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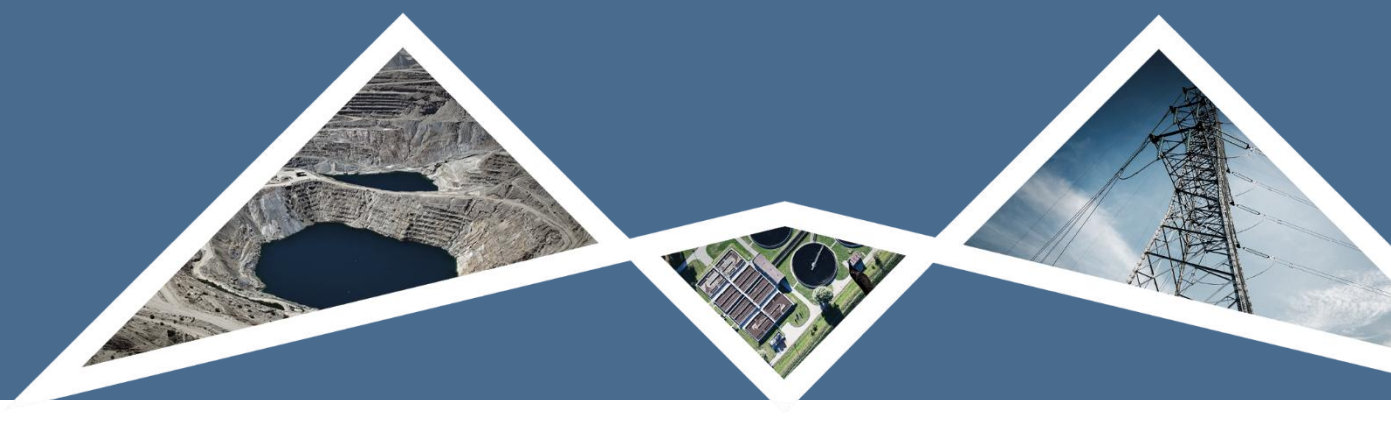
ENVIRONMENTAL MANAGEMENT PROGRAMME

TETRA4 SEISMIC SURVEY

PASA REFERENCE: 12/4/007

MAY 2026



DOCUMENT DETAILS

EIMS REFERENCE: 1595

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DOCUMENT CONTROL

	NAME	SIGNATURE	DATE
COMPILED:	Jessica Jordaan		2026/05/29
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REVISION AND AMENDMENTS

REVISION DATE:	REV #	DESCRIPTION
2026/06/05	ORIGINAL DOCUMENT	EMPr

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Appendix 1: EAP/s CVs

1 GENERAL EMPR AND PROJECT OVERVIEW

The Environmental Management Programme (EMPr) is an Integrated Environmental Management (IEM) Tool which typically is preceded by an Environmental Impact Assessment (EIA), and which aims to describe the objectives and management actions for managing and mitigating potential environmental impacts associated with a development proposal. Regulation 19 of the National Environmental Management Act (NEMA), EIA Regulations (GNR 982) requires the compilation and submission of an EMPr to the relevant Competent Authority together with the relevant Environmental Assessment Reports for consideration in the decision making on an Application for Environmental Authorisation (EA) for relevant Listed Activities.

The purpose of this EMPr is:

- to describe the impact management outcomes, including management statements;
- to identify the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development (planning and design, pre-construction, construction, post construction rehabilitation, and where relevant operation); and
- to provide a description of the relevant impact management actions which clearly defines what actions are to be taken, who is responsible for the actions, when such actions are to be undertaken, and how the implementation of such actions are to be monitored.

The ultimate objective of the EMPr is to ensure that undue or reasonably avoidable adverse impacts during the applicable phases of a development or activity are prevented, and that the positive benefits of the projects are enhanced.

1.1 SCOPE OF THIS DOCUMENT

This EMPr applies to the development activity described in Section 1. The purpose of the EMPr is to give effect to precautionary and mitigatory measures, which are to be put in place for controlling the activities that take place during the project. The EMPr also provides guidance to assist in ensuring compliance with relevant national legislative and regulatory requirements.

The EMPr is a working document that should be updated on a regular basis, as and when necessary. Formal risk identification forms an integral part of EMPr management and assists with prioritizing and focusing the control of risks. The EMPr thus supports this on-going proactive mitigation and the duty of care to the environment. The EMPr shall therefore allow for risk minimization, rather than just ensuring legal compliance. The purpose of this EMPr is thus also to allow the user to make minor amendments to ensure continual revision and improvement of risk mitigation through the continual re-assessment of risks associated with the activity. Any amendments must comply with formal amendment processes as define in the NEMA EIA Regulations.

1.2 PROJECT OVERVIEW

In 2022, Tetra4 (the applicant) commenced with an application for Environmental Authorisation for the Cluster 2 gas production activities which would form an extension to the existing Cluster 1 gas production being undertaken near Virginia in the Free State Province. The application followed a full Scoping and Environmental Impact Assessment process which culminated in a positive Environmental Authorisation being issued (PASA ref.: 12/4/007). Appeals were subsequently lodged against the decision which included new information that was not submitted during the previous EIA phase public consultation period. The Applicant has since undertaken further investigations and submitted an updated EIA Report for reconsideration to the Competent Authority (in this case the Department of Mineral Resources and Energy). This updated EIA Report has been prepared to address the recommendations and shortcomings identified in the Ministers decision and is currently awaiting a decision from the Competent Authority. The Cluster 2 EA authorised various production well transects where drilling could occur with little to no specific drilling locations which resulted in some uncertainty from landowners. In order to mitigate this uncertainty and provide landowners with specific drilling locations, Tetra4 proposes undertaking a 3D seismic survey over the Cluster 2 area which would provide a high resolution

subsurface geological profile and enable Tetra4 to visualise gas placement in the sub-surface and thereby enable more accurate identification of proposed drill sites on specific properties.

1.2.1 EXPLORATION ACTIVITIES

The proposed seismic acquisition methodology includes utilising an autonomous nodal system supplied by STRYDE, paired with vibroseis energy acquisition executed by Polaris Natural Resources. The operational configuration entails the deployment of subsurface autonomous receivers and the concurrent operation of five Nomad 65 vibroseis units (Figure 1).

The receiving array will be composed of STRYDE autonomous nodes (Figure 2), which are deployed below the surface at an approximate depth of 45 cm to 60 cm. A primary operational and environmental advantage of this system is the complete elimination of interconnecting telemetry cabling.

The utilisation of this wireless nodal technology materially mitigates surface disturbance. Furthermore, the subsurface deployment allows the majority of normal land use activities to continue undisturbed during the data acquisition phase. The only exception applies to areas undergoing active deep soil disturbance, such as agricultural ploughing. To avoid interference, seismic survey operations will not be conducted concurrently with active ploughing or similar soil-disturbing activities in a given area.

The seismic energy source will be generated by a fleet of five Nomad 65 vibroseis trucks, operated by Polaris Natural Resources. The Nomad 65 is a standard mid-range, heavy-duty vibroseis vehicle designed for efficient, low-impact onshore seismic exploration.

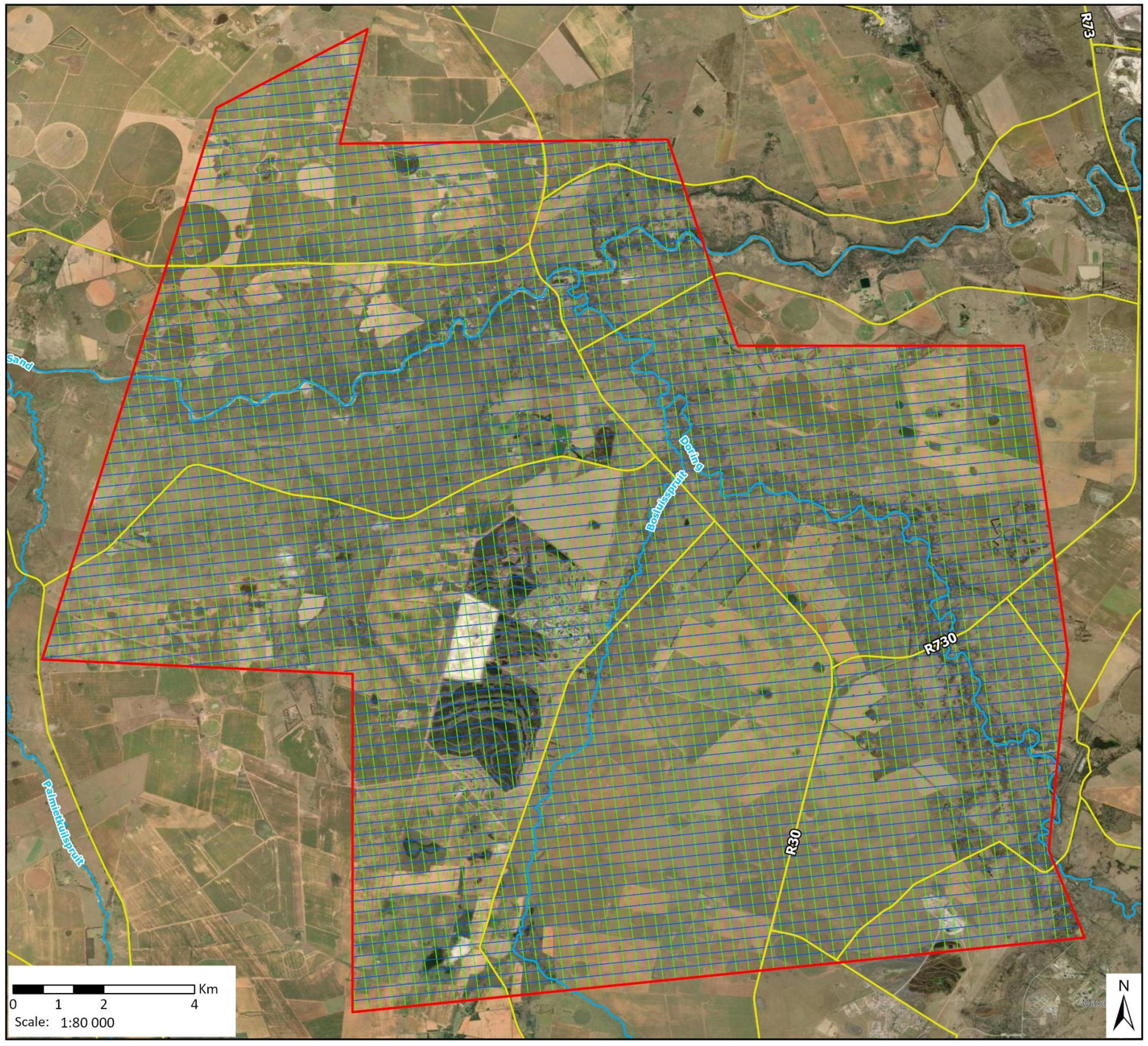
The approximate physical and operational specifications for each Nomad 65 unit are as follows:

- Length: ~10.6 m
- Width: ~3.42 m
- Height: ~3.2 m
- Gross Vehicle Weight: ~31.7 tonnes
- Hold-down Force: ~28.3 tonnes equivalent

While the Nomad 65 units are conventional industry vehicles, their physical dimensions—specifically the width of approximately 3.42 m and a gross vehicle weight of 31.7 tonnes—will dictate specific logistical routing. Navigation through certain portions of the project footprint will necessitate limited, temporary access provision. This is primarily required to accommodate the width constraints of the vehicles and ensure safe manoeuvrability without causing unintended peripheral disturbance to surrounding vegetation or infrastructure. Site-specific access routing will be strictly managed in accordance with the Environmental Management Programme (EMPr) to ensure that the required vehicle footprint remains highly localized, temporary, and strictly confined to approved corridors.

Figure 1: A Nomad 65 vibroseis truck (Industry, 2026).

Figure 2: A STRYDE's Node™. Wireless nodal system to be used as the land seismic receiver system in conjunction with the Nomad 65 vibroseis trucks (STRYDE, 2022).

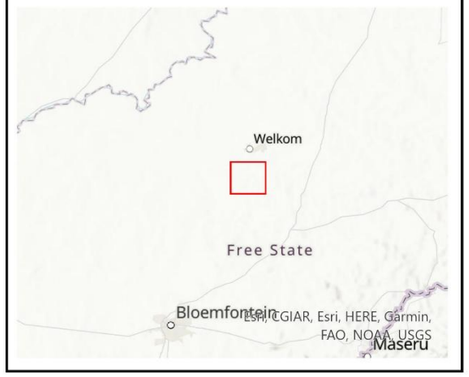


Seismic Source and Receiver Lines Map

1595 Tetra4 Seismic EA Amendment

Legend

- Cluster 2 Boundary Study Area
- NFEPA Rivers
- Seismic Source Lines
- Seismic Receiver Lines
- Roads



Data Sources:
CSG; ESRI
Coord System: GCS WGS 1984
Datum: WGS 1984
Units: Degree
Ref: 1595_SeismicLines

Date: 2023/11/17
EIMS Ref: 1595
Compiled: JW
Reviewed: BW
Approved: LW

Figure 3: Seismic source and receiver lines map.

1.2.2 PROJECT LOCATION

The proposed project falls within the Masilonyana and Matjhabeng Local Municipalities, in the Lejweleputswa District Municipality, Free State Province. The site boundary is ~5km southwest of the town of Virginia, ~9km south the town of Welkom and ~16km north of the town of Theunissen. The application area covers approximately 27 500 hectares, and the approximate centre point of the site is located at 28°10'20.47"S and 26°43'50.79"E. A locality map is included herewith for ease of reference.

Table 1: Project area information.

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Project Area</td><td>The proposed project area is located near the town Welkom in the Free State Province, South Africa.</td></tr>
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	Vlakpan 358 (Portion 1)	F03300000000035800001
	Vlakpan 358 (Portion 2)	F03300000000035800002
	Vlakpan 358 (Portion 3)	F03300000000035800003
	Walkersvlei No 133 (Portion 0)	F03900000000013300000
	Welgelegen 382 (Portion 0)	F03300000000038200000
	Welgelegen 382 (Portion 10)	F03300000000038200010
	Welgelegen 382 (Portion 11)	F03300000000038200011
	Welgelegen 382 (Portion 20)	F03300000000038200020
	Welgelegen 382 (Portion 21)	F03300000000038200021
	Welgelegen 382 (Portion 26)	F03300000000038200026
	Welgelegen 382 (Portion 28)	F03300000000038200028
	Welgelegen 382 (Portion 5)	F03300000000038200005
	Welgelegen 534 (Portion 2)	F03300000000053400002
	Weltevrede 638 (Portion 0)	F03300000000063800000
	Weltevreden 443 (Portion 14)	F03300000000044300014
	Weltevreden 443 (Portion 2)	F03300000000044300002
	Weltevreden 443 (Portion 3)	F03300000000044300003
	Weltevreden 443 (Portion 4)	F03300000000044300004
	Weltevreden 443 (Portion 5)	F03300000000044300005
	Weltevreden 443 (Portion 6)	F03300000000044300006
	Weltevreden 443 (Portion 9)	F03300000000044300009
	Werda No 587 (Portion 0)	F03300000000058700000
	Wolvepan No 85 (Portion 7)	F03900000000008500007
	Wolvepan No 85 (Portion 9)	F03900000000008500009
	Yatala No 73 (Portion 0)	F03500000000007300000
	Zoetendal 243 (Portion 0)	F03300000000024300000
	Zoetendal 243 (Portion 1)	F03300000000024300001

Item	Description	
	Zonderzorg 342 (Portion 0)	F03300000000034200000
	Zonderzorg 640 (Portion 0)	F03300000000064000000

1.1 DETAILS OF THE EAP/S

Environmental Impact Management Services (Pty) Ltd (EIMS) has been appointed by Tetra4 to assist in preparing and submitting the relevant environmental applications, associated reports and documentation, and to undertake a Public Participation Process (PPP) in support of the proposed Seismics Study project. In terms of Regulation 13 of the EIA Regulations (GN R. 982) as amended, an independent Environmental Assessment Practitioner (EAP), must be appointed by the applicant to manage the application. EIMS and the compiler of this report are compliant with the definition of an EAP as defined in Regulations 1 and 13 of the EIA Regulations, as well as Section 1 of the NEMA. This includes, inter alia, the requirement that EIMS:

- Is objective and independent;
- Has expertise in conducting EIAs;
- Complies with the NEMA, the environmental regulations and all other applicable legislation;
- Considers all relevant factors relating to the application; and
- Provides full disclosure to the applicant and the relevant environmental authority.

The details of the EAPs involved in the application and assessments are as follows:

Table 2: EAP/s Details.

Practitioners	John von Mayer (Senior EAP and reviewer)	Jessica Jordaan (EAP)
Tel No:	+27 789 7170	+27 789 7170
Fax No.	+27 86 571 9047	+27 86 571 9047
E-mail	john@eims.co.za	jessica@eims.co.za
Professional Registrations	SACNASP – Professional Sci. Nat (Soil Science), 400336/11. EAPASA – Registered EAP, 2019/1247.	SACNASP – Candidate Sci. Nat (Soil Science), 124758. EAPASA – Candidate EAP, 2023/7087.

1.1.1 EXPERTISE OF THE EAP/S

Mr John von Mayer is a senior consultant at EIMS and has been involved in numerous significant projects the past 17 years. He has experience in Project Management, small to large scale Environmental Impact Assessments, Environmental Auditing, Water Use Licensing, and Public Participation. He is a Registered Professional Natural Scientist (400336/11) with the South African Council Natural and Scientific Professions (SACNASP) as well as a registered EAPASA Environmental Practitioner (2019/1247) His key experience includes:

- Experience with identification and assessment of environmental impacts.
- Experience in environmental compliance and monitoring.
- Knowledge of environmental legislation and policies, planning process and regulatory frameworks.

- Knowledge and experience of public participation process.
- Strong competencies in the assessment of renewable energy and mining projects.
- Project management.

Mr von Mayer has been assisted by Ms. Jordaan is an Environmental Consultant and Candidate Soil/Agriculture Specialist at EIMS and has been involved in numerous environmental audits, prospecting and exploration rights environmental authorisation application projects, and rehabilitation projects regarding Financial Provisions. She holds a BSc degree in Geology and a BSc Honours degree in Environmental Soil and Soil Science. Ms Jordaan's experience includes managing and/or undertaking Environmental Impact Assessments (EIA) and Basic Assessments (BA), Soil and Agriculture Assessments, Financial Provisioning, Environmental Audits, and ISO14001:2015 Audits. Ms Jordaan is a registered Candidate Soil Scientist (#124758) with the South African Council of Natural and Scientific Professions (SACNASP), as well as a registered Candidate Environmental Assessment Practitioner (2023/7087) with the Environmental Assessment Practitioners Association of South Africa (EAPASA). She is a registered ISO 14001:2015 Lead Auditor with the Chartered Quality Institute (CQI) and a member of the International Register of Certified Auditors (IRCA).

2 ENVIRONMENTAL SENSITIVITY MAPS

A comprehensive assessment of all sensitivity factors and their corresponding levels was undertaken. The results were synthesized into two maps: a maximum sensitivity map and a sensitivity intensity map. The former delineates areas exhibiting the highest sensitivity based on a single dominant factor, such as agriculture or terrestrial ecology. Conversely, the sensitivity intensity map represents an aggregate of all sensitivity factors, providing a holistic overview of environmental vulnerability. It is important to note that the site sensitivity map presented herein differs from the mapping developed for the Tetra4 Phase 2 EIA. This variation is due to the distinct nature of the proposed activities assessed within this Basic Assessment (BA). The sensitivity ratings applied in this report are specifically aligned to the anticipated impacts associated with the current project scope.

The high sensitivities observed in Figure 4 are primarily attributed to the high aquatic biodiversity and wetland sensitivity within the study area. Furthermore, the terrestrial specialists have designated the degraded Grassland Sensitive species habitat and associated water resources as a no-go area. Concurrently, the aquatics specialists have classified the Sibanye Beatrix West mine tailings and operational footprint as a separate no-go area.

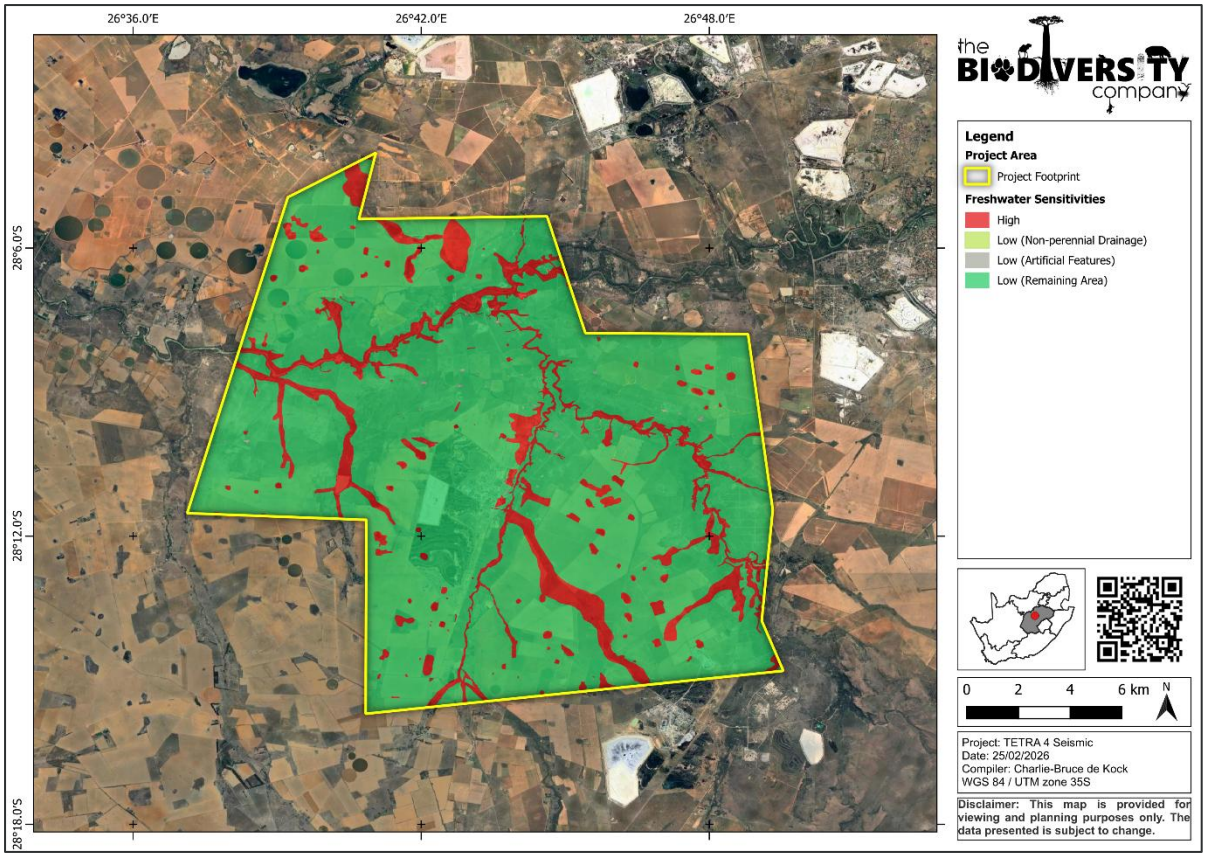


Figure 4: Wetland Sensitivity map.

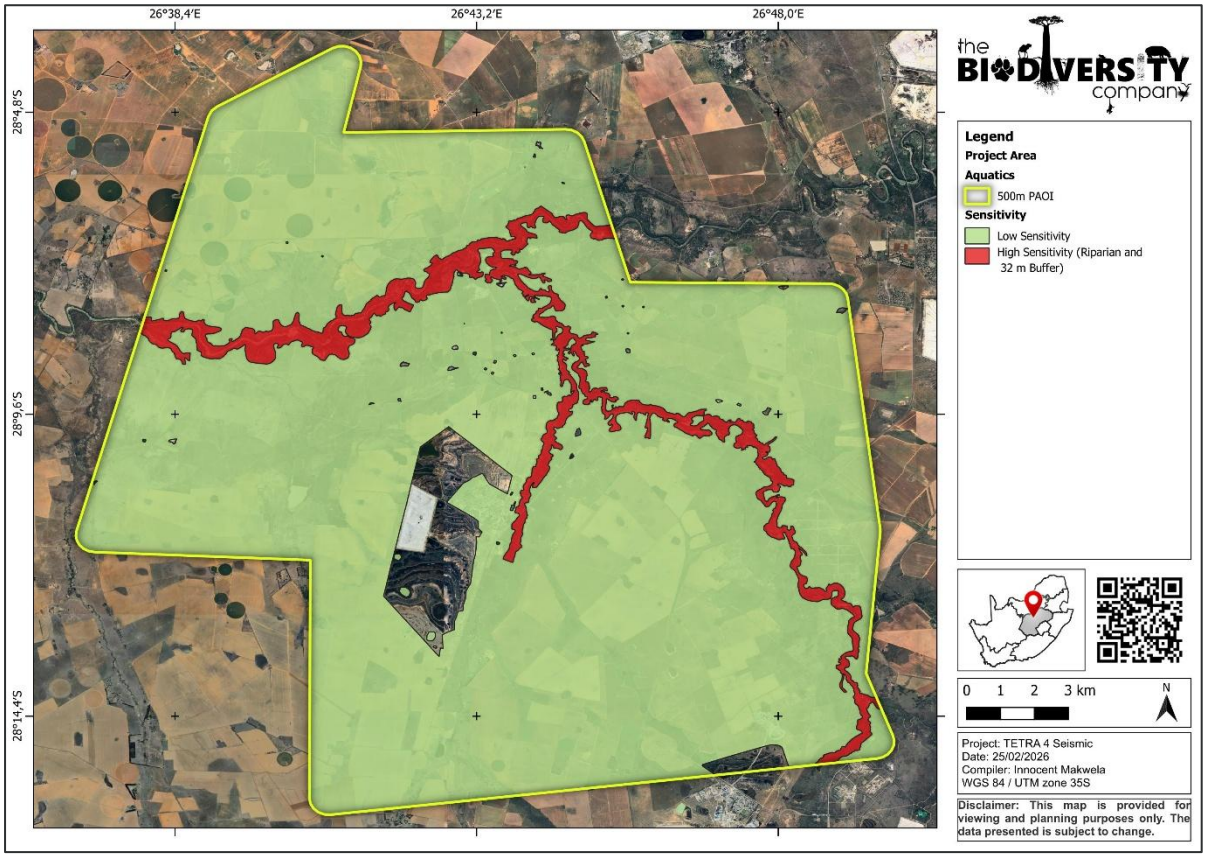


Figure 5: Aquatics sensitivity map.

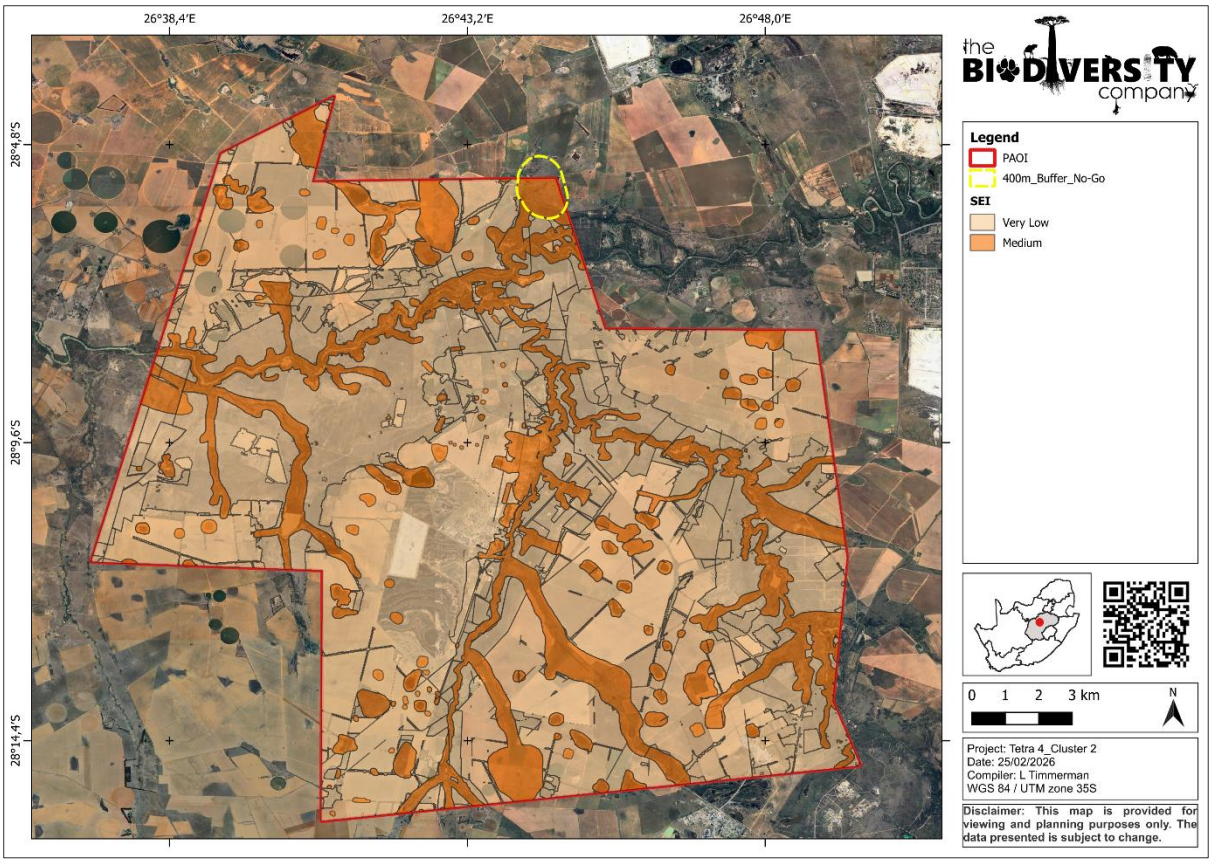
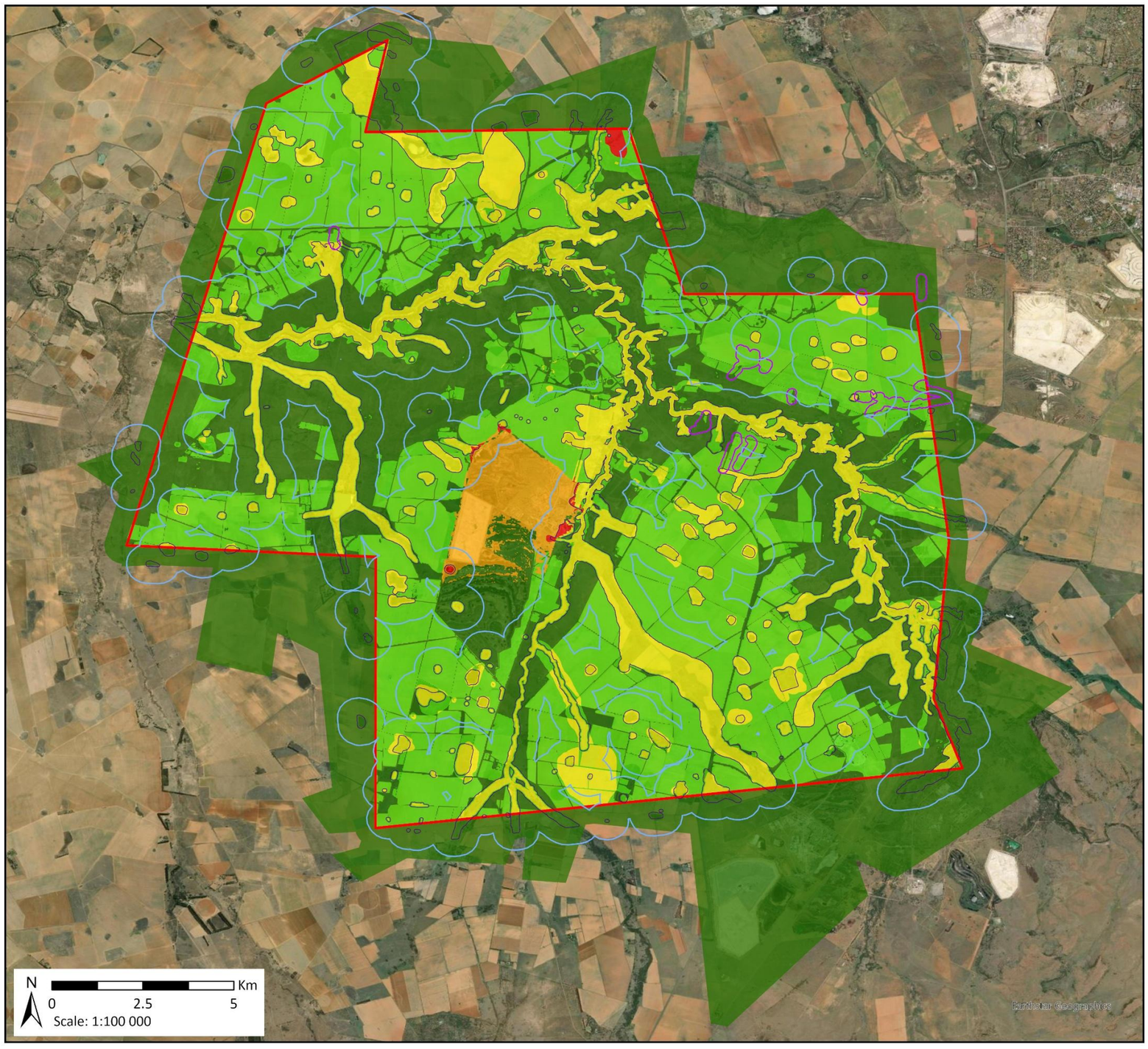


Figure 6: Terrestrial Sensitivity map.



Sensitivity Intensity Map

1595 Tetra4 Seismic EA Amendment

Legend

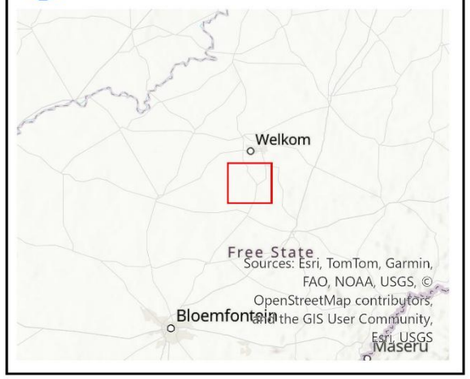
Cluster 2 Boundary
Study Area

Sensitivity Intensity

0.00 - 3.00
3.01 - 5.00
5.01 - 10.00
10.01 - 102.00
102.01 - 107.00

Freshwater Buffers

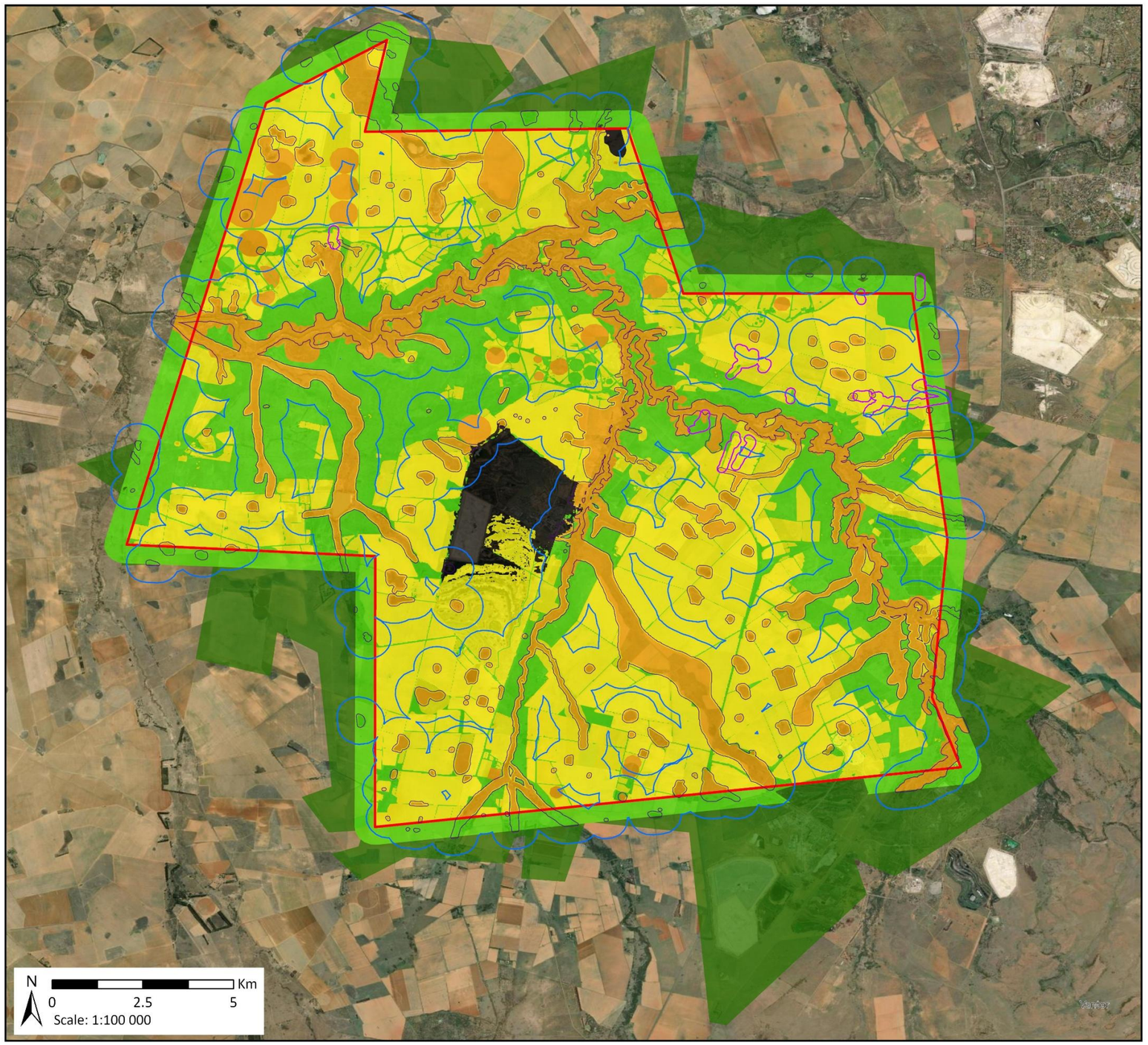
32 m ZoR NEMA
100 m ZoR NWA
500 m ZoR NWA



Data Sources:
CSG; ESRI
Coord System: GCS WGS 1984
Datum: WGS 1984
Units: Degree
Ref: 1595_Sensitivity

Date: 2026/04/02
EIMS Ref: 1595
Compiled: JW
Reviewed: JJ
Approved: LW

Figure 7: Sensitivity intensity map for proposed project area.



Maximum Sensitivity Map

1595 Tetra4 Seismic EA Amendment

Legend

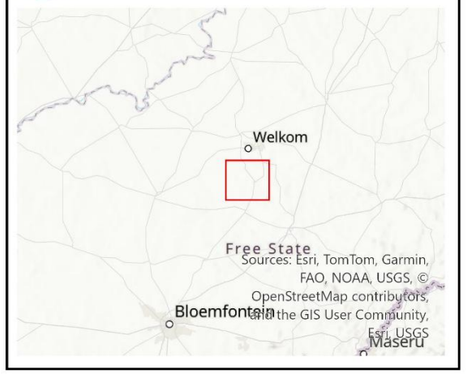
Cluster 2 Boundary
Study Area

Maximum Sensitivity

- Least Concern
- Low
- Medium
- High
- No-Go

Freshwater Buffers

- 32 m ZoR NEMA
- 100 m ZoR NWA
- 500 m ZoR NWA



Data Sources:
CSG; ESRI
Coord System: GCS WGS 1984
Datum: WGS 1984
Units: Degree
Ref: 1595_Sensitivity

Date: 2026/04/02
EIMS Ref: 1595
Compiled: JW
Reviewed: JJ
Approved: LW

Figure 8: Maximum sensitivity map for proposed project area.

3 ENVIRONMENTAL MONITORING AND ACTION PLANS

Due to the nature of the project and low impacts, only surface activities will be monitored, including biodiversity and Heritage monitoring

Table 3: Biodiversity Monitoring Plan.

Phase	Activity	Functional Requirements	Performance Indicator/ Target	Roles and Responsibilities	Frequency	Reporting Mechanism
Construction	All Surface Activities within watercourses or 100m from watercourses.	• Standards: None • Locations: All impacted watercourses. • Parameters: Watercourse monitoring datasheet (refer to wetland and aquatic specialist study).	• Target: no construction related erosion and /or watercourse degradation.	Tetra4.	Monthly in vicinity to watercourses.	Monthly ECO Reports Annual Environmental Audit reports
Operation	Exploration Surface Activities.	• Standards: Conservation of Agricultural Resources Act, Act No. 43 of 1983; National Environmental Management: Biodiversity Act, Act No. 10 of 2004-alien and invasive species list (2014).	• Target: All alien invasive plant species effectively controlled. • Indicators: New floral species appearing on site, alien species list (including density information), change in composition/structure of native plant communities, extent	Tetra4.	Monthly Survey.	Monthly ECO Reports Annual Environmental Audit reports

Phase	Activity	Functional Requirements	Performance Indicator/ Target	Roles and Responsibilities	Frequency	Reporting Mechanism
		• Locations: All production/exploration areas and adjacent area (~5m). • Parameters: Plant community composition. Alien and invasive plant abundance (numbers, density, cover, frequency); Condition (measures of vigour, performance, fecundity); Structure (size or age class information).	of invasive species populations, record of clearing activities, decline in abundance of alien plant species over time.			
Rehabilitation and closure	Exploration Surface Activities	• Standards: None • Locations: All impacted watercourses. • Parameters: Watercourse monitoring datasheet (refer to wetland and aquatic specialist study).	• Target: no construction and operation related erosion and /or watercourse degradation.	Tetra4.	Monthly during construction and operation in vicinity to watercourses and 1 year thereafter.	Monthly ECO Reports Annual Environmental Audit reports

Table 4: Heritage Monitoring Plan.

Phase	Area and site no.	Mitigation measures	Timeframe	The responsible party for implementation	Monitoring	Legislative compliance	Reporting Mechanism
Planning	General project impact area	Develop a chance find procedures in case where possible heritage finds (incl. unmarked graves) are uncovered.	Prior to construction.	Tetra4 EO	ECO (monthly / as or when required)	Ensure compliance with relevant legislation and recommendations from SAHRA under Section 34-36 and 38 of NHRA	Chance find procedure
Construction and Operation	General project impact area	Implement a chance find procedures in case where possible heritage finds (incl. unmarked graves) are uncovered.	Ongoing throughout construction.	Tetra4 EO Heritage Specialist (when required)	ECO (monthly / as or when required)	Ensure compliance with relevant legislation and recommendations from SAHRA under Section 34-36 and 38 of NHRA	ECO Monthly Checklist/Report
Construction and Operation	Grave and burial ground sites (TET 1, TET 7-8, TET 11, TET 15, TET 19, TET 22, SSL/BET/72, SITE 2, SITE 19 and T0003, T0009, T0024, T0029, T_BV_1) that were located within the proposed	▪ The graves should be demarcated with a 50-meter buffer and should be avoided and left *in situ*. ▪ A Grave Management Plan should be developed for any graves where construction activities closer 50m from graves which also	Ongoing throughout construction.	Tetra4 EO Heritage Specialist (when required)	ECO (monthly / as or when required)	Ensure compliance with relevant legislation and recommendations from SAHRA under Section 34-36 and 38 of NHRA	ECO Monthly Checklist/Report

Phase	Area and site no.	Mitigation measures	Timeframe	The responsible party for implementation	Monitoring	Legislative compliance	Reporting Mechanism
	development area and were rated as high local heritage significance and had a heritage grading of IIIA.	need to be approved by SAHRA BGG. ▪ If the site is going to be impacted and the graves need to be removed a grave relocation process as per the Heritage Management Plan for the site is recommended as a mitigation and management measure. This will involve the necessary social consultation and public participation process before grave relocation permits can be applied for with the SAHRA BGG under the NHRA and National Health Act regulations.					
Construction and Operation	Burial Grounds and Graves (T0010, T0013) that were located outside of the proposed development area.	▪ The graves should be demarcated with a 50-meter buffer and should be avoided and left *in situ*. ▪ A Grave Management Plan should be developed for any	N/A	Tetra4 EO	ECO (monthly / as or when required)	Ensure compliance with relevant legislation and recommendations from SAHRA under Section 34-	ECO Monthly Checklist/Report

Phase	Area and site no.	Mitigation measures	Timeframe	The responsible party for implementation	Monitoring	Legislative compliance	Reporting Mechanism
		graves where construction activities closer 50m from graves which also need to be approved by SAHRA BGG. If the site is going to be impacted and the graves need to be removed a grave relocation process as per the Heritage Management Plan for the site is recommended as a mitigation and management measure. This will involve the necessary social consultation and public participation process before grave relocation permits can be applied for with the SAHRA BGG under the NHRA and National Health Act regulations.				36 and 38 of NHRA	
Construction and Operation	Palaeontological finds	▪ The EO must be informed that the Adelaide Subgroup	Ongoing throughout construction.	Tetra4 EO	Monthly	Ensure compliance with relevant	Final report to be used by the develop to apply

Phase	Area and site no.	Mitigation measures	Timeframe	The responsible party for implementation	Monitoring	Legislative compliance	Reporting Mechanism
		(Beaufort Group, Karoo Supergroup) has a Very High Palaeontological Sensitivity. ▪ If fossil remains are discovered during any phase of construction, either on the surface or exposed by fresh excavations the Chance Find Protocol must be implemented by the ECO in charge of these developments.		Palaeontologist (when required)		legislation and recommendations from SAHRA under Section 35 of NHRA	for a destruction permit under s35 of the NHRA.

4 STAKEHOLDER ENGAGEMENT

Social impacts occur immediately in the planning phase of a project and as such it is imperative to start with stakeholder engagement as early in the process as possible. Stakeholder Engagement commenced during the BA Phase of the project, in accordance with the relevant legislation. Stakeholder Engagement is however required on an ongoing basis throughout the execution of the project. As such, it is recommended that the Holder develop and implement a detailed Stakeholder Engagement Plan (SEP), designed to work as a living document for implementation over the entire production period.

4.1.1 STAKEHOLDER MANAGEMENT PLAN

The following stakeholder engagement framework outlines the principles and objectives for stakeholder engagement during all phases of the mining operation:

- To identify and assess the processes and/or mechanisms that will improve the communication between local communities, the wider community and the Holder;
- To improve relations between the Holder's staff and the people living in the local communities;
- To provide a guideline for the dissemination of information crucial to the local communities in a timely, respectful and efficient manner; and
- To provide a format for the timely recollection of information from the local communities in such a way that the communities are included in the decision-making process.

This SEP plan will assist the Holder to outline their approach towards communicating in the most efficient way possible with stakeholders throughout the life of the production. Such a plan cannot be considered a once off activity and should be regularly updated to ensure that it stays relevant and to capture new information. The SEP should be compiled in line with the relevant IFC Guidelines (IFC) and should consist of the following components:

- Stakeholder Identification and Analysis – time should be invested in identifying and prioritising stakeholders and assessing their interests and concerns;
- Information Disclosure – information must be communicated to stakeholders early in the decision-making process in ways that are meaningful and accessible, and this communication should be continued throughout the life of the project;
- Stakeholder Consultation – each consultation process should be planned out, consultation should be inclusive, the process should be documented, and follow-up should be communicated;
- Negotiation and Partnerships – add value to mitigation or project benefits by forming strategic partnerships and for controversial and complex issues, enter into good faith negotiations that satisfy the interest of all parties;
- Grievance Management – accessible and responsive means for stakeholders to raise concerns and grievances about the project must be established throughout the life of the project;
- Stakeholder Involvement in Project Monitoring – directly affected stakeholders may be involved in monitoring project impacts, mitigation and benefits. External monitors can be involved where they would enhance transparency and credibility;
- Reporting to Stakeholders – report back to stakeholders on environmental, social and economic performance, both those consulted and those with more general interests in the project and parent company; and
- Management Functions – sufficient capacity within the company must be built and maintained to manage processes of stakeholder engagement, track commitments and report on progress.

It is of critical importance that stakeholder engagement takes place in each phase of the project cycle and it must be noted that the approach will differ according to each phase.

4.1.2 GRIEVANCE MECHANISM

In accordance with international good practice the Holder shall establish a specific mechanism for dealing with grievances. A grievance is a complaint or concern raised by an individual or organisation that judges that they have been adversely affected by the project during any stage of its development. Grievances may take the form of specific complaints for actual damages or injury, general concerns about project activities, incidents and impacts, or perceived impacts. The IFC standards require Grievance Mechanisms to provide a structured way of receiving and resolving grievances. Complaints should be addressed promptly using an understandable and transparent process that is culturally appropriate and readily acceptable to all segments of affected communities and is at no cost and without retribution. The mechanism should be appropriate to the scale of impacts and risks presented by a project and beneficial for both the company and stakeholders. The mechanism must not impede access to other judicial or administrative remedies.

The grievance mechanism shall be based on the following principles:

- Transparency and fairness;
- Accessibility and cultural appropriateness;
- Openness and communication regularity;
- Written records;
- Dialogue and site visits; and
- Timely resolution.

Based on the principles described above, the grievance mechanism process involves four stages:

- Receiving and recording the grievance;
- Acknowledgement and registration;
- Site inspection and investigation; and
- Response.

5 DOCUMENTATION OF SITE-SPECIFIC SENSITIVITIES AND ATTRIBUTES

This EMPr sets out the methods by which proper environmental controls are to be implemented by Tetra4 and the appointed contractors. The broad objective for the management of environmental impacts is to reduce the significance of each negative impact and enhance positive impacts which have been identified during the BA through a combination of the following:

1. Minimize disturbance to the physical and biological environment;
2. Minimize or prevent disturbance to any sites of cultural or heritage values; and to
3. Minimize or enhance any socio-economic impacts that might result from the activity.

Note: All references to “construction” in the EIA Report and EMPr shall be deemed to include commencement of a listed activity including all exploration related activities. The terms “construction” and “exploration” should be deemed to be synonymous in so far as they relate to temporary disturbance of the receiving environment.

5.1 CONSTRUCTION

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• **Traversing must be limited during 24 to 48 hours following significant rainfall events (e.g., >10 mm), or until the soil surface has dried enough to prevent severe, deep-profile compaction and rutting.**	Tetra4 Project Manager / Contractor	Landowner negotiation and agreements	Ongoing during construction	Contractor EO and/or Tetra4 EO	Monthly	EO Reports
• **The palaeontologist must apply for a valid permit from SAHRA for the collection/removal of fossils encountered during the survey.** • **If fossils are encountered and reported, a palaeontologist must be appointed to remove the fossils after applying for a valid collection permit from SAHRA.**	Tetra4 Project Manager / Contractor	Follow chance finds procedure	Ongoing during construction	Contractor EO and/or Tetra4 EO Palaeontologist (when required)	Monthly	EO Reports
• **Depressions (HGM 4): Vehicle access may be permitted only during the dry season and only when depressions are confirmed dry, with rerouting required if wetness/saturation is observed.** • **Keep vehicles to existing tracks and approved routes; no ad hoc detours or route widening near wet areas.**	Tetra4 Project Manager / Contractor	Landowner negotiation and agreements Spill / pollution prevention measures Clean and dirty water management	Ongoing during construction	Contractor EO and/or Tetra4 EO	Monthly	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• **Use single, pre-approved crossing points only where unavoidable, applying low-impact measures (no blading/excavation of wetland soils).** • **Restrict vehicle movement to approved routes and avoid delineated wetlands (HGM 1–3); only allow access through dry depressions (HGM 4) during the dry season when confirmed dry.** • **Inspect and clean vehicles/equipment (wheels, undercarriages) before entering the site and when moving between properties to reduce weed seed transfer.** • **Prohibit refuelling, servicing/maintenance and hazardous substance handling within wetlands (HGM 1–3); undertake these activities only at designated areas located away from freshwater features.** • **Ensure fuels, oils and hazardous substances are stored and handled with secondary containment (e.g., bunding/drip trays) and that vehicles are regularly inspected for leaks**		Waste management and disposal to be undertaken according to legislation				

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
(repair leaks before re-entry to the field). • Maintain good housekeeping: no dumping/burying/burning of waste; store waste securely and remove regularly to licensed facilities; prevent litter accumulation and collect windblown litter promptly. • Implement spill response procedures: stop source, contain, clean up and dispose of contaminated material appropriately, and record/report incidents in accordance with site requirements; any spill near a freshwater feature triggers immediate escalation and remediation. • Prevent discharge of contaminated water to the environment; manage any contaminated runoff/wash water via appropriate containment and disposal (no release to drainage lines/wetlands).						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• **Avoid the creation of new access roads; use existing roads as far as possible.** • **Inspect and clean vehicles/equipment (wheels, undercarriages) before entering the site and when moving between properties to reduce weed seed transfer.** • **Monitor disturbed areas and access routes for alien/invasive plant establishment during and after operations and remove/eradicate infestations as they arise (mechanical/hand removal or appropriate treatment).** • **Restrict vehicle movement to approved routes and avoid delineated wetlands (HGM 1–3); only allow access through dry depressions (HGM 4) during the dry season when confirmed dry.** • **No clearance or removal of Alien Invasive Plants (AIP) is permitted without an approved AIP Management Plan in place.** • **Indigenous vegetation to be maintained (no clearing for seismic lines) to ensure**	Tetra4 Project Manager / Contractor	Landowner negotiation and agreements Alien Invasive Management Plan Identify and manage sensitive species	Ongoing during construction	Contractor EO and/or Tetra4 EO	Monthly	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
biodiversity is maintained and to prevent soil erosion. • **If required, vegetation clearing commences only after the necessary permits for SCCs or protected plants have been obtained. Any individual of the protected plants that were observed needs a relocation or destruction permit for any individual to be removed or destroyed due to the development. High visibility flags must be placed near any protected plants to avoid any damage or destruction of the species. If left undisturbed the sensitivity and importance of these species needs to be part of the environmental awareness programme.** • **When clearing vegetation, an ecologist will need to be on-site to assist in identifying SCCs or protected plants.** • **Areas of indigenous vegetation, even secondary communities outside of the direct project footprint, should under no circumstances be fragmented or disturbed further. It is**						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
recommended that areas to be developed be specifically demarcated so that during the construction phase, only the demarcated areas be impacted upon.						
• **Implement a chance to find procedures in case where possible heritage finds are uncovered. Tentative 30m buffers should be placed on possible remote sensing and historical map markers, as supplied.** • **Demarcate a 30 m buffer during construction and treat as no-go zones. Should a fence be erected, access to the BGG for interested and affected parties and next-of-kin must be allowed, and suitable measures for public access control must be put in place. An access protocol to manage visits by the next of kin must be included in the EMPr.** ○ **If direct impact is unavoidable and relocation is required, a grave relocation process (NHRA section**	Tetra4 Project Manager / Contractor	Chance Find Protocol	Ongoing during construction	Contractor EO and/or Tetra4 EO	Monthly	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
36) must be undertaken. This involves social consultation, public participation, and permits from SAHRA under the NHRA and the National Health Act (Act 61 of 2003) (NHA), as amended. • Demarcate a 30 m buffer during construction and treat as no-go zones for sites graded as IIIC or higher. If conservation is not possible, mitigation must be undertaken under a NHRA section 34 permit from SAHRA, as well as a section 36 permit in the case of homesteads which hold the chance of containing graves. For mitigation of these sites, documentation by an architectural historian, which consists of drawing and photographing the structure and the layout, as well as recording any special characteristics identified during the recording, after which a destruction permit can be applied for, as discussed in the bullet point below.						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
○ This includes detailed documentation of the site layout and infrastructural characteristics, and archaeological geophysics and test excavations to investigate the possibility of infant burials for the homesteads which are assessed to hold the potential for graves, which will require a NHRA section 35 permit from SAHRA. ○ Destruction may proceed only on condition of the issuing of an appropriate permit from the relevant PHRA/SAHRA, which is supported by the mitigation report, or if the cultural heritage resource is to be retained in situ and not altered; an HMP in compliance with section 47(3) of the						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
NHRA must be compiled by a heritage specialist/archaeologist and implemented. • Demarcate a 30 m buffer during construction and treat as no-go zones for sites graded as IIIC or higher. As the 30 m buffer is a guideline, it may be reduced only if the site is clearly demarcated, strictly avoided, and such a reduction is approved by SAHRA. If conservation is not possible, mitigation must be undertaken under a NHRA section 35 permit from SAHRA. ○ This includes a sample surface collection for all types of archaeological material in the impacted areas. • If fossil remains or trace fossils are discovered during any phase of construction, either on the surface or exposed by excavations the ECO in charge of these developments must report to SAHRA (Contact details: SAHRA, 111 Harrington Street, Cape Town. PO Box 4637, Cape Town 8000, South Africa.						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Tel: 021 462 4502. Fax: +27 (0)21 462 4509. Web: www.sahra.org.za) so that mitigation can be carried out by a palaeontologist						

5.2 OPERATION

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• **Route optimization: The grid traversal plan must utilise existing farm roads, tracks, and firebreaks as far as possible, before charting new off-road paths.** • **Meteorological Monitoring: Dust-generating activities (specifically off-road traversing) should be temporarily scaled back or halted during periods of high wind speeds blowing in the direction of sensitive receptors (farmsteads or residential zones).**	Contractor	Ensure landowner access protocols are followed Design and planning specific compliance	During operation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports
• **Traversing must be limited during 24 to 48 hours following significant rainfall events (e.g., >10 mm), or until the soil surface**	Contractor	Design and planning specific compliance	During operation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
has dried enough to prevent severe, deep-profile compaction and rutting. • **The survey grid must be explicitly to use existing farm roads, fence lines, and firebreaks as far as possible.**						
• **The palaeontologist must apply for a valid permit from SAHRA for the collection/removal of fossils encountered during the survey.** • **If fossils are encountered and reported, a palaeontologist must be appointed to remove the fossils after applying for a valid collection permit from SAHRA.**	Contractor	Chance Find Protocols	During operation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports
• **Prior to site mobilisation, a hydrocensus must be conducted across the survey grid to identify the locations of boreholes. This involves consulting with landowners to locate and assess the baseline status (e.g. depth, yield, and equipment) of all active, inactive, and abandoned boreholes, springs, and wells.** • **This is the primary mitigation strategy for structural damage. A buffer zone of at least 100 m to**	Contractor	Design and planning specific compliance Borehole Hydrocensus	During operation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
150 m (depending on the specific vibroseis energy output and local geological attenuation factors) must be delineated around all identified boreholes and water points. Vibroseis source points must be offset if they fall within this radius. Support vehicles may traverse these zones, but active vibration should be avoided. • **Where survey lines must necessarily pass near critical water infrastructure or sensitive farm buildings, peak particle velocity (PPV) seismographs should be temporarily deployed to ensure ground vibration limits do not exceed safe infrastructural thresholds.** • **Routine maintenance of the vibroseis hydraulic systems must be conducted off-site or within properly bunded workshop areas. In the field, all vehicles must be equipped with comprehensive hydrocarbon spill kits. Drip trays must be utilized during any stationary periods or minor field repairs.**						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• **Refuelling or parking of heavy machinery must be prohibited within 50 m of any known borehole, wetland, or drainage line to prevent rapid contaminant ingress.**						
• **Micro-site transect lines to avoid delineated wetlands (HGM 1–3), and demarcate no-go areas before operations.** • **Depressions (HGM 4): Vehicle access may be permitted only during the dry season and only when depressions are confirmed dry, with rerouting required if wetness/saturation is observed.** • **Keep vehicles to existing tracks and approved routes; no ad hoc detours or route widening near wet areas.** • **Prefer dry-season (June – August) operations and stop/reroute if soils are wet/saturated to prevent rutting and compaction.** • **Use single, pre-approved crossing points only where unavoidable, applying low-impact measures (no blading/excavation of wetland soils).**	Contractor	Design and planning specific compliance	During operation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• Restrict vehicle movement to approved routes and avoid delineated wetlands (HGM 1–3); only allow access through dry depressions (HGM 4) during the dry season when confirmed dry. • Minimise disturbance by keeping the operational footprint as small as practicable and prohibiting unnecessary vegetation disturbance/clearing. • Inspect and clean vehicles/equipment (wheels, undercarriages) before entering the site and when moving between properties to reduce weed seed transfer. • Monitor disturbed areas and access routes for alien/invasive plant establishment during and after operations, and remove/eradicate infestations as they arise (mechanical/hand removal or appropriate treatment). • Rehabilitate any disturbed areas promptly (re-profile, stabilise and re-vegetate as required using locally appropriate indigenous species or an agreed						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
pasture mix, in consultation with the landowner). • Prohibit refuelling, servicing/maintenance and hazardous substance handling within wetlands (HGM 1–3); undertake these activities only at designated areas located away from freshwater features. • Ensure fuels, oils and hazardous substances are stored and handled with secondary containment (e.g., bunding/drip trays) and that vehicles are regularly inspected for leaks (repair leaks before re-entry to the field). • Maintain good housekeeping: no dumping/burying/burning of waste; store waste securely and remove regularly to licensed facilities; prevent litter accumulation and collect windblown litter promptly. • Keep spill kits available on all relevant vehicles/teams, and ensure staff are trained to respond to leaks/spills. • Implement spill response procedures: stop source, contain, clean up and dispose of						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
contaminated material appropriately, and record/report incidents in accordance with site requirements; any spill near a freshwater feature triggers immediate escalation and remediation. • **Prevent discharge of contaminated water to the environment; manage any contaminated runoff/wash water via appropriate containment and disposal (no release to drainage lines/wetlands).**						
• **Active vibroseis operations must be completely avoided within ecologically sensitive habitats, such as seasonal pans and wetlands, during the breeding seasons to prevent acoustic stress and reproductive disruption to local fauna** • **To prevent sleep disturbance and align with natural diurnal faunal activity patterns, all active vibroseis sweeping and heavy vehicle movement must be strictly limited to daylight hours (e.g., 06:00 to 18:00).**	Contractor	Design and planning specific compliance Landowner negotiation and agreements	During operation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• **Landowners must be provided with a rolling, weekly schedule of the grid traversal path. This allows farmers to anticipate the mobile noise footprint and temporarily relocate sensitive livestock if deemed necessary. A clear grievance mechanism must be established for noise complaints.**						
• **Active survey operations must remain restricted to daylight hours.** • **Strict waste management protocols must be enforced. Ensure that no litter, hydrocarbon spills, or temporary infrastructure (such as high-visibility flagging tape or pegs) are left behind.**	Contractor	Design and planning specific compliance Landowner negotiation and agreements Spill and waste management	During operation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports
• **Minimise disturbance by keeping the operational footprint as small as practicable and prohibiting unnecessary vegetation disturbance/clearing.** • **Inspect and clean vehicles/equipment (wheels, undercarriages) before entering the site and when moving**	Contractor	Design and planning specific compliance Landowner negotiation and agreements	During operation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
between properties to reduce weed seed transfer. • Monitor disturbed areas and access routes for alien/invasive plant establishment during and after operations and remove/eradicate infestations as they arise (mechanical/hand removal or appropriate treatment). • Rehabilitate any disturbed areas promptly (re-profile, stabilise and re-vegetate as required using locally appropriate indigenous species or an agreed pasture mix, in consultation with the landowner). • Restrict vehicle movement to approved routes and avoid delineated wetlands (HGM 1–3); only allow access through dry depressions (HGM 4) during the dry season when confirmed dry. • No clearance or removal of Alien Invasive Plants (AIP) is permitted without an approved AIP Management Plan in place. • Indigenous vegetation to be maintained (no clearing for seismic lines) to ensure						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
biodiversity is maintained and to prevent soil erosion. • **Restrict all Seismic survey activities to authorised footprint areas only.** • **If required, vegetation clearing commences only after the necessary permits for SCCs or protected plants have been obtained. Any individual of the protected plants that were observed needs a relocation or destruction permit for any individual to be removed or destroyed due to the development. High visibility flags must be placed near any protected plants to avoid any damage or destruction of the species. If left undisturbed the sensitivity and importance of these species needs to be part of the environmental awareness programme.** • **When clearing vegetation, an ecologist will need to be on-site to assist in identifying SCCs or protected plants.** • **Areas of indigenous vegetation, even secondary communities outside of the direct project**						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
footprint, should under no circumstances be fragmented or disturbed further. It is recommended that areas to be developed be specifically demarcated so that during the construction phase, only the demarcated areas be impacted upon.						
• **Prior to Seismic survey activities, the area should be walked on foot by 1-2 individuals to create a disturbance in order for fauna to move off. Disturbance must occur as soon before Seismic survey activities as possible and no unnecessary disturbance to the area is permitted** • **Any tortoises present should be removed from the affected areas before the start of Seismic survey activities and relocated them to safe areas within the PAOI.** • **Any fauna threatened by the Seismic survey activities should be removed safely by an appropriately qualified environmental officer or removal specialist.**	Contractor	Design and planning specific compliance	During operation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• To reduce any impact on the possible presence of significant burrowing mammal species, line clearance crews will be instructed at induction on the detection of these species scats and signs. • If these species are detected, then no ground disturbance will take place within 100 m of these areas. • Indications of the presence of these species need to be reported. • Safely relocate any wildlife at risk from Seismic survey activities with the help of a qualified environmental officer or specialist. • Driving on access roads at night should be restricted to maximum 20 km/h to reduce or prevent wildlife road mortalities which occur more frequently during this period. • Focus work on one area at a time to reduce the extent of on-site activities, allowing wildlife to relocate as the project progresses. This helps smaller						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
animals find refuge in nearby undisturbed areas. • No nighttime Seismic survey activities to minimise disturbances to nocturnal species expected in the area. • All project activities must be undertaken with appropriate noise mitigation measures to avoid disturbance to avifauna population in the region; • The No-Go 400m buffer area for Degraded Grassland Sensitive Species must be avoided for Seismic survey activities. • Provide all personnel and contractors to undergo Environmental Awareness Training to all personnel and contractors. A signed register of attendance must be kept for proof. Discussions The training must include. • All personnel should undergo environmental induction with regards to avifauna and in particular awareness about not harming, collecting, or hunting terrestrial species, and owls, which are often persecuted out						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
of superstition. Signs must be put up to enforce this. • As far as possible cables on cable laying trucks should be insulated • Where possible, instead of surveying the entire area at once, work on specific sections as needed. This approach involves focusing on one area at a time and following a systematic process. By doing so, the amount and scope of on-site activities are minimized, which allows wildlife to gradually relocate as the project advances. This method provides smaller birds, mammals, and reptiles the opportunity to cope with the disturbance by staying in nearby undisturbed areas that are close to their natural habitats. • A nest walkdown must be performed prior to Seismic survey activities, by a suitably qualified person. If nests are found a suitably qualified specialist must be contacted to advise on the way forward. • Keep noise levels low from dusk to dawn to avoid disturbing						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
amphibians and nocturnal mammals.						
• **Micro-site transect lines to avoid delineated riparian areas and demarcate no-go areas before operations.** • **Keep vehicles to existing tracks and approved routes; no ad hoc detours or route widening near wet areas.** • **Prefer dry-season operations and stop/reroute if soils are wet/saturated to prevent rutting and compaction.** • **Use single, pre-approved crossing points only where unavoidable, applying low-impact measures (no blading/excavation of riparian or river bed soils).**	Contractor	Design and planning specific compliance	During operation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports
• **All survey personnel must undergo security vetting prior to deployment. Every crew member must wear high-visibility, branded clothing and carry formal photographic identification at all times. All project vehicles must be clearly marked. The local South African Police Service (SAPS) and local farm watch coordinators must**	Contractor	Design and planning specific compliance Landowner negotiation and agreements	During operation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
be notified of the exact dates, vehicle registration numbers, and personnel headcounts prior to site entry. • **Written access agreements must be negotiated with every affected landowner prior to mobilisation. The survey schedule must avoid actively harvested or planted fields where possible. Ideally the seismic activities should take place during fallow seasons, unless an agreement is in place between the landowners and the applicant. Landowners must receive a minimum of 5 business days' notice before the fleet enters their specific property boundaries.** • **A strict "leave it as you found it" gate policy must be enforced. A dedicated Community Liaison Officer (CLO) or designated gate operator must travel ahead of the fleet to manage access and ensure all gates are secured immediately after the convoy passes. A compensation mechanism must be established to repair any accidental damage**						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
to fences, roads, or water infrastructure. • **A strict zero-tolerance code of conduct must be signed by all crew members, prohibiting the handling of livestock, harvesting of crops, poaching, lighting of open fires, or entering farmsteads without an explicit invitation.** • **The project proponent must identify and utilise local suppliers in the Welkom area and procure local skilled and un-skilled workers as far as possible.**						
• **Implement a chance to find procedures in case where possible heritage finds are uncovered. Tentative 30m buffers should be placed on possible remote sensing and historical map markers, as supplied.** • **Demarcate a 30 m buffer during construction and treat as no-go zones. Should a fence be erected, access to the BGG for interested and affected parties and next-of-kin must be allowed, and suitable measures**	Contractor	Chance Find Protocols	During operation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
for public access control must be put in place. An access protocol to manage visits by the next of kin must be included in the EMPr. **○ If direct impact is unavoidable and relocation is required, a grave relocation process (NHRA section 36) must be undertaken. This involves social consultation, public participation, and permits from SAHRA under the NHRA and the National Health Act (Act 61 of 2003) (NHA), as amended.** • **Demarcate a 30 m buffer during construction and treat as no-go zones for sites graded as IIIC or higher. If conservation is not possible, mitigation must be undertaken under a NHRA section 34 permit from SAHRA, as well as a section 36 permit in the case of homesteads which hold the chance of containing graves. For mitigation of these**						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
sites, documentation by an architectural historian, which consists of drawing and photographing the structure and the layout, as well as recording any special characteristics identified during the recording, after which a destruction permit can be applied for, as discussed in the bullet point below. **○ This includes detailed documentation of the site layout and infrastructural characteristics, and archaeological geophysics and test excavations to investigate the possibility of infant burials for the homesteads which are assessed to hold the potential for graves, which will require a NHRA section 35 permit from SAHRA.** **○ Destruction may proceed only on condition of the issuing of an appropriate**						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
permit from the relevant PHRA/SAHRA, which is supported by the mitigation report, or if the cultural heritage resource is to be retained in situ and not altered; an HMP in compliance with section 47(3) of the NHRA must be compiled by a heritage specialist/archaeologist and implemented. • **Demarcate a 30 m buffer during construction and treat as no-go zones for sites graded as IIIC or higher. As the 30 m buffer is a guideline, it may be reduced only if the site is clearly demarcated, strictly avoided, and such a reduction is approved by SAHRA. If conservation is not possible, mitigation must be undertaken under a NHRA section 35 permit from SAHRA.** ○ **This includes a sample surface collection for all types of archaeological material in the impacted areas.**						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• **If fossil remains or trace fossils are discovered during any phase of construction, either on the surface or exposed by excavations the ECO in charge of these developments must report to SAHRA (Contact details: SAHRA, 111 Harrington Street, Cape Town. PO Box 4637, Cape Town 8000, South Africa. Tel: 021 462 4502. Fax: +27 (0)21 462 4509. Web: www.sahra.org.za) so that mitigation can be carried out by a palaeontologist**						

5.3 CLOSURE AND REHABILITATION

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• **Speed Restrictions: A strict speed limit of 30 km/h must be enforced for all survey vehicles (including vibroseis and support vehicles) when travelling on unpaved roads and off-road tracks to significantly reduce dust entrainment**	Design / Planning Manager	Design and planning specific compliance Landowner negotiation and agreements	During closure and rehabilitation phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• **Route optimization: The grid traversal plan must utilise existing farm roads, tracks, and firebreaks as far as possible, before charting new off-road paths.** • **Vehicle Maintenance: All vibroseis trucks and support vehicles must undergo regular servicing and maintenance to ensure optimal engine performance and minimise exhaust emissions.** • **Grievance Mechanism: Establish a direct line of communication with local landowners to report any excessive dust nuisance, allowing for immediate corrective action by the site manager.**						
• **All survey personnel must undergo security vetting prior to deployment. Every crew member must wear high-visibility, branded clothing and carry formal photographic identification at all times. All project vehicles must be clearly marked. The local South African Police Service (SAPS) and local**	Design / Planning Manager	Design and planning specific compliance Landowner negotiation and agreements	During planning and design phase	Contractor EO and/or Tetra4 EO	As and when required	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
farm watch coordinators must be notified of the exact dates, vehicle registration numbers, and personnel headcounts prior to site entry. • **Written access agreements must be negotiated with every affected landowner prior to mobilisation. The survey schedule must avoid actively harvested or planted fields where possible. Ideally the seismic activities should take place during fallow seasons, unless an agreement is in place between the landowners and the applicant. Landowners must receive a minimum of 5 business days' notice before the fleet enters their specific property boundaries.** • **A strict "leave it as you found it" gate policy must be enforced. A dedicated Community Liaison Officer (CLO) or designated gate operator must travel ahead of the fleet to manage access and ensure all gates are secured immediately after the convoy passes. A compensation mechanism must be established**						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
to repair any accidental damage to fences, roads, or water infrastructure. • A strict zero-tolerance code of conduct must be signed by all crew members, prohibiting the handling of livestock, harvesting of crops, poaching, lighting of open fires, or entering farmsteads without an explicit invitation. • The project proponent must identify and utilise local suppliers in the Welkom area and procure local skilled and un-skilled workers as far as possible.						

5.4 GENERAL

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• **Vehicles must carry industry-standard spill kits and ensure staff are trained to respond to leaks/spills.** • **Drip trays must be utilized whenever vehicles are parked for prolonged periods.** • **Any contaminated soil must be immediately excavated, stored in sealed bins, and disposed of at a registered hazardous waste facility.** • **All vibroseis trucks and support vehicles must undergo regular servicing and maintenance to ensure optimal engine performance and minimise exhaust emissions.** • **Establish a direct line of communication with local landowners to report any excessive dust nuisance, allowing for immediate corrective action by the site manager.**	Project Manager / Contractor	Spill and pollution prevention measures	All project phases	Contractor EO and/or Tetra4 EO	Monthly during construction and operational	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• **Speed Restrictions: A strict speed limit of 30 km/h must be enforced for all survey vehicles (including vibroseis and support vehicles) when travelling on unpaved roads and off-road tracks to significantly reduce dust entrainment** • **Avoid the creation of new access roads, utilise existing farm roads, tracks, and firebreaks as far as possible, before charting new off-road paths.** • **Support vehicles and vibroseis trucks must undergo regular servicing and maintenance to ensure optimal engine performance and minimise exhaust emissions.**	Project Manager / Contractor	Landowner negotiation and agreements	All project phases	Contractor EO and/or Tetra4 EO	Monthly during construction and operational	EO Reports
• **All survey personnel must undergo security vetting prior to deployment. Every crew member must wear high-visibility, branded clothing and carry formal photographic identification at all times. All project vehicles must be clearly marked. The local South African Police Service (SAPS) and local**	Project Manager / Contractor	Landowner negotiation and agreements	All project phases	Contractor EO and/or Tetra4 EO	Monthly during construction and operational	EO Reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
farm watch coordinators must be notified of the exact dates, vehicle registration numbers, and personnel headcounts prior to site entry. • Written access agreements must be negotiated with every affected landowner prior to start of activities. Landowners must receive a minimum of 5 business days' notice before the fleet enters their specific property boundaries. • A strict "leave it as you found it" gate policy must be enforced. A dedicated Community Liaison Officer (CLO) or designated gate operator must travel ahead of the fleet to manage access and ensure all gates are secured immediately after the convoy passes. A compensation mechanism must be established to repair any accidental damage to fences, roads, or water infrastructure. • A strict zero-tolerance code of conduct must be signed by all crew members, prohibiting the handling of livestock, harvesting of crops, poaching,						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
lighting of open fires, or entering farmsteads without an explicit invitation. **The project proponent must identify and utilise local suppliers in the Welkom area and procure local skilled and un-skilled workers as far as possible.**						

Appendix 1: EAP/s CVs