



EMALAHLENI WATER RECLAMATION PLANT

EXTERNAL ENVIRONMENTAL AUDIT REPORT 2024–2025

In Compliance with Regulation 34 and Appendix 7 of the Environmental Impact Assessment Regulations (GN 982 of 2014), as amended, and Section 24N(7)(d) of the National Environmental Management Act (Act 107 of 1998)

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RELATED DOCUMENTS

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0.1	Record of Decision issued by Department of Agriculture and Land Administration to Anglo Coal to undertake a listed Activity in terms of Section 22 of ECA (Act 73 of 1989) for the Mine Water Reclamation, Treatment and Re-use Scheme in Emalahleni (Witbank) Region (Ref. 17/ 2/ 12/ NK 16)	02.11.2005
0.2	ROD Amendment issued by Department of Agriculture and Land Administration (Directorate: Environmental Management) to Anglo Coal (Pty) Ltd for the proposed Mine Water Reclamation, Treatment and Re-use Scheme for the Emalahleni (Witbank) Region (Ref. 17/ 2/ 12/ NK 16 (H06-30))	16.10.2006
0.3	Record of Decision issued by Department of Agriculture and Land Administration to Anglo Coal to undertake a listed activity in terms of Section 22 of ECA (Act 73 of 1989) for construction of a 26 km pipeline from Greenside Colliery to Phola Coal washing plant, Mpumalanga (Ref. 17/2/13 NK 31)	08.03.2010
0.4	Environmental Management Program for the construction of a 26 km pipeline from Greenside Colliery's treatment plant to Phola Coal washing plant, Ogies, Mpumalanga (Ref. 17/ 2/ 13 NK 31)	08.03.2010
0.5	Environmental Authorisation issued by the Department of Economic Development, Environmental and Tourism to Anglo Operations Limited for the proposed expansion of Anglo Operations Emalahleni Mine Water Reclamation Scheme, Emalahleni, Mpumalanga (Ref. 17/ 2/ 2/ 1(e) MP-5)	21.07.2011
0.6	Consolidated Environmental Management Programme for Emalahleni Water Reclamation Plant	15.10.2021

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TABLE OF CONTENTS

NO.	DESCRIPTION	PAGE NO
1.	INTRODUCTION	1
1.1.	EMALAHLENI WATER RECLAMATION PLANT	1
2.	AUDIT TERMS OF REFERENCE	5
2.1.	ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.....	5
2.2.	EWRP ENVIRONMENTAL AUTHORISATIONS	5
2.3.	EWRP ENVIRONMENTAL MANAGEMENT PROGRAMMES	6
2.4.	ASSUMPTIONS AND LIMITATIONS	6
3.	AUDIT DETAILS	7
3.1.	AUDIT TEAM.....	7
3.2.	AUDIT METHODOLOGY	7
3.3.	AUDIT CRITERIA.....	9
3.4.	AUDIT SCOPE.....	9
4.	AUDIT RESULTS	10
5.	SUMMARY OF THE AUDIT FINDINGS	51
5.1.	NON-COMPLIANCES	51
5.2.	ACTIONS TO ADDRESS THE NON-COMPLIANCES.....	51
5.3.	RECOMMENDATIONS TO AMMEND CERTAIN CONDITION.....	51
6.	CONTINUAL IMPROVEMENT	54
7.	CONCLUSION	55
8.	REFERENCES	56

LIST OF FIGURES

LIST OF TABLES

Table 1.	Details of the Audit Team	7
Table 2.	Audit Assessment Criteria.....	9
Table 3.	Record of Decision for EWRP Phase 1 (Ref: 17/2/12/NK 16) dated 02 November 2005	11
Table 4.	Environmental Authorisation for EWRP Phase 2 (Ref: 17/2/2/1(e) MP-5) dated 21 July 2011	15
Table 5.	Consolidated EMPr for EWRP Phase 1 and Phase 2dated 15 October 2021	20
Table 6.	Record of Decision for Greenside-Phola pipeline (Ref: 17/2/13 NK 31) dated 08 March 2010	42
Table 7.	EMPr for Greenside-Phola pipeline (Ref: 17/2/13NK31) dated 08 March 2010	44
Table 8.	Summary of Non-Compliances and Action Plan.....	52

LIST OF APPENDICES

- Appendix A: Auditor Declaration
- Appendix B: Auditor Curriculum Vitae

1. INTRODUCTION

Thungela Resources (Pty) Ltd (hereafter, Thungela) is a South African based thermal coal producer and exports coal mainly to Indian, Asian, SEA, Middle East and North African markets. Thungela owns interests in and produces thermal coal at eight mining operations. Opencast mining operations are undertaken at the Isibonelo, Khwezela and Mafube mining operations and underground mining operations are undertaken at the Zibulo, Greenside, Goedehoop and Elders (currently in construction) mining operations. In 2004 Anglo American Thermal Coal (AATC) (Pty) Ltd and BHB Billiton Energy Coal (Pty) Ltd formed a joint venture to develop a water reclamation scheme, now referred to as the eMalahleni Water Reclamation Plant (EWRP), comprising a reticulation system that pumps mine affected water from several mines in the eMalahleni area for treatment at the EWRP. Following the demerger and transfer of AATC on 04 June 2021, Thungela now owns the interests in the EWRP.

Thungela appointed NTC Group (Pty) Ltd as an independent Environmental Practitioner to undertake the annual External Environmental Audit in accordance with Regulation 34 of the Environmental Impact Assessment (EIA) Regulations (GN R982 of 2014), as amended, to assess compliance with the Environmental Authorisations (EA) and Environmental Management Programmes (EMPr) issued to its operations. This report presents the annual External Environmental Audit Report for the EWRP for the 2024 – 2025 audit period. The objective of the External Environmental Audit was to verify EWRP's compliance with conditions of the EAs and EMPrs that remained valid for the audit period (March 2023 – March 2024); and determine the effectiveness of mitigation measures implemented to manage environmental impacts associated with the authorised activities.

1.1. EMALAHLENI WATER RECLAMATION PLANT

1.1.1. Background

The EWRP is located 120 km east of Johannesburg and 15 km southwest of eMalahleni (formerly Witbank) under the jurisdiction of the eMalahleni Local Municipality and the Nkangala District Municipality in Mpumalanga, South Africa (refer to Figure 1). EWRP commenced operation in 2007 and currently has a capacity to treat up to 60 Ml/day of mine affected surface and groundwater. Water is received from Thungela's Khwezela Colliery (Bokgoni, Kromdraai, Excelsior and Navigation Sections), Greenside Colliery, Zibulo Colliery and South Witbank Colliery and stored in two feed water storage dams, each with a capacity of 23 Ml. Water is treated to potable water standards and distributed to two 10 Ml/potable water storage reservoirs for redistribution to eMalahleni Municipality and the mines. EWRP is also authorised in the Water Use License (WUL) issued by the Department of Water and Sanitation (DWCS) to discharge to the Naauwpoortspruit as a contingency if the eMalahleni Municipality is unable to take the water (WUL Ref: 04/B11J/ACFGI/1853 dated 14 August 2020).

The development of EWRP was undertaken in two phases:

- Phase 1 entailed construction and operation of the EWRP to treat mine affected water at a rate of 25 Mℓ / day. The development was authorised by the Mpumalanga Department of Agriculture and Land Administration (Environmental Management Directorate) in a Record of Decision dated 02 November 2005 (Ref: 17/2/12/NK16).
- Phase 2 entailed the expansion of the EWRP to increase the treatment capacity to 50 Mℓ / day (peaking at 60 Mℓ/ day). The increase in capacity was authorised by the Mpumalanga Department of Economic Development, Environment and Tourism in an Environmental Authorisation dated 21 July 2011 (Ref: 17/2/2/1(e) MP-5).

1.1.2. Treatment Process

Mine affected water received at EWRP is stored in 2 Feed Water Dams from where it is pumped to Phase 1 and Phase 2 treatment plants and treated in three stages.

STAGE 1 (Same Process for Phase 1 and Phase 2):

- Neutralisation Reactor: mine affected water is neutralised with lime.
- Primary Clarifier: metals are precipitated and removed.
- Primary Ultrafiltration: water is desalinated through ultra-filtration.
- Primary Reverse Osmosis (RO) Plant: contaminants are removed by a RO process.
- Primary RO permeate is discharged to the potable water reservoir and RO reject enters Stage 2.

STAGE 2:

- At Phase 1, reject from Primary RO undergoes the same treatment process as Stage 1 (neutralised then treated at the Secondary Clarifier, Secondary Ultrafiltration and Secondary RO).
- At Phase 2, reject from Primary RO is neutralised then treated at the Secondary Thickener which separates solids by gravity settling. From the Secondary Thickener, treatment continues as in Phase 1 (Secondary Ultrafiltration and Secondary RO).
- Secondary RO permeate is discharged to the potable water reservoir and reject enters Stage 3.

STAGE 3:

- At Phase 1, Stage 3 repeats the same process as Stage 1 and 2 (Secondary RO reject naturalised then treated at Tertiary Clarifier, Tertiary Ultrafiltration and Tertiary RO).
- At Phase 2, Stage 3 repeats the same process as Stage 2 (Secondary RO reject neutralised then treated at Tertiary Thickener, Tertiary Ultrafiltration and Tertiary RO).
- Tertiary RO permeate is discharged to the potable water reservoir.

1.1.3. Process Waste

Solid and effluent waste generated during the treatment process:

- Sludge from the Clarifiers is transferred to a filter press where sludge is dewatered to produce filter cake.
- Sludge from the Thickeners is transferred to vacuum belt filters which separates gypsum sludge. Fines from the vacuum belt filter and Stage 2 and 3 are transferred to a dewatering filter press to produce filter cake.
- Tertiary RO reject is discharged to the brine evaporation dam for natural evaporation and further treated in the brine plant which generates brine sludge.
- EWRP is also authorised in the WUL issued by DWCS to discharge treated mine water into the Naauwpoortspruit provided it meets the prescribed water quality requirements (WUL Ref: 04/B111J/ACFGI/1853 dated 14 August 2020).

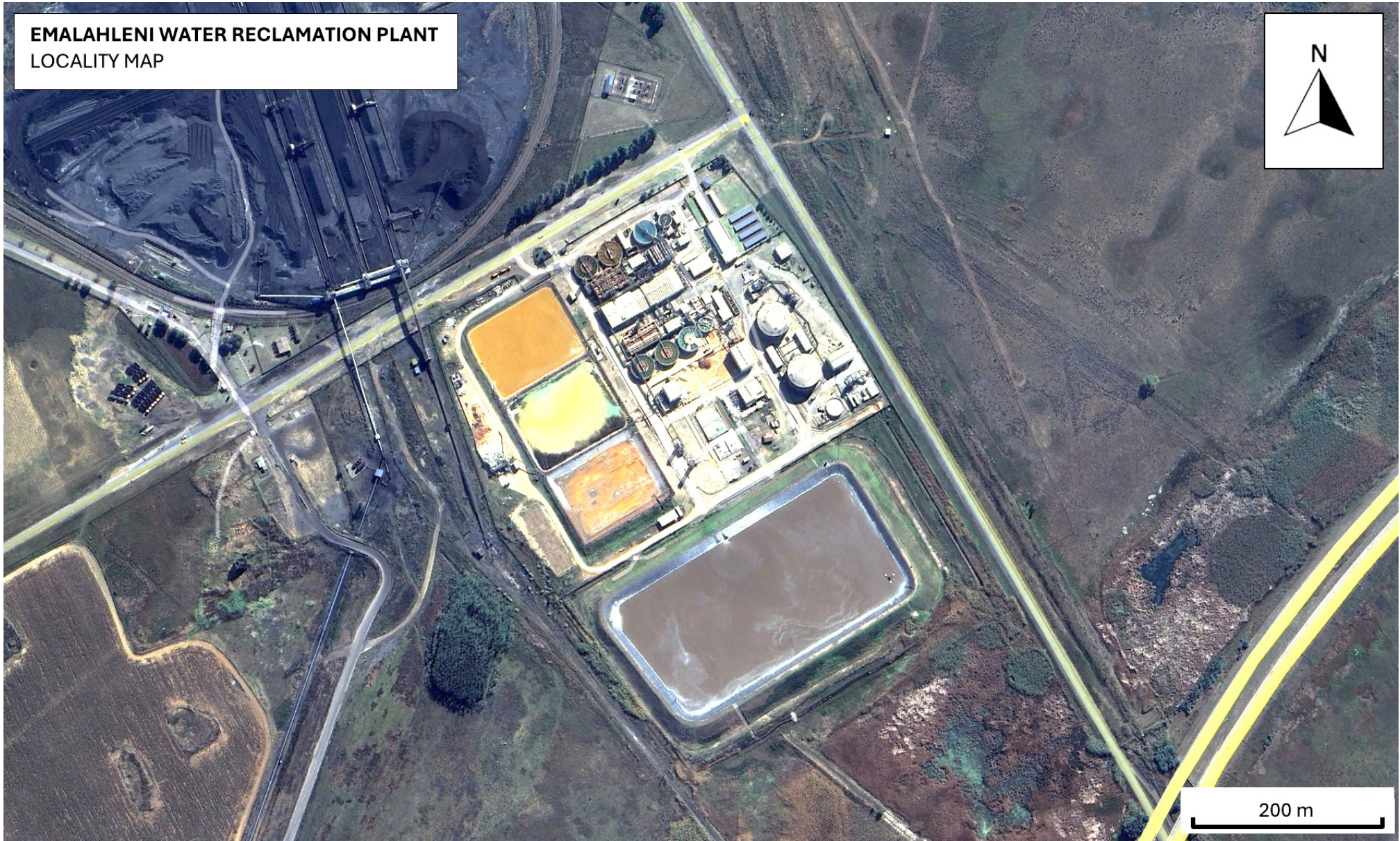


Figure 1: Locality Map showing the Emalahleni Water Reclamation Plant

2. AUDIT TERMS OF REFERENCE

2.1. ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS (GN RG82 of 2014)

The EIA Regulations (GN R982 of 2014), as amended, (hereafter “the Regulations”) were published in terms of the National Environmental Management Act (Act 107 of 1998) to regulate the process for preparing, evaluating, and submitting applications for EAs. Section 34 of the Regulations provides the requirements for auditing of compliance with EAs, EMPs and Closure Plans. Section 34 (1) and (2) requires the holder of an EA to appoint an independent person to conduct an audit of all valid EAs and EMPs at the intervals specified in the EA and submit an audit report to the Competent Authority.

The audit report must include the information in Appendix 7 and as per Section 34 (3) must contain verifiable audit findings which are presented in a structured approach to indicate the level of compliance with the EAs and EMPs and the effectiveness of the mitigation measures in the EMP to manage environmental impacts associated with the authorised activities. In terms of Section 34 (4), if there is insufficient compliance with the conditions of the EA or EMP, or if mitigation measures in the EMP for managing environmental impacts are deemed to be inadequate, the audit report must provide recommendations to amend the EMP to rectify the shortcomings. Section 34 (5) states that such recommendations must be subjected to a Public Participation Process and Section 34 (6) that ICAPS must be notified on a public website within 7 days of submitting the report to the Competent Authority.

2.2. EWRP ENVIRONMENTAL AUTHORISATIONS

The EAs issued by Mpumalanga Province Department of Agriculture, Rural Development, Land and Environmental Affairs to the EWRP that remained valid for the audit period and were audited in accordance with Section 34 of the EIA Regulations are as follows:

1. Record of Decision issued by the Department of Agriculture and Land Administration (Directorate: Environmental Management) to Anglo Coal (Pty) Ltd to undertake a listed Activity in terms of Section 22 of the Environmental Conservation Act (Act 73 of 1989) for the Mine Water Reclamation, Treatment and Re-use Scheme in Emalahleni (Witbank) Region (Ref. 17/ 2/ 12/ NK 16) dated 02 November 2005 and amendment (Ref. 17/ 2/ 12/ NK 16 (H06-30)) dated 16 October 2006.
2. Record of Decision issued by the Department of Agriculture and Land Administration (Environmental Management: Nkangala Region) to Anglo Coal (Pty) Ltd to undertake a listed activity in terms of Section 22 of the Environmental Conservation Act (Act 73 of 1989) for construction of a 26 km pipeline from Greenside Colliery’s treatment plant to Phola Coal washing plant, Ogies, Mpumalanga (Ref. 17/2/13 NK 31) dated 08 March 2010.

3. Amendment to the Environmental Authorisation issued by the Department of Economic Development, Environmental and Tourism to Anglo Operations Limited for the proposed expansion of Anglo Operations Emalahleni Mine Water Reclamation Scheme, Emalahleni, Mpumalanga (Ref. 17/ 2/ 2/ 1(e) MP-5) dated 21 July 2011.

2.3. EWRP ENVIRONMENTAL MANAGEMENT PROGRAMMES

The Environmental Management Program approved in the Environmental Authorisations that remained valid for the audit period and were audited in accordance with Section 34 of the EIA Regulations are as follows:

1. Environmental Management Program for the construction of a 26 km pipeline from Greenside Colliery's treatment plant to Phola Coal washing plant, Ogies, Mpumalanga (Ref. 17/ 2/ 13 NK 31) dated 08 March 2010.
2. Consolidated Environmental Management Programme for Emalahleni Water Reclamation Plant dated 15 October 2021.

2.4. ASSUMPTIONS AND LIMITATIONS

The scope of the audit is to determine the level of compliance with the conditions of the EA and EMPr and the effectiveness of the mitigation measures provided in the EMPr to manage the environmental impacts associated with the authorised activities.

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

- This audit is a snap-shot representation of the current activities at EWRP.
- The audit period is from March 2023 to March 2024. Conditions which refer to activities occurring prior to this audit assessment period are assumed to have been previously audited and will thus not be audited. Such conditions are determined to be "Not Applicable".
- Due to the nature and extent of the operation, not all areas may be visited during the site inspection.
- EWRP representatives may be called upon to provide information relating to specific activities within their respective areas.
- EWRP is currently operational. Where current activities relate to construction, decommissioning or closure, these may be deemed as not applicable.
- Procedures developed by the EWRP specifically, are deemed to be appropriately implemented by site personnel as part of the Integrated Management System.
- Outdated/ repealed legislation or referenced guideline documents will be substituted for with current/ relevant legislation and referenced guideline documents.

3. AUDIT DETAILS

3.1. AUDIT TEAM

NTC Group (Pty) Ltd was established in 2005 and is 100% female, black owned with a Level 1 Broad Based Black Economic Empowerment Rating. We undertake our services with professional integrity and have built good reputations with stakeholders in the environmental management field, including regulatory authorities and government departments. We undertake our services in accordance the requirements of South African legislation, as well as acceptable international best practices.

The details of the specific environmental team that participated in the audit of the EWRP are provided in Table 2. The declaration of the auditor's independence is attached in Appendix A and the Curriculum Vitae for the auditors are attached in Appendix B.

Table 1: Details of the Audit Team

ROLE	RESPONSIBLE PERSON	CONTACT DETAILS
LEAD AUDITOR	Teboho Motinyane is a Principal Environmental Consultant at NTC Group (Pty) Ltd. Tanja holds an MSc Environmental Management and has over 22 years of experience in Environmental Management, inclusive of performance assessment audits and compliance monitoring.	Tel: +27 11 462 2022
		Fax: +27 86 665 1864
		Email: teboho@ntcgroup.co.za
LEAD AUDITOR	Mary-Anne Carter is a Senior Environmental Scientist at NTC Group (Pty) Ltd. Mary-Anne holds an MSc in Environmental Science and has over 15 years of experience in environmental management, including environmental auditing, EMS implementation and compliance monitoring.	Tel: +27 11 462 2022
		Fax: +27 86 665 1864
		Email: maryann@ntcgroup.co.za

3.2. AUDIT METHODOLOGY

3.2.1. Document Review

NTC Group (Pty) Ltd reviewed the conditions of the Environmental Authorisation and Environmental Management Programmes issued to EWRP and compiled a Request for Information (RFI) document which provided a list of documents and records required from EWRP to verify compliance with the conditions of the EA and EMPr. The RFI was submitted to EWRP, and the requested information was availed to the auditors. The list of documents reviewed during the audit are provided in Section 9. References.

A checklist was created verbatim of the conditions the EAs and EMPrs issued to EWRP and used to audit compliance. The numbering of in audit checklist corresponds with the conditions of the EA and EMPr to allow for ease of reference.

3.2.2. Site Assessment

A site assessment was conducted on 24 April 2024 and was attended Tanja Bekker (NTC), Mary-Anne Carter (NTC), Bongeka Madolo (EWRP), Mantjetjere Mothapo (EWRP), and Caroline Perpermans (Pinsent Masons). During the site inspection, EWRP personnel were interviewed and the following facilities/ areas in were inspected:

- Laboratory
- Control Room
- Polymer Store
- Powder Store
- Diesel Generator Phase 1
- Minor Workshop
- Liquid Chemical Store
- Transformer maintenance area
- Lime Storage at Saturation Tanks
- Water Storage Reservoirs
- Phase 1 and Phase 2 Treatment Plants
- Lime Plant
- Environmental Sump
- Brine Chemical Storage
- Brine Treatment Plant
- Clean Water Channel and Discharge Point
- Soda Ash Plant
- Gypsum Sludge Storage
- Filter Press
- Main Stores
- AMD Tanks
- Passive Treatment Plant
- Test Farm
- Limestone Plant
- Feed Dams
- Brine Ponds
- Waste Disposal Site.

3.3. AUDIT ASSESSMENT CRITERIA

NTC Group (Pty) Ltd assessed each condition of the Environmental Authorisation and the Environmental Management Programme in terms of the criteria provided in Table 2. The audit approach was guided by the requirements of the ISO 19011:2018 Guidelines for Auditing Management Systems.

Table 2: Audit Assessment Criteria

CRITERIA	ACC	DESCRIPTION
COMPLIANT	C	Full Compliance is when the current construction, operational, or decommissioning activities comply with the authorisation conditions. Mitigation measures or commitment thereof have been achieved and evidence is provided in the form of a document or condition implementation onsite. No mitigation measures are required where operations comply.
NON-COMPLIANT	N/C	Non-Compliance is when construction, operational, or decommissioning activities are in contravention of the conditions and/or have the potential to impact the environment in a detrimental manner. Non-compliance may also be associated with activities breaching legislation/ Mitigation measures or commitment thereof have not been achieved and evidence is not provided in the form of a document or condition implementation onsite. Non-Compliance findings have a high priority and mitigation measures are mandatory
NOT APPLICABLE	N/A	Not Applicable is assigned to authorisation/ permit conditions where activities no longer occur, that do not apply to current activities, that may be incorrect and require amendment, fall outside the audit period and/or are duplicates of existing conditions.
TAKE NOTE	T/N	In certain instances, conditions are presented in a manner which cannot be assessed as a Compliant or Non-Compliant Condition. This is a specific requirement which the Competent Authority may stipulate, which is applicable to the site and should be considered in the near future, or which allows the Competent Authority certain allowances.

3.4. AUDIT SCOPE

The scope of the information and audit boundaries that were considered when conducting the audit included:

- The requirements of Section 34 and Appendix 7 of the EIA Regulations (GN R982 of 2014), as amended.
- EWRPs three EAs (refer to Section 2.2.) and two EMPs (refer to Section 2.2.) that remained valid for the audit period.
- The scope of the audit period between March 2024 – February 2025.
- The property boundaries of the EWRP as shown in Figure 1.

4. AUDIT RESULTS

This section provides results of audit to verify compliance with the conditions of EWRPs EAs and EMPs. The audit results are presented in the checklists described in Section 3.2.1 which tabulates the conditions of the EAs and EMPs. Each condition was audited and assigned an audit finding as per the audit assessment criteria shown in Table 2.

The checklists used to audit compliance with the EAs and EMPs are provided in Tables 3 – 7 as follows:

TABLE 3.	Record of Decision issued by Department of Agriculture and Land Administration to Anglo Coal to undertake a listed Activity in terms of Section 22 of ECA (Act 73 of 1989) for the Mine Water Reclamation, Treatment and Re-use Scheme in Emalahleni (Witbank) Region (Ref. 17/2/12/ NK 16) dated 02.11.2005 as amended (Ref. 17/ 2/ 12/ NK 16 (H06-30)) dated 16.10.2006.
TABLE 4.	Environmental Authorisation issued by the Department of Economic Development, Environmental and Tourism to Anglo Operations Limited for the proposed expansion of Anglo Operations Emalahleni Mine Water Reclamation Scheme, Emalahleni, Mpumalanga (Ref. 17/2/ 2/ 1(e) MP-5) dated 21.07.2011.
TABLE 5.	Environmental Management Program for the construction of a 26 km pipeline from Greenside Colliery's treatment plant to Phola Coal washing plant, Ogies, Mpumalanga (Ref. 17/2/13 NK 31) dated 08.03.2010.
TABLE 6.	Record of Decision issued by Department of Agriculture and Land Administration to Anglo Coal to undertake a listed activity in terms of Section 22 of ECA (Act 73 of 1989) for construction of a 26 km pipeline from Greenside Colliery to Phola Coal washing plant, Mpumalanga (Ref. 17/2/13 NK 31) dated 08.03.2010.
TABLE 7.	Consolidated Environmental Management Programme for Emalahleni Water Reclamation Plant dated 15.10.2021.

TABLE 3. RECORD OF DECISION ISSUED BY THE DEPARTMENT OF AGRICULTURE AND LAND ADMINISTRATION (DIRECTORATE: ENVIRONMENTAL MANAGEMENT) TO ANGLO COAL (PTY) LTD TO UNDERTAKE A LISTED ACTIVITY IN TERMS OF SECTION 22 OF THE ENVIRONMENTAL CONSERVATION ACT (ACT 73 OF 1989) FOR THE MINE WATER RECLAMATION, TREATMENT AND RE-USE SCHEME IN EMALAHLENI (WITBANK) REGION (REF. 17/ 2/ 12/ NK 16) DATED 02 NOVEMBER 2005 AND AMENDMENT (REF. 17/ 2/ 12/ NK 16 (H06-30)) DATED 16 OCTOBER 2006.

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
TABLE 1: RECORD OF DECISION (REF: 17/2/12/NK 16 (H06-30)) DATED 02 NOVEMBER 2005, AS AMENDED 16 OCTOBER 2006, FOR ANGLO COAL ISSUED BY THE MPUMALANGA DEPARTMENT OF AGRICULTURE, RURAL DEVELOPMENT, LAND AND ENVIRONMENTAL AFFAIRS (DIRECTORATE: ENVIRONMENTAL MANAGEMENT) IN TERMS OF SECTION 22 OF THE ENVIRONMENTAL CONSERVATION ACT (ACT 73 OF 1989) FOR THE MINE WATER RECLAMATION, TREATMENT AND RE-USE SCHEME (PHASE 1) FOR THE EMALAHLENI (WITBANK) REGION.			
1	GENERAL CONDITIONS		
1.1	This authorisation refers only to the project specified above and described in the Record of Decision. Separate applications must be lodged for any other development and/or activity at or near the proposed development, which is covered by Section 21 of the Act (ECA) and Government Notice R 1182 of 5 September 1997.	C	Thungela Resources Limited: Emalahleni Water Reclamation Plant (hereafter, Thungela EWRP) has applied for and been granted the required Environmental Authorisations (EA) and Water Use Licences (WUL) for its expansion activities and water use activities. Copies of the current EAs and WULs were provided to the auditors.
1.2	Authorisation is only granted in terms of Section 22(3) of the Act and does not exempt the holder from compliance with other relevant authorities.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
1.3	No development may take place in the area of concern without the necessary permits/approvals and/or service agreements from all relevant authorities.	C	Condition 1.1 above refers.
1.4	Copies mentioned in 1.3 above must be forwarded to the department immediately when they become available.	C	Condition 1.1 above refers.
1.5	This department may add, change and/or amend any of the conditions in this authorisation if, in the opinion of the department, is environmentally justified.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
1.6	The content of this authorisation must be made known to all registered Interested and Affected Parties within five (5) days of the date of issue of this authorisation.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2	ESTABLISHING OF THE PROJECT		
2.1	This authorisation is repealed if the project has not commenced within two (2) years from the date of this authorisation.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.2	Fourteen days written notice must be given to this department before commencement with construction.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

3	MINE WATER MAKE ABSTRACTION		
3.1	Responsible management of mine water must allow abstraction at all seasons.	C	Thungela EWRP remained operational throughout the audit period (April 2024 - March 2025) and water from mine dewatering is received daily and treated at Phase 1 and Phase 2. During the site inspection, the SCADA system observed in the Control Room, provided a diagram of the water collection and distribution system as well as the system components such as pumps, feed ponds, valves, storage tanks and processing water. The SCADA system also provides real-time monitoring data for water volumes, levels and pumping rates.
3.2	Only excess mine water must be contributed to the scheme.	C	Dewatering at mining pits are required in order to safely proceed with mining activities and authorised in the respective colliery's WUL.
4	SURFACE WATER AND TREATED MINE WATER		
4.1	Ensure that the treated mine water is typically a SABS 241 Class O water as this is the highest class of potable water.	C	<p>The EWRP takes two grab samples of treated water per day. One sample is analysed internally (unaccredited analysis) for conductivity, turbidity, pH and chlorine residuals. The second sample is sent to an external accredited laboratory (Regen Water) for analysis. The water quality results analysed by the accredited laboratory are reported quarterly on the DW&S Blue Drop System.</p> <p>The treated water supplied from the EWRP complies with the requirements of SANS 241: 2015 "<i>Drinking Water Specification</i>" which provides the microbiological and chemical quality of drinking water (IRIS, 28 March 2023). The water quality results for treated water were verified in the "<i>System DWQ Compliance</i>" Quarterly Reports (January 2024 - December 2024) from the Blue Drop System, '<i>Online Drinking Water Quality Integrated Regulatory Information System</i>" (IRIS).</p>
4.2	Establish a clean and dirty water cut off and containment drains to ensure that dirty water is maintained within the plant area and disposal facility and that clean water be discharged into natural drainage courses.	C	Stormwater is managed in accordance with Thungela EWRP's WUL (Ref: 16/2/7/B100/B40/H3/3) and Environmental Procedure: " <i>Stormwater Management Plan</i> " (Doc No: SS-WTP-PRO-1685; Version 01). During the site inspection, adequate separation of clean and dirty stormwater systems were observed. Dirty stormwater runoff is channelled to the Environmental sump via v-drains, from where it is and then pumped to the treatment plant. Clean stormwater runoff is discharged to the Naauwpoortspuit.
4.3	Construction activities must not be within the 1:100-year foodline of any natural watercourses.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

4.4	Construct wetland and river crossings during the dry season.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
4.5	Only non-carbonaceous fill material must be used for river and wetland crossing sites.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
4.6	Pipelines are not to be buried in river and wetland crossing areas.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
4.7	Once the pipeline has been installed and the material is returned to its former position, the area must be revegetated.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
4.8	Care must be taken to limit construction activities in small wetland areas adjacent to the conveyor belt to the demarcated 15m servitude.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
4.9	Strip wetland soils separately according to colour and replace in the same order according to the former position in the soil profile to avoid mixing.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
4.10	Riverbanks over the disturbed areas must be profiled to emulate the adjacent undisturbed slopes and replace topsoil.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
4.11	Turbidity and sedimentation downstream of the river and wetland crossing sites must be monitored.	C	The EWRP conducts monthly water sampling upstream and downstream of the site as well as at the discharge point into the Naauwpoortspruit as required in terms of Condition 2.3.1 of Appendix III of the WUL (Ref: 16/2/7/B100/B40/H3/3). The results include analysis of turbidity as verified in the " <i>Thungela Resources (Ltd) Emalahleni Water Reclamation Plant DWS Water Quality Report: 2024</i> " provided for Quarter 1 (January 2024 - March 2024), Quarter 2 (April 2024 - June 2024), Quarter 3 (July 2024 - September 2024) and Quarter 4 (October 2024 - December 2024).
5	FLORA AND FAUNA		
5.1	All areas to be cleared must be demarcated.	N/A	No clearance has taken place during the audit cycle.
5.2	Replanting activities must be undertaken at the end of a dry season.	N/A	No clearance has taken place during the audit cycle.
5.3	All areas that were planted pasture or natural vegetation before construction must be reseeded.	N/A	No concerns were observed regarding open areas associated with the audited area.
5.4	Remedial action must be carried out where vegetation establishment has not been successful, or erosion is evident.	C	During the site inspection, no concerns regarding vegetation established or erosion were observed. Thungela EWRP reported that a channel with gabions was installed at the discharge point channel.
6	LAND CAPABILITY, AIR QUALITY AND SENSITIVE LANDSCAPES		

6.1	The pipeline must be buried more than 1 m below the surface, to ensure that land capability can return to its pre-construction state.	N/A	No areas of concern have been observed from the audit area and that it is understood that the pipelines are buried as stipulated. Should this not be marked as compliant since the pipeline was duly buried. Or else marked as not falling within the scope of this audit.
6.2	Brine and gypsum must be disposed of separately at suitable sites.	C	Gypsum was removed from the definition of a "waste" (GN. 85 of 03 February 2020). As such the EWRP sends its gypsum to Sallies Holdings (Pty) Ltd operations, i.e. Africa Lime Industries and SA Lime & Gypsum for use in fertilisers. Brine is disposed into the existing brine evaporation dam at the EWRP and further treated in the brine reduction plant when in operation.
6.3	Dust suppression measures must be implemented on exposed soils and dust generating soils.	C	No dust generation from soil was observed during the site inspection.
6.4	Grave sites along the collection and distribution pipeline routes must be avoided.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
6.5	All alien invasive plants must be removed once a month during the growing season.	NC	The " <i>Thungela Operations (Pty) Ltd: eMalahleni Water Treatment Plant Kromdraai Pipeline Rehabilitation Plan</i> " (Doc No. THU-EWR-24-07-22, dated 29 November 2024), compiled by Shangoni Management Services (Pty) Ltd, reported on the spread of Alien and Invasive Plants (AIP) at the EWRP. According to the report, AIPs control measures needs to be implemented at each of the water crossings, and AIP eradication should continue until such time that indigenous vegetation is established. The report further states that the entire length of the pipeline must be regularly monitored for a separation of the most common woody species that may be establishing. Additionally, the " <i>Thungela Resources (Pty) Ltd: Alien Invasive Management Plan - eMalahleni Water Reclamation Plant</i> " (Doc No.) 41107382, dated February 2025), compiled by WSP provides a list of the AIPs within EWRP's footprint, and a detailed management plan for eradication. At the time of the audit, the EWRP was in process of appointing a service provider to undertake AIP eradication and procuring of the requisite herbicides. However, during the site inspection, the spread of AIPs was observed at the AMD Passive Treatment Plant. Substantial reed growth was also observed at Dam 1, 2 and 3. Although this is a repeat non-compliance finding from the previous External Environmental Audit (2023 - 2024), the EWRP has since commenced with actions to address the non-compliance which entails the relining of Dam 1, 2 and 3.

6.6	The applicant must ensure that all issues and concerns from Interested and Affected Parties are addressed.	C	The EWRP manages external complaints in accordance with procedure: "Environmental Incidents and Complaints Procedure" (Doc No. SS-WTP-PRO-1416,Rev. 0). A complaints register is kept at the Security Checkpoint 1 (visitors' entrance), as verified during the site inspection. No environmental complaints were recorded for the audit period (April 2024 - March 2025).
7	MONITORING		
7.1	This Department will perform random inspections on the site to ensure compliance with the legislation and conditions. The company will be informed of such inspections and must make personnel available to accompany members from this Department on such inspections.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
7.2	Environmental compliance will further be monitored through complaints received from the public.	C	The EWRP manages external complaints in accordance with procedure: "Environmental Incidents and Complaints Procedure" (Doc No. SS-WTP-PRO-1416,Rev. 0). A complaints register is kept at the Security Checkpoint 1 (visitors' entrance), as verified during the site inspection. No environmental complaints were recorded for the audit period (April 2024 - March 2025).
7.3	Monitor the wetland characteristics, ecology and erosion throughout the duration of the project.	C	Ongoing monitoring was undertaken during the audit period, as verified in the "eMalahleni Water Reclamation Plant Aquatic Biomonitoring 2023/24 Monitoring Cycle" (Doc. No. TRL8521, dated April 2024) compiled by Digby Wells Environmental (Pty) Ltd and the "Emalahleni Water Reclamation Plant Aquatic Biomonitoring Report – 2024" (Doc No. 24-3344-EMC, dated 15 November 2024) compiled by EcoE Innovative Consulting (Pty) Ltd. The reports provided the assessment of ecological conditions of the watercourses and impacts from the EWRP's activities during the dry season (September 2023), wet season (January 2024) and dry season (October 2024).
7.4	Regular monitoring must be carried out for localised back flooding upstream of the culverts on the N12, behind the road crossing below the Landau waste rock dump and the crossing at the R554.	C	The EWRP undertakes monitoring in accordance with the requirements of the WUL issued by the Department of Water and Sanitation and compliance with these requirements have been audit as part of the scope of the external environmental compliance audit. The conditions for monitoring contained in the WUL are more extensive than the contents of this condition. Consequently, this condition is complied with.
7.5	This department must be notified within 24 hours in the event of non-compliance with any of the conditions of this authorisation.	T/N	The condition is noted and accepted by Thungela EWRP.

7.6	Records relating to the compliance or non-compliance with the conditions of this authorisation, must be kept in good order. Such records must be made available to this Department within seven (7) workdays from the date of written notice for such records by the Department.	C	The condition is noted and accepted by Thungela EWRP. Records relating to the authorisations were reviewed as part of the audit. No requests have been received from the Department.
7.7	Non-compliance with or any deviation from the conditions of this authorisation is regarded as an offence, and after reasonable provision has been made for the situation to be remedied, will be dealt with in terms of Section 29, 30 and 31A of the Act.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
7.8	Any complaints regarding the said development must be thoroughly investigated and addressed to the satisfaction of parties concerned. Copies of such complaints must be forwarded to the department within forty-eight hours of such a complaint being made.	T/N	The condition is noted and accepted by Thungela EWRP.

TABLE 4. AMENDMENT TO THE ENVIRONMENTAL AUTHORISATION ISSUED BY THE DEPARTMENT OF ECONOMIC DEVELOPMENT, ENVIRONMENTAL AND TOURISM TO ANGLO OPERATIONS LIMITED FOR THE PROPOSED EXPANSION OF ANGLO OPERATIONS EMALAHLENI MINE WATER RECLAMATION SCHEME, EMALAHLENI, MPUMALANGA (REF. 17/2/2/1(E) MP-5) DATED 21 JULY 2011

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
3	CONDITIONS OF THE AUTHORISATIONS		
SCOPE OF THE AUTHORISATION			
3.1	Authorisation of the activity is subject to the conditions contained in this authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
3.2	The holder of the authorisation must ensure compliance with the conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor employee or person rendering a service to the holder of the authorisation.	C	The EWRP ensures agents, subcontractors, and employees undergo induction training in environmental management before contract commencement. The induction training presentation was availed to the auditor in the EWRP's "Safety Health And Environmental Department: Site Specific Induction", which includes environmental good practice and topics related to its EA and EMPr conditions.
3.3	The activity which is authorised may only be carried out at the property indicated (refer to the authorisation).	C	No deviation from the authorised activities were observed during the site inspection.
3.4	Any changes to, or deviations from, the project description set out in this 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 authorisation in terms of the regulations.	T/N	The condition falls outside of the scope of the audit period (April 2023 - April 2024).
3.5	This activity must commence within a period of two (2) years from the date of issue. 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.	N/A	The condition falls outside of the scope of the audit period (April 2023 - April 2024).
3.6	This authorisation does not negate the holder of the authorisation, responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
APPEAL OF THE AUTHORISATION			

3.7	The holder of the authorisation must notify every registered interested and affected party, in writing and within 12 (Twelve) calendar days of receiving notice of the department's decision to authorize the activity.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.8 The notification referred to above must -			
3.8.1	Specify the date on which the authorisation was issued;	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.8.2	inform the interested and affected party of the appeal procedure provided for in Chapter 7 of the regulations; and	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.8.3	advise the interested and affected party that a copy of the authorisation and reasons for the decision will be furnished on request.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
MANAGEMENT OF THE ACTIVITY			
3.8.4	The attached Environmental Management Plan ("EMP") is accordingly approved and forms part of this authorisation and is a legally binding document.	C	The EMPr was consolidated with the EMPr from Phase 1 into the "Consolidated Environmental Management Programme for Emalahleni Water Reclamation Plant" dated 15 October 2021, compiled by WSP (Pty) Ltd and approved by the Department of Mineral Sources. The compliance audit with the conditions of the Consolidated EMPr is provided in Table 3.
3.9	An independent Environmental Control Officer must be appointed to ensure compliance with the conditions of this Environmental Authorisation.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.10	The holder of the authorisation must submit a post-construction environmental audit report to the department. The audit report must be compiled by an independent auditor.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.11	The department retains the right to monitor and/or inspect the proposed project.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
3.12	The Environmental Control Officer must ensure that all environmental activities delegated to contractors operating on site are implemented and ensure that all conditions of the Environmental management Plan are adhered to.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.13	Purple Stone Investment must ensure that there is an induction to all contractors in relation to environmental and social issues and awareness training to build capacity of staff regarding the management of the environment.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
OPERATION OF THE ACTIVITY			
3.14	Fourteen (14) days written notice must be given to the department that the activity will commence. 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 end.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

3.15	All construction activities must be limited to the said site. No activities must be allowed on adjacent vacant properties.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025). No construction took place during the audit period.
3.16	Chemical toilets must be provided to be used by site workers. These must be serviced on a regular basis. No pit latrines must be allowed.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.17	Chemical sanitation facilities must not be positioned closer than 100m from the surface stream.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.18	Flood berm must be built along the EWRP to stop flood water inundating the plant should a discharge take place when the flow on the Naauwpoortspruit is high, or if heavy rainfalls occur soon after a discharge.	C	No flood berms were observed during the site inspection that were located outside of the 1:100-year flood lines. Thungela EWRP reported that the Brine Dam acts as a flood berm and channels run off along the dam.
3.19	Discharge from the EWRP into the Naauwpoortspruit, must not be directly into the stream, but routed through a velocity reduction mechanism such as a temporary storage dam.	C	Discharge from the EWRP is channelled via a clean water v-drain into the Naauwpoortspruit. During the audit, the discharge point was observed from within the EWRP property fence, and no velocity reduction or erosion prevention structures were visible at the discharge point into the stream. However, photographs viewed from the previous year's audit show that gabions are installed shortly after the discharge point. Gabions provide energy dissipation and reduced stream flow.
3.20	The discharge point must also have erosion reduction such as gabion baskets or rocks.	C	During the audit, the discharge point was observed from within the EWRP property fence, and gabion baskets were observed at the immediate discharge point. However, photographs viewed from the previous year's audit show that gabions are installed shortly after the discharge point. Gabions provide energy dissipation and reduced stream flow.
3.21	A monitoring programme must be implemented in relation to the discharge. This will include sampling of the typical water quality parameters as necessary, when discharge takes place	C	Monitoring is conducted in accordance with the requirements of the WUL issued by the Department of Water and Sanitation and compliance with these requirements have been audit as part of the scope of the external environmental compliance audit.
3.22	EWRP must not be allowed to make the full discharge of 50 MI into the stream unless the flow downstream at weir B1H019 is less than 1.55m ³ /s.	C	The EWRP discharges water in the stream in accordance with its WUL No. 06/BB11G/A/11104 which permits the discharge of 50 000 m ³ /day to the Naauwpoortspruit as a contingency discharge if the Emalahleni Municipality is unable to take the water. During the audit, the volume of water discharged into the Naauwpoortspruit was provided in excel spreadsheet "6.8. Water Abstraction Volumes". Daily meter readings are recorded at the discharge point and meter readings between 1 April 2023 to 31 March 2024 were calculated to be 2612.38 m ³ or, which is well within the permissible discharge limits of the WUL.

3.23	The total flow of discharge in the stream, which includes the natural flow and the discharge, must not exceed 2.16m ³ /s.	C	<p>The EWRP discharges water in the stream in accordance with the WUL which permits the discharge of 50 000 m³/day to the Naauwpoortspruit as a contingency discharge if the Emalahleni Municipality is unable to take the water.</p> <p>During the audit, the volume of water discharged into the Naauwpoortspruit was provided in excel spreadsheet "6.8. Water Abstraction Volumes". Daily meter readings are recorded at the discharge point and meter readings between 1 April 2023 to 31 March 2024 were calculated to be 2612.38 m³ or, which is well within the permissible discharge limits of the WUL.</p>
3.24	Chemical characterisation of gypsum sludge must always be conducted for purposes of a health risk assessment.	C	The chemical characterisation of the sludge was provided to the auditors in the " <i>Sludge Analysis</i> " report compiled by Geolabs Global (Pty) Ltd and dated 13 September 2024.
3.25	Water reverse osmosis/membrane, ultra filtration and drain sump pump must be sterilized always to prevent health risks.	C	Chlorine is added to the EWRP system to sterilise the water before discharge. While not observed during the site visit, this was verified in the EWRP's " <i>Operation and Maintenance Manual</i> " (Doc No.: KOI.100.00-00, 20 February 2011).
3.26	Assessments must be made on the significance of the potential groundwater impact from the sludge.	C	An assessment of groundwater contamination from the generation and storage of gypsum was conducted as part of the Groundwater Specialists Report developed by Golder & Associates in 2011. Contamination from sludge is controlled and minimised by the dewatering activities.
3.27	Mass balance modelling results must be reviewed and used to indicate the sludge from the potential groundwater impact.	C	The water and salt balance was provided to the auditors in spreadsheet titled: "15.2 Water and Salt balance reports" and is updated annually .
3.28	The Water Use Licence Application must be amended and sent to the Department of Water Affairs for assessments on the project expansion.	C	Thungela EWRP's current WUL (Ref: 16/2/7/B100/B40/H3/3) includes the water uses associated with the expansion activities.
3.29	An estimate of the sludge composition must be made from the modelling results and presented with the sludge composition analyses.	C	The chemical characterisation of the sludge was available during the audit in the " <i>Chemical Analysis Report</i> " compiled by Geolabs Global (Pty) Ltd and dated 09 January 2024. Results included a percentage of composition.
3.30	As for the sludge composition, the modelled process water quality must be considered indicative since it is based on assumptions associated with the mass balance simulation of the water treatment process.	C	Water quality monitoring is conducted in accordance with the procedure " <i>Water Quality Monitoring Procedure</i> " (Doc No.: S29-0265.04; dated December 2012) and monitoring results were made available to the auditors in the " <i>Thungela Resources (Ltd) Emalahleni Water Reclamation Plant DWS Water Quality Report: 2024</i> " provided for Quarter 1 (January 2024 - March 2024), Quarter 2(April 2024 - June 2024),Quarter 3 (July 2024 - September 2024)and Quarter4(October 2024 - December 2024).
3.31	The modelled process water quality presented must be considered a conservative indication of the potential leachate quality from the Expansion Sludge.	C	Water quality monitoring is conducted in accordance with the procedure " <i>Water Quality Monitoring Procedure</i> (Doc No.: S29-0265.04; dated December 2012) and monitoring results were made available to the auditors in the <i>Thungela Resources (Ltd) Emalahleni Water Reclamation Plant DWS Water Quality Report: 2024</i> " provided for Quarter 1 (January 2024 - March 2024), Quarter 2(April 2024 - June 2024),Quarter 3 (July 2024 - September 2024)and Quarter4(October 2024 - December 2024).

3.32	The Expansion Sludge must only be assessed from laboratory analysis when it becomes available.	C	The chemical characterisation of the sludge was available during the audit in the " <i>Chemical Analysis Report</i> " compiled by Geolabs Global (Pty) Ltd and dated 09 January 2024. Results included a percentage of composition.
3.33	All cement used during the construction period must be housed in properly protected sheds that will prevent spilling into the receiving environment.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.34	Measures must be implemented to ensure that no glass, plastic, metal, or paper must be allowed to spread into the environment.	NC	During the site inspection, inadequate storage of general waste was noted: - At the area outside of the Soda Ash Plant, it was observed that the area was not demarcated for such storage. - At the area adjacent to the Feed and Process Water Dams, old dam liners were piled in an uncontained area.
3.35	Vehicles and construction equipment must be well serviced so that it does not produce excessive smoke.	C	Vehicles are serviced and maintained off site and no areas of concern were observed.
3.36	The contractors must ensure that the construction vehicles are in a good condition and do not leak oil or transmission fluid onto the site.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.37	Soil contaminated by oil from leaking vehicles must be collected and disposed of at a hazardous waste disposal site.	C	No oil leaks from vehicles were observed during the site inspection.
3.38	The construction machinery must be fitted with noise mufflers and be maintained properly to avoid the migration of animals familiar with the area.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.39	Blasting must be done with appropriate noise abatement equipment and accessories e.g., blasting mats.	N/A	There is no blasting is associated with the activity.
3.40	Temporary vehicle maintenance yard and storage area must be fenced off and placed at least 100m away from the drainage channel.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.41	Slopes produced by removing of soil must be kept to a minimum to reduce the chances of erosion damage to the area.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.42	The contractor must conform to all the stipulations of the Occupational Health and Safety Act (Act 85 of 1993) and the regulations applicable at the time of the tender.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.43	Waste generated during construction must be disposed of at a registered landfill site.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.44	A waste management and recycling plan must be compiled for the construction phase of the development.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

3.45	The solid waste must be kept in animal proof bins from where it will be removed to the municipal waste disposal site on a weekly basis.	NC	During the site inspection, inadequate storage of general waste was noted: - At the area outside of the Soda Ash Plant, it was observed that the area was not demarcated for such storage. - At the area adjacent to the Feed and Process Water Dams, old dam liners were piled in an uncontained area.
3.46	The fire safety design of the development must satisfy the requirements of SANS 10400 Code of Practice as well as SANS 10090 community protection against fire regarding fire requirements.	C	- At the area outside of the Soda Ash Plant, it was observed that the area was not
3.47	Storm water capacity of the development area must be well designed to ensure that the surface pollution being washed into the river system is limited.	C	demarcated for such storage.
3.48	Anglo American Thermal Coal is responsible for the removal and appropriate disposal at a landfill site of all maintenance waste products during the operational phase.	C	- At the area adjacent to the Feed and Process Water Dams, old dam liners were piled in an uncontained area.
3.49	Anglo American Thermal Coal must ensure that the material generated during the decommissioning phase is cleared from the site and disposed at a registered landfill site.	N/A	This condition falls outside this audit period.
GENERAL			
3.50	A copy of this authorisation must be kept at the property where the activity will be undertaken. The authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes work at the property.	C	A copy of the authorisation was available on site as well as electronically during the audit.
3.51	Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/ or telephonic details, the applicant must notify the department as soon as the applicant knows the new details.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
3.52	The holder of the authorisation must notify the department, in writing and within 24 (twenty-four) hours, if conditions of this authorisation are not adhered to. Any notification in terms of this condition must be accompanied by reasons for the non- compliance.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
3.53	Non-compliance with a condition of this authorisation may result in criminal prosecution other actions provided for in the National Environmental Management Act, 1998 and the regulations.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.

TABLE 5. CONSOLIDATED ENVIRONMENTAL MANAGEMENT PROGRAMME FOR EMALAHLENI WATER RECLAMATION PLANT DATED 15 OCTOBER 2021.

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
CONSTRUCTION PHASE			
1	GEOLOGY		
1.1	Possible Blasting of Hard Rock		
1.1.1	Implement appropriate blasting techniques which keep blast shock to a minimum	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
1.2	Excavations and Earthworks		
1.2.1	Use only non-carbonaceous material such as felsite, to improve the quality of in situ materials for foundations or pipeline construction.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
1.2.2	Ensure that excavated material used in the construction of storm water control measures at the treatment plant are placed directly at the location where the material is to be used to minimise multiple handling of the material.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2	TOPOGRAPHY		
2.1	Stockpiling, Compaction of insitu Material, Excavation, Mixing, and Replacement of Excavated Material		
2.1.1	Excavated material is to be stockpiled in windrows not exceeding 1.5 m in height adjacent to the excavation for the collection and distribution pipelines.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.1.2	Use excess excavated material from the treatment plant site to construct storm water control berms prohibiting water from leaving the site.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.1.3	Storm water cut-off drains should be located regularly along construction servitudes.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.1.4	Separate stripping of the material is required when constructing bulk earthworks to ensure that excavated clays, loams, and plinthic materials are not mixed, and can be returned in the former position during rehabilitation.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.1.5	Ensure that rehabilitation areas are ripped to a suitable depth (minimum of 500 mm).	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.1.6	Topsoil must be replaced after pipeline installation for a rehabilitation cover to the pipe trench. Should any residual material remain after the pipeline excavation has been refilled – over and above that heaped over the trench to allow for settling and compaction, this material must be used in the construction of storm water control measures at the treatment plant site.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
2.1.7	Ensure that the area is shaped to be free draining after rehabilitation is complete.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.1.8	Profile the area to be the same as the original topography.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.1.9	Profile the area in such a manner that settling and compaction of the soil over a pipeline is allowed for, and that once this has occurred the final profile will be the same as the original topography	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.1.10	Harrow the area after seeding to ensure that the topography is re-established so that deep furrows are avoided.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.1.11	A surface water drainage plan should be compiled prior to construction.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.1.12	Establish clean and dirty water cut off and containment drains to ensure that dirty water is maintained within the plant area and disposal facility. Clean water must be taken around the facilities and discharged into natural drainage courses.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.1.13	Gabions (erosion control measures) are required prior to the discharge of water to natural water resources in areas where high stream flow velocities are expected due to the canalisation of water.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3	SOIL		
3.1	Excavating Pipeline Trenches		
3.1.1	Where possible, locate pipelines in existing mine trenches positioned within 10-30 m of the proposed pipeline routes.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.2	A minimum of 300 mm of topsoil is to be stripped and stockpiled separately. Topsoil stripping should be undertaken along with the vegetation seedbed to facilitate in re-vegetation of the area.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.3	Excavated material should be stockpiled in a manner where it can act as storm water control berms.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.4	Storm water cut-off drains should be located regularly along construction servitudes and the pipeline routes to avoid erosion of stockpiled materials.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.5	Pipeline trenches should be backfilled shortly after the pipeline has been declared leakage free.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.6	Should any residual material remain after the excavation has been refilled – over and above that heaped over the trench to allow for settling and compaction, this material must be used in	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
	the construction of storm water control measures at the treatment plant site.		
3.1.7	Conserve the stockpiled topsoil by protecting it against erosion; do not stockpile topsoil long enough to lose function.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.8	Rehabilitate backfilled pipeline trenches. Loosen and level soils with a ripping and disc action and seed with 2 or 3 annual local species. Lime should be applied at 1 ton per ha after the ripping action and can be worked into the upper 100-150 mm of soil with the disc action.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.9	Once material is returned in its former position, the area must be re-vegetated using a Thungela approved seed mix.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.10	Disturbed soils will be remediated with a suitable fertiliser determined on the basis of soil sampling and analysis.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.11	Gabions/other dispersion measures must be installed at all discharge points from any stormwater control systems to ensure that stream flow velocities are not significantly increased to such an extent that erosion may occur.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.12	Erosion should be monitored and stabilised as soon as possible wherever it occurs.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.13	A soil stripping and erosion plan must be compiled.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.14	Uncultivated soils have to be ripped to an average bulk density similar to the condition prior to construction.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.1.15	All disturbed areas must be profiled and stabilised, and erosion control measures must be installed in places identified as being at risk of erosion.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.2	Backfilling		
3.2.1	Topsoil and excavated material is to be stockpiled in separate wind rows not exceeding 1.5 m in height, adjacent to the excavation for the collection and distribution pipelines.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.2.2	All soils stripped from the vehicle park/site office area have to be replaced and spread uniformly.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.2.3	Separate stripping of the material is required to ensure that excavated black/yellow clays, loams, and plinthic/saprolitic materials are not mixed, and can be returned in their former position during rehabilitation.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.3	Backfilling Pipeline Trenches on Rehabilitated Land (Kromdraai Pipeline)		

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
3.3.1	In mining areas that have been rehabilitated, mixing coaliferous spoil material with topsoil should be avoided at all costs. Spoil material should by no means be penetrated and trenches should be excavated only to the depth of the spoil material. After the trench is backfilled, soil should then be graded from both sides on top of the closed trench to create a berm of 300 to 500 mm high in order to provide more protection to the pipeline and which can simultaneously serve as a method to demarcate the pipeline.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.4	Use of Mechanical Equipment		
3.4.1	Ensure that rehabilitated areas are ripped to a suitable depth (minimum of 500 mm or to refusal).	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
3.5	Oil and Fuel Spillages From Mechanical Equipment		
3.5.1	Contamination due to oil and fuel spillages should be avoided.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
	Strict guidelines should be given to contractors in terms of the mechanical condition of equipment used, the maintenance of equipment as well as the reporting and cleaning up procedures of spillages, should they occur.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
	All oil contaminated or otherwise polluted soil and wastes from the construction areas is to be removed to licensed landfill sites using a registered waste disposal company.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
4	LAND CAPABILITY		
4.1	Excavating pipeline trenches.		
4.1.1	The pipelines should be buried more than 1 m below the surface where possible to ensure that land capability can return to its pre-construction state with the exception of wetland areas, where the pipeline should not be buried at all (see Section 7).	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
	A mutually acceptable agreement must be drawn up with landowners to compensate them in the event of crop loss and servitude rights.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5	ECOLOGY: TERRESTRIAL FLORA AND FAUNA		
5.1	Vegetation clearing and stripping of topsoil during pipeline, etc construction		
5.1.1	Areas where disturbance is permissible should be demarcated prior to construction activities taking place.	N/A	This condition falls outside this audit period.
5.1.2	Ensure that environmental education of mine staff takes place at all levels to limit unnecessary damage to habitats and/or disturbance of fauna. This education will form part of the mine's induction programme.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
5.1.3	Vegetation audits need to be conducted prior to commencement of construction activities. These audits need to be conducted in the construction demarcated areas located in areas of a high and moderate sensitivity (including secondary grasslands). These areas may contain protected species, such as <i>Brunsvigia radulosa</i> and <i>Gladiolus ecklonii</i> .	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.1.4	Should any plants of medicinal or conservation significance within the construction footprint be identified during the construction phase these plants should be removed and replanted within protected landscapes. The services of a certified expert should be contracted in the event that such measures are required.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.1.5	Daily audits need to be conducted ahead of construction to identify if any fauna need to be relocated, especially burrowing mammals.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.1.6	Should any protected species or burrowing mammals be found within an area demarcated for construction, no disturbance to this area should take place. If this is not possible, the protected species or mammal must be relocated.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.1.7	All exotic and invasive species should be removed within the 20 m construction servitude.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.1.8	Indigenous and currently occurring species, such as <i>Eragrostis</i> species, should be planted in rehabilitated areas and maintained.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.1.9	All replanting activities should be undertaken at the end of the dry season (middle to end September) to ensure optimal conditions for germination and rapid vegetation establishment	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.1.10	All areas that were planted pasture or natural vegetation before construction must be reseeded.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.1.11	Only reseed with an approved <i>Thungela</i> seed mix suited to wetland and riparian zones.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.1.12	An agricultural roller must be used to cover seeds.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.1.13	Inspect rehabilitated areas at three monthly intervals during the first and second growing season to determine the efficacy of rehabilitation measures.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.1.14	Remedial action is required where vegetation establishment has not been successful or erosion is evident. For instance, areas showing bare patches of more than 1m ² after three months from seeding, must be loosened and reseeded along with a light mulch of veld grass.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.1.15	Grazing livestock need to be kept away from rehabilitated areas, for two growing seasons.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
5.2	Presence of machinery and human activities.		
5.2.1	Vehicles must stay on demarcated roads and parking areas to avoid unnecessary damage to areas of natural vegetation.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
	See Condition 10 below (noise).	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.3	Vegetation Clearing and Stripping of Topsoil during construction		
5.3.1	Weeds, especially Khakibos (<i>Tagetes minuta</i>), Blackjack (<i>Bidens pilosa</i>) must be controlled with a broadleaf herbicide that is non-toxic to the aquatic environment and is used sparingly. Larger identified alien species such as the Black Wattles (<i>Acacia mearnsii</i>) and the Red Gums (<i>Eucalyptus camaldulensis</i>) must be removed in entirety manually.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
5.3.2	An ongoing alien invasive control programme should be implemented for the duration of the project. All exotic and invasive species should be removed within the 20 m servitude.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
6	ECOLOGY: AQUATICS		
6.1	Construction of Pipeline/ Watercourse Crossings		
6.1.1	Clean up and rehabilitate any accidental spillages.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
6.1.2	Devise and implement a relocation plan if rare and sensitive species are identified during construction.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
6.1.3	Implement dust suppression on dirt roads.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
6.1.4	At sites 1, 3, 4 and 5, construct the proposed pipelines as close to the existing upstream road servitudes as possible.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
6.1.5	Place the relevant sections of the pipelines below the groundwater flow component of the streams and wetlands so as to not impede the flow and impact the sites once construction is completed.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
6.1.6	Construct pipeline / watercourse crossings during the dry season.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
6.1.7	Construct pipeline / watercourse crossings in stages so as to limit the impact to the sites. As one stage is complete, rehabilitate the habitat before starting the next construction section	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
6.1.8	Implement low impact construction techniques so as to minimise the impact on the river system, especially during the diverting of any water during construction.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
6.1.9	Where possible, keep construction activities out of wetland areas. Limit movement of construction vehicles within wetlands. Restrict vehicles to service roads.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
6.1.10	Implement suitable vegetation and habitat rehabilitation where construction site impacts occur. This should be done in consultation with a suitably qualified person.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
6.1.11	Where wetland soils have been compacted, labourers should loosen soils with light weight tools.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
6.1.12	Implement corrective mitigation measures should any significant decrease in ecological integrity occur (both aquatic and wetland) within any biomonitoring period as a result of impacts associated with the pipeline / watercourse crossings.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7	SURFACE WATER		
7.1	Pipeline Construction Across Watercourses		
7.1.1	All mitigation measures for soil, vegetation, wetlands, and sensitive landscapes should be implemented.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7.1.2	Construction roads should be planned prior to commencement of the Construction Phase to ensure that the minimum numbers of roads are located in wetland or natural vegetation areas.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7.1.3	During backfilling, soils should be well compacted and vegetation re-established as soon as possible to prevent erosion	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7.1.4	Construction activities within the 1 in 50- and 1 in 100 year floodlines should be limited as far as possible. No construction sites/camps should be located within the 1 in 50- and 1 in 100 year floodlines.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7.1.5	All soil and rock and gravel stockpiles should be located outside the 1:50 year floodline.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7.1.6	Turbidity and sedimentation downstream of the nearby water resources must monitored for at least two rainy seasons.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7.1.7	Vehicle traffic in watercourses should be limited in frequency, and avoided during wet periods.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7.1.8	Watercourse crossings should be constructed during the dry season.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7.1.9	Strip wetland soils separately according to colour and replace in the same order according to the former position in the soil profile to avoid significant mixing of soils.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
7.1.10	Only non-carbonaceous fill material should be used for pipeline / watercourse crossing sites.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7.1.11	Ensure that wetland soils are adequately ripped in areas of disturbance to ensure regrowth of the vegetation and percolation of water is optimal.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7.1.12	Riverbanks over the disturbed areas should be profiled to emulate the adjacent undisturbed slopes.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7.1.13	Only reseed with an approved Thungela seed mix suited to wetland and riparian zones.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
7.1.14	Soil and vegetation must be rehabilitated before the next rainy season.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8	GROUNDWATER		
8.1	Accidental Spillage of Hydrocarbons or Pollutants		
8.1.1	Implement pollution prevention techniques on all construction equipment, e.g. drip trays on trucks	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.1.2	Immediately remove soils contaminated with oils and other hydrocarbons or pollutants and dispose as hazardous waste	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
9	AIR QUALITY		
9.1	Vehicles Movement and Excavation in the Construction Sites		
9.1.1	Ensure that dust suppression measures are implemented on exposed soils and dust generating roads, e.g. where dirt roads are travelled, these routes must be watered on a regular basis, alternatively, a dust suppressant can be made use of.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
9.1.2	Construction vehicles and other traffic to and from the construction site should be restricted to specific roads or routes.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
9.1.3	Traffic should, where possible, make use of existing tar roads to reach the site.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
9.1.4	Ensure that vehicles are serviced regularly and that vehicles with emission problems are identified speedily and rectified.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
10	NOISE AND VIBRATION		
10.1	Blasting along the Pipeline Route		

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
10.1.1	Apply due diligence and all industry-accepted methods to limit factors contributing to the development of a shockwave and noise as a result of blasting.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
10.1.2	Ensure that sufficient consultation with all potentially affected landowners occurs prior to blasting.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
10.1.3	Control blasting operations to ensure sound pressure levels are kept below the generally accepted 'no damage' level of 140 dB, or any other levels that may apply to a specific area as determined by municipal ordinances, etc.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
10.2	Other Construction Activities		
10.2.1	Limit construction working hours to between 6am and 6pm in areas where local residents may be affected, and to week days.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
10.2.2	Heavy vehicle traffic from the colliery should not be permitted to travel on public roads at peak hour traffic times between 7am and 9am and between 4pm and 6pm.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
10.2.3	Specified travel routes should be identified for heavy vehicle traffic. These routes should limit the impact of heavy vehicle traffic on road users. To identify the preferred routes for the construction vehicles, a traffic impact study may be necessary.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
10.2.4	Ensure efficient design and maintenance of silencers on diesel-powered vehicles and equipment.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
10.2.5	Train personnel to adhere to operational procedures that reduce the occurrence and magnitude of individual noisy events.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
11	HERITAGE		
11.1	Should, any heritage resources of significance be exposed during the construction of the project, the South African Heritage Resources Authority (SAHRA) should be notified immediately, all development activities should be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notified in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the required mitigation measures.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
12	VISUAL		
12.1	Construction Activities		

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
12.1.1	Provide screening berms along public roads, only where these berms will reduce visual intrusion and are hence justified. These berms will be removed when mining is completed.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
12.1.2	Subsequent to backfilling, profile the area to be the same as the original topography.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
12.1.3	Rehabilitate affected areas as soon as possible.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
12.1.4	Employ proper "housekeeping" at construction camps/sites.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
12.1.5	Implement effective dust suppression.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
12.1.6	Use selective and judicious lighting for the construction sites, if required	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
12.2	Installation of New Infrastructure		
12.2.1	Apply colour variations on the outward surfaces of the infrastructure. Use colours complementary to the colours in the surrounding landscape	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
12.2.2	Structures will not be reflective.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
12.2.3	Where possible, structures should be partially sunken into the landscape.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13	WETLANDS		
13.1	Pipeline / Watercourse Crossings		
13.1.1	At Site WC12, install the pipeline to the southern side of pan, or on the southern side of the existing pipeline running through the pan, as this area has already been heavily impacted upon.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.2	Ensure that the pipeline is not buried in wetland areas. Pipelines will be raised onto pylons above the wetland to avoid impacts from soil handling, and the shallow ground water flow regime in such areas. Pylons are to be placed strategically before and after the wetland, if possible, minimal number of pylons are to be constructed in the wetland areas.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.4	If a road is to be built in future below the wastewater works at Site WC6 (RR1), then the proposed pipeline should be constructed along the road servitude.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.5	Construct pipeline / watercourse crossings in stages so as to limit the impact to the sites, and during the dry season.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.6	Avoid dumping of construction materials and spoils within the wetlands.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
13.1.7	Implement rehabilitation where negative habitat impacts have occurred and are likely to occur in future.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.8	Revegetate bare areas and remove exotic vegetation.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.9	Clean up and rehabilitate any accidental spillages or impacts to the aquatic and wetland ecosystems.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.10	Devise and implement a relocation plan if rare and sensitive species are identified during construction.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.11	Allow for ample flow through of water should additional culverts be constructed.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.12	Keep construction activities and heavy vehicles out of the wetland areas, where possible. Limit movement of construction vehicles within wetlands. Restrict vehicles to service roads.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.13	Care must be taken to limit construction activities in small wetland areas adjacent to the conveyor belt to the demarcated 15 m servitude.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.14	Implement dust suppression on dirt roads during construction to avoid excessive dust formation.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.15	Maintain service roads to avoid erosion and excessive dust formation.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.16	Where wetland soils have been compacted, labourers should loosen soils with light weight tools.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
13.1.17	Wetland soil stripping should only be undertaken during the dry winter months to avoid clotting and compaction of wetland soils.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14	SOCIO-ECONOMIC		
14.1	Creation of Employment Opportunities		
14.1.1	Make use of local labour as far as possible and employment recruitment policies should be put in place, in order to maximise employment opportunities.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.2	Pipeline Construction		
14.2.1	Details of servitudes required should be made available in a clear and transparent manner and arrangements made to compensate landowners for the temporary loss of access. Where possible, pipelines should follow existing servitudes, so as to reduce the need for further land restrictions.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
14.2.2	Where access to businesses is affected, or parking lots made temporarily unavailable, alternative access and parking should be provided in order to avoid any reduction to business productivity. Where private residential property is affected, care should be taken over any residential infrastructure such as trees, fences and access routes.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.2.3	Compensation assessments should be undertaken by independent registered valuers together with a social scientist and relevant company representative. This team will determine the respective rates, oversee negotiations, and facilitate the distribution process. This should include compensation relating to the replacement of lost assets, lost income or production, and lost access to social services.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.2.4	It is considered unlikely that property values will be negatively affected by the pipelines after construction as the pipeline will be buried, but this should be assessed by the valuers where landowners may have this concern and compensation determined accordingly.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.2.5	Route Refinement 1 along the Kromdraai collection pipeline route should be implemented, as this will follow the existing road servitude south of the Sewage Treatment Plant.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.2.6	Route Refinement 3 of the KwaGuqa Reservoir distribution pipeline should be implemented, as this will reduce negative impacts and potential resettlement for the KwaGuqa x16 informal settlement.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.2.7	An alternative route for vehicles will be provided for road users impacted on by construction of the water treatment plant and associated infrastructure.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.2.8	Soil stockpiles from construction activities will not be placed in the road, thereby reducing obstructions in the road.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.2.9	Residents' access to their properties will not be impinged upon during peak times.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.3	Construction vehicles		
14.3.1	Activities of construction vehicles should be re-routed to avoid schools and busy public centres as far as possible. Activities of construction vehicles should be ceased during the night to reduce noise and disruption. Health and road safety awareness should be administered to schools along with community awareness campaigns of the associated risks of increased heavy duty traffic. All vehicles should be maintained to acceptable safety standards in order to reduce risks to the general public and drivers.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
14.4	Pipeline Construction and WRP Upgrade		
14.4.1	The construction areas should be clearly demarcated with security tape and signage should be erected to illustrate the dangers of open trenches etc. Awareness campaigns should be conducted by distributing pamphlets on the health and safety aspects to all community members and land owners.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.4.2	All fences damaged by the mine during construction will be repaired.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.4.3	All driveways and gardens impacted during construction of the treatment plant and associated infrastructure will be repaired and rehabilitated.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.4.4	All roads impacted on by construction and rehabilitation will be repaired and reinstated, including farm roads.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.4.5	Appropriate signage to warn road users of construction activities will be used.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.4.6	Construction will be planned to ensure that all individuals impacted are notified one week prior to construction activities.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.4.7	Pedestrians will be monitored to ensure that children are not injured at any of the mines construction sites.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.4.8	The construction teams should wear reflective clothing with identification cards and should undergo training in terms of protocols in dealing with the public, especially in terms of the correct procedure for handling the public (adults and children) that may be inquisitive and may not adhere to the safety warnings.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.4.9	Cognisance is taken of the Mine Health and Safety Act and Occupational Health and Safety Act for all construction activities.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.5	Jobseekers along the Proposed Pipeline Routes and at the WRP		
14.5.1	Employment procedures and policies should be made available in a clear and transparent manner.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.5.2	Construction workers will not be housed on the construction site and will be resident from nearby communities.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.5.3	No persons are to be accommodated on site, with the exception of 1 security person at the construction lay-down area.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
14.6	Pipeline Construction and Operation		

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
14.6.1	Route Refinements 2 and 4 should be implemented to re-align the pipeline routes, so as not to restrict the planned residential and mine infrastructure development.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
OPERATIONAL PHASE			
1	TOPOGRAPHY		
1.1	The stockpiling of material on surface will alter surface topography. Settling is expected to occur over the areas where the buried pipelines have been laid. Compaction is also expected over areas where vehicles and plant equipment travel regularly.	C	No stockpiles were observed and no concerns regarding soil compaction were noted during the site inspection.
2	SOIL		
2.1	Spillages and leaks from collection pipelines		
2.1	The collection pipelines should be commissioned to check for leakages and repaired, if necessary, before backfilling of the trenches takes place.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.2	Erosion should be monitored and stabilised as soon as possible, wherever it occurs.	C	No erosion associated with collection pipelines was observed during the audit.
2.3	Pipelines should be monitored for leaks and spills.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system.
2.4	Repair damaged pipes immediately to avoid excessive spills.	C	As described in the above condition, any damages or malfunction in the water system can be detected on SCADA and will be reported. A job card will be raised and managed on Thungela's SAP system.
2.5	Should pipeline spillages occur, contain, clean up and rehabilitate immediately.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any issued identified are immediately actioned and reported to the Environmental Department.

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
2.6	Ensure that any release or spills from scour valves are contained and not released into the environment.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any issued identified are immediately actioned and reported to the Environmental Department.
2.2	Spillages from distribution pipelines		
2.2.1	The distribution pipelines should be commissioned to check for leakages and repaired, if necessary, before backfilling of the trenches takes place.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
2.2.2	Erosion should be monitored and stabilised as soon as possible, wherever it occurs.	C	No erosion associated with distribution pipelines were observed during the audit.
2.2.3	Pipelines should be monitored for leaks and spills.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system.
2.2.4	Repair damaged pipes immediately to avoid excessive spills.	C	As described in thee above condition , any damages or malfunction in the water system can be detected on SCADA and will be reported. A job card will be raised and managed on Thungela's SAP system.
2.2.5	In the event that any release or spills from scour valves are released into the environment, erosion control measures should be implemented.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any issued identified are immediately actioned and reported to the Environmental Department.
2.3	Discharge of Treated (potable) Water into the Naauwpoortspruit		
2.3.1	Gabions/other dispersion methods should be installed at the discharge point to the Naauwpoortspruit to ensure that stream flow velocities are not significantly increased to such an extent that erosion may occur.	C	During the audit, the discharge point was observed from within the EWRP property fence, and gabion baskets were observed at the immediate discharge point. However, photographs viewed from the previous year's audit show that gabions are installed shortly after the discharge point. Gabions provide energy dissipation and reduced stream flow.
2.4	Spillages and Leaks of Hydrocarbons		
2.4.1	Measure to prevent soil contamination by hydrocarbons must be implemented, should any soil become contaminated by hydrocarbons this soil is to be removed to licensed landfill sites using a registered waste disposal company.	C	During the site inspections, Spill kits were observed onsite and are managed in accordance with the "Spill Kit Procedure" (Doc No. SS-WTP-PRO-1417, dated 02 February 2022".

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
2.5	Sludge Spill from Stockpile or Transport		
2.5.1	Thinly grassed areas (e.g. downhill from sludge stockpile) maybe impacted in the event of a sludge spill from stockpile. This would result in soil contamination and vegetation distress. Stockpiles are must be suitably bunded to contain material.	T/N	No sludge stockpiles were observed during the site inspection.
2.6	Open Areas of Ground		
2.6.1	Erosion on the unsurfaced / unvegetated areas of site should be regularly monitored	C	Monitoring activities are undertaken as part of site maintenance. However, should erosion occur, this would be addressed immediately.
	If erosion is observed, this should be stabilised as soon as possible. Erosion prevention surfacing should be provided in such areas (e.g. vegetation, tar, or brick block paving as appropriate for use)	T/N	No erosion was observed during the site inspection.
3	ECOLOGY: FLORA AND ECOLOGY		
3.1	Vegetation Management		
3,1	Vehicles must stay on demarcated roads and parking areas to avoid unnecessary damage to areas of natural vegetation.	C	No evidence of vehicle damage to or tracks in natural vegetated areas were observed during the audit.
	An ongoing alien invasive control programme is required for the duration of the project.	NC	<p>The "Thungela Operations (Pty) Ltd: eMalahleni Water Treatment Plant Kromdraai Pipeline Rehabilitation Plan" (Doc No. THU-EWR-24-07-22, dated 29 November 2024), compiled by Shangoni Management Services (Pty) Ltd, reported on the spread of Alien and Invasive Plants (AIP) at the EWRP. According to the report, AIPs control measures needs to be implemented at each of the water crossings, and AIP eradication should continue until such time that indigenous vegetation is established. The report further states that the entire length of the pipeline must be regularly monitored for a separation of the most common woody species that may be establishing. Additionally, the "Thungela Resources (Pty) Ltd: Alien Invasive Management Plan - eMalahleni Water Reclamation Plant" (Doc No.) 41107382, dated February 2025), compiled by WSP provides a list of the AIPS within EWRP's footprint, and a detailed management plan for eradication. At the time of the audit, the EWRP was in process of appointing a service provider to undertake AIP eradication and procuring of the requisite herbicides.</p> <p>However, during the site inspection, the spread of AIPs was observed at the AMD Passive Treatment Plant, with substantial reed growth noted at Dam 1, 2 and 3. Dam 1 is currently being relined, whereafter Dams 2 and 3 will be relined respectively.</p>

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
	Haul roads should be maintained and any spillage of cargo must be removed as soon as possible from the roadside.	N/A	No haul roads were observed at Thungela EWRP during the site inspection.
4	ECOLOGY: AQUATICS		
4.1	Accidental spills and leaks from pipelines, pump stations, water holding facilities		
4.1.1	Monitor the pipelines for leaks and spills on a regular basis.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system.
4.1.2	Repair damaged pipes immediately to avoid excessive spills.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any concerns would be rectified immediately and reported to the Environmental Department to ensure it is tracked through the Enablon system.
4.1.3	Should pipeline spillages occur, contain spills, clean up and rehabilitate immediately.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any concerns would be rectified immediately and reported to the Environmental Department to ensure it is tracked through the Enablon system.
4.1.4	Implement corrective mitigation measures should any significant decrease in ecological integrity occur (both aquatic and wetland) (as indicated through implementation of the biomonitoring programme) as a result of impacts associated with the proposed project.	C	<p>The "eMalahleni Water Reclamation Plant Aquatic Biomonitoring 2023/24 Monitoring Cycle" (Doc. No. TRL8521, dated April 2024) compiled by Digby Wells Environmental (Pty) Ltd, provides the biomonitoring assessment for the dry season (September 2023) and wet season (January 2024) and the "Emalahleni Water Reclamation Plant Aquatic Biomonitoring Report – 2024" (Doc No. 24-3344-EMC, dated 15 November 2024) compiled by EcoE Innovative Consulting (Pty) Ltd, provides the biomonitoring assessment conducted during the dry season (October 2024).</p> <p>While the reports indicate that both instream and riparian habitats of the Noupoot Reach are Largely Modified (Ecological Category D), no impacts were reported to emanate from accidental spills and leaks from the EWRP's infrastructure or facilities.</p>
4.1.5	At pump station and water holding facility sites, a suitable storm water and emergency management plan should be in place.	C	The "Environmental Emergency Plan" (Doc No' SS-WTPPRO - 1611, dated 11 November 2022) was made available during the audit. Any leak detected and the leakage rate is monitored through SCADA.
4.1.6	At the upgraded WRP, a suitable storm water management plan should be in place	C	Stormwater is managed in accordance with Thungela EWRP's WUL (Ref: 16/2/7/B100/B40/H3/3) and Environmental Procedure: "Stormwater Management Plan" (Doc No: SS-WTP-PRO-1685; Version 01). During the site inspection, adequate separation of clean and dirty stormwater systems were observed. Dirty stormwater runoff is channelled to the Environmental sump via v-drains, from where it is then pumped to the treatment plant. Clean stormwater runoff is discharged to the Naauwpoortspruit.

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
4.1.7	At the upgraded WRP, ensure correct storage and disposal of chemicals, wastes and effluents associated with the plant, as per current practice.	NC	<p>The EWRP manages hazardous chemicals in accordance with the Procedure titled, "<i>Hazardous Chemical Handling and Storage</i>" (Doc No.SS-WTP-PRO-1601, dated 24 October 2022) which provides adequate guidance for the storage, handling, disposal and requirements relating to the management of hazardous substances.</p> <p>However, during the site inspection inadequate practices relating to the storage and/ or handling of hazardous chemicals was observed:</p> <ul style="list-style-type: none"> - At Main Stores, 210 L oil drums were not contained within the bund and several oil spills were observed. - At the Diesel Generator Phase 1, diesel Spills were observed at the diesel discharge point (repeat finding from the previous External Environmental Audit: 2023 – 2024). - At the Lime Plant, lime precipitation was observed on the ground and; two yellow excavators were stored on an uncontained area and without driptrays to contain potential hydrocarbon spillages.
4.1.8	At the upgraded WRP, in the event of an emergency, no discharge of any contaminated water into the receiving water environment should take place. Contaminated water should be stored in the mine water storage dams at the WRP during such an event. If necessary, all pumping of contaminated water should be stopped, until the emergency is rectified. Implementation of site rehabilitation should be initiated immediately should any impacts on the Naauwpoortspruit occur.	C	Water quality monitoring is conducted monthly upstream and downstream of the site as to indicate the impact of the EWRP site activities on the surrounding water resources. Groundwater monitoring is also conducted on a quarterly basis. The auditors were provided with water quality results in the " <i>Thungela Resources (Ltd) Emalahleni Water Reclamation Plant DWS Water Quality Report: 2024</i> " provided for Quarter 1 (January 2024 - March 2024), Quarter 2(April 2024 - June 2024),Quarter 3 (July 2024 - September 2024)and Quarter4(October 2024 - December 2024).
5	SURFACE WATER		
5.2	Discharge 50 MI/day of treated water into the Naauwpoortspruit.		
5.2.1	Discharge from the WRP into the Naauwpoortspruit should not be directly into the stream, but routed through a velocity reduction mechanism, such as a temporary storage dam. The discharge point should also have erosion reduction structures such as gabion baskets.	C	During the audit, the discharge point was observed from within the EWRP property fence, and gabion baskets were observed at the immediate discharge point. However, photographs viewed from the previous year's audit show that gabions are installed shortly after the discharge point. Gabions provide energy dissipation and reduced stream flow.
5.2.2	The WRP should not make the full discharge of 50 MI/d into the stream unless the flow downstream at weir B1H019 is less than 1.55 m3/s	C	The EWRP discharges treated water into Naauwpoortspruit in accordance with the requirements of the WUL (WUL No. 04/B11G/ACFGI/1853). Daily meter readings recorded at the discharge points were availed from 1 March 2024 to 28 February 2025 in the " <i>EWRP Abstraction Volumes 2024</i> ". The discharge volumes were within the WUL permissible limits and daily discharge volumes were predominantly below 10 m3/ day during the audit period (March 2024 - February 2025)

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
5.2.3	The total flow in the stream, which includes the natural flow and the discharge, should not exceed 2.16 m ³ /s.	C	The EWRP discharges treated water into Naauwpoortspruit in accordance with the requirements of the WUL (WUL No. 04/B11G/ACFGI/1853). Daily meter readings recorded at the discharge points were available from 1 March 2024 to 28 February 2025 in the "EWRP Abstraction Volumes 2024". The discharge volumes were within the WUL permissible limits and daily discharge volumes were predominantly below 10 m ³ /day during the audit period (March 2024 - February 2025).
5.3	Leaks along the Collection Pipelines		
5.3.1	A leakage detection system and routine pipeline inspections should be undertaken.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system.
5.4	Bursts along the Collection Pipelines at a Watercourse Crossing		
5.4.1	Bursts should be repaired immediately as part of the pipeline maintenance schedule.	C	Damages or malfunction in the water system can be detected on SCADA and will be reported. A job card will be raised and managed on Thungela's SAP system.
5.4.2	Sufficient valves should be in place along the pipeline to isolate the burst as quickly as possible.	C	Sufficient valves are located along the pipeline as verified in the SAPS functional location Database (Ref: V11, 2021) to manage burst incidents.
5.4.3	Remediation protocols should be developed to remediate an area after a burst or where extensive leaks or scour spills have occurred.	C	An environmental incidents and complaints procedure is in place (Ref: SS-WTP-PRO-1416, dated 09 March 2023) that allows for remediation of environmental incidents as per the condition parameters herein.
5.5	Spills during the Scouring Process along the Collection Pipelines		
5.5.1	Protocols for scouring the collection pipelines should be developed to prevent spills from entering the river systems	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any concerns would be rectified immediately and reported to the Environmental Department to ensure it is tracked through the Enablon system.
5.6	Planned Discharge from Dams to Surface Water		
5.6.1	Water in the subsurface collection sump must be sampled whenever there is an intention to discharge water into the environment. Water quality must be compared to the standards laid out in "Minimum Requirements for the Monitoring of Water at Waste Management Facilities". In the event of an exceedance the water is not to be released and must be collected and disposed of appropriately via a suitable qualified water contractor.	T/N	EWRP reported that no water was discharged from the Environmental Sump to the environment during the audit period (March 2024 - February 2025).
5.7	Gypsum Management		

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
5.7.1	Stockpiling only to be undertaken in designated, lined areas	C	During the site inspections, no concern relating to the storage and management of stockpiles were noted.
5.7.2	Implement regular maintenance on the environmental sump to ensure affected water runoff is effectively collected.	C	The Environmental Sump is regularly inspected and cleaned in accordance with the Operation and Maintenance 2024 schedule.
6	GROUNDWATER		
6.1	Storage of mine affected water in underground mine voids associated with the rehabilitated Central Pit 1.		
6.1.1	Maintain water levels in the pit at a similar level than that of the natural aquifer.	N/A	The condition falls outside the scope of the audit period (March 2024 - February 2025).
6.2	Planned discharge from dams to ground		
6.2.1	Water in the subsurface collection sump must be sampled whenever there is an intention to discharge water into the environment. Water quality must be compared to the standards laid out in "Minimum Requirements for the Monitoring of Water at Waste Management Facilities". In the event of an exceedance the water is not to be released and must be collected and disposed of appropriately via a suitable qualified water contractor.	T/N	EWRP reported that no water was discharged from the Environmental Sump to the environment during the audit period (March 2024 - February 2025).
6.3	Seepage from on-site dams in the event of a lining breach		
6.3.1	Maintain an emergency procedure plan for dealing with leaks greater than the Acceptable Leakage Rate (ALR). Review annually.	C	The environmental emergency plan (Doc No' SS-WTPPRO - 1611, dated 11 November 2022) was made available during the audit. Any leak detected and the leakage rate is monitored through SCADA.
6.3.2	In the event of a leak above the ALR, notify the DWS within 7 days, and submit a preliminary written assessment within 14 days (include volume of leakage, likely sources of leakage, and short-term actions taken and planned. Continue to follow the process as laid out in the Emergency Plan, in regular consultation with DWS.	T/N	No reportable incidents occurred for the audit period.

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
6.3.3	One groundwater monitoring borehole is installed in order to detect leaks from both the brine dam and feedwater dam. Water sampling will be carried out from all boreholes at an interval of every three months (i.e. quarterly).	C	Ground water quality monitoring is conducted quarterly any will indicate impact from the dams. The auditors were provided with water quality results in the " <i>Thungela Resources (Ltd) Emalahleni Water Reclamation Plant DWS Water Quality Report: 2024</i> " provided for Quarter 1 (January 2024 - March 2024), Quarter 2(April 2024 - June 2024),Quarter 3 (July 2024 - September 2024) and Quarter4 (October 2024 - December 2024).
6.3.4	Surface water samples are to be collected from the surface water points and analysed, as stipulated in the WUL (Ref: 04/B11G/ACFGI/1853).	C	Water quality monitoring is conducted monthly upstream and downstream of the site as to indicate the impact of the EWRP site activities on the surrounding water resources. Groundwater monitoring is also conducted on a quarterly basis. The auditors were provided with water quality results in the " <i>Thungela Resources (Ltd) Emalahleni Water Reclamation Plant DWS Water Quality Report: 2024</i> " provided for Quarter 1 (January 2024 - March 2024), Quarter 2 (April 2024 - June 2024),Quarter 3 (July 2024 - September 2024) and Quarter4 (October 2024 - December 2024).
6.3.5	In the event of any exceedances of the standards stipulated, immediate investigation of the facility must be undertaken. In the event that significant contamination is identified, regulation as stipulated in Part 8 of the NEM:WA must be followed.	T/N	Pollution incidents are recorded and managed on Thungela's Enablon system. No reportable pollution incidents for the audit period (April 2023 - April 2024).
6.3.6	All boreholes must be equipped with lockable caps, and any damage repaired timeously.	N/A	No boreholes were observed during the audit period and the compliance with this condition could not be verified. The EWRP reported that no monitoring boreholes are located within the site boundary.
6.3.7	Regularly inspect visible sections of lining for damage / liner wind lift, wet/saturated surfaces, signs of settlement, signs of cracks etc. Check the leakage collection sumps for evidence of leaks/leachate.	C	EWRP have an operations and maintenance manual (Ref: 0860-9803-KOI-100.00-00, dated 20 February 2011) that's implemented through an operation and maintenance 2024 schedule.
6.3.8	Regularly clean and maintain the leakage collection system, pumps and sumps to ensure capacity and efficacy. Remove salts from brine dam system. Manholes to be fitted with an alarm system that can be monitored from the WTP in the event of a detection of a rise of sub-surface level, or leakage detection. All wastes must be appropriately managed, and disposed of offsite.	C	EWRP have an operations and maintenance manual (Ref: 0860-9803-KOI-100.00-00, dated 20 February 2011) that's implemented through an operation and maintenance 2024 schedule. During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any concerns would be rectified immediately and reported to the Environmental Department to ensure it is tracked through the Enablon system.

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
6.3.9	Remove tree roots if impacting liner, and fill with compacted soil and re-seed area.	NC	During the site inspection, substantial reed growth was observed at Dam 1, 2 and 3. Although this is a repeat non-compliance finding from the previous External Environmental Audit (2023 - 2024), the EWRP has since commenced with actions to address the non-compliance which entails the relining of Dam 1, 2 and 3. At the time of the audit, the relining of Dam 1 was in progress, following which Dam 2 and then Dam 3 is scheduled to be relined.
6.4	Accidental overflows from on-site dams		
6.4.1	Maintain emergency procedures for in the event of an overflow. Review the process annually.	C	An environmental emergency plan (Doc No' SS-WTPPRO - 1611) is in place and reviewed annually (approved 11 November 2022) that address overflow parameters of the condition herein. Additionally, the overflow is monitored through SCADA and physical periodical inspections. EWRP have a Water quality monitoring procedure (Ref: S29-0265.04 issued December 2012) and a water sampling and monitoring procedure (Ref: SS-WTP-PRO-1644, approved 19 January 2023) to manage groundwater monitoring.
6.4.2	Inspect to ensure a minimum freeboard of 1.2 m is being maintained. Record the liquid level of the pond.	C	Despite the freeboard not meeting this condition's requirement and only being 0.8m, the 0.8m freeboard meets the requirements of WUL 06/B11G/A/11104
6.4.3	Inspect to ensure that all pipelines are intact.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any concerns would be rectified immediately and reported to the Environmental Department to ensure it is tracked through the Enablon system.
6.4.4	Ensure ditches are free of obstructions, culverts are open and free of solid material, drainage is not impeded, runoff is being directed to the intended areas, and that there is no evidence of severe erosion to the ditches or culvert headwalls and evidence of overflow from the ditches.	C	EWRP have an operation and maintenance (2024) schedule and maintenance logbook (as verified) to ensure efficient and adequate infrastructure monitoring and maintenance. Auditors observed maintenance contractors clearing culverts of any obstructions during the audit.
6.4.5	Ensure fences are in good condition, gates are functional and closed when not in use, locks are in working order, and perimeter warning signs are properly placed and in good condition.	C	All fences observed were in good condition, gates were functional and locks evident. All perimeter warning signs were appropriately placed and in good condition.
6.4.6	Ensure proper functioning of level transducers and pumps at the subsurface water and leakage and leachate collection sumps and submersible pumps. Manholes to be fitted with an alarm system that can be monitored from the WTP in the event of a detection of a rise of sub-surface level, or leakage detection.	C	No reportable incidents occurred for the audit period (April 2024 - March 2025).

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
6.4.7	Ensure the completion of routine/preventative and 'as required' maintenance is completed in a timeous manner. Maintain auditable maintenance logs.	C	EWRP have an operations and maintenance manual (Ref: 0860-9803-KOI-100.00-00, dated 20 February 2011) that's implemented through an operation and maintenance 2024 schedule and tracked via a logbook. During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any concerns would be rectified immediately and reported to the Environmental Department to ensure it is tracked through the Enablon system.
6.4.8	In the event of a breach that impacts surface or groundwater, notify the DWS within 7 days, and submit a preliminary written assessment within 14 days (include volume of breach, likely causes of breach, and short-term actions taken and planned. Continue to follow the process as laid out in the Emergency Plan, in regular consultation with DWS.	T/N	No reportable incidents occurred for the audit period (April 2024 - March 2025).
6.5	Accidental Spillage of Hazardous Material		
6.5.1	Ensure that all hard standings, joints, and seals are regularly inspected and maintained as required in order to ensure that the integrity of the impermeable surface is maintained.	C	EWRP have an operations and maintenance manual (Ref: 0860-9803-KOI-100.00-00, dated 20 February 2011) that's implemented through an operation and maintenance 2024 schedule. During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any concerns would be rectified immediately and reported to the Environmental Department to ensure it is tracked through the Enablon system.
6.5.2	The stormwater management plan must be adhered to, to ensure that clean water is safely diverted around the site and that dirty water is contained and correctly handled.	C	Stormwater is managed in accordance with Thungela EWRP's WUL (Ref: 16/2/7/B100/B40/H3/3) and Environmental Procedure: "Stormwater Management Plan" (Doc No: SS-WTP-PRO-1685; Version 01). During the site inspection, adequate separation of clean and dirty stormwater systems were observed. Dirty stormwater runoff is channelled to the Environmental sump via v-drains, from where it is and then pumped to the treatment plant. Clean stormwater runoff is discharged to the Naauwpoortspruit.
6.5.3	Ensure that any spills occurring on site are suitably managed to reduce potential impacts on the environment	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any concerns would be rectified immediately and reported to the Environmental Department to ensure it is tracked through the Enablon system.
7	AIR QUALITY		

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
7.1	Limestone Handling		
7.1.1	If possible, undertake handling activities in covered areas.	N/A	Lime handling activities are undertaken in an open bunded area.
7.1.2	Implement adequate dust suppression measures.	C	During the site inspection, no concerns relating to dust emissions were noted. It should, however, be noted that dust emissions could not be verified through observation due to the rainfall.
8	NOISE		
8.1	Water Pipelines, Operating Valves and Off-take Points		
8.1.1	Pipelines must be operated within their design and safety limits.	C	EWRP have an operations and maintenance manual (Ref: 0860-9803-KOI-100.00-00, dated 20 February 2011) that's implemented through an operation and maintenance schedule. During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any concerns would be rectified immediately and reported to the Environmental Department to ensure it is tracked through the Enablon system.
8.2	Operation of Pump Stations at Kromdraai Liming Plant, Brugspruit WPCW , Navigation & WRP		
8.2.1	Ensure systematic maintenance of all equipment, including pump stations.	C	EWRP have an operations and maintenance manual (Ref: 0860-9803-KOI-100.00-00, dated 20 February 2011) that's implemented through an operation and maintenance schedule. During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any concerns would be rectified immediately and reported to the Environmental Department to ensure it is tracked through the Enablon system.
9	WETLANDS		
9.1	Pipeline Spills		

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
9.1.1	Repair damaged scour valves and pipes immediately to avoid excessive spills.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any damages or malfunction in the water system can be detected on SCADA and will be reported. A job card will be raised and managed on Thungela's SAP system.
9.1.2	Monitor the pipelines for leaks and spills on a regular basis.	C	Condition 9.1.1 above refers.
9.2	Releases from Pipeline Scour Valves.		
9.2.1	Repair damaged scour valves and pipes immediately to avoid excessive spills.	C	Condition 9.1.1 above refers.
9.3	Spill from Collection Pipelines		
9.3.1	Prevent pipeline and scour valve spillages.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system. Any issued identified are immediately actioned and reported to the Environmental Department.
9.3.2	Should any pipeline and scour valve spillages occur, clean up and rehabilitate immediately.	C	During the site inspection, the auditors were shown the SCADA system in the Control Room which provides data of incoming water sources, water treated at the site and outgoing water. The SCADA system also indicated malfunctions in the water collection and distribution system.
9.3.3	Contain any spills to avoid degrading downstream water quality.	C	As described in thee above condition , any damages or malfunction in the water system can be detected on SCADA and will be reported. A job card will be raised and managed on Thungela's SAP system.
10	SOCIO-ECONOMIC		
10.1	Operation of WRP and Pipeline Maintenance		
10.1.1	Where possible, use local labour.	C	Thungela have employment and EWRP policies in place that maximise local employment opportunities.
10.1.2	Employment recruitment policies should be put in place, in order to maximise employment opportunities.	C	Employment recruitment policies in place that maximise employment opportunities at EWRP.

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
10.1.3	Regular monitoring of the treated water and the WRP should be undertaken in order to ensure the quality of the treated water supply to communities and to address the current problems of water standards, thereby maximising the potential benefits of the expansion scheme.	C	EWRP implements a water management plan through the water quality monitoring procedure (Ref: S29-0265.04 issued December 2012) and sampling is done in terms of a water sampling and monitoring procedure (Ref: SS-WTP-PRO-1644, approved 19 January 2023).
10.3	Pipeline Leaks/ Bursts		
10.3.1	Impacts on health and safety of local communities / residents / affected landowners Implement a community awareness campaign. The purpose of this campaign should be to create awareness among the local communities / residents / affected landowners of the potential risks associated with the pipelines. The campaign could include the distribution of pamphlets, talks at local schools, road shows, etc. Signage could also be erected at various points along the pipelines to illustrate the dangers of the contents of the pipelines (particularly the collection pipelines).	C	The " <i>SHE Plan 2025_EWRP</i> " provides the EWRP's overall environmental objectives to improve its environmental performance during the 2025 annual period and details the specific actions, resources, responsible person(s) and target dates to achieve the environmental objectives. The SHE Plan includes actions to compile and execute community awareness campaigns within Quarter 2 of 2025 (i.e. April - June 2025) with responsibility allocated to the Plant Manager. The EWRP's implementation of the community awareness campaign should be assessed during the next External Environmental Audit (2025 - 2026).
10.3.2	Cognisance must be taken of the Mine Health and Safety Act and Occupational Health and Safety Act Cognisance must be taken of the Mine Health and Safety Act and Occupational Health and Safety Act	C	Although this audit did not include an audit as to compliance by the EWRP operations with the Mine Health and or/ Occupational Safety Act, we were advised that the operations do comply with these Acts.
11	INTERESTED AND AFFECTED PARTIES		
11.1	Site operations		
11.1.1	Negative impacts on community members (leading to complaints)The following documentation must be kept onsite in order to record compliance with the EMP: Record of complaints; and Record of emergencies and incidents.	C	The "Environmental Incidents and Complaints Procedure" (Doc No. SS-WTP-PRO-1416) provides guidance for management of issues resulting in an environmental complaint from residents, government bodies, neighbouring farmers, or any other interested and affected parties. A Complaints register is available at Security Checkpoint 1 (visitors' entrance) and the Plant Control Room and no environmental complaints were recorded for the audit period (April 2024 - March 2025).
DECOMMISSIONING PHASE			
1	TOPOGRAPHY		

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
1.1	The temporary stockpiling, compaction of in situ material, excavation, mixing, and replacement of excavated material during pipeline removal. See 2.1 Construction Phase EMP.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
2	SOIL		
2.1	Reclamation of the collection and distribution pipelines. The collection pipeline system should be flushed with clean water before reclamation commences.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
2.2	Reclamation of the collection and distribution pipelines. Should the aim be to reclaim the collection pipelines upon decommissioning, the pipelines should be constructed above ground.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
2.3	See 3.1-3.5 Construction Phase EMP.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
3	LAND CAPABILITY		
3.1	Excavating pipeline trenches, should the aim be to reclaim the collection and distribution pipelines upon decommissioning. A mutually acceptable agreement must be drawn up with landowners to compensate them in the event of crop loss and servitude rights.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
3.2	See 3.1-3.2 above.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
4	ECOLOGY: TERRESTRIAL FLORA AND FAUNA		
4.1	Vegetation clearing and stripping of topsoil during pipeline, etc decommissioning/reclamation.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
4.2	Presence of machinery and human activities.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
4.3	Vegetation clearing and stripping of topsoil during pipeline, etc decommissioning/reclamation.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
5	ECOLOGY: AQUATICS		
5.1	Reclamation of pipeline/watercourse crossings.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
6	SURFACE WATER		
6.1	Reclamation of the collection and distribution pipelines.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
7	GROUNDWATER		

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
7.1	Accidental spillage of oil or other hydrocarbons and pollutants along the proposed pipeline routes and within the decommissioning sites/camps.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
8	AIR QUALITY		
8.1	Vehicles traversing the decommissioning sites; excavating pipeline trenches, should pipelines be reclaimed.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
9	NOISE		
9.1	Movement of heavy machinery and vehicle traffic during pipeline and other infrastructure reclamation.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
10	Visual		
10.1	Reclamation of the collection and distribution pipelines.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
10.2	Removal of project infrastructure, such as the pump stations and water balancing/holding facilities	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
11	WETLANDS		
11.1	Pipeline / watercourse crossings.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
12	SOCIO-ECONOMIC		
12.1	Decommissioning of the WRP, pipelines and other infrastructure.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
12.2	As necessary, during the Operational Phase	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
12.3	Decommissioning of the WRP, pipelines and other infrastructure.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
12.4	Decommissioning of the WRP, pipelines and other infrastructure.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
12.5	Conduct an analysis of possible sustainable community development programmes to be put in place, should the scheme need to be decommissioned.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
12.6	Support an investigation into alternative sources of water to ensure a continuous, safe supply of water to communities.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.

TABLE 6. RECORD OF DECISION ISSUED BY THE DEPARTMENT OF AGRICULTURE AND LAND ADMINISTRATION (ENVIRONMENTAL MANAGEMENT: NKANGALA REGION) TO ANGLO COAL (PTY) LTD TO UNDERTAKE A LISTED ACTIVITY IN TERMS OF SECTION 22 OF THE ENVIRONMENTAL CONSERVATION ACT (ACT 73 OF 1989) FOR CONSTRUCTION OF A 26 KM PIPELINE FROM GREENSIDE COLLIERY'S TREATMENT PLANT TO PHOLA COAL WASHING PLANT, OGIES, MPUMALANGA (REF. 17/2/13 NK 31) DATED 08 MARCH 2010.

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
GENERAL CONDITIONS			
1	This Authorisation refers only to the project as specified above and described in the Record of Decision. A separate application must be lodged for any other development and/or activity at or near the proposed construction of Greenside Colliery's pipeline which is covered by Section 21 and 22 of the Act and Government Notice R1182 and R1183 of 5 September 1997.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
2	Authorisation is only granted in terms of Section 22 of the Act and does not exempt the holder from compliance with any other relevant legislation.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
3	No development may take place on the area of concern without the necessary permits/approvals and/or service agreements, where it is relevant, from other authorities.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
4	Copies of the relevant documents mentioned in 3 above, must be forwarded to this department within three (3) months of the issuing of this Authorisation.	N/A	The condition falls outside of the scope of the audit period (March 2024 - February 2025).
5	This department may change or amend any of the conditions in this Authorisation if, in the opinion of the department, is environmentally justified.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
6	The development must comply with all mitigatory measures as set out in the documentation submitted for this application for the construction of Greenside Colliery's pipeline.	C	The migratory measures are provided in the EMPr for pipeline (2006) and is audited on an annual basis by an External Environmental Practitioner (Refer to the audit in Table 5. for the current audit period (March 2024 - February 2025).
7	A copy of this Authorisation must be made available at the offices of Anglo coal at all times and all relevant staff, contractors and sub-contractors must be acquainted or be made acquainted with the content of this Authorisation.	C	A copy of the authorisation was available at Thungela EWRP during the audit.
8	The applicant must within five (5) calendar days of receipt of this Record of Decision (ROD) a) Advertise the issuing of the Authorisation in the regional and/or local newspaper. b) Inform (in writing) all interested and affected parties registered during the EIA process of the decision. c) The above must state at least the following: (i) That Authorisation has been issued to the applicant to continue with the proposed activity. (ii) That any appeal against the issuing of the Authorisation must be lodged with the MEC for Agriculture and Land Administration within thirty (30) days from the date on which the ROD has been issued to the applicant and at the address stipulated in the Record of Decision. (iii) Include the date on which the Record of Decision was issued to the applicant and the date by which appeals must reach the MEC (iv) Indicate where the copies of the Authorization can be viewed/obtained.	T/N	Condition has been noted by the holder of the authorisation, Thungela EWRP.
CONSTRUCTION AND OPERATION			
1	The pipeline route must run along the farm boundaries in order to minimise the impact of the pipeline along those properties.	C	The pipeline was constructed in accordance with the authorised route, as confirmed in previous annual external audit reports and is currently in operation.

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
2	The developer must provide adequate sanitation facilities and potable water for the construction workers.	N/A	This condition falls outside the scope of the audit period (March 2024 - February 2025).
3	Proper stormwater control measures must be implemented in order to prevent the accumulation of water and soil erosion.	N/A	The pipeline/ pipeline route was not included in the audit programme for the site inspection. This condition cannot not be verified by Auditor.
4	Construction must take place during dry months in order to avoid wet operation as they might impact negatively on the environment	N/A	The condition falls outside of the scope of the audit period (March 2024 - February 2025).
5	During the construction period, areas to be affected by the construction of the pipeline must be checked for any sensitive species prior to construction particularly at the watercourse crossing and in the pan area.	N/A	The condition falls outside of the scope of the audit period (March 2024 - February 2025).
6	During construction the necessary water handling measures must be put in place to ensure that the working area remains dry, thus preventing erosion and limiting any suspended solids increase in the tributaries of Grootspruit and other tributaries of Saalkspruit.	N/A	The condition falls outside of the scope of the audit period (March 2024 - February 2025).
7	The digging of a trench for the pipeline route must be backfilled immediately once the pipeline has been placed into it to avoid negative impacts that might arise therefore of.	N/A	The pipeline/ pipeline route was not included in the audit programme for the site inspection. This condition cannot not be verified by Auditor.
8	The storage and handling of fuel, lubricants and other chemicals must be done especially in demarcated impervious and bunded areas.	N/A	The condition falls outside of the scope of the audit period (March 2024 - February 2025).
9	HDPE pipes must be used to minimize the likelihood of leaks that might result in spillages of dirty water into Grootspruit and Saalkspruit rivers.	N/A	The pipeline was constructed in accordance with the authorised route, as confirmed in previous annual external audit reports and is currently in operation.
10	Comments from Department of Transport and Roads, Water Affairs and Forestry as well as Spoornet must be adhered to.	N/A	No comments from the Department of Transport and Roads, Water and Sanitation or Spoornet, in relation to this ROD, were made available during the audit.
11	Vegetation must be removed for the excavation of the 1m trench for the pipeline construction and the pipeline must be buried 1m below the surface in order to minimize the impact on faunal migration.	N/A	The condition falls outside of the scope of the audit period (March 2024 - February 2025).
12	During decommissioning, the activity on the floodplain must be restricted to the immediate areas of demolition works only. Exposed areas must be seeded and be vegetated after the completion of the work.	N/A	The condition falls outside of the scope of the audit period (March 2024 - February 2025).
13	As the burial of the pipeline is for temporary crossing, it must be upgraded to a formalised bridge crossing and the pipeline must therefore be lifted up. During the lifting of the pipeline, the necessary water handling measures must be in place to ensure that the flow is able to pass freely, ensuring no impedance to the flow	N/A	The pipeline/ pipeline route was not included in the audit programme for the site inspection. This condition cannot not be verified by Auditor.
14	Vegetation clearance must be kept to the minimum and construction activities must be confined to the marked areas	N/A	The condition falls outside of the scope of the audit period (March 2024 - February 2025).

TABLE 7. ENVIRONMENTAL MANAGEMENT PROGRAM FOR THE CONSTRUCTION OF A 26 KM PIPELINE FROM GREENSIDE COLLIERY'S TREATMENT PLANT TO PHOLA COAL WASHING PLANT, OGIES, MPUMALANGA (REF. 17/ 2/ 13 NK 31) DATED 08 MARCH 2010.

NO.	CONDITION	STATUS	AUDIT OBSERVATIONS (FINDINGS)
8.1.	ENVIRONMENTAL MANAGEMENT RESPONSIBILITIES		
8.1.1	The Role of the Anglo Coal		
8.1.1.1	Ensure overall compliance with environmental management plans.	C	The EMPr for pipeline (2006) is audited on an annual basis by an External Environmental Practitioner appointed by Thungela EWRP.
8.1.1.2	Prepare reports on compliance with environmental management plans and other relevant procedures.	C	The EMPr for pipeline (2006) is audited on an annual basis by an External Environmental Practitioner appointed by Thungela EWRP. This report constitutes the external audit report for the current audit period (April 2023 - April 2024).
8.1.1.3	Provide direction and feedback to contractors and site foremen.	N/A	This condition falls outside the scope of the audit period (April 2023 - April 2024).
8.1.1.4	Recommend corrective actions and procedures, if necessary.	C	Procedures developed by EWRP are in place and are deemed to be appropriately implemented by site personnel as part of the Integrated Management System by site personnel. A number of procedures are in place that allow for corrective actions i.e., environmental incidents and complaints (Ref:SS-WTP-PRO-1416, dated 09 March 2023); Water quality monitoring procedure (Ref: S29-0265.04 issued December 2012) and a water sampling and monitoring procedure (Ref: SS-WTP-PRO-1644, approved 19 January 2023) that allow for corrective mitigation.
8.1.1.5	Ensure that all reporting is undertaken in accordance with the timing and requirements of environmental management plans.	C	EWRP undertake regular monitoring and auditing to ensure that all reporting is undertaken in accordance with the timeframes as stipulated in this EMPr. External audit Report (EMPr & EA) compiled by Geovicon Environmental (Pty) Ltd dated March 2022, and DWS 2022 Quarterly Reports (Report No': 26 and 28) were submitted to the relevant authorities within the agreed upon timeframes.
8.1.1.6	Liase with landowners to ensure that they are informed of progress with the project and any issues related to the site's environmental management.	N/A	The condition falls outside of the scope of the audit period (April 2023 - April 2024).
8.1.2	The Role of the Building Contractors		
8.1.2.1	Provide information to Anglo Coal, as requested, for compliance with the plans.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.1.2.2	Ensure that all personnel on site have a clear understanding of the environmental requirements relevant to their duties and are	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

	briefed on their environmental responsibilities prior to commencement of works.		
8.1.2.3	Maintain monitoring records to demonstrate conformance with environmental management plans.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.1.2.4	Provide all necessary assistance during environmental reviews and site inspections and ensure that all corrective actions required and directives to take corrective actions are adhered to.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.	ENVIRONMENTAL MANAGEMENT MEASURES		
8.2.1	Soil Handling and Removal		
8.2.1.1	Strip (and stockpile if necessary) sufficient usable soil so that areas disturbed by construction can be rehabilitated at closure with no net loss in land capability.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.1.2	Usable soils should be stripped and stockpiled in a position close to the area that they will be required for their end use.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.1.3	The subsoils and topsoil should be separated and stockpiled independently of one another but in close proximity, so that there is no mixing of the materials.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.1.4	The soils removed along the pipeline route will be replaced in a short period of time, and will only require that the soils horizons are removed, and replaced in sequence (topsoil/subsoil).	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.1.5	Usable soils, including topsoil should be removed and the underlying material compacted in situ, and the site kept managed for any potential erosion.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.1.6	At closure the affected areas should be ripped to at least 400mm depth, after which the usable soils should be replaced, fertilized and seeded. Effective ripping will be required to achieve at least land of grazing land capability.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.2	Soil Replacement and Land Preparation		
8.2.2.1	The different soils and profiles should be stripped and stockpiled in separate areas and revegetated as soon as possible.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.2.2	The stockpiles should be hydro-seeded and fertilized to obtain the vegetative cover needed to effectively control erosion.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

8.2.2.3	The trenched pipeline should be re-vegetated as soon as is reasonably possible and managed until the vegetative growth has established by: - Ploughing the area using a disc harrow, if required, to obtain a viable planting environment. - Adding fertiliser and manure using a standard industrial spreader, if required (refer to analytical results for nutrient status of material). - Harrowing the area to ensure adequate mixing has occurred before re-seeding with an appropriate seed mix.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.3	Maintenance of Soil Stockpiles		
8.2.3.1	Livestock should be kept off of newly stockpiled soils until vegetation has re-established on it.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.3.2	Newly seeded/planted areas must be protected against compaction and erosion.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.3.3	Traffic should be limited where possible while the vegetation is becoming established.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.3.4	If the soils are stripped in their dry state it will not be necessary to plough them. However, if they are stripped when wet then ripping and dicing of the soil stockpiles is recommended prior to seeding them.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.4	Protection of Aquatic Ecology		
8.2.4.1	Limiting the duration of impacts to as short a period of time as possible and returning the impacted areas to an ecologically acceptable condition as soon after trenching and pipe removal activities as possible.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.4.2	Scheduling construction and decommissioning activities outside of the main summer rainfall season.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.4.3	Minimizing the amount of time spent in wetland and water course areas by undertaking works and rehabilitating the areas as fast as possible.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.4.4	Minimizing the amount of areas of bare soil along the pipeline by progressively rehabilitating areas as the pipeline is laid and again when it is removed during the decommissioning phase.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.4.5	Erosion control measures such as the use of straw bales along drainage areas should be employed to reduce turbidity and water quality impacts during construction and decommissioning.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

8.2.4.6	Areas in which the soils have been compacted, as a result of construction activities, should be disced to reduce compaction and encourage re-vegetation.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.4.7	Areas that have been disturbed by activities associated with the installation and removal of the pipeline, should be re-contoured in order to re-establish the original topography.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.4.8	Existing erosion nick-points, particularly at site G1, should be recontoured and re-vegetated to reduce the risks of erosion.	N/A	The pipeline/ pipeline route was not included in the audit programme for the site inspection. This condition cannot not be verified by Auditor.
8.2.4.9	The existing V-notch weir at site should be removed and the area rehabilitated to reduce the risks of further erosion.	N/A	The pipeline/ pipeline route was not included in the audit programme for the site inspection. This condition cannot not be verified by Auditor.
8.2.4.10	During the operation of the pipeline a regular inspection program must be undertaken to ensure that leaking is not a problem and where problems arise, appropriate corrective actions should be taken.	C	Thungela EWRP was issued with a WUL (Licence No: 06/B11D/ACFGJ/12473) dated 07 April 2022) for all activities within its operational boundaries that fall within the ambit of Section 21 of the National Water Act (Act 36 of 1998). Thungela EWRP reported that the pipeline was last used in 2016/ 2017 and has since been removed through theft and vandalism. The area is currently in process of rehabilitation.
8.2.5	Vegetation Management		
8.2.5.1	The spread of alien invasive vegetation in the vicinity of the pipeline, particularly in the wetlands and watercourse, should be controlled as part of an ongoing maintenance plan.	NC	<p>The "<i>Thungela Operations (Pty) Ltd: eMalahleni Water Treatment Plant Kromdraai Pipeline Rehabilitation Plan</i>" (Doc No. THU-EWR-24-07-22, dated 29 November 2024), compiled by Shangoni Management Services (Pty) Ltd, reported on the spread of Alien and Invasive Plants (AIP) at the EWRP. According to the report, AIPs control measures needs to be implemented at each of the water crossings, and AIP eradication should continue until such time that indigenous vegetation is established. The report further states that the entire length of the pipeline must be regularly monitored for a separation of the most common woody species that may be establishing. Additionally, the "<i>Thungela Resources (Pty) Ltd: Alien Invasive Management Plan - eMalahleni Water Reclamation Plant</i>" (Doc No.) 41107382, dated February 2025), compiled by WSP provides a list of the AIPs within EWRP's footprint, and a detailed management plan for eradication. At the time of the audit, the EWRP was in process of appointing a service provider to undertake AIP eradication and procuring of the requisite herbicides.</p> <p>However, during the site inspection, the spread of AIPs was observed at the AMD Passive Treatment Plant, with substantial reed growth noted at Dam 1, 2 and 3. Dam 1 is currently being relined, whereafter Dams 2 and 3 will be relined respectively.</p>

8.2.5.2	Existing alien species that are within the proposed pipeline servitude should be removed and further encroachment should be controlled as part of an ongoing maintenance plan.	NC	<p>The "<i>Thungela Operations (Pty) Ltd: eMalahleni Water Treatment Plant Kromdraai Pipeline Rehabilitation Plan</i>" (Doc No. THU-EWR-24-07-22, dated 29 November 2024), compiled by Shangoni Management Services (Pty) Ltd, reported on the spread of Alien and Invasive Plants (AIP) at the EWRP. According to the report, AIPs control measures needs to be implemented at each of the water crossings, and AIP eradication should continue until such time that indigenous vegetation is established. The report further states that the entire length of the pipeline must be regularly monitored for a separation of the most common woody species that may be establishing. Additionally, the "<i>Thungela Resources (Pty) Ltd: Alien Invasive Management Plan - eMalahleni Water Reclamation Plant</i>" (Doc No.) 41107382, dated February 2025), compiled by WSP provides a list of the AIPs within EWRP's footprint, and a detailed management plan for eradication. At the time of the audit, the EWRP was in process of appointing a service provider to undertake AIP eradication and procuring of the requisite herbicides.</p> <p>However, during the site inspection, the spread of AIPs was observed at the AMD Passive Treatment Plant, with substantial reed growth noted at Dam 1, 2 and 3. Dam 1 is currently being relined, whereafter Dams 2 and 3 will be relined respectively.</p>
8.2.6	Traffic		
8.2.6.1	Minimizing disruptions of traffic flow and ensuring the safety of motorists and construction personnel at the road crossings.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.6.2	Minimizing the amount of time spent at the road and rail crossings by undertaking works and rehabilitating the areas as fast as possible.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.6.3	Preparation and approval of an appropriate procedure for road and rail crossing, approved by the Mpumalanga Roads Department and SPOORNET respectively.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.6.4	The placement of appropriate signage as per the Mpumalanga Roads Department requirements.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.6.5	Provision of suitable alternative road deviations in an effort to minimise traffic disruptions.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.7	Waste Management		
8.2.7.1	All waste stored temporarily at the site is suitably contained in such a way that it does not result in pollution of the surrounding environment.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.7.2	All waste is removed from the site and disposed of at an appropriate, licensed facility.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

8.2.7.3	The development of waste management procedures, incorporated within environmental management plans for all aspects of waste management at the site.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.7.4	Induction and training of personnel at the site in the need for effective waste management and the procedures to be followed.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.7.5	The use of clearly demarcated and bunded areas for the storage of excavated materials, spoils and construction waste materials.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.7.6	The use of a system of effectively contained waste management bins and storage areas for refuse generated by personnel on-site.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.8	Sanitation		
8.2.8.1	No pollution of the environment arises as the result of the operation of the sanitary system.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.8.2	The sanitation system must consider the following issues: - The total number of personnel at the site requiring sanitary facilities. - The use of an appropriate, approved system such as chemical toilets. - The use of a licensed service provider that is able to ensure that the effluent generated is appropriately transported and disposed of at a licensed facility.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.2.9	Pipeline Maintenance		
8.2.9.1	No unnecessary pollution of the environment arises as the result of the pipeline's operation.	N/A	The condition falls outside the scope of the audit period (April 2024 - March 2025). Thungela EWRP was issued with a WUL (Licence No: 06/B11D/ACFGJ/12473) dated 07 April 2022) for all activities within its operational boundaries that fall within the ambit of Section 21 of the National Water Act (Act 36 of 1998). Thungela EWRP reported that the pipeline was last used in 2016/ 2017 and has since been removed through theft and vandalism. the area is currently in process of rehabilitation.
8.2.9.2	The installation of regularly calibrated flow meters at both end of the pipeline to assist in the detection of leaks.	N/A	The condition falls outside the scope of the audit period (April 2024 - March 2025). Thungela EWRP was issued with a WUL (Licence No: 06/B11D/ACFGJ/12473) dated 07 April 2022) for all activities within its operational boundaries that fall within the ambit of Section 21 of the National Water Act (Act 36 of 1998). Thungela EWRP reported that the pipeline was last used in 2016/ 2017 and has since been removed through theft and vandalism. the area is currently in process of rehabilitation.

8.2.9.3	The establishment of an ongoing inspection and maintenance program of the pipeline and its valves.	N/A	The condition falls outside the scope of the audit period (April 2024 - March 2025). Thungela EWRP was issued with a WUL (Licence No: 06/B11D/ACFGJ/12473) dated 07 April 2022) for all activities within its operational boundaries that fall within the ambit of Section 21 of the National Water Act (Act 36 of 1998). Thungela EWRP reported that the pipeline was last used in 2016/ 2017 and has since been removed through theft and vandalism. the area is currently in process of rehabilitation.
8.2.9.4	The establishment of appropriate maintenance procedures in the event of an incident that leads to damage of the pipeline.	N/A	The condition falls outside the scope of the audit period (April 2024 - March 2025). Thungela EWRP was issued with a WUL (Licence No: 06/B11D/ACFGJ/12473) dated 07 April 2022) for all activities within its operational boundaries that fall within the ambit of Section 21 of the National Water Act (Act 36 of 1998). Thungela EWRP reported that the pipeline was last used in 2016/ 2017 and has since been removed through theft and vandalism. the area is currently in process of rehabilitation.
8.3	INDUCTION AND TRAINING		
8.3.1	Scope of Induction and Training		
8.3.1.1	Contractors and site foremen should undergo detailed induction. All other personnel should undergo general induction and training relevant to their area of work.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.3.1.2	Copies of the environmental management plans should be made available to the site foremen prior to the commencement of works and for the duration of the construction and decommissioning periods.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.4	INCIDENT MANAGEMENT AND RESPONSE		
8.4.1	Incident Management Requirements		
8.4.1.1	The Anglo Coal environmental control officer and construction contractors are required to identify potential hazards and implement measures to address them. This includes: - Establishing designated areas for the safe storage of chemicals, oils and fuels. - Establishing incident response procedures for the management of spills of any kind. - Identifying potential fire hazards and implementing measures to address them in accordance with Anglo Coal's fire management procedures.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).

8.4.1.2	Incident management procedures must specify the equipment that is required on-site to deal with any situations that may arise. Such equipment must be in place prior to the commencement of works.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.4.1.3	Individuals that must be contacted during and after working hours, in the event of an incident, are to be identified and contact procedures prepared.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.4.1.4	A briefing on incident management procedures and training in the use of equipment is to be conducted for relevant personnel at the site.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.4.2	Incident Response		
8.4.2.1	The immediate problem must be assessed and understood to determine options for immediate actions.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.4.2.2	The safety of any personnel should be ensured as a first priority.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.4.2.3	Environmental damage should be quickly minimized. All emergency actions should take place as soon as possible after the event.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.4.2.4	Following an incident, the environmental control officer should be contacted once all persons are Safe and any immediate actions to control damage and manage the situation have been taken.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.4.2.5	Following an incident, a rectification plan showing how environmental effects will be remedied and must be developed by the environmental control officer in consultation with the contractors.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.4.2.6	Following rectification of the situation, a full report must be prepared by the environmental control Officer.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.4.3	Corrective Actions		
8.4.3.1	In the event that a potential environmental incident or hazard is identified, the environmental Control officer is to prepare a report and recommend corrective actions.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.4.3.2	The environmental control officer is to instruct the relevant contractor on the corrective procedures required and to request a full report on the actions taken.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.4.3.3	Upon receiving the report, the environmental control officer is to investigate the actions taken to ensure that they are appropriate.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.5	COMPLIANCE AND REPORTING		

8.5.1	Monitoring		
8.5.1.1	Inspections and monitoring should be undertaken during the installation of the pipeline, its operation and decommissioning.	C	Thungela EWRP conducts infrastructure maintenance in accordance with its Maintenance Manual (Ref: 0860-9803-KOI-100.00-00, dated 20 February 2011). A maintenance schedule and logbook are used to plan and track infrastructure maintenance. Additionally, Thungela EWRP uses SCADA which provides real time data for incoming water, treated water and outgoing water based. Any malfunctions on the EWRP - Phola Colliery pipeline will thus be detected on SCADA and subsequently reported on Thungela's SAP system where a job card is raised to repair the pipeline.
8.5.1.2	The monitoring program should be based primarily on a schedule of site inspections to ensure that environmental controls are in place and are being adhered to.	C	Condition 8.5.1.2 above refers.
8.5.1.3	The Anglo Coal environmental control officer should prepare regular reports, which will outline any non-conformances and actions that are required.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.5.2	Non-Conformance and Corrective and Preventative Action		
8.5.2.1	All non-conformances should be recorded during inspections and a corrective action response prepared and implemented to the satisfaction of the Anglo Coal environmental control officer. Implementation of corrective actions will require liaison between the environmental control officer and any contractors.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.5.2.2	In implementing corrective actions, the following issues should be addressed: - Identification of the cause of the non-conformance. - Identification and implementation of necessary corrective actions. - Identification of personnel responsible for carrying out corrective actions. - Implementation of modified controls necessary to avoid repetition. - Recording of any changes in written procedures.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.5.3	Recording		

8.5.3.1	Records that should be collated include: - Training and induction records (for all construction personnel). - Environmental inspection checklists and photographic records and any other monitoring data. - Non-conformances and corrective and preventative actions. - Environmental incident reports and rectification plans.	N/A	The condition falls outside of the scope of the audit period (April 2024 - March 2025).
8.5.4	Reporting		
8.5.4.1	Compliance with environmental management plans should be reported at regular periods during the construction, operation and decommissioning phases of the project. Such reports should provide an assessment of the implementation and effectiveness of environmental controls and conditions in relation to the work undertaken and details of non-conformances and corrective and preventative actions taken.	C	The EMPr for pipeline (2006) is audited on an annual basis by an External Environmental PR actioner appointed by Thungela EWRP. This report constitutes the external audit report for the current audit period (April 2024 - March 2025).
8.5.5	Auditing		
8.5.5.1	Periodic, independent audits of compliance with environmental management plans should be undertaken to verify that they are being implemented. The audit should cover the following: - Adherence to environmental procedures (site inspection). - Completeness of records. - Completeness of environmental reports and actions taken in response to them. - Response to environmental incidents.	C	The EMPr for pipeline (2006) is audited on an annual basis by an External Environmental PR actioner appointed by Thungela EWRP. This report constitutes the external audit report for the current audit period (April 2024 - March 2025).
8.5.5.2	The findings of the audit should be communicated to relevant interested and affected parties associated with the project.	C	The annual external audit reports are distributed to Interested and Affected Parties (I&Aps) as part of public participation. Distribution of the previous Audit Report compiled by NTC Group (Pty) Ltd (April 2024 - March 2025) to I&APS was verified during the audit.

5. SUMMARY OF THE AUDIT FINDINGS

5.1. NON-COMPLIANCES

A total of eight (8) non-compliances were raised in terms compliance with the conditions of the Environmental Authorisations and Environmental Management Programmes audited in Section 4 of this Report. Table 8 below provides a summary of the non-compliances raised.

5.2. ACTIONS TO ADDRESS THE NON-COMPLIANCES

An Action Plan to address and rectify the non-compliances is included in Table 8.

5.3. RECOMMENDATIONS TO AMMEND CERTAIN CONDITION

In terms of Regulation 34(4) of the EIA Regulations (GN R984 of 2014), no recommendations are made to amend the Environmental Authorisation or Environmental Management Programme. The EWRP largely complies with the conditions of its Environmental Authorisation and Environmental Management Programmes. Non-compliances with that were raised during the audit can be addressed through corrective actions which can be affected within a short period if one considers the nature and extent of non-compliances.

TABLE 8. SUMMARY OF NON-COMPLIANCES AND ACTION PLAN

Full task description - Unlimited characters	Select Department responsible for completing the task	Select what type of task it is. (E.g. If the tasks states conduct risk assessment, select Risk assessment)		If task is completed what would hierarchy be	Format: dd/mm/yyyy	Only complete if a central task that should be done from Subject Matter Expert side	Comments
MIGR \ Task Description	Department Responsible	Task Type	Priority	Hierarchy of Controls	Original Due Date	Person Responsible	
However, during the site inspection, the spread of AIPs was observed at the AMD Passive Treatment Plant. Substantial reed growth was also observed at Dam 1, 2 and 3.	Environmental	Practical action	Medium	Separation	30/06/2026	Mantjetjere Mothapo	
The "Thungela Operations (PTY) Ltd: eMalahleni Water Treatment Plant Kroomdraai Pipeline Rehabilitation Plan" (Doc No. THU-EWR-24-07-22, dated 29 November 2024), compiled by Shangoni Management Services (Pty) Ltd, reported on the spread of Alien and Invasive Plants (AIP) at the EWRP. According to the report, AIPs control measures needs to be implemented at each of the water crossings, and AIP eradication should continue until such time that indigenous vegetation is established. The report further states that the entire length of the pipeline must be regularly monitored for a separation of the most common woody species that may be establishing. Additionally, the "Thungela Resources (Pty) Ltd: Alien Invasive Management Plan - eMalahleni Water Reclamation Plant" (Doc No.) 41107382, dated February 2025), compiled by WSP provides a list of the AIPS within EWRP's footprint, and a detailed management plan for eradication. At the time of the audit, the EWRP was in process of appointing a service provider to undertake AIP eradication and procuring of the requisite herbicides	Environmental	Document Review	Medium	Separation	30/04/2027	Bongeka Madolo	Rehabilitation plan to be resubmitted to DWS Provincial Head, once approved actions in the plan will be implemented.
During site inspection, inadequate storage of general waste was noted: - At the area adjacent to the feed pond and process water dams, old dam liners were piled in an uncontained area.	Environmental	Practical action	Medium	Separation	30/04/2026	Mantjetjere Mothapo	

<p>During site inspection, inadequate storage of general waste was noted: -At the area outside the soda ash plant, it was observed that the area was not demarcated for such storage.</p>	Environmental	Practical action	Medium	Separation	30/04/2026	<i>Rokeeya Issuf</i>	
<p>The EWRP manages hazardous chemicals in accordance with the Procedure titled, "Hazardous Chemical Handling and Storage" (Doc No.SS-WTP-PRO-1601, dated 24 October 2022) which provides adequate guidance for the storage, handling, disposal and requirements relating to the management of hazardous substances. However, during the site inspection inadequate practices relating to the storage and/or handling of hazardous chemical was observed: -At Main Stores, 210 L oil drums were observed at the diesel discharge point -At the diesel generator phase 1, diesel spills were observed at the diesel discharge point (repeat finding from the previous External Environmental audit 2023-2024)</p>	Environmental	Practical action	Medium	Separation	30/03/2026	<i>Rokeeya Issuf</i>	
<p>The EWRP manages hazardous chemicals in accordance with the Procedure titled, "Hazardous Chemical Handling and Storage" (Doc No.SS-WTP-PRO-1601, dated 24 October 2022) which provides adequate guidance for the storage, handling, disposal and requirements relating to the management of hazardous substances. However, during the site inspection inadequate practices relating to the storage and/or handling of hazardous chemical was observed: -At the lime plant, lime precipitation was observed on the ground and , two yellow excavators were stored on an uncontained area and without drip trays to contain potential hydrocarbon spillages.</p>	Environmental	Practical action	Medium	Separation	30/06/2026	<i>Rokeeya Issuf</i>	
<p>During the site inspection, substantial reed growth was observed at Dam 1, 2 and 3. Although this is a repeat non-compliance finding from the previous External Environmental Audit (2023 - 2024), the EWRP has since commenced with actions to address the non-compliance which entails the relining of Dam 1, 2 and 3. At the time of the audit, the relining of Dam 3 was in progress, following which Dam 2 and then Dam 1 is scheduled to be relined.</p>	Environmental	Practical action	Medium	Separation	31/12/2027	<i>Mantjetjere Mothapo</i>	<i>Ongoing dam relining project</i>

<p>The "Thungela Operations (PTY) Ltd: eMalahleni Water Treatment Plant Kroomdraai Pipeline Rehabilitation Plan" (Doc No. THU-EWR-24-07-22, dated 29 November 2024), compiled by Shangoni Management Services (Pty) Ltd, reported on the spread of Alien and Invasive Plants (AIP) at the EWRP. According to the report, AIPs control measures needs to be implemented at each of the water crossings, and AIP eradication should continue until such time that indigenous vegetation is established. The report further states that the entire length of the pipeline must be regularly monitored for a separation of the most common woody species that may be establishing. Additionally, the "Thungela Resources (Pty) Ltd: Alien Invasive Management Plan - eMalahleni Water Reclamation Plant" (Doc No.) 41107382, dated February 2025), compiled by WSP provides a list of the AIPS within EWRP's footprint, and a detailed management plan for eradication. At the time of the audit, the EWRP was in process of appointing a service provider to undertake AIP eradication and procuring of the requisite herbicides</p>							<p><i>same action as number 2 above: Rehabilitation plan to be resubmitted to DWS Provincial Head, once approved actions in the plan will be implemented.</i></p>
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C. CONTINUAL IMPROVEMENT

The previous external environmental audit was conducted on 09 March 2023 by NTC Group (Pty) Ltd for the annual audit period March 2022 – March 2023. Findings from the previous annual audit (2022 - 2023) have been adequately addressed and no repeat findings were noted.

7. CONCLUSION

The audit team concludes that EWRP largely complies with the conditions of the Environmental Authorisation and Environmental Management Programmes that were audited as part of the scope of the External Environmental Audit (March 2023 to March 2024). Environmental management at EWRP was found to be in a good state and sufficient procedures and records were available to govern the activities that take place at the site.

The measures contained in the EA and EMPRs sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the project activities if adhered to.

As long as non-compliances are addressed, EWRP will be in a position to comply with the conditions of its EA and EMPRs. It is the opinion of the audit team that corrective actions can be affected and implemented within a short period if one considers the nature and extent of non-conformances. The evaluation of the effectiveness of the implementation of corrective actions should be carried out during follow-up external environmental audits, currently scheduled for 2025.

EWRP is commended on the proactive approach that is taken toward improving how it manages the environment within and surrounding its activities. The auditors would like to thank EWRP for the cooperation extended and the open approach to the audit.

8. REFERENCES

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- ECHEMI.com Material Safety Data Sheet
- MemAqua Solutions (pty) Ltd. Water and Chemicals Solutions- Safety Data Sheet Ferric Chloride 40 – 44%
- MemAqua Solutions (pty) Ltd. Water and Chemicals Solutions- Safety Data Sheet Hydrochloric Acid 30 -33%
- Safety Data Sheet Interlox® SG-50 Hydrogen Peroxide
- MemAqua Solutions (pty) Ltd. Water and Chemicals Solutions-GHS Product Identifier MEMCLEAN 20 other means of identification
- MSDS Material Safety Data Sheet to standard ISO 11014:2009 According Regulation (EC) N° 1907/2006 (REACH)
- STRATA Chemical GHS Product Identifier AQT 773 Other means of identification
- INTECHEM (Integrated Chemical Solutions) Material Safety Data Sheet
- Sinchem Material Safety Data Sheet Sulfamic Acid
- MemAqua Solutions (Pty) Ltd Reg No. 2015/247665/07 VAT No. 4610270292 Material Safety Data Sheet
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- Licence in terms of chapter 4 of the National Water Act, 1998 (Act No. 36 of 1998) (The Act) Licence No: 04/B11G/ACFGI/1853

- Licence in terms of chapter 4 of the National Water Act, 1998 (Act No. 36 of 1998) (The Act) Licence No: 06/B11G/CICI/11228
- Amendment of Anglo operations (PTY) LTD: Greenside colliery construction of Ventilation shaft, downcast shaft and expansion of underground mining operations Water Use Licence in terms of section 50 and 158 of National Water Act , 1998 (ACT No 36 of 1998)
- Amendment of Anglo operations Limited: Emalahleni Water Reclamation Plant Water Use Licence in terms of section 50 and 158 of the National Water Act, 1998 (Act No 36 of 1998).
- Environmental-Legal Opinion Regarding The Storage And Use Of Abattoir And Other Liquid Waste At The Emalahleni Water Reclamation Plant
- Application Form For Environmental Authorisations In Terms Of The National Environmental Management Act, 1998 And The National Environmental Management Waste Act, 2008 In Respect Of Listed Activities That Have Been Triggered By Applications In Terms Of The Mineral And Petroleum Resources Development Act, 2002 (MPRDA) (As Amended).
- Anglo American Coal South Africa - Emalahleni Water Reclamation Plant (EWRP) Proposed Amendment of the Phase 1 and Phase 2 Environmental Authorisations as well as the Proposed Amendment and Consolidation of the Phase 1 and Phase Environmental Management Plans
- Anglo American Coal South Africa Emalahleni Water Reclamation Plant Consolidated Environmental Management Programme
- Application Form For Environmental Authorisations In Terms Of The National Environmental Management Act, 1998 And The National Environmental Management Waste Act, 2008 In Respect Of Listed Activities That Have Been Triggered By Applications In Terms Of The Mineral And Petroleum Resources Development Act, 2002 (Mprda) (As Amended).
- Notice Of The Amendment And Consolidation Of The Phase 1 And Phase 2 Environmental Management Programmes For The Emalahleni Water Reclamation Plant (Ewrp), Mpumalanga Province (Dmr Reference Number: 17/2/12/Nk16 (H06-30) C 17/2/2/1(E) Mp-5)
- Application Form For Environmental Authorisations In Terms Of The National Environmental Management Act, 1998 And The National Environmental Management Waste Act, 2008 In Respect Of Listed Activities That Have Been Triggered By Applications In Terms Of The Mineral And Petroleum Resources Development Act, 2002 (Mprda) (As Amended).
- Application Form For Environmental Authorisations In Terms Of The National Environmental Management Act, 1998 And The National Environmental Management Waste Act, 2008 In Respect Of Listed Activities That Have Been Triggered By Applications In Terms Of The Mineral And Petroleum Resources Development Act, 2002 (Mprda) (As Amended).
- EWRP's EMPr for the construction of the proposed mine water reclamation treatment and re-use scheme, approved on 16 October 2006 (Reference No. OT 6/2/2/141)
- Amendment to the record of decision for the proposed mine Water reclamation, Treatment and re-use scheme for the Emalahleni (Witbank) Region.
- Authorization to undertake a listed activity in terms of section 22 of the environment conservation Act, 1989 (Act 73 of 1989)
- Department of agriculture and land administration directorate: Environmental management: Record of Decision
- Amendments to the environmental Authorisation for the proposed expansion of Anglo operations Emalahleni mine water reclamation scheme, Emalahleni, Mpumalanga province (Environmental Authorisation)
- Emalahleni Water Reclamation Plant Consolidated Environmental Management Programme Anglo American Coal South Africa- 07 September 2020
- Emalahleni Water Reclamation Plant Consolidated Environmental Management Programme Anglo American Coal South Africa- 07 December 2020
- Application Form For Environmental Authorisations In Terms Of The National Environmental Management Act, 1998 And The National Environmental Management Waste Act, 2008 In Respect Of

- Listed Activities That Have Been Triggered By Applications In Terms Of The Mineral And Petroleum Resources Development Act, 2002 (Mprda) (As Amended).
- Thungela Resources (Pty) Ltd Emalahleni Water Reclamation Plant Consolidated Environmental Management Programme Anglo American Coal South Africa- 15 October 2021
 - Emalahleni Water Reclamation Plant Consolidated Environmental Management Programme Comments And Responses Report- 12 October 2021
 - Application for amendment of an environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014 (as amended)
 - Emalahleni Mine Water Reclamation Scheme Expansion EIA – Final EIA Report
 - Anglo Coal A Division of Anglo Operations Limited EIA Environmental Impact Assessment Emalahleni Water Reclamation Project Landau Colliery ML 10/1995 DME Reference OT 6/2/2/141
 - EMP Environmental Management Programme (including EIA Report and ICAP Comments) Emalahleni Water Reclamation Project Landau Colliery ML 10/1995 DME Reference OT 6/2/2/141
 - Greenside/Phola Coal Plant water pipeline Environmental Impact Report
 - Dam failure analysis for the Brine Disposal facility at Witbank
 - DWAF application forms-Brine Evaporation Pond
 - Submission of as build drawings in terms of the requirements of the Emalahleni Water reclamation Plant IWUL, with licence No: 04/B11G/ACFGI/1853
 - Typical mine water abstraction- section and details for the Kromdraai Balancing Dam- 1161343486-010-W-002
 - Golder Associates Technical Memorandum pipeline crossing at pan site WC12
 - Emalahleni Water Reclamation Scheme Phase 2 Expansion (80588) Attendance Register
 - Emalahleni Water Reclamation Scheme Phase 2 Expansion: Integrated Water Use License Amendment Application – Response To Your Request For Additional Information
 - Technical Memorandum Greenside water treatment plant- Activities to be reflected in the ROD
 - Environmental Impact Assessment (Eia) For The Anglo Coal Expansion Of The Emalahleni Mine Water Reclamation Scheme, Emalahleni, Mpumalanga Province D A R D L A R E F E R E N C E Number 1 7 / 2 / 2 / 1 (e) N K - 5 ///()-
 - Motivational statement in respect of proposed amendment to the ROD Conditions 1.4, 3.1, 6.2 and 6.5, regarding the reclamation, treatment and re-use of excess mine water in the Emalahleni (Witbank) Region
 - Environmental Impact Assessment (EIA) For The proposed Emalahleni water treatment project, Mpumalanga province: Record of decision.
 - Automatic reply EWRP site visit- Betty Mnguni- DWA.msg
 - RE: Notification of feed dam overflow incident at EWRP 18112013.msg
 - Acknowledgement of receipt
 - Comments: Emalahleni water reclamation Project
 - Emalahleni Mine Water reclamation project: Water Use Licence application for identified Water Uses as part of the scheme- concern over the potential impact of the delay in issuing of Water Use Licence on the Economic and Social viability of the undertaking.
 - SACE Brine disposal facility dam: Application for licence to construct terms of the dam safety regulations.
 - Illegal construction of a dam with a safety risk: outstanding registration and licence to legally impound water in terms of chapter 12 of the National Water Act, 1998 (Act 36 of 1998), read with the regulations published in government Notice R.1560 of 25 July 1986: SACE Brine disposal facility dam situated on portion 3 of the farm groenfontein 331 JS, district Witbank.
 - Section 27 and borehole co-ordinates needed to finalise the Water Use Licence for the Emalahleni Water Reclamation Project

- Emalahleni Water Reclamation Plant upgrade: Water Use Authorisation. Project No: 12481 memo IWUL
- Fax cover sheet 30 days letter for outstanding information. 12 September 2012
- Emalahleni Water Reclamation scheme phase 2 expansion: Integrated Water Use License Ref: 16/2/7/B100/B40/H3/3- 18 January 2013
- Notification of change of construction method: Changing from the conventional method (Trenching and pipe laydown activities through the Wetland/ Permanent zone) to horizontal directional drilling underneath the wetland at site WC3
- Amendment application license number 04/B11G/ACFGI/1853 Anglo operations proprietary limited- Emalahleni Water Reclamation plant
- Request for outstanding information for amendment application for Anglo operations limited, thermal coal division- Emalahleni Water Reclamation Plant- 15 November 2013
- June 2015 AATC Water Use Licence amendment Application for the Emalahleni water reclamation plant Report Number: 14146438/13723/1
- Notification of commencement of Water Use in Terms of the requirements of the Emalahleni water reclamation plant IWUL, with licence No: 04/B11G/ACFGI/1853 as request from the compliance section.- 15 August 2017
- Appointment of a responsible person who must give effect to the various licence conditions and to ensure compliance to the License- 04/B11G/ACFGI/18583
- Notification of exceedance in terms of the requirements of the Emalahleni water reclamation plant IWUL, with License No: 24080138 and 04/B11G/ACFGI/1853 as per standard environmental practice and request from the compliance section.
- Notification of volume exceedance in terms of the requirements of the Emalahleni water reclamation plant IWUL, with License No: 24080138 and 04/B11G/ACFGI/1853 as per standard environmental practice and request from the compliance section.
- Submission of as built drawings in terms of the requirements of the Emalahleni water reclamation plant IWUL, with Licence No: 04/B11G/ACFGI/1853
- Submission of documents in terms of the requirements of the Emalahleni water reclamation plant IWUL, with reference No: 16/2/7/B100/H3/3 and 16/2/7/B100/H3/3 in terms of the EWRP Environmental management procedure and as per request from the compliance section.
- Amendmend Application License Number 04/B11g/Acghi/1853 Anglo Operations Proprietary Limited – Emalahleni Water Reclamation Plant
- Layout and Longitudinal section of pipeline route from Kromdraai to new navigation reservoirs- (CH 740 TO 1820)- Drawing No: 5270-0588-CED-0011
- Layout and Longitudinal section of pipeline route from Kromdraai to new navigation reservoirs- (CH 23000 to 24000)- Drawing No: 5270-0588-CED-0034
- Anglo operations Limited Kromdraai MWRCRS- Kromdraai to Navigation Mine (Approximate fieldwork positions- project No:12278
- Anglo Coal Kromdraai Mine Water Reclamation And Reuse Scheme-Hole No: Tp40b-Job Number: 12278
- Emalahleni Water Reclamation Scheme Phase 2 Expansion Project Feasibility Phase Kromdraai to Navigation Geotechnical Investigation Report- February 2011
- 11613486B_Testpits on re-routing.msg
- Proposal on Alternative Method for Wetland Crossings- Anglo Kromdraai Letter 03072013
- EWRP Navigation pipeline Method Statement: Wetland Crossing
- Schedule Of The Proposed Amendment To The Anglo Operations Limited Licence Number: 24080138, REF NO. 16/2/7/B100/H3/3
- Emalahleni Water Reclamation plant Emalahleni Water Reclamation scheme phase 2 expansion: Integrated Water Use License- 02 May 2013

- Emalahleni Water Reclamation plant Emalahleni Water Reclamation scheme phase 2 expansion: Integrated Water Use License- 12 September 2012
- Schedule Of The Proposed Amendment To The Anglo Operations Limited Licence Number: 04/B11G/ACFGI/1853, FILE NO. 16/2/7/B100/B40/H3/3
- Acknowledgement of receipt: This is to confirm that Betty Mngoni has received the following documents Phase 1 Amendment Application (license no 240801338), Phase 2 Amendment Application (license no 04/B11G/ACFGI/1853) Date 29 November 2017
- Schedule Of The Proposed Amendment To The..... (Write Company Name) Licence Number: 04/.....
- Anglo Operations South Africa (Pty) Ltd External Water Use Licence Compliance Discussion for Emalahleni Water Reclamation Plant November 2017
- EWRP 1 Amendment Application (license no 24080138)
- EWRP Phase 2 Amendment Application (license no 04/B11G/ACFGI/1853)
- RE: EWRP C DWS Meeting 7 November 2017
- Emalahleni Local Municipality Environment and Waste Management Certificate of approval Permit number ENV 2021/011
- Certificate Of Registration This is to certify that EWRP Brine Dam *Storage/disposal of waste in surface impoundments (e.g. placement of liquid or sludge discards into pits, ponds, lagoons, etc.)* has been registered with the South African Waste Information System established in terms of chapter 6 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) D01526-01 Date of Registration: 2013-03-25
- Certificate Of Registration This Is To Certify That T L Ideas Trading Pty Ltd Has been registered as a Waste Transporter Hazardous
- Tax Invoice Vat No: 4030282695 TI Ideas Trading Pty Ltd T/A Lihle Waste Services
- Certificate of registration: fertilizer Group II Fertilizer
- Act NO. 36 of 1947: Renewal of fertilizers registrations
- System DWQ Compliance Drinking Water Quality: Integrated Regulatory Information System (IRIS)
- This is to certify that Emalahleni Water Reclamation Plant Owned By Anglo Operations Ltd Private has been registered in terms of section 26 of the National Water Act (Act No. 36 of 1998) as a Class A
- Water Supply Agreement between Anglo Operations Limited (Acting Through its Anglo coal Division) and Emalahleni local Municipality- document set 1 to sect 6
- Annexure A.7 Environmental-Legal Risk Report
- Anglo Coal Regulation 34 Audit report publishing: Scenarios for responses to requests, queries, or comments
- Regulation 34 Audit Report Publishing Emalahleni Water Reclamation Plant (Ewrp) Risk Report Action Plan Checklist And Anticipated
- Provision of the Operation and Maintenance services of the EWRP plant
- Anglo American C Aveng Water eMalahleni Water Reclamation Plant EWRP Operation C Maintenance Manual
- 1.c.iii. Operation and Maintenance schedule
- Work Management order PM03 Routine Work -Work Feedback- order: 4006879773 Task:0010.
- Emalahleni Water Reclamation Plant Notification of GMR 2.1 Appointment EMalahleni Water Reclamation Plant-
- Thungela Agreement for supply of services part E Appendices.
- 2.a. Thungela Water sampling and monitoring procedure (Reviewed).docx
- Licence in terms of Chapter 4 of the National Water Act, 1998 (Act No. 36 of 1998) (The Act) Licence No: 04/B11G/ACFGI/1853, File No: 16/2/7/B100/H3/3
- Certificate of Accreditation Regen Waters Laboratory (PTY) LTD Co. Reg. No.: 2018/379064/07. Facility Accreditation Number: T0156
- Thungela agreement for Supply of Services Part E Appendices

- 2.d. Regen Water SSANAS Accreditation
- EWRP Incident Register (Including damage to property C near misses)
- Thungela Environmental Incidents and Complaints. Implementation Date 2022/03/09. DOC No: SS-WTP-PRO-1416
- Anglo Operations South Africa (PTY) LTD – Emalahleni Water Reclamation Plant Integrated Water and Waste Management Plan Date: March 2018
- Thungela Water Sampling And Monitoring Procedure Implementation Date: 2023/01/16 DOC NO SS-WTP-PRO-1644
- Water Management Plan Emalahleni Water Reclamation Plant, South Africa January 2022
- 2.a.iv. Baseline RA-ENV Testing and analysis (external service provider), Up and downstream sampling in the river
- 2.b. Appendix1_ water analysis requirements
- Scope of work- EWRP lab analysis
- Works Detail DWQ Compliance Drinking Water Quality :Integrated Regulatory Information System (IRIS)
- Anglo American C NAFASI Water Emalahleni Water Reclamation Plant Water Quality Monitoring Procedure
- 4.a.i EWRP Design Capacity
- 4.a.ii. Daily treatment volumes JUL21- JUN22
- 4.a.iii. 2022-07-19 Maintenance Report FIT-01K00
- Anglo coal Emalahleni Water Reclamation Plant REV 1 March 2020 to March 2021
- Thungela Resources (LTD) Emalahleni Water Reclamation Plant DWS Water Quality Report No. 28 2022 Quarter 4 Compliance Summary
- 2.c._rpt_Works Detail DWQ Compliance Drinking Water Quality :Integrated Regulatory Information System (IRIS)
- System DWQ Compliance Drinking Water Quality: Integrated Regulatory Information System (IRIS) Microbiological (Health)
- Thungela 2021 BD PAT_Municipal Information Spreadsheet_Sep21
- Groundwater monitoring submission to DWS and proof
- Submission Of Documents In Terms Of The Requirements Of The Emalahleni Water Reclamation Plant Iwul, With Reference License No: 04/B11G/ACFGI/1853 AND FILE NO: 16/2/7/B100/H3/3 (issued August 2020 to September 2032) In Terms Of The Ewrp Environmental Management Procedure And As Per Request From The Compliance Section.
- Thungela Resources (Ltd) Emalahleni Water Reclamation Plant DWS Water Quality Report No. 27 2022 Quarter 3 Compliance Summary
- System DWQ Compliance Drinking Water Quality: Integrated Regulatory Information System (IRIS) Microbiological (Acute Health)
- Emalahleni Water Reclamation Plant aquatic biomonitoring – 2022 monitoring cycle Project: TRL7610
- Acknowledgement Of Receipt 14 October 2022
- Environmental Impact Assessment For The Anglo Coal Expansion Of The Emalahleni MINE Water Reclamation Scheme, Emalahleni, Mpumalanga Province (*MDEDET Reference Number 17/2/21(e) NK-5)- 22 July 2011*
- Notification to erect a new sub-station, ARMTANK and Pipelines over undermined ground. Regulation 17 (7) and 17 (8) (a) are in force in terms of the mine Health and Safety Act, Act 29 of 1996.
- Notification to erect a water treatment plant and Brine/Sludge disposal sites over undermined ground. Regulation 17 (7) and 17 (8) (a) are in force in terms of the mine Health and Safety Act, Act 29 of 1996.
- Spill Kit Procedure Implementation Date 2022/03/09 DOC NO SS-WTP-PRO-1417
- Waste Management Procedure Implementation DATE 2022/04/20 DOC NO SS-WTP-PRO-1502
- Waste Manifest Document Manifests

- 02_2023_EWRP_Mass balance (includes gypsum, sludge and brine)
- Thugela Resources (Pty) Ltd Emalahleni Water Reclamation Plant Consolidated Environmental Management Programme- 15 October 2021
- Thugela Resources (Pty) Ltd Emalahleni Water Reclamation Plant - Consolidated Environmental Management Programme Comments And Responses Report- 12 October 2021
- Licence in terms of Chapter 4 of the National Water Act, 1998 (Act No. 36 of 1998) (The Act) Licence No: 06/B11G/CICI/11228, File No: 27/2/2/B711/18/3
- Amendment to the record of decision for the proposed mine water reclamation, treatment, and re-use scheme for the Emalahleni (Witbank) region. 17/2/12/NK 16 (H06-30)
- Amendments to the environmental Authorisation for the proposed expansion of Anglo operations Emalahleni mine water reclamation scheme, Emalahleni, Mpumalanga province. Eef: 17/2/2/1€ MP-5
- Authorisation to undertake a listed activity in terms of section 22 of the environment conservation Act,1989 (Act 73 of 1989)
- Emalahleni Water Reclamation Plant (EWRP) Environmental Audit Report: 17/2/12/NK16- March 2022
- Thungela Business objectives 2022_23
- Emalahleni Water Reclamation Plant (EWRP) Environmental Audit Report: 17/2/12/NK16- November 2021
- 6.6 EWRP Chemical register
- Emalahleni Water Reclamation Plant (EWRP) Environmental Audit Report: 17/2/12/NK16- March 2022- 24 June 2009
- Maintenance Report FIT-01K00
- 2022-11-11 Thungela Resources October 2022 (Subsurface collection sump Q4)
- Acknowledgement of receipt- Thungela EWRP Compliance Audit Report_WUL_2022- 15 September 2022
- Brine Dam levels- free board monitoring
- Emalahleni Water Reclamation Plant Site Specific Induction 2023
- Emergency Preparedness Procedure Implementation Date 2023/08/23 DOC NO SS-WTP-PRO-1611
- Occupational Hygiene Survey for water reclamation treatment plant on behalf of ventgiene: February 2023

APPENDIX A
AUDITOR DECLARATION

ENVIRONMENTAL PRACTITIONER'S DECLARATION:

I, TANJA BEKKER, DECLARE THAT –

- I act as an Independent Environmental Practitioner conducting the Environmental Performance Assessment.
- I will perform the work relating to the Performance Assessment in an objective manner, even if this results in views and findings that are not favourable to the auditee.
- I declare that there are no circumstances that may compromise my objectivity in performing such work.
- I have expertise in conducting Environmental Performance Assessments and Environmental Compliance Audits, including knowledge of the National Environmental Management Act (NEMA) (Act 107 of 1998), the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002), the Environmental Impact Assessment (EIA) Regulations (GN R982 of 2014), as amended, and legal and other requirements that may have relevance to the proposed activity.
- I will comply with the NEMA (Act 107 of 1998), the MPRDA (Act 28 of 2002), the EIA Regulations (GN R982 of 2014), and all applicable legal and other requirements.
- I have not and will not engage in conflicting interests in the undertaking of the activity.
- I will provide the Competent Authority with access to all information at my disposal regarding the Performance Assessment, whether such information is favourable to the auditee or not.
- I will perform all other obligations as expected from an Environmental Practitioner in terms of the NEMA (Act 107 of 1998) and EIA Regulations (GN R982 of 2014).
- I realise that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations (GN R982 of 2014), as amended, and is punishable in terms of Section 24F of the NEMA (Act 107 of 1998).

DISCLOSURE OF VESTED INTEREST –

I do not have and will not have any vested interest (either business, financial, personal or other) in any activity other than remuneration for work performed in conducting an Environmental Performance Assessment in terms of the EIA Regulations (GN R982 of 2014), as amended.

SIGNATURE:



COMPANY:

NTC GROUP (PTY) LTD

DATE:

0C DECEMBER 2024

ENVIRONMENTAL PRACTITIONER'S DECLARATION:

I, MARY-ANNE CARTER, DECLARE THAT –

- I act as an Independent Environmental Practitioner conducting the Environmental Performance Assessment.
- I will perform the work relating to the Performance Assessment in an objective manner, even if this results in views and findings that are not favourable to the auditee.
- I declare that there are no circumstances that may compromise my objectivity in performing such work.
- I have expertise in conducting Environmental Performance Assessments and Environmental Compliance Audits, including knowledge of the National Environmental Management Act (NEMA) (Act 107 of 1998), the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002), the Environmental Impact Assessment (EIA) Regulations (GN R982 of 2014), as amended, and legal and other requirements that may have relevance to the proposed activity.
- I will comply with the NEMA (Act 107 of 1998), the MPRDA (Act 28 of 2002), the EIA Regulations (GN R982 of 2014), and all applicable legal and other requirements.
- I have not and will not engage in conflicting interests in the undertaking of the activity.
- I will provide the Competent Authority with access to all information at my disposal regarding the Performance Assessment, whether such information is favourable to the auditee or not.
- I will perform all other obligations as expected from an Environmental Practitioner in terms of the NEMA (Act 107 of 1998) and EIA Regulations (GN R982 of 2014).
- I realise that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations (GN R982 of 2014), as amended, and is punishable in terms of Section 24F of the NEMA (Act 107 of 1998).

DISCLOSURE OF VESTED INTEREST –

I do not have and will not have any vested interest (either business, financial, personal or other) in any activity other than remuneration for work performed in conducting an Environmental Performance Assessment in terms of the EIA Regulations (GN R982 of 2014), as amended.

SIGNATURE:



COMPANY:

NTC GROUP (PTY) LTD

DATE:

0C DECEMBER 2024

APPENDIX B
AUDITOR CURRICULUM VITAE



Tanja Bekker

Company: NTC Group (Pty) Ltd
Environmental Lead Auditor
Mobile: +27 82 412 1799
Email: tanja@ntcgroup.co.za

BRIEF PROFILE

Ms. Tanja Bekker has more than 21 years' working experience in the Environmental Consultancy and Auditing Industry. Her key focus is compliance audits, environmental performance assessments, environmental management, and environmental licensing, with extensive experience in the mining industry. Project Management and Coordination form a critical component of her duties, which include environmental gap analysis, project planning, initiation of projects, client, authority and stakeholder consultation, specialist coordination, budget control, process control, quality control and timeframe management.

PROFESSIONAL QUALIFICATIONS

2002	University of Johannesburg	B.Sc. Earth Sciences
2003	University of Johannesburg	B.Sc. Geography Cum Honours
2004	University of Johannesburg	M.Sc. Environmental Management

CAREER ENHANCING COURSES

- ISO 14000 Lead Auditors Course (WTH Management)
- Certificate in Project Management (Pretoria University)
- Management Advance Programme (MAP 81) (Wits Business School)
- Certificate in Customer Service Excellence (Pretoria University Enterprises)
- IWRM, the NWA and Water Use Authorisations (Carin Bosman Sustainable Solutions)

CAREER ENHANCING COURSES

- Registered Environmental Assessment Practitioner of South Africa (EAPASA)
- Certified ISO 14001 Environmental Management System Auditor
- Registered as a Professional Natural Scientist (SACNASP),
- Member of the South African affiliate of the International Association for Impact Assessment
- Member of the Environmental Law Association of South Africa (ELA).



Mary-Ann Carter

Company: NTC GROUP (Pty) Ltd

Environmental Consultant

Mobile: +27 71 546 0937

Email: mary-ann@ntcgroup.co.za

BRIEF PROFILE:

Mary-Ann is an Environmental Consultant with fourteen years of experience in environmental management and sustainability. She started her career in 2009 as an Environmental Scientist, during which she focused on environmental applications (EIA, BAs Waste Licenses, and Air Emissions Licenses etc.) as well as conducting largescale environmental training. Due to her proficiency in Environmental Auditing, she worked as an Auditor from 2012, conducting various audits throughout the country.

Mary-Ann moved into the industrial sector in 2014, where her role has since been to facilitate onsite environmental management: identifying environmental impacts; implementing management systems and improvement plans; monitoring, analysis and continual improvement; environmental legal compliance; and identification of sustainable solutions and projects.

PROFESSIONAL QUALIFICATIONS:

2018	University of Johannesburg	Master of Science in Environmental management
2012	Nelson Mandela Metropolitan University	Bachelor of Science Honours in Environmental Management
2007	Nelson Mandela Metropolitan University	Bachelor of Science in Environmental Geography

CAREER ENHANCING COURSES:

2020	ISO 45001:2018 Understanding & Implementation (SABS)
2010	Assessor Training: USID 115753 (Team Consultants)
2010	Facilitator Training: USID 117871 (Team Consultants)
2010	SETA Internship: Project Management (SETA)

PROFESSIONAL AFFILIATIONS

SACNASP: Pr.Sci.Nat. 126835