EMPr has been undertaken.	None
21	The holder of the authorisation must apply for an amendment of an EMPr, if such amendment is required before an audit is required. The amendment process is prescribed in Regulation 37 of the EIA Regulations, 2014, as amended. The holder of the authorisation must request comments on the proposed amendments to impact management outcomes of the EMPr or amendments to the closure objectives of the closure plan from potentially interested and affected parties, including the competent authority, by using any of the methods provided for in the Act for a period of at least 30 days.	NA	This condition is not applicable, as at the time of the environmental audit of September 2022, no updates of the EMPr has been undertaken.	LWUA to take cognisance that if the EMPr is updated a formal amendment process will need to be followed as per the EIA Regulations.
<b>MONITORING</b>				
22	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 and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.	2	LWUA has appointed AVDE as the ECO for this project. AVDE is undertaking monthly inspections and auditing to ensure all conditions stipulated by the competent authorities are being adhered to.	None
22.1	The ECO must be appointed before commencement of any authorised activities.	2	AVDE were appointed as the ECO for this project before the commencement of the authorised activities.  Notification of the appointment of AVDE as the ECO for this project was communicated to the DFFE on 11 April 2022, which is prior to the commencement of construction of authorised activities.	It is recommended that a copy of the notification letter be kept on file for record keeping purposes.

NR	ENVIRONMENTAL AUTHORISATION CONDITION	COMPLIANCE STATEMENT	OBSERVATIONS IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
22.2	Once appointed, the name and contact details of the ECO must be submitted to the <i>Director: Compliance Monitoring</i> of the Department.	2	A notification letter was emailed on 11 April 2022 to the Director: Compliance Monitoring at the Department indicating that AVDE was appointed as the ECO for this project.	It is recommended that a copy of the notification letter and email be kept on file for record keeping purposes.
22.3	The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule to tasks undertaken by the ECO.	2	All tasks undertaken by the ECO is explained in Section 3 of the environmental audit report.	None
22.4	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.	2	The ECO will remain employed for the duration of the construction phase until all construction activities have been undertaken and rehabilitation have been completed.	None
23	All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the <i>Director: Compliance Monitoring</i> of the Department	2	All environmental audit reports undertaken to date has been submitted to the Department. Copies of the environmental audit reports are kept within the on-site compliance file. Refer to Photograph 1 in Annexure C.	It is recommended that a copies of the environmental audit reports and submission thereof to the department be kept in the on-site compliance file.
24	The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the <i>Director: Compliance Monitoring</i> of the Department.	2	All environmental audit reports undertaken to date has been submitted to the Department. Copies of the environmental audit reports are kept within the on-site compliance file. Refer to Photograph 1 in Annexure C.	It is recommended that a copies of the environmental audit reports and submission thereof to the department be kept in the on-site compliance file.
25	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 the EIA Regulations, 2014 as amended.	2	AVDE have been appointed as the ECO on this project. Environmental audit reports are undertaken monthly during construction to ensure compliance with this condition and frequency set out within the EMPr.	It is recommended that a copies of the environmental audit reports and submission thereof to the department be kept in the on-site compliance file.
26	The holder of the authorisation must, in addition, submit environmental audit reports 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.	2	AvDE has been appointed as the ECO on this project. A close-out audit will also be undertaken once construction is completed to ensure that correct rehabilitation was conducted as per the conditions stipulated within the Environmental Authorisation and EMPr.	It is recommended that a copies of the environmental audit reports and submission thereof to the department be kept in the on-site compliance file.
27	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 environmental authorisation conditions as well as the requirements of the approved EMPr.	2	AVDE have been appointed as the ECO on this project. Audit reports are compiled in accordance with Appendix 7 of the NEMA EIA Regulations, 2014 as amended. The audit report includes the date of the audit, the names of the auditors and the outcome of the environmental audit.	It is recommended that all audit reports to be kept on site within the on-site compliance file.
28	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.	2	All audit reports are kept within the on-site compliance file to ensure all audits are available for inspection by a competent authority. It was confirmed during the fifth construction audit that the following audit reports are kept in the on-site compliance file: Pre-construction audit undertaken in April 2022; First construction audit undertaken in May 2022; Second construction audit undertaken in June 2022; Third construction audit undertaken in July 2022. Fourth construction audit undertaken in August 2022. Proof is available in Annexure C: Photo 1.	It is recommended that all audit reports to be kept on site within the on-site compliance file.
<b>NOTIFICATION TO AUTHORITIES</b>				

NR	ENVIRONMENTAL AUTHORISATION CONDITION	COMPLIANCE STATEMENT	OBSERVATIONS IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
29	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.	2	Notification of the proposed commencement of construction of authorised activities were emailed to the DFFE on 11 April 2022, which was fourteen days prior to the commencement of construction date (25 April 2022).	It is recommended that proof of notification to the DFFE of the proposed commencement date is kept in the on-site compliance file.
<b>OPERATION OF THE ACTIVITY</b>				
30	A written notification of operation must be given to the Department no later than fourteen (14) days prior to commencement of the activity operational phase.	NA	This condition is not applicable at this stage as confirmed during the September 2022 fifth construction audit that construction is currently taking place, site hand over is predicted to be beginning October 2022.	LWUA to take cognisance that a notification letter must be sent to the Department no later than fourteen (14) days prior to operation.
<b>SITE CLOSURE AND DECOMMISSIONING</b>				
31	Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.	NA	This condition is not applicable at this stage as the activities are currently in the construction phase.	LWUA to take cognisance that is activities cease or become redundant that the required legal actions must be followed.
<b>SPECIFIC CONDITIONS</b>				
32	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.	2	LWUA holds a General Authorisation from the Department of Water and Sanitation dated 02 November 2021. This authorisation allows for activities to take place within the Matadi River in terms of the National Water Act. Photographic evidence is shown in Annexure C: Photo 2.	It is recommended that the approved General Authorisation be kept within the on-site compliance file.
33	No exotic plants may be used for rehabilitation purposes. Only indigenous plants of the area may be utilised.	NA	This condition is not applicable at this stage as no rehabilitation activities are taking place.	LWUA to take cognisance that indigenous plants can only be used when rehabilitating the area.
34	Should any archaeological sites, artefacts, palaeontological fossils or graves be exposed during construction work in the immediate vicinity of the find must be stopped, SAHRA must be informed, and the services of an accredited heritage professional obtained for an assessment of the heritage resource must be made.	2	LWUA understands that if any archaeological or palaeontological site is exposed during construction activities SAHRA must be informed and a heritage assessment undertaken by an accredited heritage professional. To date, no archaeological sites have been exposed during the construction activities.	None
35	An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate. Any solid waste must be disposed of at a landfill licensed in terms of Section 20(b) of the National Environmental Management Waste Act, 2008 (Act 59 of 2008)	2	LWUA understands that all waste on site must be minimised as much as possible and any solid waste must be disposed of at a licenced landfill site as per NEM:WA. LWUA has a permit with Malogeng Landfill Site to dispose of waste generated from the Construction Activities. Refer to Annexure C: Photo 3. Solid waste is disposed of as needed, general waste is removed from site on a weekly basis.  During the fifth construction audit undertaken on 15 September 2022 a general waste dustbin at the laydown was available.  General waste is stored on site in a wheely bin. Construction workers within the Matadi River is provided	General waste bins to be cleaned weekly or as required.  Refuse bags to be provided to construction workers within in Matadi River. The bags to be replaced as required.

NR	ENVIRONMENTAL AUTHORISATION CONDITION	COMPLIANCE STATEMENT	OBSERVATIONS IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
			with a refuse bag for disposal of domestic waste. Refer to Annexure C: Photo 4.	
36	Construction must include design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.	2	During the fifth construction audit undertaken on 15 September 2022 it was noted that no natural drainage line has been impeded, it was noted that no pooling of water was taking place.	None
37	The holder of Environmental Authorisation must prevent the occurrence of nuisance conditions or health hazards.	2	LWUA understands that the occurrence of nuisances conditions or health hazards must be prevented on site. LWUA understands that conditions that can cause a nuisance includes noise, dust, odours and poor state of the laydown area. LWUA ensures that noise levels are kept to minimal levels with noise experienced only at construction areas. LWUA undertakes dust suppression on dirt roads to minimise the creation of dust in the area. LWUA prevents the occurrence of odours within the area by removing general waste weekly and removing human waste via a honeysucker from ablution facilities. LWUA ensures that the laydown area is kept in a good state and all equipment is kept within designated areas to ensure the area is managed correctly.	None
38	No effluent must be discharged into any storm water drain or furrow, whether by commission or by omission.	2	LWUA understands that no effluent must drain into a stormwater drain or water resource. LWUA has ablution facilities on-site to ensure all effluent is contained, additionally the ablution facilities are kept within a bunded area. The facilities are cleaned weekly by a honeysucker. Photographic evidence of these facilities can be found in Annexure C: Photo 6.	None
<b>GENERAL</b>				
39	A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying -	2	Copies of the Environmental Authorisation, approved EMPr and General Authorisation are included in the on-site compliance file. All environmental audit reports are included within this file once completed and finalised. It was confirmed on 15 September 2022 that the pre-construction audit, first construction, second construction third construction and fourth construction environmental audit reports are placed within the on-site compliance file. Refer to Annexure C: Photos 1, 6 and 7.	It is recommended that the environmental authorisation and authorised EMPr be kept within the on-site compliance file. Environmental audit reports and proof of submission thereof to the Department should be included in the on-site compliance file.
39.1	at the site of the authorised activity;	2	Copies of the Environmental Authorisation, approved EMPr and General Authorisation are included in the on-site compliance file. All environmental audit reports are included within this file once completed and finalised. It was confirmed on 15 September 2022 that the pre-construction audit, first construction, second construction third construction and fourth construction environmental audit reports are placed within the on-site compliance file. Refer to Annexure C: Photos 1, 6 and 7.	It is recommended that the environmental authorisation and authorised EMPr be kept within the on-site compliance file. Environmental audit reports and proof of submission thereof to the Department should be included in the on-site compliance file.

NR	ENVIRONMENTAL AUTHORISATION CONDITION	COMPLIANCE STATEMENT	OBSERVATIONS IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
39.2	to anyone on request; and	2	The Environmental Authorisation, approved EMPr, General Authorisation and Construction Audit reports will be provided via email to anyone on request. There has been no such requests to date.	None
39.3	where the holder of the Environmental Authorisation has a website, on such publicly accessible website.	2	LWUA have uploaded the approved Environmental Authorisation; EMPr; Pre-Construction Audit, First, Second Third and Fourth Construction environmental audit reports onto their website. This can be found using the URL: <a href="https://lebalelo.co.za/project-documents/">https://lebalelo.co.za/project-documents/</a> .	LWUA to take cognisance that all audit reports need to be uploaded onto the website once finalised.
40	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.	2	LWUA understands that the national government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation, cannot be held responsible for any damages or losses suffered by LWUA in any instance where construction is temporarily or permanently stopped for reasons of non-compliance of the conditions of the environmental authorisation by LWUA.	LWUA to ensure compliance to the conditions of the environmental authorisation during the construction phase.
<b>Total Compliance</b>		<b>84</b>		
<b>Total Compliance Percentage</b>		<b>100%</b>		



Table 4:2 Audit findings of the EMPr

NR	ACTIVITY THAT MAY CAUSE AN IMPACT	MANAGEMENT OUTCOME	EMP COMMITMENT (CONSTRUCTION PHASE)	COMPLIANCE STATUS	OBSERVATION IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
<b>SOILS</b>						
1.	Clearance of vegetation for construction of outlet channel and gabion embankment	Conservation of soils as a resource	Topsoil should be stripped and stockpiled for use during rehabilitation of the site after construction is completed.	2	Topsoil have been stripped and stockpiled. Rocks have been placed around the stockpiles to ensure no vehicles drive over the topsoil.  Photographic evidence can be found in Annexure C: Photo 8.	LWUA to take cognisance that all topsoil must be stockpiled for use during rehabilitation after construction. No vehicles are allowed to drive on topsoil stockpiles.
2.			Where possible, construction activities should take place during the dry months in order to minimise erosion from rainwater run-off.	2	Construction commenced in April 2022 and will continue until the predicted hand over date during October 2022. Therefore, construction is taking place within the dry season.	None
3.			Install erosion control measures (e.g. berms, soil traps, stormwater management measures, temporary diversion of upstream run-off from the construction and laydown area) to divert stormwater away from areas that are susceptible to erosion.	NA	No areas susceptible to erosion were identified.	LWUA to take cognisance that erosion control measures need to be in place to divert stormwater from the site.
4.			A rehabilitation strategy focused on revegetation must be initiated after the construction phase.	NA	This condition is not applicable at this stage as it was confirmed during the fifth construction audit undertaken on 15 September 2022 that the construction of authorised activities is currently taking place. Rehabilitation will commence once construction has been completed.	LWUA to take cognisance that rehabilitation must take place after construction.
5	Establishment of contractor laydown areas  Construction of outlet channel and gabion embankment	Conservation of soils as a resource	Prevent any spills from occurring. Machines must be parked within hard park areas or dedicated storage areas and must be checked daily for fluid leaks.	2	During the fifth construction audit undertaken on the 15 September 2022, it was noted that machines are parked within the laydown area. The site is inspected each morning to ensure no fluid is leaking from the machines and drip trays are placed under equipment at night, to date no fluid leaks have been noted.	None
6			Develop leak/spill procedure to clean up/remedy hydrocarbon spills.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the site has a spill procedure in place. If any spill is detected the site will remove the contaminated soil and dispose of it to the Malogeng Landfill Site immediately after detection.	None
7			Construction vehicles must not be parked within 100m from Matadi river.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that construction vehicles are parked within the designated laydown area. The laydown area is situated 100m from the Matadi River.	None
8			Spills to be cleared and remediated immediately as per the leak/spill procedure.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the site has a spill procedure in place. If any spill is detected the site will remove the contaminated soil and dispose of it to the Malogeng Landfill Site immediately after detection.	None

NR	ACTIVITY THAT MAY CAUSE AN IMPACT	MANAGEMENT OUTCOME	EMP COMMITMENT (CONSTRUCTION PHASE)	COMPLIANCE STATUS	OBSERVATION IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
9			Spill kits to be available on site at all times.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the site has a spill procedure in place, and a spill kit is in place.	Spill kits must be kept on site.
<b>BIODIVERSITY</b>						
10	Vegetation clearing for laydown area and construction of outlet channel and gabion embankment	Limit the disturbance and destruction of vegetation, fauna and habitat.  Minimise and prevent the spread of alien and/or invasive species	Clearing of vegetation should be limited to the footprint of the laydown area, outlet channel and gabion embankment area. No additional areas are allowed to be cleared beyond this footprint.	2	Clearing of vegetation is limited to the footprint of the laydown area, the outlet channel and gabion embankment areas only.  During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that vegetation has been removed at the outlet channel and embankment. No additional areas has had vegetation removed.  Photographic evidence can be found in Annexure C: Photo 9.	None
11			Construction vehicles must make use of existing gravel roads, no new roads are to be constructed.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that access to the river was done via existing roads. No new roads have been constructed.	None
12			Cleared areas must be revegetated with indigenous vegetation	NA	This condition is not applicable at this stage as no rehabilitation activities are taking place.	LWUA to take cognisance that rehabilitation must take place with indigenous vegetation only.
13			Alien/invasive vegetation must be cleared and destroyed immediately.	2	LWUA understands that alien/invasive vegetation must be cleared and destroyed immediately.	LWUA to take cognisance that alien and invasive species must be destroyed immediately.
14			Cleared areas must be rehabilitated with indigenous vegetation.	NA	This condition is not applicable at this stage as no rehabilitation activities are taking place.	LWUA to take cognisance that rehabilitation must take place with indigenous vegetation only.
15	Construction of outlet channel and gabion embankment		Ensure the correct handling, storage and operation of general waste generated on the construction site.	2	LWUA understands that all waste on site must be minimised as much as possible and any solid waste must be disposed of at a licenced landfill site as per NEM:WA. LWUA has a permit with Malogeng Landfill Site to dispose of waste generated from the Construction Activities. Refer to Annexure C: Photo 3. Solid waste is disposed of as needed, general waste is removed from site on a weekly basis.  During the fifth construction audit undertaken on the 15 September 2022 a general waste dustbin at the laydown was available.  General waste is stored on site in a wheely bin. Construction workers within the Matadi River is provided with a refuse bag for disposal of domestic waste. Refer to Annexure C: Photo 4.	None

NR	ACTIVITY THAT MAY CAUSE AN IMPACT	MANAGEMENT OUTCOME	EMP COMMITMENT (CONSTRUCTION PHASE)	COMPLIANCE STATUS	OBSERVATION IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
16			General waste bins to be provided and cleaned when required and removed to a permitted waste disposal facility.	2	LWUA has a permit with Malogeng Landfill Site to dispose of waste generated from the Construction Activities. Solid waste is disposed of as needed, general waste is removed from site on a weekly basis.  During the fifth construction audit undertaken on the 15 September 2022 a general waste dustbin at the laydown was available.  General waste is stored on site in a wheely bin. Construction workers within the Matadi River is provided with a refuse bag for disposal of domestic waste. Refer to Annexure C: Photo 4.	General waste bins to be cleaned weekly or as required.  Refuse bags to be provided to construction workers within in Matadi River. The bags to be replaced as required.
17			Remove general waste generated frequently as to prevent the development of a breeding habitat for nuisance pests such as flies and attracting rodents.	2	LWUA has a permit with Malogeng Landfill Site to dispose of waste generated from the Construction Activities. Solid waste is disposed of as needed, general waste is removed from site on a weekly basis.  During the fifth construction audit undertaken on the 15 September 2022 a general waste dustbin at the laydown was available.  General waste is stored on site in a wheely bin. Construction workers within the Matadi River is provided with a refuse bag for disposal of domestic waste. Refer to Annexure C: Photo 4.	General waste bins to be cleaned weekly or as required.  Refuse bags to be provided to construction workers within in Matadi River. The bags to be replaced as required.
<b>SURFACE WATER</b>						
18	Establishment of contractor laydown area.	Minimise the potential for surface water pollution.	Locate laydown area at least 100m from the Matadi River.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the laydown area and on-site officers are located approximately 115 meters from the Matadi River.	None
19	Construction of outlet channel and gabion embankment	Conservation of water	Fence off laydown area and restrict all activities to fenced area.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the laydown area and on-site officers are within a fenced off area.  Photographic evidence can be found in Annexure C: Photo 10 and Photo 11.	None

NR	ACTIVITY THAT MAY CAUSE AN IMPACT	MANAGEMENT OUTCOME	EMP COMMITMENT (CONSTRUCTION PHASE)	COMPLIANCE STATUS	OBSERVATION IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
20			Implement a stormwater management plan for the laydown area.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that a stormwater management plan has been developed for the laydown area. The only area identified as a "dirty water area" is the ablution facilities all other areas can be seen as "clean areas". The chemical toilet is considered a closed system and therefore stormwater management mitigations measures are required. However, a small earth berm (30cm) high has been placed downstream of the chemical toilet to ensure that any run-off is captured  Photographic evidence can be found in Annexure C: Photo 5.	Continue to implement a stormwater management plan for the laydown area.
21			Rehabilitate and re-vegetate all disturbed areas outside the laydown area as soon as possible.	NA	This condition is not applicable at this stage as no rehabilitation activities are taking place.	None
22			Provide portable sanitation facilities for construction workers, which will not be located within 100m of the Matadi River	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that two ablution facilities are on site and are located within the laydown area which is more 100 m from the Matadi River.	None
23			Undertake surface water monitoring as per the requirements of the Water Use Licence/General Authorisation.	2	A general authorisation was issued on 2 November 2022 for this development.  Water Monitoring conditions include the following: <b>Site inspection photographs</b> - Photographs to be taken on a daily basis from 1 week prior to construction until 1 month after construction. - Each day the following photographs must be taken: * 1 photo 20m upstream from development; * 1 photo 20m downstream from development; * 2 photo on each bank at the development site.  <b>Water quality sampling</b> - Sampling to be taken on a weekly basis both upstream and downstream.  <b>Water flow sampling</b> - Flow to be monitored weekly from 1 week prior to construction until 1 month after construction.  <b>Annual audit</b> - An annual audit to be undertaken for 3 years after construction has been completed.  During the fifth construction audit undertaken on the 15 September 2022 the daily photographs were requested. Construction activities as per the Environmental Authorisation commenced on the 25 April 2022. Dated photographs both upstream and	LWUA to take cognisance of the monitoring requirements to be undertaken to ensure compliance with this condition.

NR	ACTIVITY THAT MAY CAUSE AN IMPACT	MANAGEMENT OUTCOME	EMP COMMITMENT (CONSTRUCTION PHASE)	COMPLIANCE STATUS	OBSERVATION IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
					downstream as well as each bank was shown to the auditor.	
24			Soil erosion must be prevented at all times and the contractor shall control soil erosion until an acceptable vegetation cover has been achieved or suitable alternative is implemented.	2	During the fifth construction audit undertaken on the 15 September 2022 it was noted that the site undertakes a phased approach for the construction of this pipeline. Sections that were excavated have already been filled and the soil compacted. The site undertakes walk downs of the pipeline route to ensure no soil erosion is taking place. To date no immediate corrective action has been required as no erosion has been identified.	Lebalelo Water User Association to take cognisance that erosion control measures need to be in place.
25			The contractor must ensure that adequate erosion control measures are implemented in the affected areas and other high-risk areas, including at existing structures or activities with particular attention to erosion control at steep slopes and drainage lines.	NA	This condition is not applicable at this stage as no erosion has been identified by construction activities or by any existing unfractured at the site area.	Lebalelo Water User Association to take cognisance that erosion control measures need to be in place and implemented.
<b>HERITAGE RESOURCE</b>						
26			The recorded cemetery should be indicated on development plans.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the cemetery is indicated on the development plans and indicated as a no-go area.	None
27			Graveyard to be remain fenced off and clearly demarcated. All construction activities should be well outside of the fenced area.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the graveyard is sufficiently fenced off.  Photographic evidence can be found within Annexure C: Photo 12.	None
28	Construction activities	Protect and preserve heritage resources	The graveyard must be accessible to descendants at all times.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the graveyard is still accessible to all descendants.	The contractor must ensure that the graveyard is accessible to descendants at all times during the construction phase.
29			Dust control around the graveyard must be implemented.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the dust suppression is taking place on the dirt roads around the graveyard.	None
30			Implementation of a chance find procedure for the project (archaeology and palaeontology), should any heritage features be uncovered or excavated during the construction phase.	2	LWUA understands that if any archaeological or palaeontological site is exposed during construction activities SAHRA must be informed and a heritage assessment undertaken by an accredited heritage professional.	LWUA to take cognisance that if any heritage feature is uncovered or excavated the implementation of a chance find procedure needs to be followed.
<b>NOISE</b>						
31	Construction of outlet channel and gabion embankment	Minimise the generation of noise	Ensure high level of equipment maintenance, especially intake and exhaust mufflers.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the equipment is rented from Sekhukhune Plant Hire who is responsible for maintenance of their equipment.	None
32			Replace pure tone (beeping) with broadband (hissing) reversing alarms.	NA	This condition is not applicable as all equipment is maintained sufficiently.	None

NR	ACTIVITY THAT MAY CAUSE AN IMPACT	MANAGEMENT OUTCOME	EMP COMMITMENT (CONSTRUCTION PHASE)	COMPLIANCE STATUS	OBSERVATION IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
33			Construction activities will only take place during daylight hours.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that working hours are from 07h00 to 17h00 Monday to Friday.	LWUA to take cognisance that construction can only take place during day light hours
<b>AIR QUALITY</b>						
34	Construction of outlet channel and gabion embankment	Minimise atmospheric emissions and dust generation	Apply dust suppressants to gravel roads used.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the dust suppression is taking place on the dirt roads to minimise the amount of dust produced from construction facilities.	None
35			Set speed limits to 30km/h on gravel roads to minimise the creation of fugitive dust within the project boundary.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that all vehicles private and for construction travel at a maximum of 30 km/h to reduce dust levels at the site.	None
<b>SOCIO-ECONOMIC</b>						
36	Construction of outlet channel and gabion embankment	Maximise employment opportunities and social benefits	Develop a clear and concise employment policy prioritising local employment.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that 17 local people are employed for this project.	None
37			Employ local works if qualified applicants with the appropriate skills are available.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the project's Community Liaison Officer (CLO) Mr Eric Manyaka is a local who has been employed for this project.	None
38			Purchase goods and services at a local level if available.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the 20 ton excavator and the two Tractor Loader are sourced locally. Any additional material needed if found within the area will be bought locally.	None
39		Reduce the risk of potential incidences	No site staff, other than security personnel will be housed on site.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that no personnel are housed on site.	None
40			Security personnel must be supplied with adequate protective clothing, ablution facilities, water and refuse collection facilities, facilities for cooking and heating so that open fires are not necessary.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that the security sub-contractor Gun-2-Gun has adequate protective clothing and has been provided with ablution and refuse facilities.	None
41			The site and crew are to be managed in strict accordance with the OHSA and the National Building Regulations.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that all personnel will be managed according to the OHSA and National Building regulations. This act and regulation are printed and are found within the site office within the laydown area.  Photographic evidence can be found in Annexure C: Photo 13.	None

NR	ACTIVITY THAT MAY CAUSE AN IMPACT	MANAGEMENT OUTCOME	EMP COMMITMENT (CONSTRUCTION PHASE)	COMPLIANCE STATUS	OBSERVATION IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
42			Ensure that all emergency procedures are in place prior to commencing work. Emergency procedures must include (but not be limited to) fire, spills, contamination of the ground, accidents to employees, use of hazardous substances and materials, etc.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that emergency procedures are in place and will be found within the site office within the laydown area.  Photographic evidence can be found in Annexure C: Photo 14.	None
43			Ensure that lists of all emergency telephone numbers/ contact persons are kept up to date and that all numbers and names are posted at relevant locations throughout the construction site.	2	During the fifth construction audit undertaken on the 15 September 2022 it was confirmed that all emergency telephone numbers and contact personal will be found within the site office within the laydown area when construction commences.  Photographic evidence can be found in Annexure C: Photo 14.	None
<b>Total Compliance Score</b>				<b>72</b>		
<b>Total Compliance Percentage</b>				<b>100%</b>		

Table 4:3 Audit findings of SAHRA's conditions

NR	SAHRA CONDITION	COMPLIANCE	OBSERVATIONS IN SEPTEMBER 2022 AUDIT	RECOMMENDATIONS BY AUDITOR
<b>FINAL COMMENTS</b>				
1	The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit has no objection to the proposed development;	2	No objections to the proposed development was raised by SAHRA.	None
2	The recommendations of the specialists are supported and must be adhered to. No further additional specific conditions are provided for the development;	2	LWUA understands that all recommendations made by the specialist need to be adhered to.	None
3	If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Natasha Higgitt/Phillip Hine 021 462 5402) must be alerted as per section 35(3) of the NHRA. Non-compliance with section of the NHRA is an offence in terms of section 51(1)e of the NHRA and item 5 of the Schedule;	2	LWUA understands that if any heritage site is identified during construction all work must cease and SAHRA's APM Unit must be informed, this site must be evaluated by a heritage professional.	None
4	If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Thigahangwii Tshivhase/ Ngqalabutho Madida 012 320 8490), must be altered immediately as per section 36(6) of the NHRA and item 5 of the Schedule;	2	LWUA understands that if any unmarked burial site is uncovered during construction all work must cease and SAHRA's BGG Unit must be informed.	None
5	See section 51 of the NHRA regarding offences;	2	LWUA understands that if conditions are not adhered to SARHA can issue LWUA with an offence as per Section 51 of the NHRA.	None
6	The following conditions apply with regards to the appointment of specialists:			
6,1	With reference to the mitigation work noted above, a qualified archaeologist must be appointed to undertake the work in terms of the permit applied for as noted above;	2	LWUA understands that if any heritage site is identified during construction all work must cease and the site must be evaluated by a qualified heritage professional.	None
6,2	If heritage resources are uncovered during the course of the development, a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the heritage resource. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 1 rescue operation may be required subject to permits issued by SAHRA;	2	LWUA understands that if any heritage site is identified during construction all work must cease and the site must be evaluated by a qualified heritage professional.	None
6,3	The Final BAR and EMPr must be submitted to SAHRA for records purposes;	2	The final BAR and EMPr were provided to SAHRA during the notification of I&APs. this email was sent to SARHA on the 17 March 2022.	None
6,4	The decision regarding the EA Application must be communicated to SAHRA and uploaded to the SAHRIS Case application.	2	The final decision was provided to SARHA during the notification of I&AP's. this email was sent to SARHA on the 17 March 2022	None
<b>Total Compliance Score</b>		<b>18</b>		
<b>Total Compliance Percentage</b>		<b>100%</b>		



## 5 CONCLUSION AND RECOMMENDATIONS

An overall compliance rating of 100% has been achieved for the September 2022 audit, which also serves as the fifth construction compliance audit for the project. Conditions and commitments from three documents were considered, namely the environmental authorisation, approved EMPr and final comments from SAHRA. Refer to the table below.

Document	% Compliance
Environmental authorisation	100%
EMPr	100%
SAHRA	100%
<b>Total % Compliance</b>	<b>100%</b>

The table below is a register of non-compliance to conditions and commitments.

Document & Condition Number	Condition / Commitment	Finding	Required Action	Closeout Date
<b>April 2022 Audit Findings</b>				
Environmental Authorisation: Condition 39.3	A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying - where the holder of the Environmental Authorisation has a website, on such publicly accessible website.	LWUA have not uploaded the approved Environmental Authorisation and EMPr onto their website.	<b>CLOSED OUT</b>	11 May 2022
<b>May 2022 Audit Findings</b>				
Environmental Authorisation: Condition 39.3	A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying - where the holder of the Environmental Authorisation has a website, on such publicly accessible website.	LWUA have not uploaded the pre-construction audit onto their website.	<b>CLOSED OUT</b>	27 May 2022
Environmental Management Plan Condition 1	Topsoil should be stripped and stockpiled for use during rehabilitation of the site after construction is completed.	It was noted during the site visit that topsoil that has been stockpiled is being driven on by the excavator	<b>CLOSED OUT</b>	11 June 2022
Environmental Management Plan Condition 9	Spill kits to be available on site at all times.	No spill kit is kept on site.	<b>CLOSED OUT</b>	21 July 2022
Environmental Management Plan Condition 20	Implement a stormwater management plan for the laydown area.	No stormwater management is implemented	<b>CLOSED OUT</b>	11 June 2022

Document & Condition Number	Condition / Commitment	Finding	Required Action	Closeout Date
		around the laydown area.		
<b>June 2022 Audit Findings</b>				
Environmental Management Plan Condition 9	Spill kits to be available on site at all times.	<i>Non-compliance</i> No spill kit is kept on site.	<b>CLOSED OUT</b>	7 July 2022
Environmental Management Plan Condition 17	General waste bins to be provided and cleaned when required and removed to a permitted waste disposal facility.	<i>Paternal compliance</i> LWUA has a permit with Malogeng Landfill Site to dispose of waste generated from the Construction Activities. Solid waste is disposed of as needed, general waste is removed from site on a weekly basis.  During the second construction audit undertaken on 21 June 2022 the general waste dustbin was found to be overflowing. The auditors asked when the waste will be disposed off, the site indicated the next day 22 June 2022.	<b>CLOSED OUT</b>	7 July 2022
Environmental Authorisation: condition 35	An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate. Any solid waste must be disposed of at a landfill licensed in terms of Section 20(b) of the National Environmental Management Waste Act, 2008 (Act 59 of 2008).	<i>Paternal compliance</i> During the second construction audit undertaken on 21 June 2022 the general waste dustbin at the laydown area was found to be overflowing. The team onsite indicated that the waste bin will be cleared on 22 June 2022.  There is no general waste disposal bin provided to workers in the Matadi River.	<b>CLOSED OUT</b>	7 July 2022

It is the opinion of the auditors that the EMPr sufficiently provide for the management and mitigation of potential environmental impacts associated with the undertaking of the authorised listed activities.

## **6 ANNEXURES**

## ***ANNEXURE A: DECLARATION***

I, Suzanne van Rooy, declare that I –

- Act as the independent environmental practitioner for this environmental audit;
- Do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulation 2014 (as amended);
- Undertake the environmental audit based on information provided to me by the environmental authorisation holder and appointed contractor, and additional information obtained during the environmental audit; and
- All the particulars furnished in this report, to the best of my knowledge, are true and correct.



---

Suzanne van Rooy

Environmental Consultant

I, Tyla Leigh Smith, declare that I –

- Act as the independent environmental practitioner for this environmental audit;
- Do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulation 2014 (as amended);
- Undertake the environmental audit based on information provided to me by the environmental authorisation holder and appointed contractor, and additional information obtained during the environmental audit; and
- All the particulars furnished in this report, to the best of my knowledge, are true and correct.



---

Tyla Leigh Smith

Environmental Consultant

# ANNEXURE B: ATTENDANCE REGISTER



Postnet Suite #745  
 Private Bag X1007  
 Lyttelton  
 1040  
 Cell: 082 782 4005  
 Fax: 086 634 3967  
 alta@avde.co.za

".....attitude of gratitude....."

Project Management, Peer Review, Advisory, Education

**LWUA: Clapham Dam upgrades and associated infrastructure  
 Construction Environmental Audit**

15 September 2022

FULL NAME	ORGANISATION	TELEPHONE	CELL NO	E-MAIL	SIGNATURE
Suzanne V. Looy	AVDE		078 196 6002	Suzanne@avde.co.za	<i>[Signature]</i>
Lungisa Bisiyisa	OnSET	072 256 3395	07	Lungisa@onset.co.za	<i>[Signature]</i>
Kirithi Peramall	AVDE		072 256 4733	Kirithi@avde.co.za	<i>[Signature]</i>
Tyla Smith	AVDE		083 206 4136	tyla@avde.co.za	<i>[Signature]</i>

".....we all live down stream....."

Company Registration Number: 2011/059764/23

# ANNEXURE C: PHOTOGRAPHS OF THE PRE-CONSTRUCTION STATUS QUO

Photo 1: Copy of the environmental audit reports

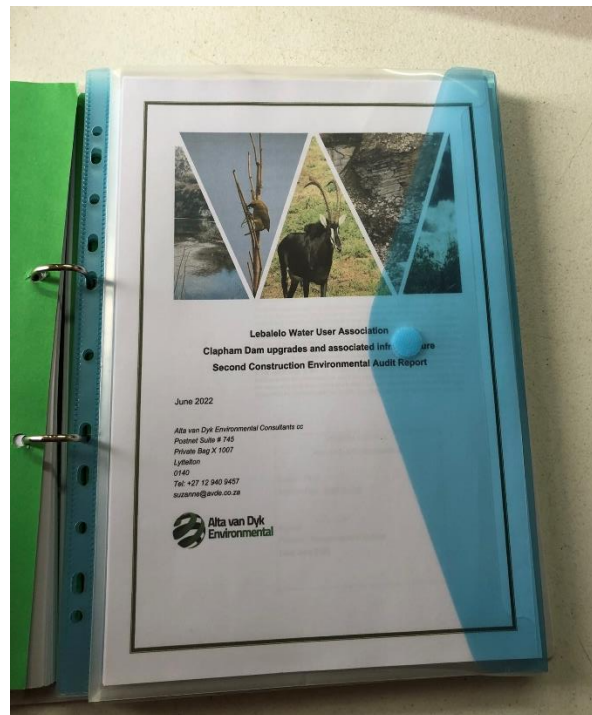


Photo 2: Copy of the General Authorisation

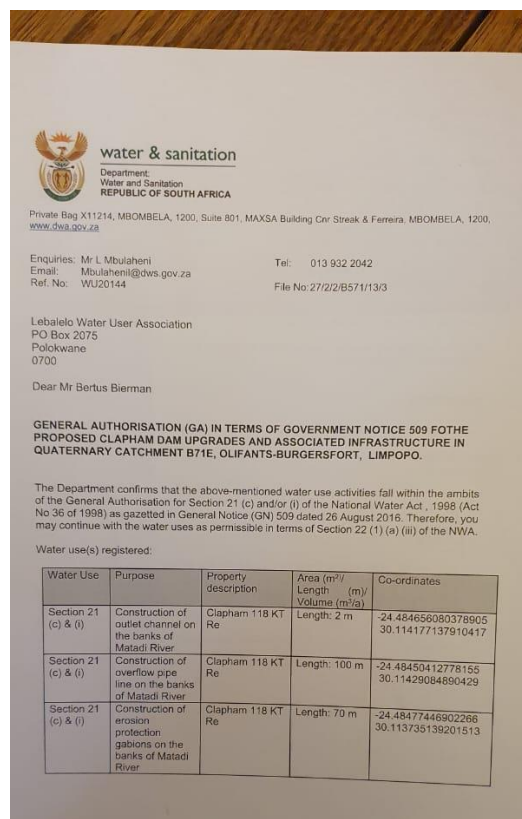


Photo 3: Permit to dispose of waste at Malogeng Landfill site

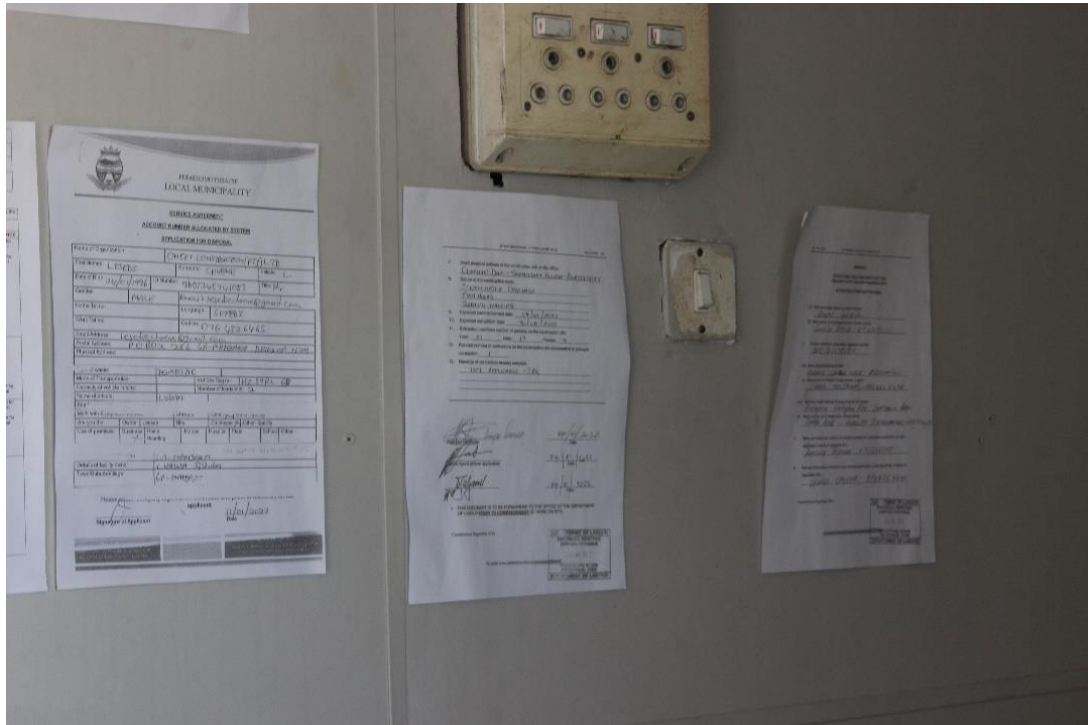


Photo 4: On-site general waste dustbin

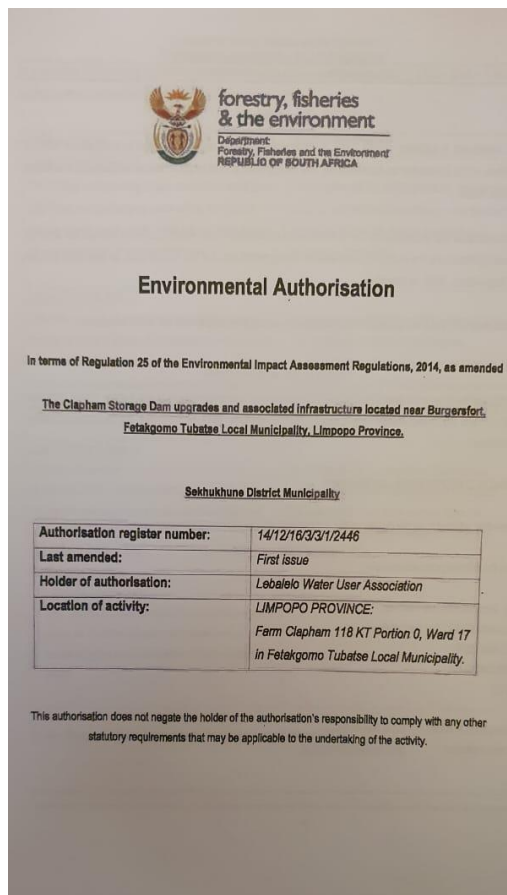




Photo 5: Ablution facilities within the laydown area



Photo 6: Proof of Environmental Authorisation kept within the on-site Compliance File



 forestry, fisheries  
& the environment  
Department  
Forestry, Fisheries and the Environment  
REPUBLIC OF SOUTH AFRICA

### Environmental Authorisation

In terms of Regulation 25 of the Environmental Impact Assessment Regulations, 2014, as amended

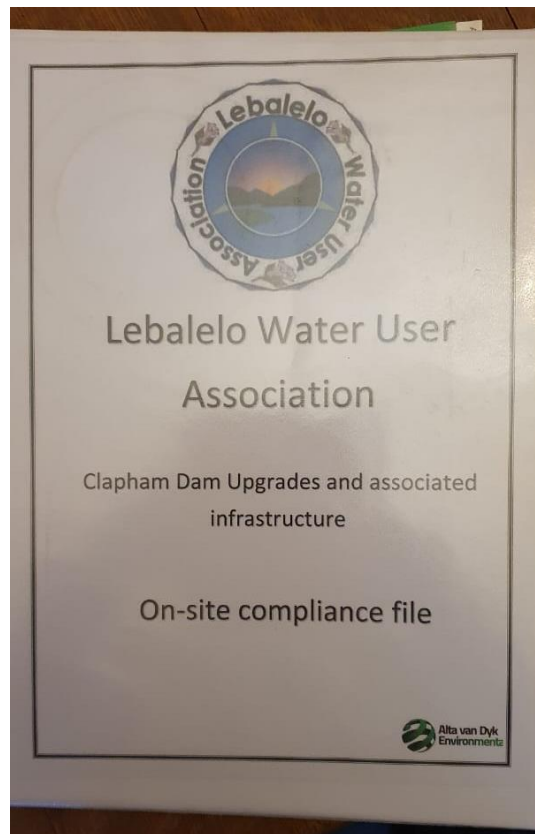
The Clapham Storage Dam upgrades and associated infrastructure located near Burgersfort,  
Fetakgomo Tubatse Local Municipality, Limpopo Province.

Sekhukhune District Municipality

Authorisation register number:	14/12/16/3/3/1/2446
Last amended:	First issue
Holder of authorisation:	Lebeleko Water User Association
Location of activity:	LIMPOPO PROVINCE: Farm Clapham 118 KT Portion 0, Ward 17 In Fetakgomo Tubatse Local Municipality.

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

**Photo 7: Proof of on-site Compliance File**



**Photo 8: Topsoil stockpiled on site**



**Photo 9: Clearance of vegetation found at the gabion embankment**



**Photo 10: Laydown area and on-site offices within a fenced off area**



**Photo 11: Laydown area and on-site offices within a fenced off area**



**Photo 12: Fenced-off cemetery**



Photo 13: OSHA and Regulations

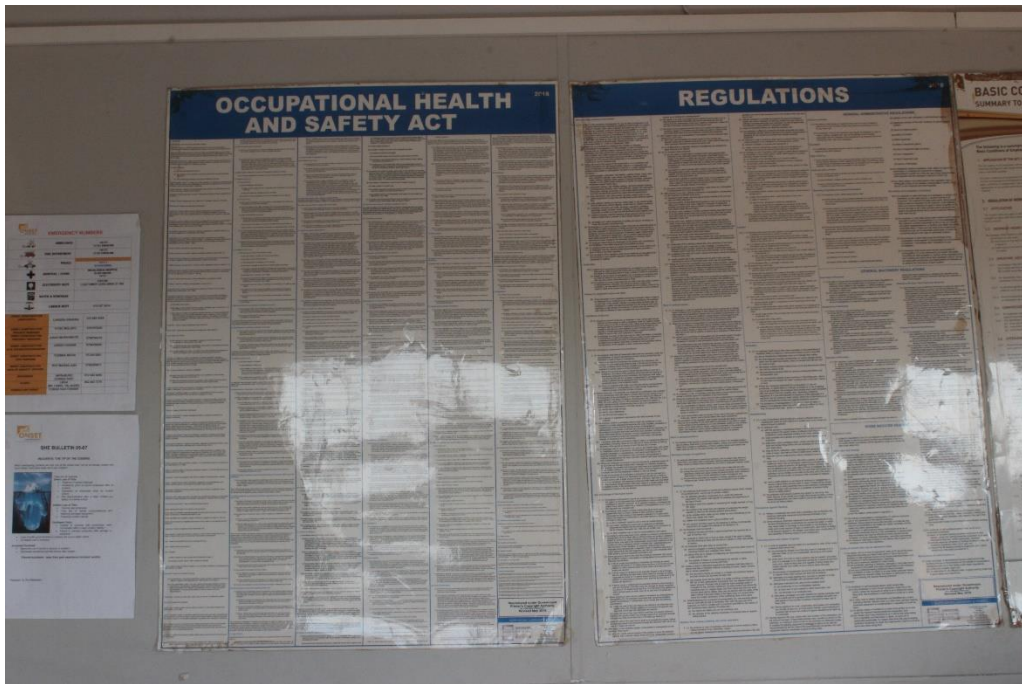


Photo 14: Emergency Contact Details

