



MYEZO ENVIRONMENTAL MANAGEMENT SERVICES

Environmental Stewardship

GIJIMA – ARBOR RAILWAY SIDING – BASIC ASSESSMENT REPORT

*GIJIMA ARBOR RAILWAY SIDING BASIC ASSESSMENT REPORT FOR PROPOSED
OPERATIONS OF A RAIL SIDING TO STORE, HANDLE AND RAIL COAL, MPUMALANGA
PROVINCE.*

Document Name: GAE-Report-BAR for Arbor Railway Siding

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Abbreviations

AQA:	Air Quality Act, 2004 (Act No. 39 of 2004)
AEL:	Atmospheric Emission License
BBBEE:	Broad Based Black Economic Empowerment
CLO:	Community Liaison Officer
DWS:	Department of Water and Sanitation
EMP:	Environmental Management Plan (former DWAF - now Department of Water and Sanitation)
EMPr:	Environmental Management Programme report
EMS:	Environmental Management System
EA:	Environmental Auditor
EAP:	Environmental Assessment Practitioner
ECO:	Environmental Control Officer
EIA:	Environmental Impact Assessment
IAP:	Interested and Affected Party
IAPs:	Interested and Affected Parties
IEM	Integrated Environmental Management
MDARLA:	Mpumalanga Provincial Government Department of Agriculture and Rural Development
HRM:	Human Resource Manager
HSRA:	Health and Safety Risk Assessment
LED:	Light Emitting Diode
MDS:	Market Demand Strategy
MPRDA:	Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)
MHSA:	Mine Health and Safety Act, 1996 (Act No. 29 of 1996)
NEMA:	National Environmental Management Act, 1998 (Act No. 104 of 1998)
NDM:	Nkangala District Municipality
OHS:	Occupational Health and Safety
OHSA:	Occupational Health and Safety Action, 1993 (Act No. 85 of 1993)

PCD:	Pollution Control Dam
PPE:	Personal Protective Equipment
SHE:	Safety, Health and Environment
SANS:	South African National Standard
SDM:	Site Development Manager
TFR:	Transnet Freight Rail
VLM	Victor Khanye Local Municipality
WUL:	Water Use License
WULA:	Water Use License Application

1 INTRODUCTION

1.1 Background

Gijima Supply Chain Management Services (Pty) Ltd (Gijima) currently has a lease agreement with Transnet Freight Rail on a portion of Arbor Siding No. 740527 – Northern side (DWX1470J, DWX1468J) and seeks to expand their operations to the Southern side (DWX1469J and DWX1471J). The proposed expansion will require developmental activities in order to maximise the operational capacity of the business.

The site is located about 5km west of the Kendal Power Station along the R555 road. It also falls within the Olifants Water Management Area (WMA 4), in the quaternary catchment B20F, draining towards the tributary of the Wilge River.

The Siding is located west of N12 and can be accessed through R555 to Ogies and will be used for loading domestic coal, as well as exporting coal onto rail wagons. The site can also be accessed through off ramping off N12 and turning right to join R545 road towards Balmoral. The next turn to the right with a signage Blesbokfontein and the Arbor and leads directly to join R555 road towards Ogies/ Delmas. The market for this service has been identified as various commodity owners as well as mines. There are no envisaged deviations regarding joining the network. Arbor will be used as a point of entry into the rail network, by road hauling coal from the identified market, stock-piling and loading coal into the rail wagons. The regional setting map is shown in Figure 1.1-1 with the local setting map of the existing Siding shown in Figure 1.1-2.

The operational Northern side of the Arbor has been servicing Eskom with 3 978 201 tons of coal over the 3-year period (June 2013 - September 2016). Eskom has renewed the contract and increased the tonnage to 9,5 000 000 tons over a 4-year period (1 October 2016 - 30 September 2020) which translates to 198 000 tons per month. The copy of the commitment from Eskom in relation to the envisaged monthly tonnage is attached as Annexure 1.1-1. The Northern side operation is said to have reached its maximum operational capacity in terms of stockpiling, receiving trucks and loading the trains. Currently only two trains are operational to service the new Eskom contract and the infrastructure is not enough to fulfil their contractual obligations. The proposed expansion will require several activities to have the Southern side operating effectively. An application for the expansion of the lease area was approved by Transnet Freight Rail (TFR) and communique in relation to that approval is attached as Annexure 1.1-2.

The proposed expansion to the operation also presents social and economic benefits for the communities surrounding the site, especially Arbor village, which is within a 1km radius south of the site. The social benefits include the job opportunities for 25 extra people to be employed for the site. The economic benefits will be realized through the implementation of Transnet Road to Rail Strategy in transporting more coal to the power station, whilst reducing both costs and number of human fatalities. The expansion will transport an increased volume of coal material, which may lead to more stable electricity supply.

The expansion is viewed to be in support of the Transnet Freight Rail Strategy which was proposed in 2012 and linked to the budget allocations for rail infrastructure development within the country. Transnet has been looking at ways of investing in new technological developments in relation to Road to Rail Strategy. They have been piloting on an idea to use truck wagons fitted with tyres that can travel on both road and railway surfaces. This would also reduce the amount of time for loading and offloading at Stockpile areas, the traffic of trucks loading and offloading at stockpile areas would be reduced, the emissions from trucks to and from the stockpile areas. The Transnet Freight Road to Rail Strategy is summarised in Section 2 of this report.

This basic assessment report is designed for the Southern Side rail planned development activities and is prepared in support of an application for environmental authorisation. As such, this report intends to deal with the activities to be implemented within the Southern Side Rail siding.

The proposed Southern Side rail operations will be mirror of the Northern Side rail Siding except for a few infrastructural changes that will be highlighted in the preceding sections. Gijima received a Water Use Licence (WUL) on 8 December 2015 (Licence No. 04/B20F/G/4009) and the details of the licensed water uses is given in Section 1.3 and a copy of the licence is attached as Annexure 1.1-2.

1.2 Objectives of the Study

The objective of the basic assessment process is to ensure that the environmental aspects surrounding the proposed development and activity are protected from potential negative developmental impacts presented by the proposed additional scope of work within Arbor Railway Siding. The process also seeks, through a stakeholder consultative process, to achieve aspects outlined below:

- Determine the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context;
- Identify the alternatives considered, including the activity, location, and technology alternatives;
- Describe the need and desirability of the proposed alternatives;
- Undertake an impact and risk assessment process inclusive of cumulative impacts which focus on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives.
- Assess the risk of the impact to determine:
 - The nature, significance, consequence, extent, duration, and probability of the impacts occurring to;
 - The degree to which these impacts can either be reversed; may cause irreplaceable loss of resources; and can be managed, avoided or mitigated;
- The impact process also seeks to rank the site sensitivities and possible impacts the activity and technology alternatives might impose on the sites and location identified. This is done to:
 - Identify and motivate a preferred site, activity and technology alternative,
 - Identify suitable measures to manage, avoid or mitigate identified impacts, and
 - Identify residual risks that need to be managed and monitored.

- Compile an Environmental Management Programme (EMPr) to ensure all the potential identified impacts are mitigated, audited and monitored to protect the environment and human health.

1.3 Approach

1.3.1 Basic Assessment Report Requirements and Report Structure

The nature of related developmental impacts for the proposed project are detailed in this Basic Assessment Report (BAR). This report has been compiled in accordance with the requirements of the Environmental Impact Assessment (EIA) Regulations of December 2014 and adheres to the requirements contained in Appendix 1 of GNR 982, as noted in Table 1.3-1., which as such, provides the BAR structure. This report has been compiled such that the structure is guided by the information required as stipulated within the Regulations. The approach adopted also ensured that literature research and information/data collection process was undertaken to feature the current the Status Quo in the impact evaluation phase. The data collection, consolidation and validation process included consultation conducted during the compilation of the EMPr for the environmental authorisation application for the Northern side of the Arbor Railway Siding.

The supporting documents that are mentioned from each of the sections follow the specific section number and are called Annexures. The specific appendices stipulated in the Regulations are referenced as Appendix A, B, etc.

Table 1.3-1: Content of a BA Report (2014 EIA Regulations)

Regulations	Description of EIA Regulations Requirements for BA Reports	Location in the BA Report
Appendix 1, Section 3 (a)	Details of – (i) The EAP who prepared the report; and the expertise of the EAP; and (ii) The expertise of the EAP, including a curriculum vitae.	Section 2
Appendix 1, Section 3 (b)	The location of the activity, including – (i) The 21 digit Surveyor General code of each cadastral land parcel; (ii) Where available, the physical address and farm name; (iii) Where the required information in items (i) and (ii) is not available, coordinates of the boundary of the property or properties	Section 3

Regulations	Description of EIA Regulations Requirements for BA Reports	Location in the BA Report
Appendix 1, Section 3 (c)	<p>A plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is –</p> <p>(i) A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or ii) On land where the property has not been defined, the coordinates within which the activity is to be undertaken.</p>	Section 4
Appendix 1, Section 3 (d)	<p>A description of the scope of the proposed activity, including –</p> <p>(i) All listed and specified activities triggered;</p> <p>(ii) A description of the activities to be undertaken, including associated structures and infrastructure.</p>	Section 5, Section 7
Appendix 1, Section 3 (e)	<p>A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.</p>	Section 5.8
Appendix 1, Section 3 (f)	<p>A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location.</p>	Section 8
Appendix 1, Section 3 (h)	<p>A full description of the process followed to reach the proposed preferred activity, site and location within the site, including-</p> <p>(i) Details of all alternatives considered;</p> <p>(ii) Details of the Public Participation Process undertaken in terms of Regulation 41 of the Regulations, including copies of the supporting documents and inputs;</p> <p>(iii) A summary of the issues raised by interested and affected parties, and an</p>	<p>Section 9</p> <p>Section 10</p> <p>Section 11</p> <p>Section 11.1, Table 11.1-2</p>

Regulations	Description of EIA Regulations Requirements for BA Reports	Location in the BA Report
	<p>indication of the manner in which the issues were incorporated, or the reasons for not including them;</p> <p>(iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;</p> <p>(v) The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration, and probability of the impacts, including the degree to which the impacts-</p> <p>(aa) Can be reversed;</p> <p>(bb) May cause irreplaceable loss of resources; and</p> <p>(cc) Can be avoided, managed, or mitigated.</p> <p>(vi) The methodology used in deterring and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;</p> <p>(vii) Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographic, physical, biological, social, economic, heritage and cultural aspects;</p> <p>(viii) The possible mitigation measures that could be applied and level of residual risk;</p>	<p>Section 14</p> <p>Section 12</p> <p>Section 12</p> <p>Section 12</p>
	<p>(ix) The outcome of the site selection matrix;</p> <p>(x) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such and;</p> <p>(xi) A concluding statement indicating the preferred alternatives, including preferred</p>	<p>Section 13</p>

Regulations	Description of EIA Regulations Requirements for BA Reports	Location in the BA Report
	location of the activity.	
Appendix 1, Section 3 (i)	<p>A full description of the process undertaken to identify, assess and rank the impacts the activity will impose on the preferred location through the life of the activity, including-</p> <p>(i) A description of all environmental issues and risks that were identified during the environmental impact assessment process; and</p> <p>(ii) An assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.</p>	Section 12
Appendix 1, Section 3 (j)	<p>An assessment of each identified potentially significant impact and risk, including-</p> <p>(i) Cumulative impacts;</p> <p>(ii) The nature, significance and consequences of the impact and risk;</p> <p>(iii) The extent and duration of the impact and risk;</p> <p>(iv) The probability of the impact and risk occurring;</p> <p>(v) The degree to which the impact and risk can be reversed;</p> <p>(vi) The degree to which the impact and risk may cause irreplaceable loss of resources; and (vii) The degree to which the impact and risk can be avoided, managed or mitigated.</p>	Section 12
Appendix 1, Section 3 (k)	<p>Where applicable, a summary of the findings and impact management measures identified in any specialist report complying with Appendix 6 to these Regulations and an indication as to how these findings and recommendations have been included in the final report.</p>	Section 12

Regulations	Description of EIA Regulations Requirements for BA Reports	Location in the BA Report
Appendix 1, Section 3 (l)	<p>An environmental impact statement which contains-</p> <ul style="list-style-type: none"> (i) A summary of the key findings of the environmental impact assessment; (ii) A map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers; and (iii) A summary of the positive and negative impacts and risks of the proposed activity and identified alternatives. 	Section 12
Appendix 1, Section 3 (m)	Based on the assessment, and where applicable, impact management measures from specialist reports, the recording of the proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr.	Section 12
Appendix 1, Section 3 (n)	Any aspects which were conditional to the findings of the assessment either by the EAP or specialist which are to be included as conditions of authorisation.	
Appendix 1, Section 3 (o)	A description of any assumptions, uncertainties, and gaps in knowledge which relate to the assessment and mitigation measures proposed;	
Appendix 1, Section 3 (p)	A reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation.	
Appendix 1, Section 3 (q)	Where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required, the date on which the activity will be concluded, and the post construction monitoring requirements finalised.	

Regulations	Description of EIA Regulations Requirements for BA Reports	Location in the BA Report
Appendix 1, Section 3 (r)	An undertaking under oath or affirmation by the EAP in relation to- (i) The correctness of the information provided in the report; (ii) The inclusion of the comments and inputs from stakeholders and interested and affected parties; (iii) the inclusion of inputs and recommendations from the specialist reports where relevant; and (iv) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties.	Section 16
Appendix 1, Section 3 (s)	Where applicable, details of any financial provisions for the rehabilitation, closure, and ongoing post decommissioning management of negative environmental impacts.	Section 17
Appendix 1, Section 3 (t)	Where applicable, any specific information required by the Competent Authority.	
Appendix 1, Section 3 (u)	Any other matter required in terms of section 24(4) (a) and (b) of the Act.	

1.3.2 Environmental Management Programme

The operations on the Northern side have an existing environmental management programme report EMP_r, which was done in terms of Section 28 of the National Environmental Management Act, to ensure that reasonable measures to minimise pollution to the environment.

The environment management programme that is being produced from this development will cover both the Northern side and Southern Side operations so that the pollution mitigation measures are viewed comprehensively.

The EMP_r has been compiled under expert advice and input of a qualified environmentalist and to provide recommendations and guidelines to achieve sustainable development. The EMP_r provides norms and standards to which compliance and monitoring should be done in stages of the proposed

project, with particular reference to the prevention and mitigation of anticipated potential environmental impacts. All stakeholders should note that obligations imposed by the EMPr are legally binding in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

The EMPr is an implementation tool that will be continuously updated to promote the principles of sustainable development and continual improvement.

The objectives of the EMP are outlined below:

- Identify a range of mitigation measures which could reduce and mitigate the potential impacts to minimal or insignificant levels.
- Detail specific actions deemed necessary to assist in mitigating the environmental impact of the proposed project.
- To create management structures that addresses the concerns and complaints of IAPs with regards to the development.
- To establish a method of monitoring and auditing environmental management practices during all phases of the activity.
- Ensure that the construction and operational phases of the project continues within the principles of Integrated Environmental Management (IEM).
- Ensure compliance to applicable environmental legislation such as National Water Act, 1998 (Act No. 36 of 1998)
- Be alert of the periods within which the measures contemplated in the EMP will be implemented, where appropriate.

2 FULL DETAILS OF THE EAP

2.1 EAP (EAP)

Table 2.1-1: EAP Description and Contact Information

Environmental Assessment Practitioner (EAP):	Myezo Environmental Management Services (Pty) Ltd
Contact person:	Babalwa Fatyi
Profession:	Managing Director and EAP
Physical address:	378 Kinross Avenue, Faerie Glen Garsfontein, Pretoria, 0040
Postal address:	Postnet Suite B165, Private Bag X18 Lynnwood Ridge
Telephone:	012 998 7642
Fax:	012 998 7641
Cell:	082 772 2418
E-mail:	babalwa@myezo.co.za

EAP Qualifications	Master of Science (<i>cum laude</i>): Ecology	
EAP Registrations/Associations	The South African Council for Natural Scientific Professions (SACNASP)	Institute of Environmental Management and Assessment (IEMA), Lincoln, UK
Registration Number	400123/01	(0025153)

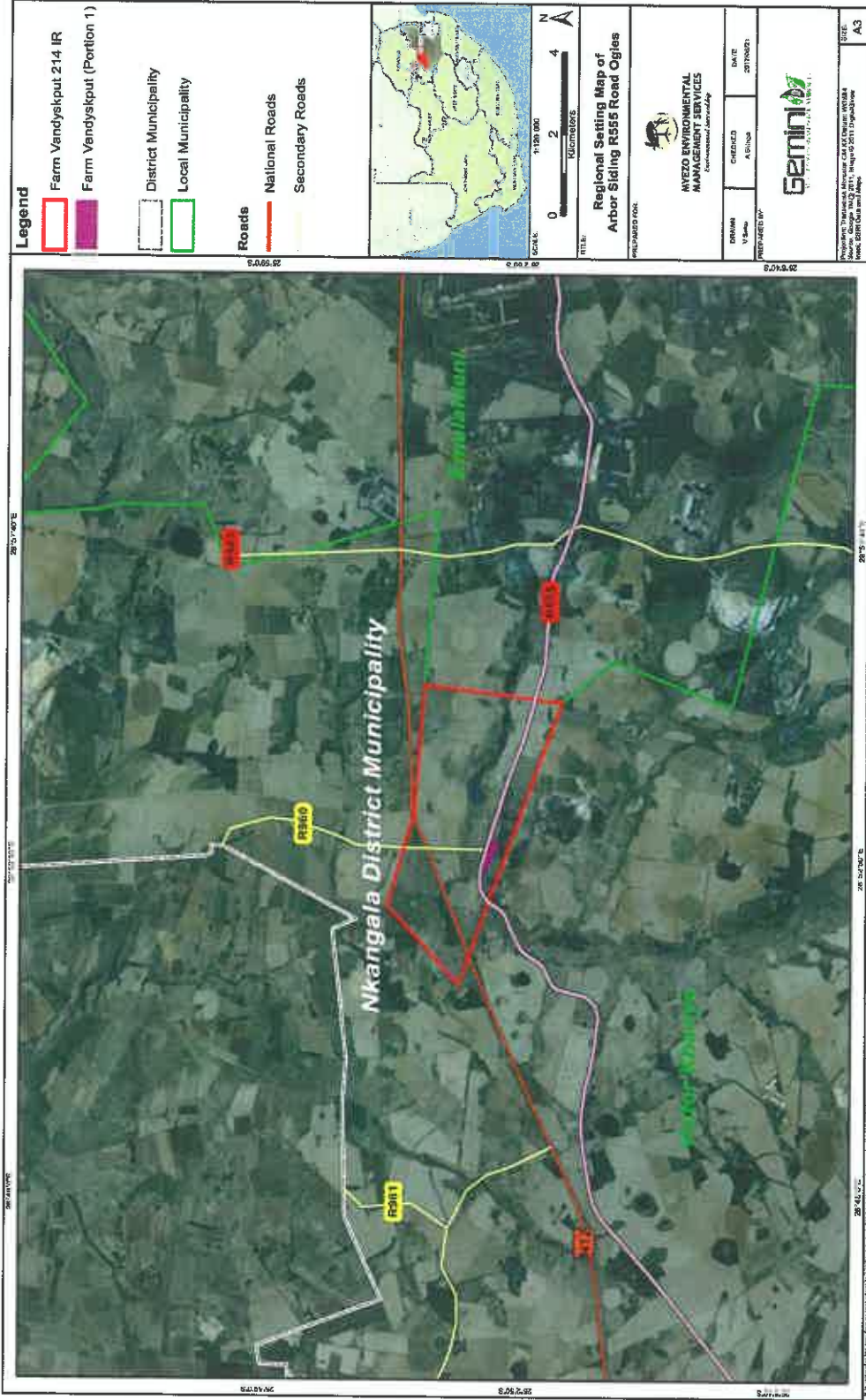


Figure 2.1-1: Regional Setting

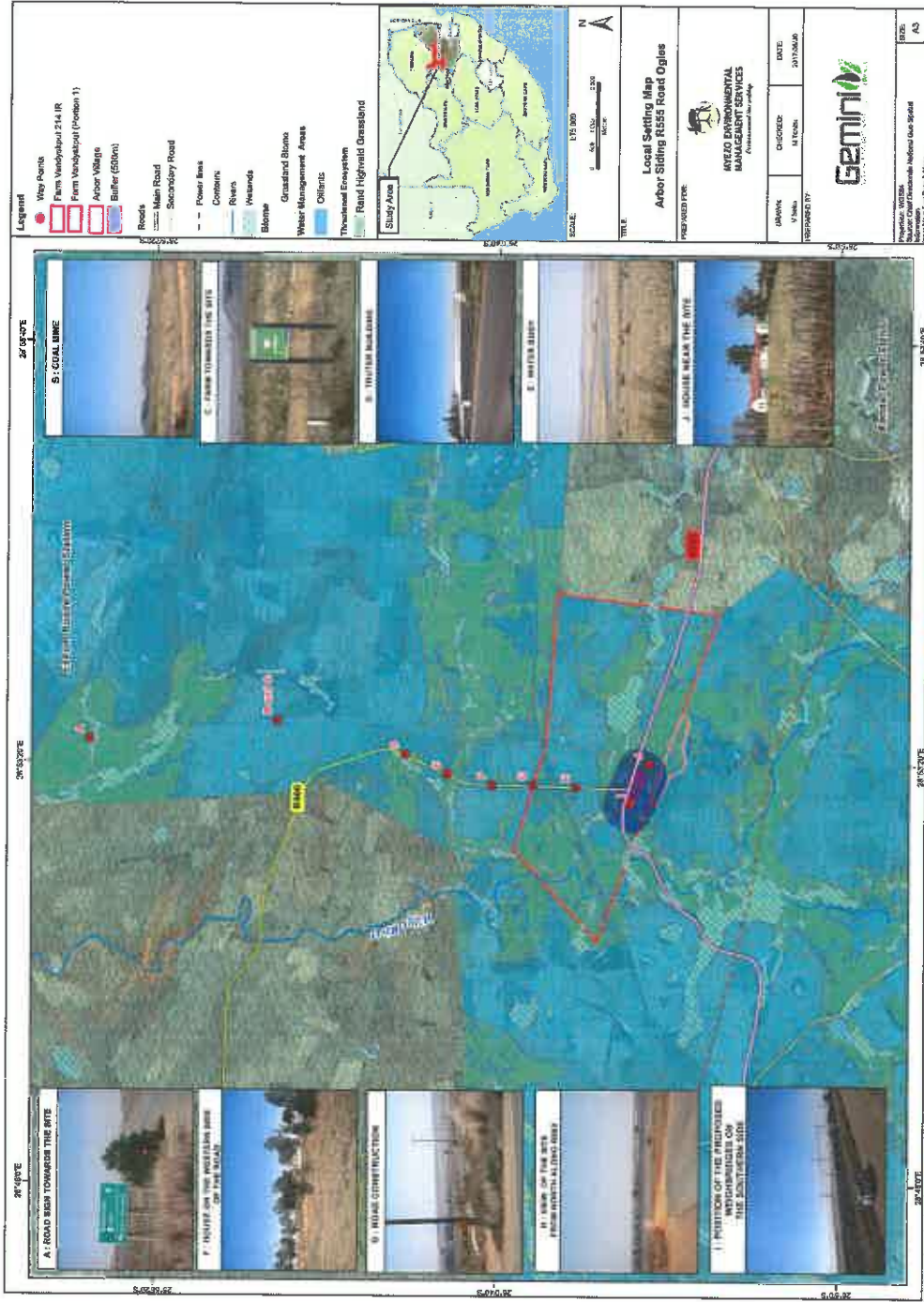


Figure 2.1-2: Local Setting

3 THE LOCATION OF THE ACTIVITY

3.1 Project Location

The site is located about 5 km west of the Kendal Power Station, along the R555. It falls within the Olifants Water Management Area (WMA 4), in the Quaternary Catchment B20F.

3.1.1 Location of the existing operation (Northern Side)

Gijima currently has a lease agreement with TFR on a portion of Arbor siding – Northern side (DWX1470J, DWX1468J) and seeks to expand their operations to the Southern side (DWX 1469J and DWX 1471J) shown in Figure 3.1 1.

The Northern side is being used as a rail siding and coal stockpile area, with existing electrical and engineering infrastructure such as railway lines, power cables, drainage infrastructure, water supply infrastructure as shown in Figure 4.1-1 below.

The proposed expansion will require developmental activities in order to maximise the operational capacity of the business. It is reported that the current lease area (Northern side) has reached its maximum operational capacity in terms of stockpiling, safely receiving of trucks and loading of trains. However, a challenge has been encountered with meeting the demand as per contractual obligations. In order to meet their contractual obligations to Eskom (Tutuka Power station) as shown in Appendix 1.3, they require 3 trains per day as opposed to the current operational 2 trains per day servicing the Northern side. The proposed expansion is seen to play a significant role in further supporting Transnet's Road to Rail initiative also linked to Eskom's Road to Rail strategy with the key objective being to divert a significant amount of tonnage from road to rail. The strategy also suggests moving into new technological developments within the industry by piloting the use of truck wagons with tyres that can travel on both road and railway track.

3.1.2 Location of the proposed operations (Southern Side)

The proposed operations for the Southern side are within the same site within Farm Portion 1 area numbers (DWX 1469J and DWX 1471J) as shown in (Figure 3.1-1). In order to prepare the Southern side for operations, there are several alternative options proposed for the establishment of the Southern side as a Coal Stock Pile Area and a Loading Area.

3.1.3 Physical address and farm name

Arbor Railway Siding, which is located on Portion 1 of Farm Van Dyksput No. 214 - IR within the Victor Khanye Local Municipality (VKLM), under the Emalahleni Magisterial District, Mpumalanga Province. The farm boundaries are shown in Figure 3.1-2.

3.1.4 Site address

Arbor Siding Portion 1 of Farm Van Dyksput No. 214 - IR within the Victor Khanye Local Municipality (VKLM), under the Emalahleni Magisterial District, Mpumalanga Province.

3.1.5 Wards in Arbor

The Arbor Railway Siding is located within Ward 9 of the Victor Khanye Local Municipality.

3.1.6 The 21-Digit Surveyor General Code

T	0	I	R	0	0	0	0	0	0	0	0	0	2	1	4	0	0	0	0	1
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

3.1.7 Geographical coordinates of all external corner points of the site

Latitude	Longitude
-26.0382137298584	28.8791160583496
-26.0408172607422	28.8874206542969
-26.0423965454102	28.8865623474121
-26.0392551422119	28.8784294128418

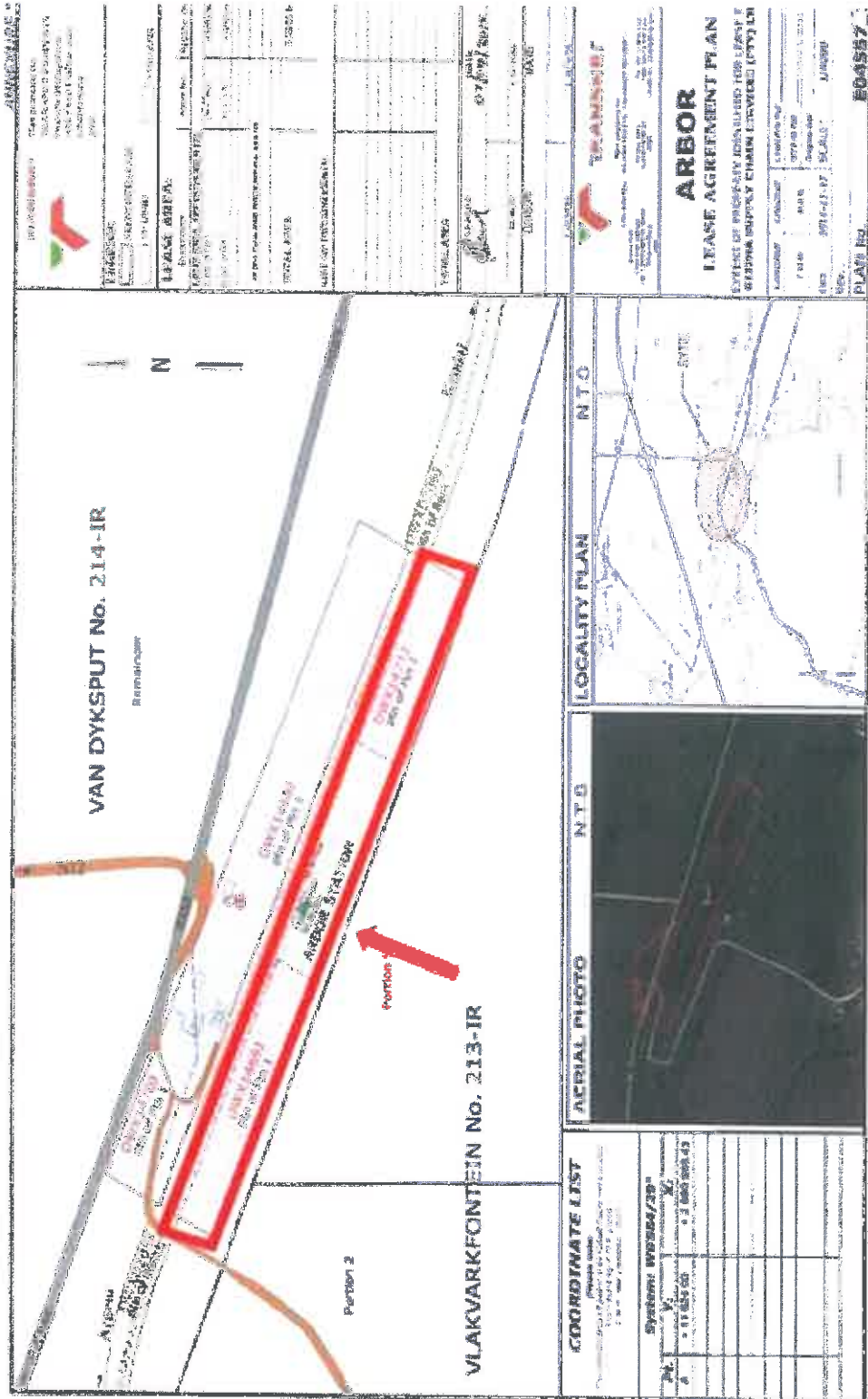


Figure 3.1-1: Locality Plan Showing the current Lease Agreement with Transnet

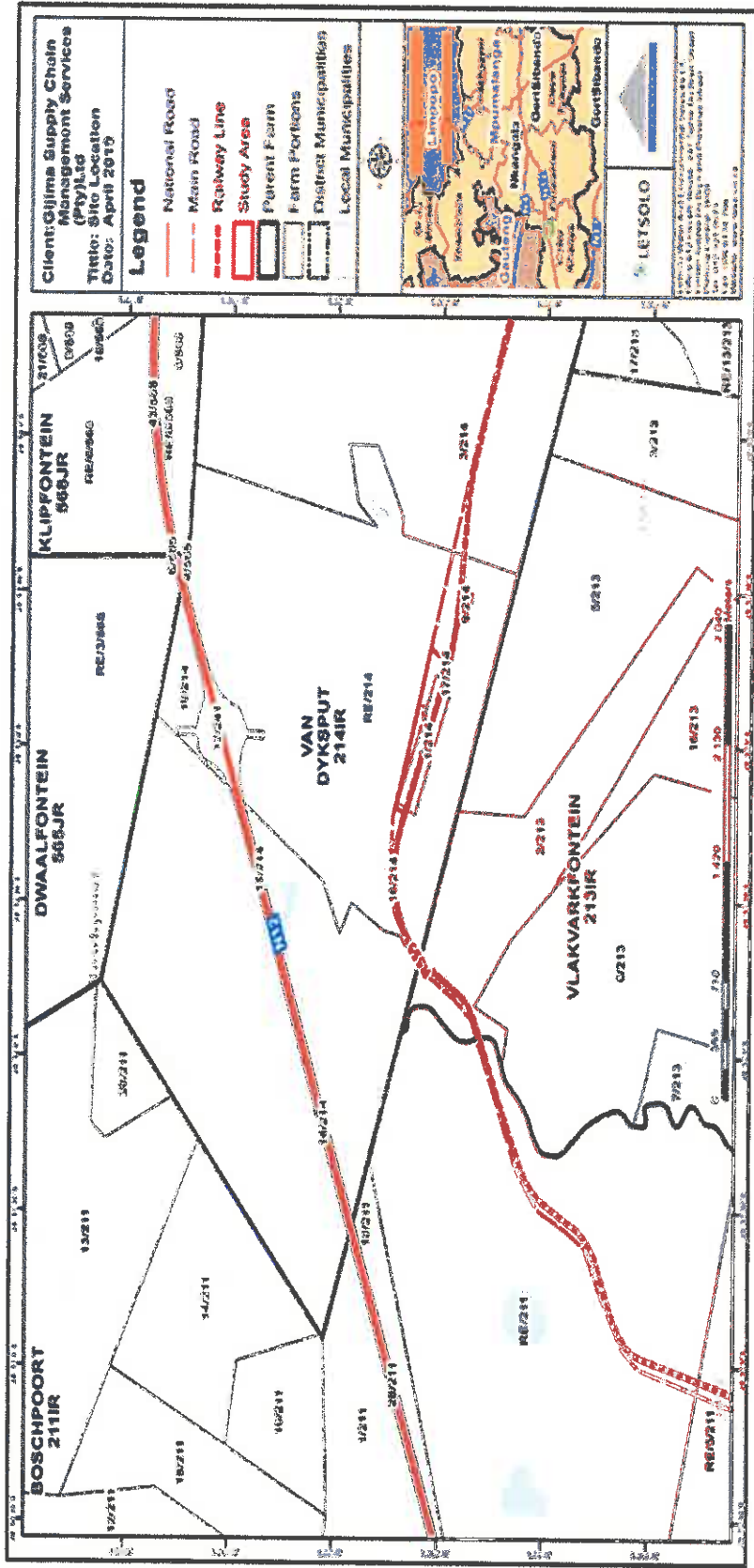


Figure 3.1-2: Farm Boundaries

4 A DETAILED DESCRIPTION OF THE SCOPE OF THE PROPOSED ACTIVITY

4.1 Project Title

Basic Assessment Report for the increased scope of work planned at the Arbor Railway Siding.

4.2 Project Description

4.2.1 Transnet and Eskom Road and Rail Strategy Overview

The Arbor Rail Siding operations form part of a broader vision to reduce the number of trucks on the road network established by Transnet and Eskom. In summary the Road to Rail Strategy aims to achieve the following:

As such Eskom implemented a road to rail strategy in order to minimise trucks carrying coal on road with the aim of addressing the safety hazards caused by trucks on the road improving the public safety on roads. The other aspect of rail strategy is to reduce logistics costs involved, which in turn influence the price of electricity.

The Transnet and Eskom Road to Rail Strategy

The Transnet Freight Rail Strategy is a 7 year Strategy that developed in 2012 after the announcement made by President Jacob Zuma during the State of the Nation Address (SONA) of allocating R300 billion in infrastructure development to rejuvenate the economy. The allocation was meant to also create jobs and address poverty including inequalities. Of the R300 billion, R200 billion would be channeled to Transnet Freight Rail (TRF) to expand the rail infrastructure to create capacity and increase cargo volumes. Transnet Freight Rail has developed and is currently implementing a new Strategy called the "Market Demand Strategy (MDS), which focuses mainly on a shift of traffic from road to rail.

In their June 2015 progress report TFR reported to have six pillars for its MDS -- market development, operational efficiency, capital investment, regional integration, safety and people. Its goals were to be among the top five railways of the world, to be financially sustainable, to be the employer of choice and to reach a "gold standard" in its operations and capital executions.

It was reported that in the next few months, from June 2015, TFR would be piloting a road-rail solution. This was a truck/trailer which had rail wheels and rubber wheels, which meant it could go on both rail and road. TFR had purchased new locomotives to the value of R250 billion, as part of the strategy was to improve the rail networks. TFR was also committed to improving cross-border traffic, focusing on the north-south corridor which would reduce the asset cycle time from 20 days to six days. It was in negotiations to move copper from Zambia to Richards Bay and Durban by rail, and was also working very closely with Eskom on customer collaboration and capacity creation for the road to rail shift.

Eskom Road to Rail Strategy

In support of the Road to Rail Strategy initiated by Transnet, Eskom reported their intention to increase the percentage of rail transportation use over the next five to ten years (Mining Online, September 2016). Mr Singh explained that the road-to-rail migration strategy is a "national strategic imperative" for several reasons. These include the following:

the need to reduce fatalities on South Africa's roads significantly;
reduce damage and congestion on limited road infrastructure; and
minimise the negative health impact of coal haulage on towns and communities near coal mining centres.

Economic advantages include reducing coal transportation costs (which will enable the optimisation of electricity tariffs), and boosting South Africa's economy through significant rail infrastructure upgrade programmes, creating many new job opportunities in the process.

The strategy is said to also have environmental benefits such as reducing carbon emissions, and eradicating spillages and the illegal dumping of coal by hauliers.

Source: Mining Online article, September 2016.

4.2.2 Activity Description

The operation process involves haulage of coal from various mines, stockpiling and loading onto railway wagons for transportation to the markets. Currently VVF mine is supplying Majuba Power Station by road.

The total storage capacity of the existing site is 21 204 tons. The current active operational side herewith, referred to the Northern Side of the Arbor Railway Siding, has been servicing Eskom with 3,8 million tons of coal, over the three-year period, which ended in September 2016.

Subsequently, Gijima targets the export market and Eskom renewed the contract and increased the tonnage to 9 5 000 000 tons over a 4-year period ending in 30 September 2020. This translates to 198 000 tons per month. There will be challenges in achieving this current contractual demand, since the current active operational area has reached its maximum operational capacity in terms of stockpiling, receiving trucks and loading the trains. Currently, only two trains are operational to service the extended Eskom contract and the current infrastructure is not enough to fulfil Gijima's contractual obligations. The operational capacity will need to be increased and as such there will be additional activities that will be undertaken such as increased stockpiling areas, and to increase the loading capacity with two trains daily. Increase in the capacity of the pollution control dam and/or have a new additional pollution control dam with a silt trap.

Gijima is applying received approval from TRF to develop the Southern Side of Arbor into a coal Loading Facility. The motivation behind this development is:

- The creation of jobs,
- Reduction in rail crossing movements
- The improvement of rail safe operations.

Currently this area is vacant and as such deemed as a wasted resource which holds a tremendous opportunity for both Transnet and the community. The development of the area has additional socio-economic benefits such as:

- Development of opportunities within Local Municipality
- Boosting of local economy through provision/creation of employment opportunities for the local community. The project envisaged to employ a total of 25 extra people excluding the already employed truck drivers and Gijima employees
- Positive effect on the broader value chain extending to suppliers of goods and services from nearby towns.
- The operation will contribute positively on livelihoods leading to an increase in the standards of living while causing a reduction in poverty.
- The coal beneficiation industry has a positive impact of regional and local economic setup. The local economy will benefit through salaries paid to employees and tax revenues paid to Government.

In addition to the socio-economic benefits, the proposed development presents some benefits of the land use in respect of rail and these are outlined below.

- TFR's growth strategy can be realised because a minimum of 90 000 tons per month of Eskom coal will be loaded on rail;
- Export clients might use Arbor Trail Siding with a production output of planned 60 000 - 100 000 t/month
- This business further supports the road to rail initiative as outlined above;
- where road haulage will be reduced significantly; increased safety on road
- Reduce truck movements over the railway crossing significantly! (VVF mine will then load at Arbor Southern side, instead of crossing the railway, by road to Majuba) – 5000 rail crossings per month. This is a major Safety improvement for TFR and the community!
- TFR's Objective is to increase shareholders worth, and the natural way of achieving this is by increasing volumes. Our Strategy of growing the tonnages is in support of TFR strategies.

4.3 Project Scope

Gijima intends to increase the scope of their current activities at the Arbor Railway Siding, which is located on Portion 1 of Farm Van Dykspuit No. 214 - IR within the Victor Khanye Local Municipality (VKLM), under the Emalahleni Magisterial District, Mpumalanga Province.

4.4 Associated Infrastructure

4.4.1 Current surface infrastructure on site

The current infrastructure is shown below as illustrated in Photograph 4.4-1 to Photograph 4.4-2 and entails the following:

4.4.1.1 Weighbridge area

A weighbridge is installed next to the office block in the Northern Side and trucks go through it before offloading and after offloading at the stockpile area. Records of tonnage brought in daily are kept in the office for monitoring and reporting purposes.

4.4.1.2 Pollution Control Dam (PCD)

- The PCD is set as dirty water catchment area at the siding, to collect and contain dirty stormwater runoff.
- Poor water quality is expected from the monitoring point as this is a dirty water management facility.

4.4.1.3 Office Block and Ablution Facility

There is an office block close to the Weighbridge area. The office block has ablution facilities as well.

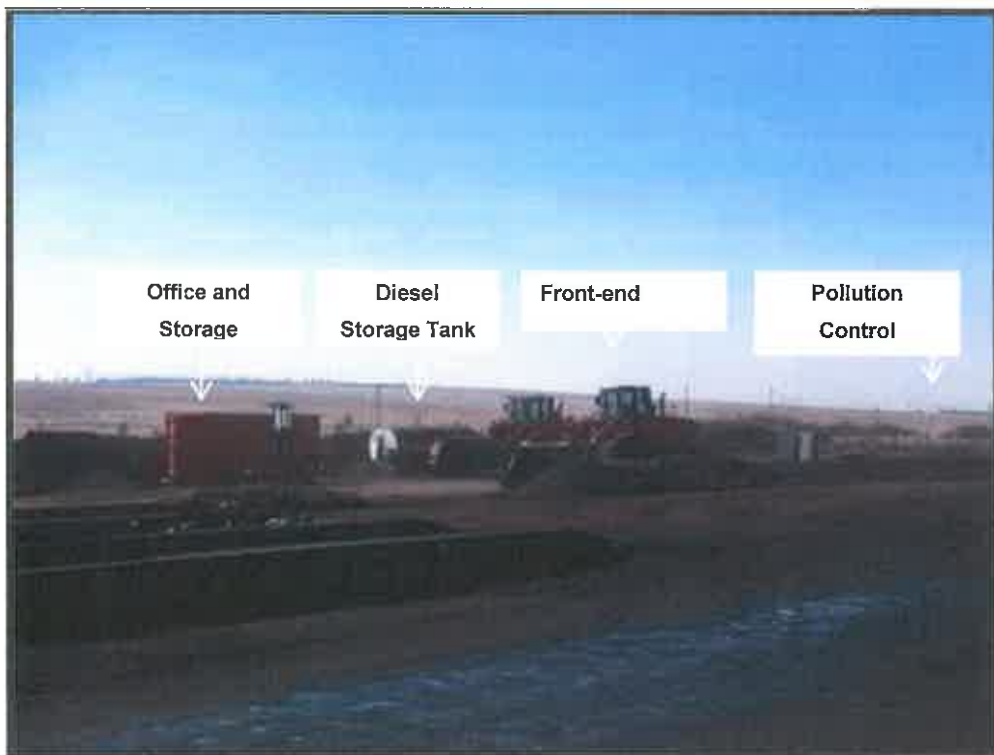
4.4.1.4 Upstream Borehole (U/S Borehole)

The boreholes are used for water quality monitoring. Upstream borehole is situated south of the siding.

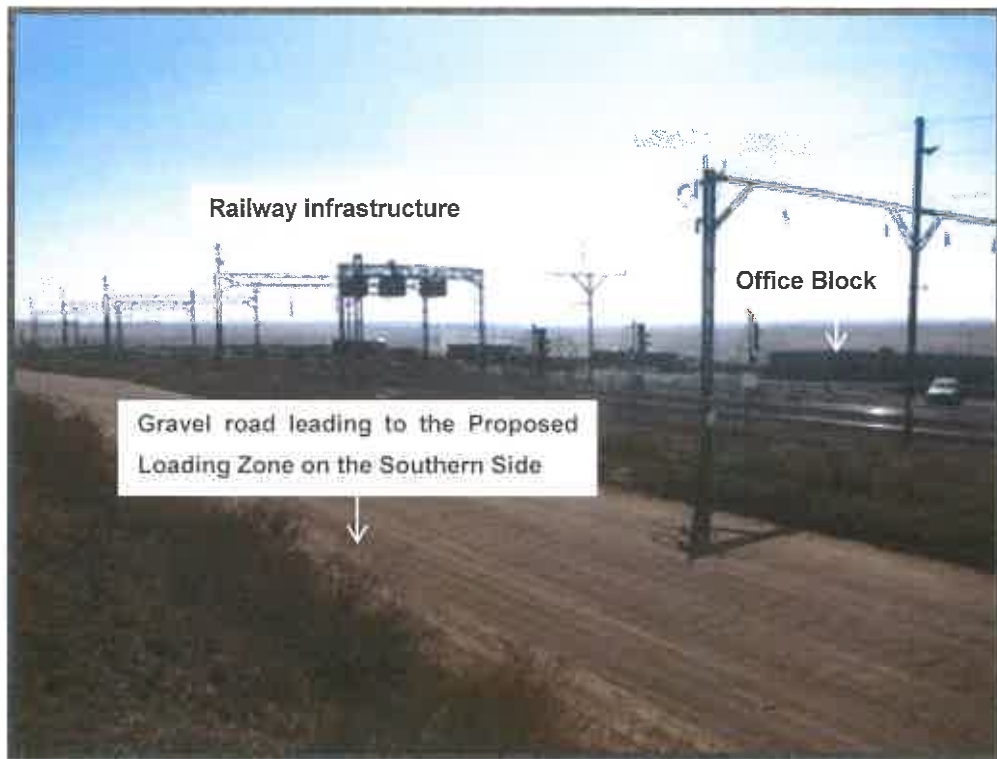
- This borehole is not covered and therefore suspended solids are usually picked up during monitoring.

4.4.1.5 Downstream Borehole (D/S Borehole)

- A community in the northwest of Arbor Siding uses water from this point for domestic purposes.
- It is a well-protected borehole with clear good quality water.



Photograph 4.4-1: The infrastructure and machinery on the current operations within the Northern side. The Container is an office and storage, the diesel storage tank and heavy machinery - front end loaders parked behind the soil berm. The Pollution Control Dam (PCD) is also visible fenced in at far-right hand side.



Photograph 4.4-2: The Northern side infrastructure showing the office block, the railway, the trucks exiting the Arbor. (Photo taken from the proposed Southern side of the siding).

4.4.2 Current and Proposed Surface infrastructure on site

To provide an overview of the site and differences between the current northern side operations and the proposed operations, Table 4.1-1 below presents this comparison.

Table 4.4-1: The Current and proposed infrastructure for the Northern and Southern side of the site.

Current Operations Infrastructure (Northern Side)	Proposed Operations Infrastructure (Southern Side)
Weighbridge	2 x Rail weighbridges
Office Block	Station Building as Site Offices/ Administration buildings
Parking area	Parking area
Ablution Facility	Ablution Facilities
Diesel storage tank	
Heavy front end loading machinery: <ul style="list-style-type: none"> • 3 x Front end Loaders with weighcells (front end scoop caterpillar) • 1 x water horse truck • 1 x 2 ton Bakkies • 1 x Water bowser • Grader (to hire when necessary) 	Heavy front end loading machinery: <ul style="list-style-type: none"> • 3 x Front end Loaders with weighcells (front end scoop caterpillar) • 1 x water horse truck • 1 x 2 ton Bakkies • 1 x Water bowser • Grader (to hire when necessary)
Railway infrastructure	Railway infrastructure
2 Trains of 50 wagons with a capacity of 2 x 27 tons containers per day	3 Trains of 50 wagons with a capacity of 2 x 27 tons containers per day
Pollution Control Dam	New Evaporation Dam

Current Operations Infrastructure (Northern Side)	Proposed Operations Infrastructure (Southern Side)
Coal stockpile area	Coal stockpile area
Train slipper stockpile area	Train slipper stockpile area
Waste Storage area	Waste Storage area
Stockpile areas	Stockpile areas
Loading areas	Loading areas
Pipelines and culverts	Pipelines and culverts

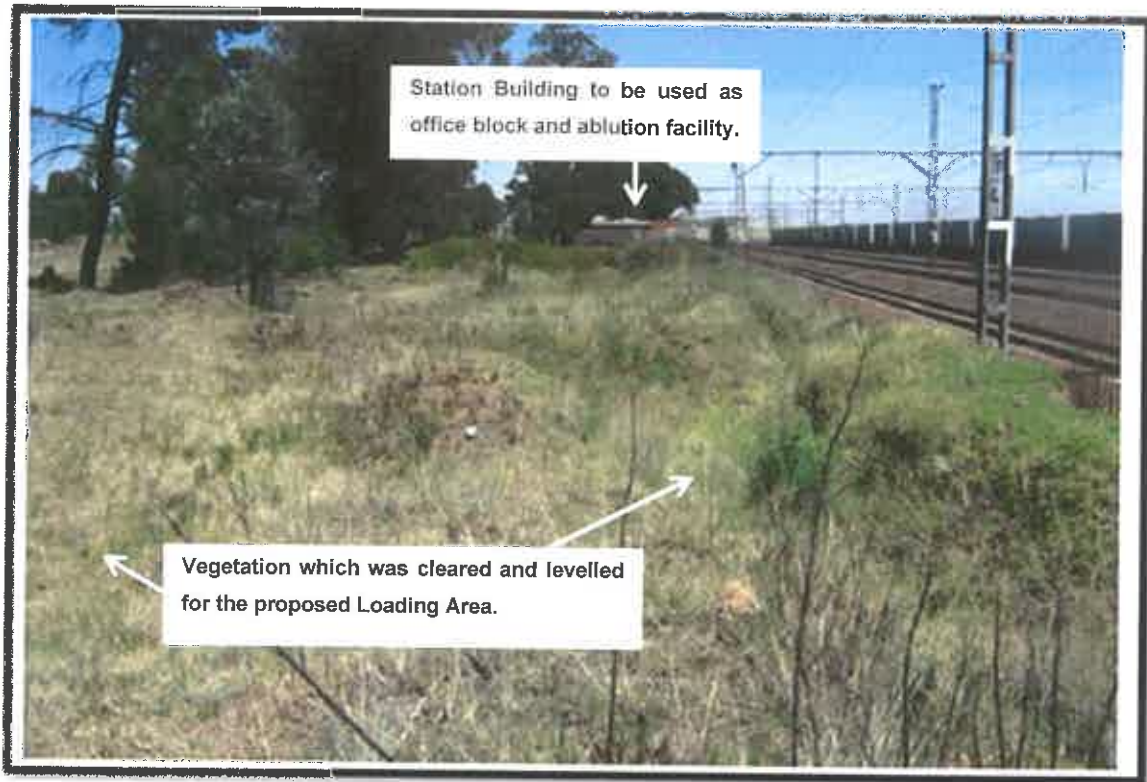
4.4.3 Proposed Construction Activities at the Arbor Rail Siding Southern Side

The proposed site for development (Southern side) is currently vacant and is deemed as a wasted resource which holds a tremendous opportunity for both Transnet and the community. The land adjacent to the site is mainly used for residential, mining and coal washing and Poultry farming. The area adjacent to the operating site is mainly used for residential, agriculture and mining activities. The neighbouring area is characterised by several power generation stations including Kendal and New Kusile power stations. There are no major buildings except old derelict Transnet buildings that are on site, which is mentioned under the discussion of the heritage specialist investigation in Section 15. From the Heritage Study conducted the Arbor Station building has been identified as a significant heritage resource.

The proposed development within the Southern side is a mirror image of the Northern side. The view of the proposed Stockpile areas and the use of the Station Building as an office are shown in Photograph 4.4-3.

In order to create space to construct the loading area, an area with a 31000 m² (50m x 620m) footprint is proposed for the development of the Southern Side and the following activities will be undertaken:

- Divert and extend the storm water drainage channel. Construct a berm wall on the station side of the channel with the excavated material.
- Backfill and compact the old channel where required.
- Remove the building rubble from the site.
- Remove the Over Head TE from the platform line.
- Extend the existing storm water culvert for the full width of the loading area and connect it to the new storm water cut-off drain.
- Construct new evaporation dams.
- 2 x Weighbridges to be installed.



Photograph 4.4-3: Vacant land/site for the - Southern side where clearing was done for the activities which do not trigger listing as part of the existing lease area developments



Photograph 4.4-4: View of the areas that were identified for some of the development activities.

5 PROPOSED OPERATIONAL ACTIVITIES AT THE ARBOR RAIL SIDING - SOUTHERN SIDE

5.1 Haulage of coal

The operational activities in the Southern Side of the Siding are presented below.

Gijima's operations from the Southern Side will include haulage of coal from various mines. The coal will be trucked to the siding using 32-ton trucks. Coal is trucked from the nearby mines and off loaded on site where it will be stockpiled for no more than three days. It will then be stockpiled at the rail siding

at a delineated loading area, after which it will then be loaded into the wagons for transportation by train and transported to markets such as the Eskom power stations.

5.2 Coal Stockpiling area

The existing Northern Side loading area is approximately 9000 square metres. Approximately three stockpiles are placed along the rail length to load a train of \pm 60 carriages carrying tons of coal. Coal is being stock-piled until train arrives. The Southern side siding operation will entail offloading, stockpiling of coal and loading it on the wagons for transportation, with 5,400 tonnage of coal to be moved per day.

5.3 Dirty Water Channel

A dirty water channel will collect runoff contaminated with coal to the Pollution Control Dam (PCD) as shown in Photograph 5.2.3-1 below. There is currently a channel of approximately 360m long to capture contaminated water on site and to discharge the water into the PCD on the Northern Side. The change in elevation for this channel is approximately 6m. The channel is designed to collect a peak flow of 1.611m³/s without spilling for the Northern Side. The dirty water from the Southern Side will require that a new Pollution Control Dam be constructed which in turn will require application for a Water Use Licence. Another option is to utilise the existing channel system to divert the dirty water from the Southern Side to the Northern Side through the channel system that is designed under the railway line. The later option would require details designs and Environmental assessment studies to ensure that the high risk environmental impacts are minimised and mitigated.



Photograph 5.3-1: Pollution Control Dam on site.

5.4 Site Operational Timelines

5.4.1 Frequency of Operations

It is expected that the Southern Side siding will be a 24/hour operation, with three men shifts and anticipated that there will be more than 2 train-stock-holding to be held at the siding at any given time.

Wagon loads of 5 400 tonnage of coal will be moved per day. This means 2 x train loads per day (1 train will be carry about 50-60 wagons with 2 x 27 tons containers).

5.4.2 Safety of Operations

- Arbor Siding operations will be planned and operated using TFR guidelines and will adhere to the safe working procedures drafted by TFR;
- All safety and security measures to be applied at all times;
- The train will be placed by TFR in the designated siding as per instructions of the safe working procedures drafted by TFR;
- Shunting, loading and removal of wagons, will be done according to instructions set out in the TFR's safe working procedure document;

5.5 Project Proposed Timelines

5.5.1 Short-term goals:

In the short term, TFR has already done a safety assessment of the Operations on the Southern side of Arbor, a test train was placed and operated safely during 2016. Trains can be loaded and both Gijima and TFR have been working on this site to ensure safe working operations.

5.5.2 Medium to Long-term goals:

- For drainage purposes, there is a longitudinal fall of about 5m over the length of the siding that gives a slope of about 1:120 which is ideal. However, the specification for staging lines is a max of 1: 800 and it is assumed that the slope of the existing railway lines through the station does conform to that standard.
- The existing average ground level of the loading area is 1m above the top of the rail level of the platform line at any given point.
- Enough good material will be recovered from the excavations to use as a sub-base layer on the loading area and the formation layer works.
- There are no other hidden services which will need relocation.
- Facilities for earthworks plant will not be required as the use of the existing ones will be sufficient.
- In the long term there are plans to include an Evaporation Dam in the Southern Side of the Siding and a water use licence application is being undertaken concurrently with this application for environmental authorisation.

5.6 Waste Quantities

Solid construction waste will be expected from the removal of the existing construction rubble on site, the removal of OHTE, the removal of cleared vegetation for site establishment and for construction. The generated waste will be transported by a registered contractor to the approved disposal facility

The waste generated can be divided into groups as characterised in paragraph below.

Waste is categorized as either general or hazardous. Within these two categories, waste is categorized according to its source, namely domestic, commercial and industrial. General waste is sub-divided into paper, metals, glass, plastic, organic, and inert materials (which include builder's rubble). Due to its

composition and characteristics, general waste does not pose a significant threat to public health or the environment, if managed properly.

5.6.1 Waste Stream Identification

The waste generated can be divided into four groups as characterised in paragraph below.

5.6.2 Waste Stream Characterisation

Waste is characterised as follows:

5.6.2.1 Hazardous Waste

Hazardous wastes could be generated primarily through the emergency repairs of vehicles and equipment breaking down on site. The wastes to be managed include:

- Oils or other material containing hydrocarbons.
- Residual chemicals and chemical containers used while repairing vehicles on site

5.6.3 Industrial Waste

Industrial waste on site include various consumables from emergency vehicle and machines repair activities including used tyres and scrap metal (not contaminated by hydrocarbons). The waste includes:

- Scrap metal
- Used tyres

5.7 Waste Management

5.7.1 Domestic Waste

Domestic waste is generated on site, primarily at the temporal office associated with the consumption of food or drink on site. Normal office type waste is also generated. Typical general waste includes:

- General compactable and non-compactable wastes being primarily cans, paper, plastic packets, food scraps and packaging materials

5.7.2 Mine waste

No mine waste is anticipated or currently generated on site.

5.7.3 Waste Management

Domestic waste is removed and disposed by a contractor and disposed-off to a licensed local municipality site waste disposal site. There is also contractual arrangement with Eskom for the waste to be collected to the nearby power station where it is then properly disposed with the general waste from the power station.

5.7.4 Waste recovery and Reduction

Correct storage of a particular waste type reduces the risk of environmental impacts and limits the risks of pollution. Waste separation at source is recommended. The proposed methodology is as follows:

- The waste company is contacted when a container is close to full.

- The waste is collected within 48 hours of notification. The full container is replaced with an empty one.
- The contractor separates the waste and transports it to the appropriate licensed facility for disposal. Domestic waste is separated on site and recyclable materials are removed.
- In order to promote waste management awareness and implementation on site all siding workers will be provided with separation of waste at source during environmental awareness training and the clearly labelled waste bins will be strategically labelled for easier and effective use.

5.7.5 Wastewater management

Wastewater is used for dust suppression and also for the construction phase of the proposed expansion.

5.7.6 Emissions into the atmosphere

Measurement of air pollution in the country is governed by various South African legislation including the South African Constitution, which states that everyone has the right:-

- (a) To an environment that is not harmful to their health or well-being; and
- (b) To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:-
 - (i) Prevent pollution and ecological degradation;
 - (ii) Promote conservation; and
 - (iii) Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

Additional South African legislation and guidelines that deal with environmental management and air quality:-

- The National Environmental Management Act, Air Quality Act (NEMAQA) (Act No. 39 of 2004)
- Schedule 2: The Act includes margins of tolerance, compliance time frames and permissible frequencies by which the standards may be exceeded;
- The South African National Standard 1929 of 2011, Ambient Air Quality – Limits for Common Pollutants;
- The South African National Standards (SANS) were established in order to assist the Department of Environmental Affairs and Tourism (DEAT) to develop ambient air quality standards for seven pollutants of concern. These include sulphur dioxide, nitrogen dioxide, carbon monoxide, particulate matter (PM10), ozone, lead and benzene (DEAT, 2006) emission standards, pertaining to inter alia construction and operation activities.
- There is a need for monitoring and evaluation of air-related health impacts as well. Air pollution comprises of outdoor (ambient) pollution (i.e. fossil fuel burning or cars, industrial non-fossil fuel emissions; natural emissions; pesticides etc) and indoor pollution (i.e. burning coal, wood, paraffin

for heating, cooking and lighting). Adverse health effects range from nausea, difficulty breathing, ARTIs, pneumonia, birth defects and, immunosuppressant and cancer).

NEMAQA 39 of 2004 Listed Activities (2010)

The Minister signed into law the list of activities which result in atmospheric emissions which have or may have a significant detrimental effect on environment including health, social conditions, economic conditions, ecological conditions or cultural heritage. As a results their impact should be monitored and an Atmospheric Emission License be applied should the air quality standards be triggered by the proposed or existing operation.

Highveld Airshed Priority Area Air Quality Management Plan

- The Highveld Airshed was declared the second priority area by the minister at the end of 2007. This requires that an Air Quality Management Plan for the area be developed. The plan includes the establishment of an emissions reduction strategies and intervention programmes based on the findings of a baseline characterisation of the area. The implication of this is that all contributing sources in the area will be assessed to determine the emission reduction targets to be achieved over the following few years. The Arbor Siding operation falls within the HPA demarcated footprint and as a result emission reduction strategy is required and will be included for the numerous coal mines in the area with specific targets associated with it.
- There will be dust generated during the site establishment, construction and decommissioning phase of the proposed activity:
- At site establishment phase with the clearance of vegetation and removal of trees and concrete/building rubble.
- At construction phase from the offloading of coal onto the stockpile area and loading of coal into the train wagons.
- At rehabilitation and decommissioning phase from the demolition of all infrastructure on site.
- Dust emissions are likely to occur due to vehicular movement as the access roads are gravel. The severity of this impact is anticipated to be low, if mitigation measures such as dampening of the gravel road and adherence to speed limits are observed. Furthermore, the traffic volume is
- anticipated to be low during this phase of the project, in comparison with the Operational Phase.
- Wind-blown dust also contributes to the dust at the site. Wind-blown dust from unpaved road surface also plays a major role in contributing on the amount of dust and atmospheric emission experienced at the study site.
- Air pollution emanating from vehicular emissions is also anticipated to be low if the mitigation measures prescribed in this Environmental Management Plan are adhered to. The cumulative impacts of dust in the overall area within a 1km radius of the Siding must be noted as there are a number of trucks travelling on the gravel road towards R555 Ogies road. There is also an increase in traffic on the R555 road including taxis and private cars.

- Additional air pollution sources such as PM10, SO2, CO and VOC (i.e. NOx) that occur in the region include the following: -
 - Eskom power stations,
 - Industrial emissions (i.e. commercial farming),
 - Blasting operations at mines and
 - Spontaneous combustion, and
 - Vehicle exhausts emissions.
- Various local and far-a-field sources are expected to contribute to the suspended fine particulate concentrations in the region. Local sources include:
 - Wind erosion from exposed areas,
 - Fugitive dust from agricultural and mining operations,
 - Particulate releases from industrial operations,
 - Vehicle entrainment from roadways and
 - Household fuel burning also constitutes a significant local source of low-level emissions

5.7.6.1 Ambient Quality

The Ambient Air Quality study undertaken reported the main sources likely to contribute to cumulative PM10, SO2, CO and VOC air quality impact are vehicle entrainment on unpaved road surfaces and during loading and off-loading of coal at the site (i.e. mining activity). The predominant wind direction within the site is from the west- northwest on which during day time there is an increase in these winds velocity. Less frequent winds are from the southern directions.

5.7.7 Generation of Noise

There will be noise from the increased traffic along R555 road used by the trucks from various operations that share the entrance to the Arbor Siding. The R555 road is also used by taxis and private cars towards Delmas and Ogies.

Site establishment phase - The vehicular movement of heavy machinery during site establishment and clearing of site. Noise from the front-end graders, trucks offloading construction material and loading site establishment rubble for disposal. Noise from the construction workers and site personnel.

Construction phase - The vehicular movement of heavy machinery during construction of site infrastructure. Noise from the front-end graders, trucks offloading construction material and loading construction rubble for disposal. Noise from the construction workers and site personnel.

Operational phase - Trucks offloading coal at stockpile area and the loading into train wagons by front-end caterpillar with weight cells. The movement of the train in and out of the loading zone.

Rehabilitation/Decommission phase - The demolition of all infrastructure on the site and the noise from site workers.

The construction of the structures will only cause a temporal increase in ambient noise levels during construction and decommissioning phase. The noise will only be limited to construction activities. The expected noise caused by these construction vehicles is however, foreseen to be low, as the expected

noise will be from the truck engine and generators. The noise will only be experienced during the day and only during construction phase. Therefore, probability of excessive noise is low and will have low intensity. It is anticipated that the noise levels will increase during the Operational phase as the trucks offload to stockpile and the front-end caterpillars load coal into the train wagons and at Decommissioning phase with all the demolition of site infrastructure.

5.8 Socio-economic value of the activity

The social benefits for the proposed development include positive contribution towards development of opportunities within the Municipality. The local economy will be boosted through provision/creation of employment opportunities for the local community. These opportunities will have a positive effect on the broader value chain extending to suppliers of goods and services from nearby towns.

5.8.1 Temporal and permanent jobs

- The proposed expansion will employ approximately 25 new jobs at Arbor:
- 1 x Siding Supervisor responsible for planning, leading and execution of the siding operations on a daily basis;
- 4 x team leaders;
- 4 x front-end loader drivers
- 4 x security guards
- 4 x admin clerks/weighbridge operators
- 4 x traffic controllers
- 4 x general worker

The personnel breakdown excludes the already employed truck drivers and Gijima employees. Considering that each employee provides for approximately 5 extra people it then calls to reason the approximately 25 lives will be improved. The operation will contribute positively on livelihoods leading to an increase in the standards of living while causing a reduction in poverty. The economical benefits include coal beneficiation industry with a positive impact of regional and local economic setup. The local economy will benefit through salaries paid to employees and tax revenues paid to Government. At a regional level, Gijima supplies Eskom with coal and thus has to meet the growing demand in order for Eskom to produce electricity. New coal reserves need to be exploited to supply the growing needs of Eskom as there are serious socioeconomic impacts associated with unreliable and interrupted electrical supply as observed during the regular power outages experienced in previous years and recent months in 2019.

5.9 Competence to operate site

5.9.1 Technical Competence and Site Management

The site currently has a Siding Manager and a team of personnel overseeing the operational management of the site and also the environmental legal compliance including monitoring as prescribed in both the EMP conditions and the WUL conditions.

Monthly internal performance assessment audits are undertaken and external environmental performance assessment audits are also conducted by Eskom on a regular basis. Records of monthly progress reports with audit checklists and corrective action registers are kept on site.

Name of responsible person – Mr Velile Ramphele

Mr Velile Ramphele	Gijima Supply Chain Executive Chairman Management (Pty) Ltd.	Arbor Siding, Portion 1 of the Farm Vandykspuit, Delmas, Mpumalanga Province, South Africa. Cellphone: 072 434 5436 e-mail: veliler@gjimasupplychains.co.za
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5.10 Environmental Authorisation and Legal Compliance

The required and existing environmental authorisations for the site are outlined in Table 5.8-1. Gijima will continuously assess any planned developments or expansions to ensure that any triggered environmental listed activities are addressed, should there be any. The Environmental screening table outlines the listed activities that may be triggered by the planned expansion to the Siding. The Siding is already operational on the Northern side of the site and has been granted a lease agreement to operate on the Southern Side. Before the operations may commence on the Southern Side, an environmental authorisation must be applied for should the planned activities trigger any of the listed activities and that is the reason this basic assessment report was compiled. The legislative framework focuses on the Southern Side activities which trigger a need for environmental authorisation. The current operational lease agreement issued by Transnet considers the Arbor Railway Siding both the Southern Side and the Northern Side in its entirety as one development footprint and as such the legislative framework is done for the site. From an environmental perspective, any planned additions, upgrades or expansion will continuously be analyzed against the listed activities to determine if there are any triggered listed activities. The new triggered listed activities for the entire site (Northern Side and Southern Side) are outlined in Table 5.8-2, which demonstrate that there is a requirement to apply for environmental authorisation by undertaking a Basic Assessment as per the Regulation No. 327 (GN 983) Listing Notice 1 as amended in April 2017.

5.10.1 Listed and specific activities triggered

The planned activities to increase the scope of operations on site include the following (Please refer to Figure 7.1-1 and 7.1-2):

- a) Upgrade to the existing railway infrastructure.
- b) Extend line 5.
- c) Divert and extend Line 6.

- d) Remove OHTE and platform.
- e) Upgrade to the existing canals as part of the storm water management system for the site. This will include diverting and extending the storm water drainage channel. A berm wall will be constructed on the station side of the channel with the excavated material.
- f) Extend the existing storm water culvert for the full width of the loading area and connect it to the new storm water cut-off drain.
- g) Backfill and compact the old channel where required.
- h) Construct new PCD with an estimated capacity of 2 300 m³ and a silt trap. Alternatively, upgrade to the existing canals as part of the storm water management system for the site and divert dirty water from the proposed new site, the Southern side, to existing pollution control dam on the Northern side. In this option polluted water will be guided to the existing culvert underneath the rail way line. The PCD will be sealed with HDPE liner and such the target is to comply with "class C" specification for landfills. The silt trap will also be sealed with a 200 mm thick concrete slab.
- i) The new storm water cut-off drain. Subsurface and drains will be lined with 1.5 mm HDPE liner

5.10.2 Basic Assessment Process

The activities to be undertaken under this planned application which are triggered under NEMA Regulations include Listed Activities 9(i)(ii), 19(i) 34 (i), 48 (i) (ii) (iv) (i) (ii) – (a) (c), 64 (iii), 67 (ii) (Under Listing Notice - GN R983, as amended in 2017 under GN R327) and Listed Activity 14 [(i) (ii) (iv) (xii)] (i) – (a) (c) (under Listing Notice 3 – GN R985, as amended in 2017 under GN R324 and therefore, basic assessment procedures will be followed. The triggered listed activities are outlined in Table 5.8-2 below.

5.11 EMPr Authorisation

The Railway Siding currently has an EMPr environmental authorisation from the Mpumalanga Department of Agriculture and Land Administration granted on 08 December 2010. A copy of the authorisation is attached as Annexure 5.8-1.

5.11.1 Water Use Licence Existing Authorisations and Licences

Gijima has a Water Use Licence (WUL) on 08 December 2015 (Licence No. 04/B20F/G/4009) and accepted on the 6 January 2016 by Gijima team. The WULA conditions listed within the licence include the following:

- General Conditions of the Licence
- Conditions for Construction and Operation
- Dust Suppression
- Pollution Control Dam
- Quality of Waste Water to be disposed of the Waste Water Containment Facility

- Monitoring of Waste Water, Surface Water Quality and Groundwater Quality
- Storm Water Management
- Access Control
- Contingencies
- Reporting
- Auditing
- Integrated Water and Waste Management (IWWMP) and Rehabilitation Strategy and Implementation Programme (RSIP).

The comprehensive conditions of compliance for the WULA are provided within the licence is attached as Annexure5.8-2.

Table 5.11-1: Applicable legislation and guidelines

Title of legislation, policy or guideline	Administering Authority	Approvals and licences which might be required by authorities	Applicable to Project
Constitution of the Republic of South Africa (Act 108 of 1996, Section 24)	National & Provincial Department of Justice and Constitutional Development	No licence but general respect for the environment and people's rights to a healthy and clean environment during construction and operation of the site.	Every employer and employee have a right to a healthy and clean environment. The management and employees of the railway siding have the responsibility to protect the environment and their own health by keeping their workplace and surrounding environment healthy, safe and clean.
National Environmental Management Act, (Act 107 of 1998)	National and Provincial Department of Environmental Affairs (DEA)	Environmental authorisation was issued to ensure environmental protection and mitigation against negative impacts the development or rehabilitation might present (Annexure 5.8-1 for a copy of the existing environmental authorisation). The EMPt compiled to ensure overall protection of the environment including the monitoring plan for the site operations. An environmental authorisation is required for the activities which trigger listed activities in terms of the EIA regulations.	Environmental authorisation is required for the identified listed activities triggered by the project. The impacts of planned activities will affect various environmental aspects such as the soil during the establishment and clearing of vegetation, dust generation, noise levels, water quality, water use and energy use.
National Environmental Management: Air Quality Act (Act 39 of 2004)	National and Provincial Department of Environmental Affairs (DEA)	No licence is required.	Stockpile storage capacity study illustrating status in relation to legislated threshold, was undertaken.
National Waste Act (Act 59 of 2008)	National and Provincial Department of Environmental Affairs (DEA)		There is not requirement for a waste licence, improper waste management and disposal behaviour or lack of proper waste management processes and systems will be mitigated in the EMPt. There will be waste generation,

Title of legislation, policy or guideline	Administering Authority	Approvals and licences which might be required by authorities	Applicable to Project
National Environmental Management: Biodiversity Act (Act 10 of 2004.)	National and Provincial Department of Environmental Affairs (DEA)		management and disposal for the establishment, operational, decommissioning and rehabilitation phases of the projects.
National Forest Act(Act of 84 of 1998)	National and Provincial Department of Environmental Affairs (DEA)	Tree cutting permit should there be listed trees identified on site.	There is a need to develop mitigation measures to minimise potential disturbance to the existing artificial wetland located on the Northern Side of the railway siding.
National Water Act (Act 36 of 1998)	National and Provincial Department of Water and Sanitation (DWS)	There is an existing water use licence which was issued to provide for aspects relating to water use and coal stockpiling, to take reasonable measures to prevent any pollution of water resources. EMPr compiled to ensure overall protection of the environment and water resources including the monitoring plan for the site operations.	The triggered activities will be undertaken on an area that has already been cleared as part of the existing operations on site. Planned upgrade to the existing pollution control dam on the Northern Side and the construction of the new pollution control dam on the Southern Side will require a water use licence.

Table 5.11-2: List of Activities (Yellow shaded sections, refer to the listed activities which are being applied for under that specific activity number)

Act	Number and date of relevant Notice (Regulations)	Activity No.	Listed activity and described in the regulations (highlighted sections indicate the triggered activities)	Implications for site or motivation/reason for interpretation
National Environmental Management Act, Act 107 of 1998	GN R 327 (GN R983) as amended in April 2017 (Listing Notice 1)	Activity 9:	<p>The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water—</p> <p>(i) with an internal diameter of 0,36 metres or more; or</p> <p>(ii) with a peak throughput of 120 litres per second or more; excluding where—</p> <p>(a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or</p> <p>(b) where such development will occur within an urban area.</p>	Development of infrastructure. The length of the storm water drain and the canals to be connected might exceed 1 000 metres in length.
National Environmental Management Act, Act 107 of 1998	GN R 327 (GN R983) as amended in April 2017 (Listing Notice 1)	Activity 19:	<p>The infilling or depositing of any material of more than [5] 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than [5] 10 cubic metres from</p> <p>[-(i)] a watercourse; or</p> <p>[(ii)] the seashore; or</p> <p>[(iii)] the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or estuary, whichever distance is the greater—] but excluding where such infilling, depositing, dredging, excavation, removal or moving—</p> <p>(a) will occur behind a development setback;</p> <p>(b) is for maintenance purposes undertaken in accordance with a maintenance management plan; [or]</p> <p>(c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;</p> <p>(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</p> <p>where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.</p>	The proximity of the watercourse to the PCD located on the Northern side triggers the activity 19 (i)

Act	Number and date of relevant Notice (Regulations)	Activity No.	Listed activity and described in the regulations (highlighted sections indicate the triggered activities)	Implications for site or motivation/reason for interpretation
National Environmental Management Act, Act 107 of 1998	GN R 327 (GN R983) as amended in April 2017 (Listing Notice 1)	Activity 34	<p>The expansion [or changes to] of existing facilities or infrastructure for any process or activity where such expansion [or changes] will result in the need for a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the release of emissions, effluent or pollution, excluding— (i) where the facility, infrastructure, process or activity is included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies</p>	<p>A water use licence will be required for release of pollution.</p>
National Environmental Management Act, Act 107 of 1998	GN R 327 (GN R983) as amended in April 2017 (Listing Notice 1)	Activity 48:	<p>The expansion of— (i) canals where the canal is expanded by 100 square metres or more in size; (ii) channels where the channel is expanded by 100 square metres or more in size; (iii) bridges where the bridge is expanded by 100 square metres or more in size; (iv) dams, where the dam, including infrastructure and water surface area, is expanded by 100 square metres or more in size; (v) weirs, where the weir, including infrastructure and water surface area, is expanded by 100 square metres or more in size; (vi) bulk storm water outlet structures where the bulk storm water outlet structure is expanded by 100 square metres or more in size; or (vii) marinas where the marina is expanded by 100 square metres or more in size; (i) infrastructure or structures where the physical footprint is expanded by 100 square metres or more; or dams or weirs, where the dam or weir, including infrastructure and water surface area, is expanded by 100 square metres or more; where such expansion [or expansion and related operation] occurs— within a watercourse; setback; or ment</p>	<p>The expansion of the canals for connecting the Northern and Southern side might or might not exceed the threshold of 100 m² or more in size. Activity 48 (iv) is triggered due to the planned expansion of the existing pollution control dam from 90 m² to 450 m² in size. The activity is also triggered due to the existence of the watercourse on the Northern side of the site adjacent to the PCD.</p>
			<p>Listing (b) in front of a development</p>	

Act	Number and date of relevant Notice (Regulations)	Activity No.	Listed activity and described in the regulations (highlighted sections indicate the triggered activities)	Implications for site or motivation/reason for interpretation
National Environmental Management Act, Act 107 of 1998	GN R 327 (GN R983) as amended in April 2017 (Listing Notice 1)	Activity 64:	<p>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding—</p> <p>(aa) the expansion of infrastructure or structures within existing ports or harbours that will not increase the develop footprint of the port or harbour;</p> <p>This gazette is also</p> <p>(bb) where such expansion activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;</p> <p>(cc) activities listed in activity 14 in Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;</p> <p>(dd) where such expansion occurs within an urban area; or</p> <p>where such expansion occurs within existing roads, road reserves or railway line reserves.</p>	
National Environmental Management Act, Act 107 of 1998	GN R 327 (GN R983) as amended in April 2017 (Listing Notice 1)	Activity 64:	<p>The expansion of railway lines, stations or shunting yards where there will be an increased development footprint, excluding—</p> <p>(i) railway lines, shunting yards and railway stations in industrial complexes or zones;</p> <p>underground railway lines in mines; or (ii) additional railway lines within the railway line reserve.</p>	Upgrade of existing railway line infrastructure: Addition of Line 6 and extension of Line 5 and others.
National Environmental Management Act, Act 107 of 1998	GN R 327 (GN R983) as amended in April 2017 (Listing Notice 1)	Activity 67:	<p>Phased activities for all activities—</p> <p>(i) listed in this Notice, which commenced on or after the effective date of this Notice</p> <p>[.] or [(ii)] similarly listed in any of the previous NEMA notices, which commenced on or after the effective date of such previous NEMA Notices; [where any phase of the activity may be below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.] excluding the following activities listed in this Notice- 17(i)(a-d); 17(ii)(a-d); 17(iii)(a-d); 17(iv)(a-d);</p>	<p>The existing operations on the Northern side will be implemented as Phase 2 on the Southern side as part of the planned upgrade activities. The upgrade to the existing pollution control dam and the connection of canals are some of the activities that make this a phased development.</p> <p>The existing PCD is currently 90 m2 and is planned to be upgraded to 450 m2 which exceeds the threshold of 100 m2 for Activity 12.</p>

Act	Number and date of relevant Notice (Regulations)	Activity No.	Listed activity and described in the regulations (highlighted sections indicate the triggered activities)	Implications for site or motivation/reason for interpretation
National Environmental Management Act, Act 107 of 1998	GN R 324 (GN R985) as amended in April 2017 (Listing Notice 3)	Activity 14:	<p>17(v)(a-d); 20; 21; 22; 24(i); 29; 30; 31; 32; 34; 54(i)(a-d); 54(ii)(a-d); 54(iii)(a-d); 54(iv)(a-d); 54(v)(a-d); 55; 61; [62;] 64; and 65; or (ii) listed as activities 5, 7, 8(ii), 11, 13, 16, 27(i) or 27(ii) in Listing Notice 2 of 2014 or similarly listed in any of the previous NEMA notices, which commenced on or after the effective date of such previous NEMA Notices; where any phase of the activity was below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.</p>	
National Environmental Management Act, Act 107 of 1998	GN R 324 (GN R985) as amended in April 2017 (Listing Notice 3)	Activity 14:	<p>The development of: (i) canals exceeding 10 square metres in size; (ii) channels exceeding 10 square metres in size; (iii) bridges exceeding 10 square metres in size; (iv) dams, where the dam, including infrastructure and water surface area exceeds 10 square metres in size; (v) weirs, where the weir, including infrastructure and water surface area exceeds 10 square metres in size; (vi) bulk storm water outlet structures exceeding 10 square metres in size; (vii) marinas exceeding 10 square metres in size; (viii) jetties exceeding 10 square metres in size; (ix) slipways exceeding 10 square metres in size; (x) buildings exceeding 10 square metres in size; (xi) boardwalks exceeding 10 square metres in size; or (xii) infrastructure or structures with a physical footprint of 10 square metres or more; (i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs— (a) within a watercourse; (b) in front of a development setback; or</p>	<p>The planned activities are within an area delineated as artificial wetlands which is a watercourse. For Mpumalanga, in areas outside urban areas, dd) Sensitive areas as identified in an environmental management framework. and (ee) applicable as wetlands are sites /areas listed in terms of Ramsar Convention 1971.</p>

Act	Number and date of relevant Notice (Regulations)	Activity No.	Listed activity and described in the regulations (highlighted sections indicate the triggered activities)	Implications for site or motivation/reason for interpretation
			<p>(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.</p> <p>f. Mpumalanga</p> <p>i. Outside urban areas:</p> <p>(aa) A protected area identified in terms of NEMPAA, excluding conservancies; (bb) National Protected Area Expansion Strategy Focus areas;</p> <p>(cc) World Heritage Sites;</p> <p>(dd) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</p> <p>(ee) Sites or areas identified in terms of an international convention; (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p> <p>Core areas in biosphere reserves; or (hh) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve, where such areas comprise</p> <p>indigenous vegetation; or ii. Inside urban areas:</p> <p>(aa)</p> <ul style="list-style-type: none"> • Areas zoned for use as public open space; or • Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, zoned for a conservation purpose. 	

6 DESCRIPTION OF THE ACTIVITIES TO BE UNDERTAKEN INCLUDING ASSOCIATED STRUCTURES AND INFRASTRUCTURES

6.1 Site Access

6.1.1 Access road to site

The siding is located west of N12 and can be accessed through R555 to Ogies.



Photograph 6.1-1: Site Entrance



Photograph 6.1-2: View of Site Activities

7 CURRENT LAND-USE AND ENVIRONMENTAL SETTING OF THE SITE

7.1 Current Land Use

The land adjacent to the site (north, north east, east, north west and west) is currently being used for variety of purposes. The land use settings discussed in this section are also illustrated in Photographs 6.1-1 to 6.1-18.

The activities observed range from farming i.e. maize crop production (as shown in Photograph 6.1-1 below), cattle breeding and farming on the north east of the site (as shown in Photograph 6.1-2) i.e. JC Prinsloo Boerdery and TRUTER on the north western side of the site (as shown as Photograph 6.1-3). There is residential area close to the farming community (as shown in Photograph 6.1-6). The other land uses that occur within a 2 km radius northwards from the site include a Conference Resort (Khaya Resort and Conference Centre, north east of the site (as shown in Photograph 6.1-4), Kusile Power Station, north east of site (as shown in Photograph 6.1-7), new coal mine Operations (i.e. Iyanga Mining - Klipfontein Mine)(as shown in Photograph 6.1-9 - 6.1-10). There is also an established network and infrastructure in terms of electricity power lines and telephone lines within the area (as shown in Photographs 6.1-11) and road infrastructure upgrade by the Mpumalanga Provincial Government Department of Public Works, Roads and Transport in Nkangala is in progress (as shown in Photograph 6.1-12). The road works have created an unpleasant sight by impeding on the wetland with the disposal of soil and rubble on the edges of the wetland (as shown in Photograph 6.1-15). The wetland still supports fauna and flora species observed during the site visit as shown in Photograph 6.1-16, however, no identification of the species were undertaken.

The land use activities within the vicinity of the site will be also considered in the terms of cumulative environmental impacts that might result to the additional proposed expansion of the operation within the Arbor Siding. For example, the number of trucks travelling on the R960 road towards the Arbor Siding, create a lot of dust within the incomplete road works project (gravel road) as shown in Photograph 6.1-13 towards the T-junction before the site. The cumulative effect of the dust pollution in the area will need to be addressed.



Photograph 7.1-1: Farming i.e. maize crop production. (25° 57' 887" S; 0,28° 53' 862" E).



Photograph 7.1-2: Cattle breeding and farming on the north east of the site (JC Prinsloo Boerdery)



Photograph 7.1-3(A & B): TRUTER Boerdery on the north western side of the site (25° 59' 500" S; 0,28° 53' 441" E).



Photograph 7.1-4: Livestock grazing close to the Truter Boerdery and a natural water body in the background on the north western side of the site.



Photograph 7.1-5: Natural Water Body along the road on the north east side of the site.



Photograph 7.1-6: Residential area close to the farming community (26° 00' 602" S; 0,28° 53' 061" E).



Photograph 7.1-7: Khaya Resort and Conference Centre (26° 01' 118" S; 0,28° 53' 057" E).



Photograph 7.1-8: Kusile Power Station north east of the Arbor Siding (25° 59' 073" S; 0,28° 53' 063" E).



Photograph 7.1-9: New Coal Mine Operations i.e. Iyanga Mining - Klipfontein Mine (25° 59' 073" S; 0,28° 53' 063" E).



Photograph 7.1-10: View of the Operations of a Coal Mine (Iyanga Mining - Klipfontein Mine).



Photographs 7.1-11: Eskom electricity power lines and telephone within the area - north western side of the site along R960 road.



Photograph 7.1-12: Road infrastructure upgrade by the Mpumalanga Provincial Government Department of Public Works, Roads and Transport in Nkangala (26° 01' 118" S; 0,28° 53' 058" E).



Photograph 7.1-13: The view of the Arbor Siding about 200m away. The beginning of the gravel road stretch towards the Site



Photograph 7.1-14: A close up view of the truck entering and exiting the Arbor Siding (26° 01' 671" S; 0,28° 53' 038" E).



Photograph 7.1-15: The road works by the Mpumalanga Provincial Government Department of Public Works, Roads and Transport in Nkangala have created a visual intrusion and impeding on the wetland with the disposal of soil and rubble on the edges of the as wetland (north east side) (26° 02' 097" S; 0,28° 53' 027" E).



Photograph 7.1-16: The road works by the Mpumalanga Provincial Government Department of Public Works, Roads and Transport in Nkangala have created an unpleasant sight in the impeding of the wetland with the disposal of soil and rubble on the edges of the as wetland.



Photograph 7.1-17: The T-Junction section before the entrance to the Arbor Siding on the R555 road to Delmas (to the right) or Ogies (to the left) (26° 02' 343" S; 0,28° 53' 020" E).



Photograph 7.1-18: The entrance to the Arbor Siding on the R555 road towards Delmas.

7.2 Other planned land use within the neighboring area

There are currently plans to establish the current Arbor village to a formal established township.

According to the draft Scoping Report compiled by Adi Environmental (2018), the Victor Khanye Local Municipality (VKLM) has intention to formalize the existing informal settlement (currently known as the Arbor Village) located on a portion of Portion 5 of the farm Vlakvarkfontein 213 IR. Arbor Village is located south of the N12 national road and Arbor Siding, ± 20 km north east of Delmas and 7km north west of Kendal Power Station. The village is located adjacent to Vlakvarkfontein Colliery belonging to Ntshovelo Mining Resources (Pty) Ltd. Figure 7.2-1 shows the locality of the Arbor village in relation to Arbor Railway siding.

The proposed outcomes of the project are to provide additional residential stands and a cemetery on a portion of the Remaining Extent of the farm Van Dyksput 214 IR, located directly adjacent to the existing village, and belonging to Truter Boerdery Trust. Ntshovelo Mining Resources (Pty) Ltd and Truter Boerdery Trust intend to donate the said properties to the Victor Khanye Local Municipality for the purposes of the said rural village.

The proposed development (including public open space) is estimated to be around ± 138 ha in extent and will comprise of: residential stands, business stands, municipal stands, a cemetery, a school, community facilities and public open spaces. The necessary services (water, sewage, electricity, etc.)

will also be provided. Access to the site will be obtained from the R555 provincial road using an existing road extending over the railway line.

The planned development in the neighbouring Arbor village and the planned increase in scope within Arbor Siding are aligned to ensure that the potential impacts and cumulative impacts are identified, addressed and proper mitigation measures proposed.

Consultations between Arbor Siding and Adi Environmental, the EAP for the Vlakvarkfontein proposed Arbor village development have been held. A meeting was convened at the Arbor Siding on the 7th November 2018 and minutes of the meeting are attached as Annexure 7.1-1 and comments to the BID and Scoping report are attached as Annexure 7.1-2.

The issues discussed during the meeting are outlined in Section 11.4.2 and listed in Table 11.4-2 with the minutes of the meeting attached as Appendix 7.1-1 of the draft Scoping Report for the development of a rural village on a portion of Portion 5 of the Vlakvarkfontein 213 IR and a portion of the remaining extent of Vandyksput 214 IR, Kendal compiled by Adi Environmental cc in November 2018. The issues discussed during the meeting and as outlined in Section 6.4.2 of the Adi Environmental 2018 draft Scoping Report are summarised as follows:

Gijima Supply Chain Management Services (Pty) Ltd leases the Arbor Siding area from Transnet Ltd for their coal loading operation. A meeting was held (7 November 2018) with Gijima Supply Chain Management (Pty) Ltd and their appointed environmental consultant, Myezo Environmental Services (Pty) Ltd, in order to:

- Discuss the proposed Arbor Rural Village development;
- Record any issues of concern with regards to the proposed development;
- Obtain information regarding the current and proposed activities at Arbor Siding.

A copy of the agenda, attendance register and minutes of the meeting are provided in Appendix 6. Table 6.3 provides a summary of issues recorded during the meeting of 7 November 2018.

During this meeting, the following was indicated with regards to the Arbor Siding expansion plans:

- Currently, waiting for Transnet to sign the new lease agreement. The siding is however, operational on the northern side. Eskom will advise shortly when loading operations will commence.
- The existing siding does have an environmental authorisation in the form of a Section 28 EMP approval that was issued by Mpumalanga DARDLEA.
- An environmental authorisation must however, still be obtained for the triggered activities associated with the expansion, which is why the siding on the southern side is not operational yet. Myezo Environmental Management Services was appointed to conduct the Environmental Impact Assessment. A water use licence application will be submitted for the pollution control dam. It is still being discussed with DWS whether this should be an amendment to the existing water use licence or an integrated licence encompassing already authorised activities.
- Dust suppression measures are in place. An ambient air quality study was done, focusing on the operational activities of the siding. A stockpile handling capacity study was also conducted.

- The trucks from Vlakvarkfontein Colliery and Wescoal are mainly responsible for the dust. The siding itself does not create a lot of dust. It is thus an indirect issue affecting their operations and monitoring results.
- There is a possibility that coal could be obtained from Vlakvarkfontein Colliery. This would reduce the number of trucks on the road as the trucks will only travel from the mine to the siding resulting in a shorter haul. This would have a positive impact in terms of dust and traffic. Arbor Siding currently employs 30+ people from the local community. The presence of the siding is therefore of benefit to the community. The expansion of the siding will result in more employment opportunities. An agreement is in place with the community to employ community members if they have the required skills. Training is currently given in basic PC knowledge and operating front-end loaders and the weighbridge. We are a small company, but we endeavor to do what we can for the community.
- Discussions have taken place with the Arbor community leadership structures.

The additional issues, comments and proposed mitigation measures discussed from the meeting are outlined in detail in Table 10.5-2.

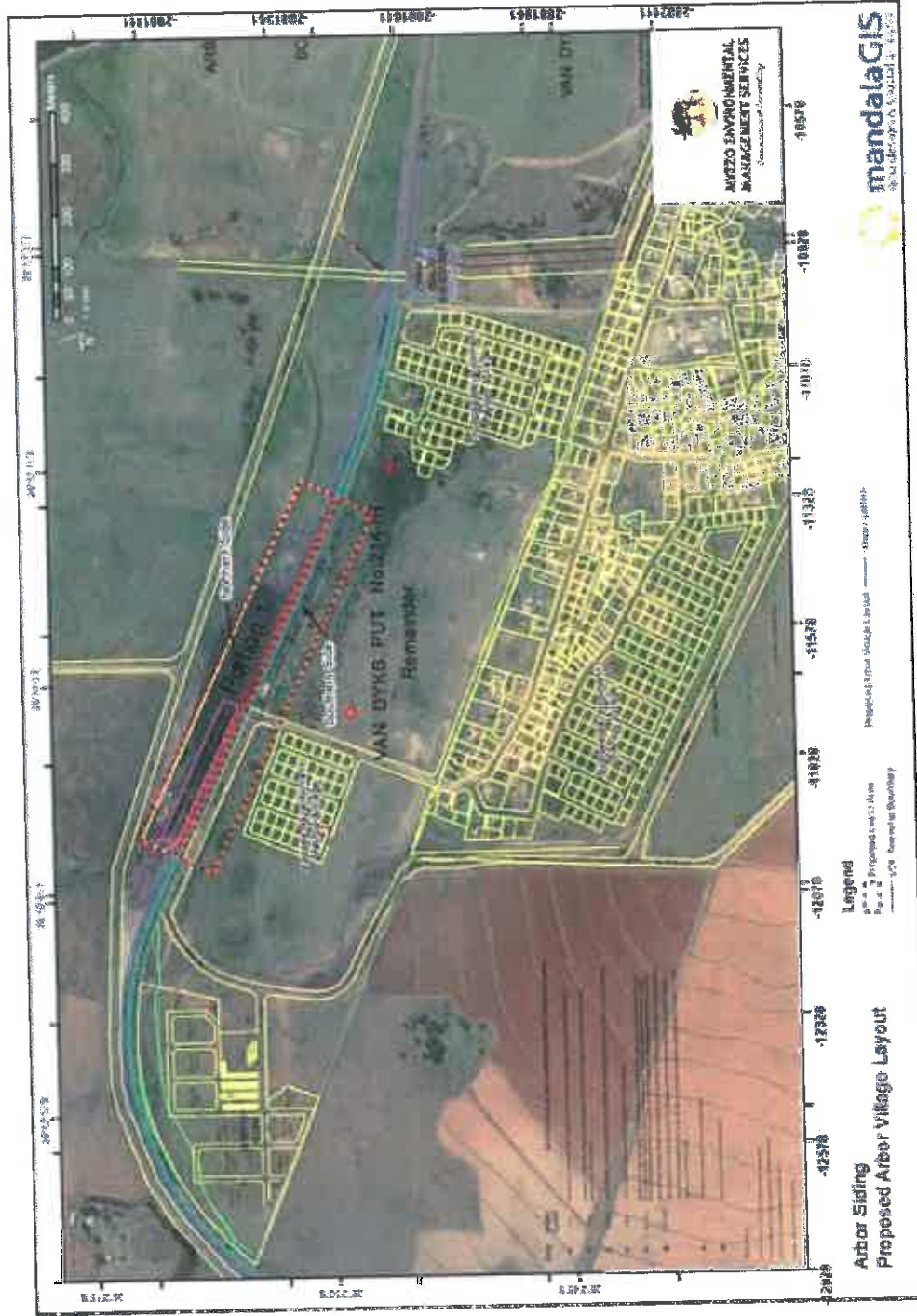


Figure 7.2-1: The locality of Arbor village in relation to Arbor Siding.

7.3 Climate

Summers are at their hottest during January with temperatures reaching 30°C. Winters are characterised by low temperatures falling below 20°C sometimes. The mean daily maximum temperature exceeds 25 °C between November and March, the hottest months. Average maximum temperatures in the winter months (May-August) range from 18.0°C to 21.3°C. The mean minimum summer temperatures range from 11.7°C (March) to 14.2°C (January) with winter mean minima ranging from -1.6°C to 2.9°C. An extreme maximum temperature of 33.8°C was recorded at Ogies, on 12 November 1990 and an extreme minimum temperature of -8.8°C on 9 June 1988.

The average annual rainfall is 700mm with a maximum of 800mm while the minimum is 600mm. The site falls in a summer rainfall region with high rainfall events between November and March. The rainfall occurs mainly as showers and thunderstorms are a common phenomenon. Winters are generally characterised by dry weather. The nearest reliable rainfall station is station Delmas Pannar station located about 20 km south of the proposed Klipfontein wash plant. The calculated Mean Annual Precipitation (Map) for this rainfall station is 705mm. Evaporation data for site was obtained using the WR90 manual. Mean annual evaporation is 1,400mm and is more than twice the MAP of the project area. The high evaporation rates will result in high losses of water from the pollution control dams within the site. High levels of evaporation will serve as major water loss mechanism.

7.4 Geology and Soil

The site is characterised by sandstone, shales and coal beds of the Vryheid formation of the Karoo Supergroup. Intercalations of siltstone and mudstone are common in the sandstone especially in the upper part of the formation. Lenses of calcareous sandstone and sandy limestone are also common. The Karoo Supergroup consists of a sedimentary succession that overlies a glaciated pre-Karoo basement known as the Dwyka overlain by the Ecca and Beaufort Groups. There is no evidence of linear geological structures in the immediate vicinity of the site. The soils found on site are generally fertile with very low water-soluble metal concentrations (most metals were below the detection limit). The implication in terms of the mining activities is that if soils are correctly stripped ahead of mining and the topsoil adequately managed, the stockpiled material has the potential to be an adequate growth medium in areas where it is replaced during rehabilitation. The land capability associated with the site is defined as arable, with the soils in the landscape having the potential to support agriculture.

7.5 Hydrology

The study area falls within Water Management Area 4 (WMA4), Olifants, specifically along the watershed between the quaternary catchments B20F (Wilge River). The Olifants River is the most significant River in WMA4 and one of the main tributaries of the Limpopo River. The Olifants Catchment covers about 54 570 km². The upper reaches of the Olifants River Catchment are characterized mainly by mining, agricultural and nature conservation activities. The mean annual runoff (MAR) for the WMA4 is 2 042 million m³/a. Several surface and underground monitoring points were sampled and their water quality assessed. The monitoring points assessed are shown in Figure 7.5-1 below. The uncontrolled stormwater from the Arbor Siding activities present potential impacts to the sensitive ecosystems

adjacent to the site. Some of the impacts are discussed in detail in Section 4 of this report. The current water use at the Northern Side include a coal stockpile area, a dirty water catchment and two pollution control dams.

The stockpile area has two sections; a section for coal that is transported locally and for coal that is exported. The area results in a huge amount of dust. Water from the Pollution Control Dam (PCD) is used for dust suppression.

The dirty water channel is a channel of approximately 360m long to capture contaminated water on site and to discharge the water into the PCD. The change in elevation for this channel is approximately 6m. The channel is designed to collect a peak flow of 1.611m³/s without spilling.

The Pollution Control Dams has sufficient capacity to handle all dirty water emanating from the dirty water areas of the siding. The PCD is designed to hold the 1 in 50-year storm event and allow for a 0.8 m freeboard and is lined. A silt trap has been constructed upstream of the PCD to prevent silt build-up in the pollution control dam.

7.5.1 Surface Water

The site is located in the B20E quaternary catchment of the Olifants Water Management Area. There are no tributaries traverse the site. The water quality monitoring points are shown in Figure 6.4-1 below and are positioned as follows

Table 7.5-1: Location of monitoring point

ID	Longitude	Latitude	Frequency
Jojo Tank	28.88116947	-26.03881167	Monthly
SW1	28.92417436	-26.04450349	Monthly
SW2	28.88386559	-26.03501712	Monthly
SW3	28.8735138	-26.02875944	Monthly
PCD	28.88166875	-26.03907795	Monthly

Water quality on the Northern Side of the site was assessed and the generic findings are summarised as follows:

- The annual average concentration for the Jojo Tank indicates good water quality; no excessive contaminations analysed throughout the year and water quality fall within the standards set for domestic usages.
- The Pollution Control Dam is operated as a dirty water catchment area within the site and therefore poor water quality might be expected but the sampling parameters still average within the targeted water guidelines for the respective uses.
- The concentration for all surface monitoring points is slightly acidic, neutral and slightly alkaline, ranging from a pH of 6 to 8. The South African Water Quality Guideline for Domestic Use shows the targeted water quality range is between 6.0 - 9.0 and 6.5 - 8.4 for Irrigational Use.



Figure 7.5-1: Water Quality Monitoring Points Map.

7.5.2 Groundwater

The geological setting determines the types of aquifers present in an area. Only one aquifer system had been determined within the local hydrogeological environment namely: - Intergranular and fractured aquifers within the Vryheid formation. According to Vegter (2001) this area falls within the Eastern Highveld Hydrogeological Region that predominantly fractures argillaceous and arenaceous deposits. Its principal water bearing rocks are of a secondary nature. In general groundwater accumulation occurs in intergranular and fractured aquifers overlying most of the area. Groundwater accumulation is related to joints, fractures and faults in competent arenaceous rocks. The groundwater development potential is considered low to medium with borehole yields averaging between 0.1 and 0.5 l/s according to the South African Hydrogeological Map series, (1999). According to the Groundwater Resources Map of South Africa (1995) the general groundwater level depth ranges between 10m and 25m below surface.

According to the findings of a Groundwater investigations, quality does not change as rapid as surface water quality. Groundwater contains minerals dissolved from soil particles, sediments, and rocks as the water flows at different directions along aquifers. Some other forms of ground water contaminations come from improper disposal of chemical wastes, leachates from solid waste disposal sites and infiltration of storm water discharges. Samples were collected from both the Upstream and Downstream Boreholes for analyses of the quality. These boreholes supply portable water to the communities around Arbor Siding.

The findings are summarized as follows:

- The water quality from both boreholes is very good, there is no contamination related to activities at the Siding.
- The average pH concentration is neutral to slightly alkaline for the two boreholes ranging between 6.2 to 8.2 mg/l, falling within standards set for domestic, agricultural and livestock use.
- All variables analysed to determine the water quality fall within the standards set by the Department of Water Affairs and Forestry (DWAF) South African Water Quality Guidelines.
- No microbiological monitoring was conducted at all the boreholes.

7.5.3 Groundwater Recharge

Recharge represents the portion of rainfall reaching an aquifer regardless of which pathways it follows (Bredenkamp et. al. 1995). It occurs either through preferential pathways (fractures), drainage through soil or infiltration from river channels and “stationary” water bodies. The key benefit in groundwater recharge investigations is an acquisition of a better understanding of patterns of infiltration and processes thereof.

Recharge often shows more importance in aspects of groundwater supply, aquifer management as well as mining activities like mine dewatering. It plays a crucial role as a controlling factor in alleviating environmental problems resulting in groundwater pollution, by acting as a natural dilution process normally over prolonged periods of time. Best recharge results are most achievable with a good data set preferably collected over long periods.

7.6 Water Management

7.6.1 Water Balance

A water balance was prepared in order to determine the amount of water required to sustain the operation. It is also key towards identification of areas of high water consumption and definition of water management strategies. Individual water management units were broken down into individual subcategories for better expression of water uses. These include the

- Domestic water intake systems
- Process water intake systems
- Effluent disposal systems
- Pollution control dams
- Dust suppression

7.6.1.1 Potable Water supply

Potable water will be sourced from a Transnet mains connection

7.6.1.2 Process water supply

There will be no process water abstraction as the operation will entail only coal stockpiling

7.6.1.3 Pollution control dam

Dirty water from that runs off the stockpiling area will be channelled to a pollution control dam. The pollution control dam will also act an evaporation pond. Taking in to account that the area falls within a pollution control dam is 9000 square meters. It is expected that a volume of 700 m³ will evaporate from the pollution control dam.

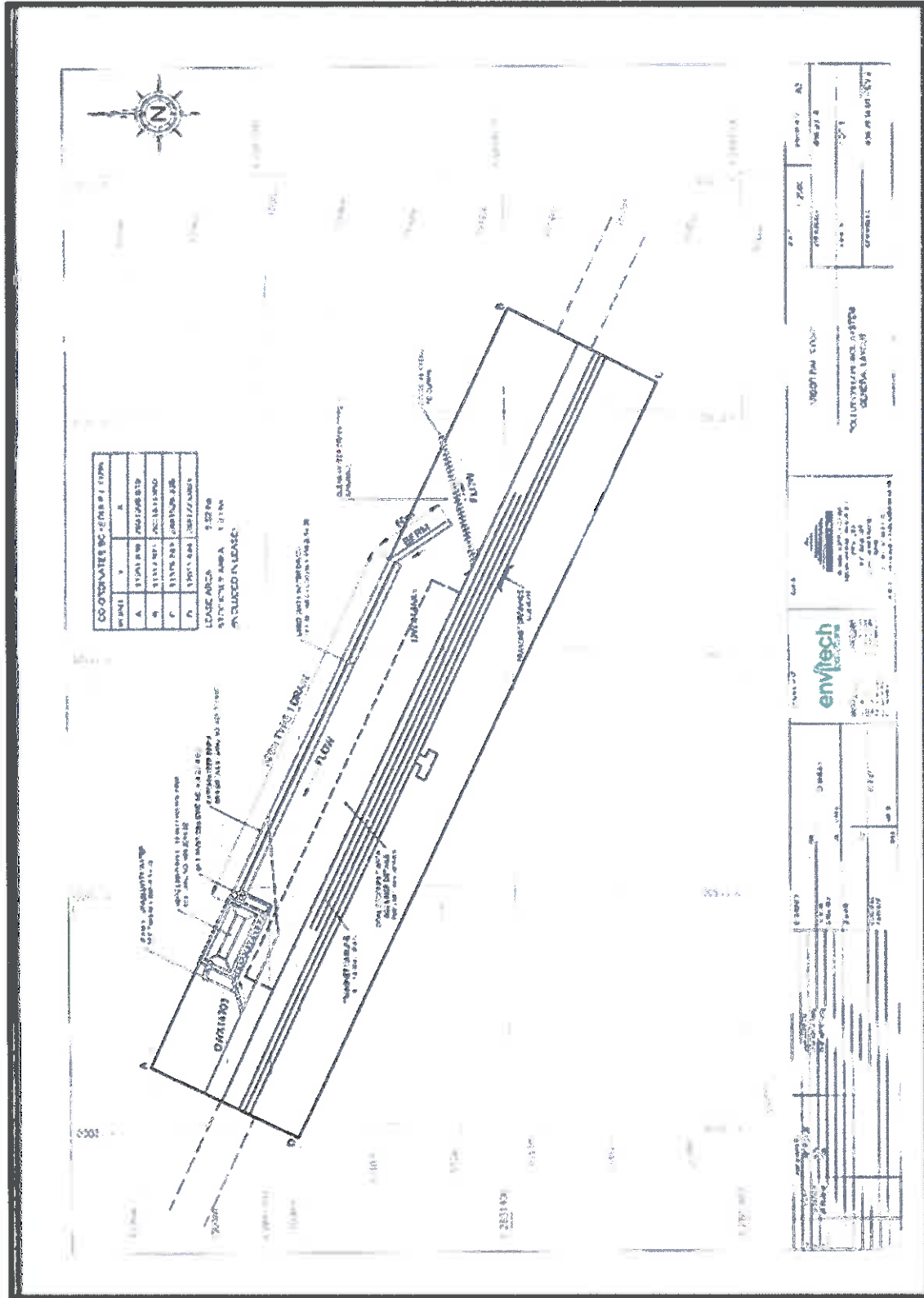


Figure 7.6-1: A pollution control dam site layout for the operational site

7.7 Topography

Arbor is located within the Eastern Highveld Grassland within the grassland biome of South Africa. The grassland biome is one of the most threatened biomes due to agriculture and mining activities with 60% of the grassland biome already having been transformed and only 2% under formal conservation. The Eastern Highveld Grassland is described as occurring on slightly to moderately undulating plains including some low hills and pan depressions. The vegetation is short dense grassland dominated by the usual highveld grass composition with small scattered rocky outcrops with wiry sour grasses and some woody species. This vegetation unit is considered to be endangered. The proposed project site is lying in the B20 tertiary drainage region the area is drained by the Olifants river and is characterized by a gently rolling topography on a slope of about 1: 120.

7.8 Flora and Fauna

The site was assessed for fauna and flora ecosystems occurring on the site. Faunal species were observed visually and avi-fauna observed was verified using a checklist obtained from a desktop studies and also used the Sasol Birds of Southern Africa (Sinclair et. al., 2002), South African Bird Atlas Phase 2 and Bird Life South Africa for Avian species occurring in the area for further identification. Animals and small mammals were identified within the study site using observation, spoor, tracks, signs and droppings as well as burrows and nesting sites on the ground where feasible. Arbor Siding is highly disturbed and transformed due to the coal handling and storage operation. The study site is located in a Highveld part of Mpumalanga province which commonly known for its wetlands and grass plains with variety of flora species. The Grassland biome is the heavily impacted and disturbed biome in the country and its associated wetlands and rivers continually get affected as a result. Within the Arbor Siding area, the availability of flora is restricted to alien invasive plants, thus the vegetation is transformed in the edges of the site. No critical flora species of conservation importance within the site was recorded. Furthermore, with the exception of random encounters with fauna, no faunal species of importance were observed or recorded within the site as the site is highly disturbed to carry faunal species. With the exception of one transformed wetland and dam constructed to support the activity, there were no natural or functioning wetlands observed and recorded within Arbor Siding boundary. The operational site is highly transformed and with exception of Eucalyptus species randomly occurring on the boundaries of the site and serve as screening method; the site is unable to carry and sustain any flora species as a habitat due to coal dust footprint. However, outside the boundaries of the study site on the east side there are thriving ecosystems such as wetlands and rivers located on the north of the site. These ecosystem supports variety of species such as Grass Owl. Arbor Siding activities only affect these ecosystems due to the uncontrolled storm water as a result it is recommended that the proponent put in place proper storm water measures that could prevent it from draining into the nearest freshwater ecosystems.

Vandykput 214 IR Portion 1 Environmental Sensitivity Map

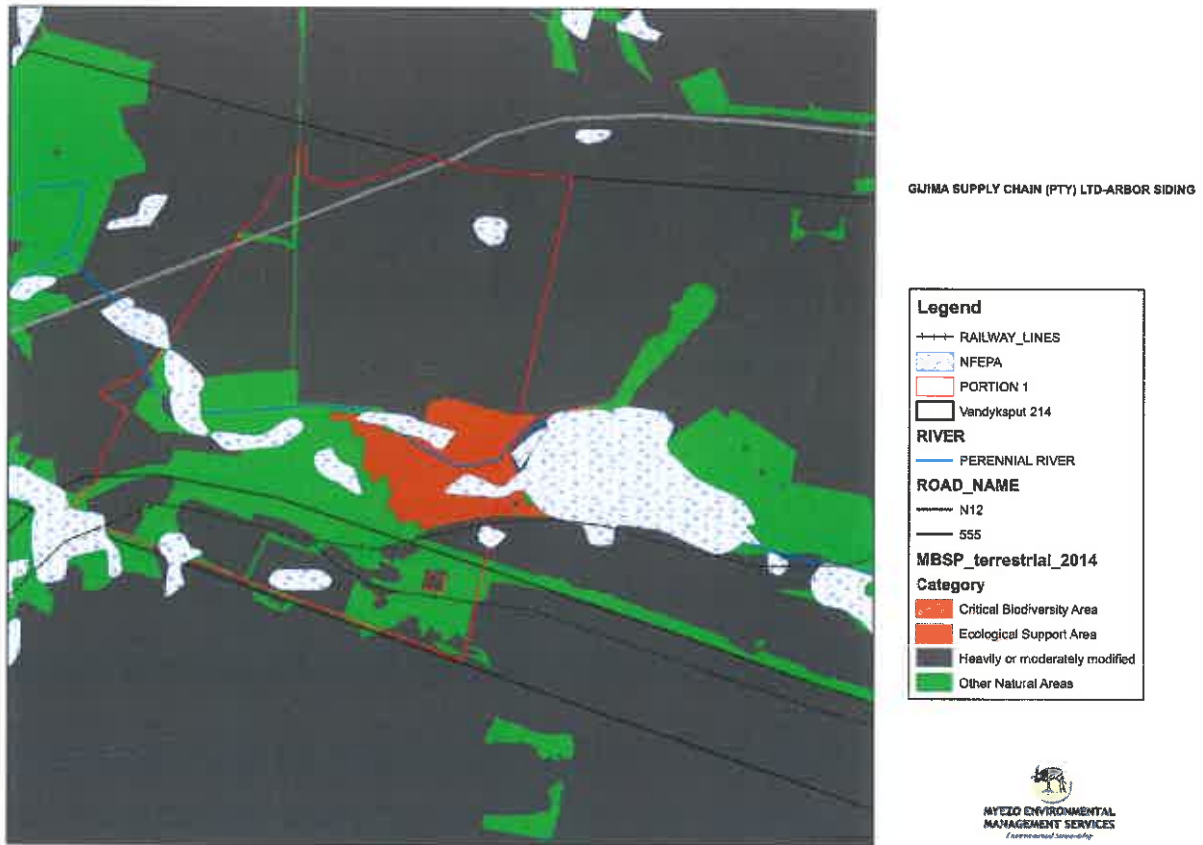


Figure 7.8-1: Environmental Sensitivity Map

7.9 Ambient Air Quality

The Ambient Air Quality study undertaken comprised of a baseline description and impact assessment study. The baseline study encompassed the analysis of meteorological data such as local temperature, relative humidity, rainfall, wind speed and wind direction. The impact assessment study investigated the pollution particulate concentrations that represent the main pollutant of concern given the nature of the operations. The assessed pollutants were classified as criteria pollutants, with ambient air quality guidelines and standards having been established by various countries to regulate ambient concentrations.

The limitations and assumptions of the study included:

- The study was restricted to the Gijima Supply Chain Arbor Siding operations and surrounding operation within the proponent’s operational site.
- The information required for calculating emissions from fugitive dust sources for the operation were assumed to be correct and accurate to model routine emission for the site.
- It is recommended that a minimum of one year of meteorological data is be used in atmospheric dispersion modelling for air quality impact assessment purposes.
- The assessment at Arbor operational siding was limited to airborne particulates which are the total suspended particulates (TSP) and particulate matter of less than 10µm in diameter (PM10).

The main findings from the baseline assessment were as follows:

- The main sources likely to contribute to cumulative PM10, SO2, CO and VOC air quality impact are vehicle entrainment on unpaved road surfaces and during loading and off-loading of coal at the site (i.e. mining activity);
- The predominant wind direction within the site is from the west- northwest on which during day time there is an increase in these winds velocity. Less frequent winds are from the southern directions.
- With exception of Sulphur dioxide, the pollutants recorded within the site falls within the NAAQ air quality threshold targets.
- Recorded ambient air quality results shows that Sulphur dioxide levels exceeds the target threshold as determined by AQA and SANA 1929:2005 standards in all four sites.
- Modelled ambient PM10 concentrations exceed the daily NAAQ PM10 limit applicable from 1 January 2015.

For cumulative impacts, the contribution of Arbor Siding operations is intermediate with cumulative impacts really due to baseline conditions of the site as such that the SO2 concentrations for cumulative impacts were high and in non-compliance with NAAQ.

Recommendations from the study:

1. It is recommended that four dust buckets stands be strategically erected to the main areas or sensitive receptor area to verify predicted cumulative impacts and refine controls accordingly. Dust samples from the dust buckets will be taken to analyse the Gravimetric Dust Fallout content,
2. The PM10, SO2, CO and VOC concentrations determined through active sampling in order to measure these variables against national ambient air quality guidelines should be conducted in a monthly basis in order verify predicted cumulative impacts and refine the operational site impacts with the aim of lowering the exceeding SO2 concentrations.
3. Dust suppression in the form of water spraying the areas of frequent vehicular movement should be done in a three hours interval to minimize the generated dust whilst avoiding water accumulation to the surface.

The four (4) buckets are strategically placed as follows:

SAMPLING POINT	SOUTH			EAST		
	DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS
NORTH	26	2	18.72	28	52	45.14
EAST	26	2	19.03	28	52	50.98
SOUTH	26	2	27.80	28	53	6.80
WEST	26	2	25.22	28	52	57.96

The recent air quality scheduled monitoring and report for the site for April/May revealed the following:
 The results of this monitoring are within DAE targets, which is good, however exceeds the National SANS 1929 Standards. This means that once this becomes a regular occurrence on the monitorings, Gijima will be required to do an Air Quality Licence. The current monitoring results are higher than the 2016 monitoring results, this means the 2016 Aug/Sept recorded average was 512 mg/m²/day and the 2017 April/May recorded average is 736.33 mg/m²/day. One of the common reasons why there is an increase, is due to the winter beginning in May in Mpumalanga and therefore the monitoring occurred in a windy and dry season. The other reason is that the access road (R960 road) going towards Eskom Kusile Power Station, this impacts negatively on the results because that access road generates a lot of dust from the vehicular movement of other road users including trucks.

Please also note that the West point results were not taken and not included in the analysis due to last year's incident where the pole and bucket were stolen, but the South point also caters for the West activities which are the off-loading and loading of coal. The West equipment need to be replaced so that on the next air quality monitoring, we than have the results for West side alone.

Even though the monitoring was within the DAE target and exceeded the National SANS 1929 standards as shown in Table 6.8-1 below, it is recommended that the applicant obtain an Atmospheric Emission Licence (AEL) permit due to the likelihood that the dust generated at the site will reach the ALERT threshold that will require notification of Authorities and subsequent permit application.

Table 7.9-1: Two months dust fallout comparison for Arbor Siding (period Aug/Sept 2015, Aug/Sept 2016 and Apr/May 2017).

Monitoring Point	Dust levels measured in mg/m ² /day			DEA AQ targets	SANS 1929:2011 targets	Actions
	Aug/Sept 2015	Aug/Sept 2016	Apr/May 2017			
North	785	609	712	1000	1000	Three within any year not two Sequential months
East	418	648	642	500	500	
South	655	279	475	400	400	
West	stolen	Equipment stolen	n/a	200	200	
Average	624	512	736.33			
Residential	624	512	736.33	500	500	

Monitoring Point	Dust levels measured in mg/m ² /day			DEA AQ targets	SANS 1929:2011 targets	Actions
	Aug/Sept 2015	Aug/Sept 2016	Apr/May 2017			
Industrial	624	312	736.33	1000	1000	<p>Three within any year not two Sequential months.</p> <p>However, it is recommended that the applicant obtain an Atmospheric Emission Licence (AEL) permit due to likelihood that the dust generated at the site will reach the ALERT threshold that will require notification of Authorities and subsequent permit application.</p>

8 PROJECT ACTIVITIES

8.1 Planned project activities

An overview of the planned project activities is provided in this section. It should be noted that the environmental authorisation application does not include all the activities as shown in Figure 8.1-1. Some of the activities were implemented, for example, the vegetation clearance is already done as part of the existing operations. The new application is for only the activities that are triggered. The activities in this figure must be read in conjunction with Table 8.1-1 and Figure 8.1-2. Nevertheless, please note the picture used for areas indicated for loading was pre-existing operation interventions and the site might not currently resemble this picture.

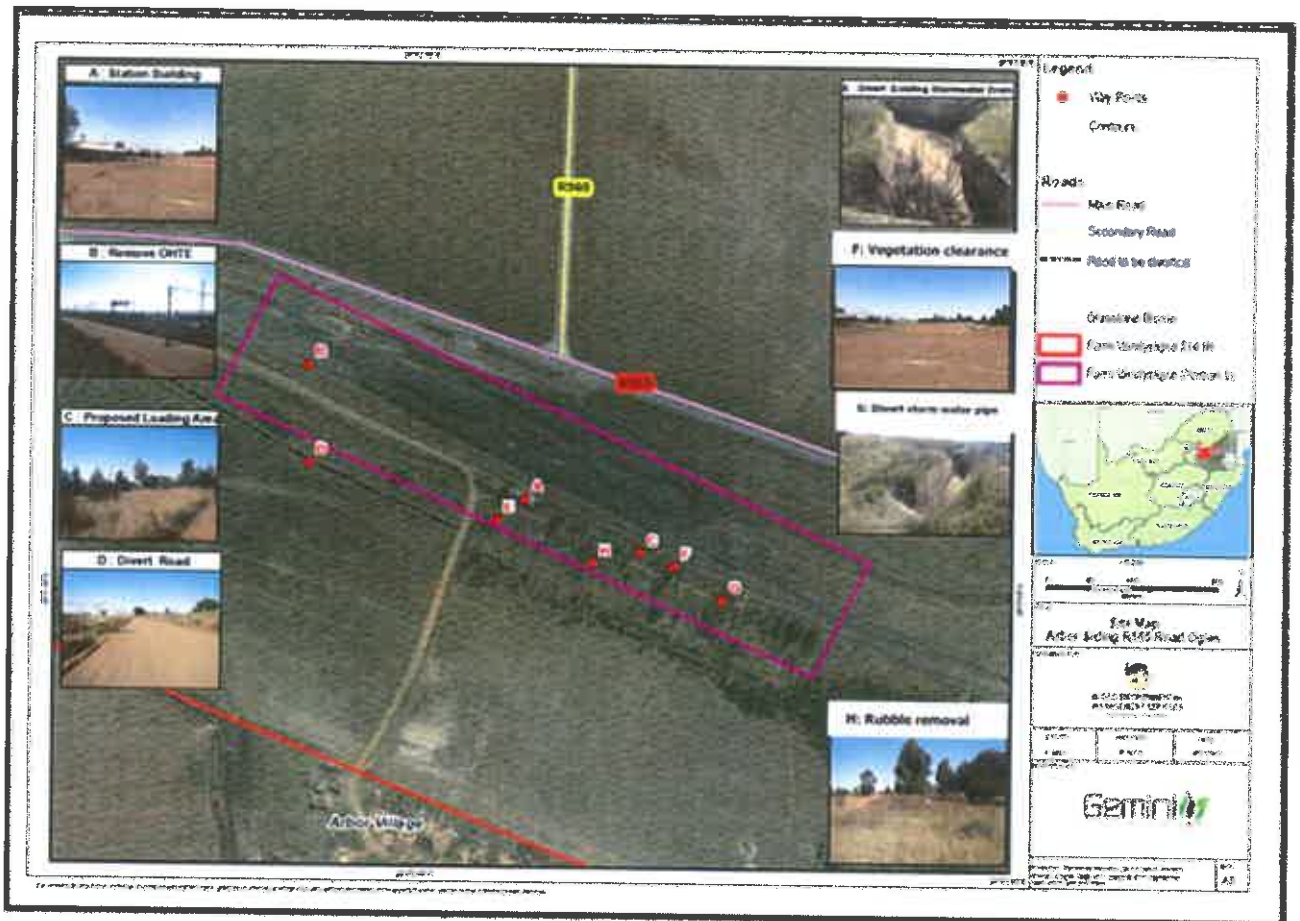


Figure 8.1-1: An overview of project activities for the site

Table 8.1-1: List of proposed Activities for the Southern Side and the photo references.

Activity No.	Proposed Activity	Photo Reference Figure 7.1-1
	Remove the OHTE from the platform line. For detail on the planned diversion and extension of Line 5 and Line 6 including the deviation and extension of Line 4 refer to the topographic illustration of the planned activities in Figure 7.1-2).	B
2.	Establish loading area	C
3.	Divert gravel road	D
	Divert existing storm water drain and extend the storm water drainage channel. Construct a berm wall on the station side of the channel with the excavated material.	E
4.	Backfill and compact the old channel where required.	E
5.	Clearance of vegetation	F
5.	Divert storm water pipe	G
4.	Remove the entire existing concrete drainage infrastructure.	F, G
5.	Extend the existing storm water culvert for the full width of the loading area and connect it to the new storm water cut-off drain.	F, G
	Rubble Removal	H
7.	Construct new evaporation dam.	

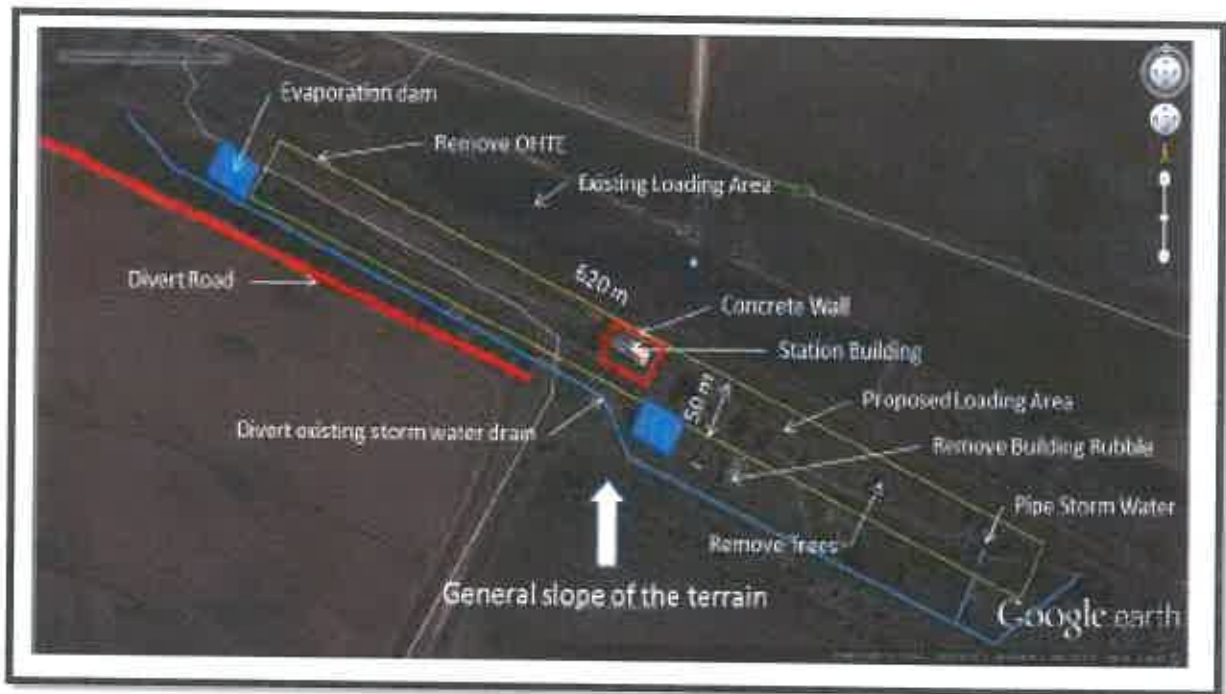


Figure 8.1-2: Propose activities for increasing the scope at the Siding



Figure 8.1-3: Proposed new activities which will be undertaken as Phase 2 of the Arbor Railway Siding operations (This environmental authorisation application)



Figure 8.1-4: Proposed new infrastructure to be undertaken as part of this environmental authorisation application (Phase 3)

8.1.1 Water management plan

The water management plan highlights the planned activities from a water management perspective and is summarized as follows:

Planned Activities

The design of the proposed activities was investigated by a specialist engineer in July 2018 and the water management plan for the proposed expansion of the Arbor Siding is attached as Annexure 16.1-1.

The proposed site for the increased scope of the operations include the utilization of two lines next to the existing platform (indicated in red and yellow line in Figure 8.1-5).



Figure 8.1-5: Proposed site for the future increase in scope of the existing railway siding.

8.2 Phasing in of the infrastructure:

The planned intention is to initially use the infrastructure “as is” with the minimum construction possible to modify the site in order to stockpile the coal and load it on to the trains. For the sake of the ease of reference this stage will be referred to as “Phase 1”. The infrastructure which will be constructed in phase 1 will be in line with the future infrastructure requirement for phase 2.

The water management calculations were done for the proposed Phase 2 which will represent the completed works to stockpile 17 000 tons of coal and a throughput of about 72 000 tons per month.

8.2.1. Proposed Layout for Phase 1

The terrain will only be cleared and leveled and some minor earthworks will be required to enable the front-end loaders to get to the rail track structure to load the trains. Figure 8.2-1 gives the proposed startup layout for phase 1.

A storm water drain and berm wall will also be installed on the TFR boundary line to divert the runoff storm water away from the siding in order to separate the clean and dirty water systems.

The terrain will only be cleared and leveled and some minor earthworks will be required to enable the front-end loaders to get to the rail track structure to load the trains. Figure 8.2-3 gives the proposed startup layout for phase 1.

A storm water drain and berm wall will also be installed on the TFR boundary line to divert the runoff storm water away from the siding in order to separate the clean and dirty water systems.



Figure 8.2-1: Layout for Phase 1

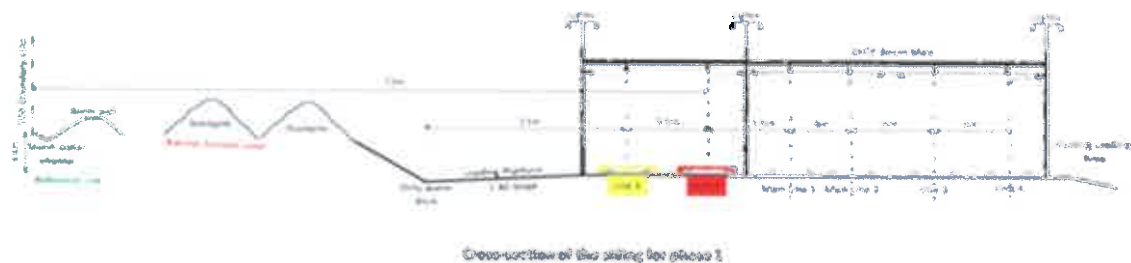


Figure 8.2-1: Cross Section for Phase 1

8.3 Proposed Layout for Phase 2

Line 6 will be moved to the TFR boundary which will then encapsulate the dirty area between line 5 and line 6. In order to manage and contain the polluted runoff the following items are added to the basic layout design as illustrated in Figure 8.3-1.

- Redirecting the contaminated water flow
- Adding a silt trap
- Adding a Pollution Control Dam (PCD)



Figure 8.3-1: Layout for Phase 1

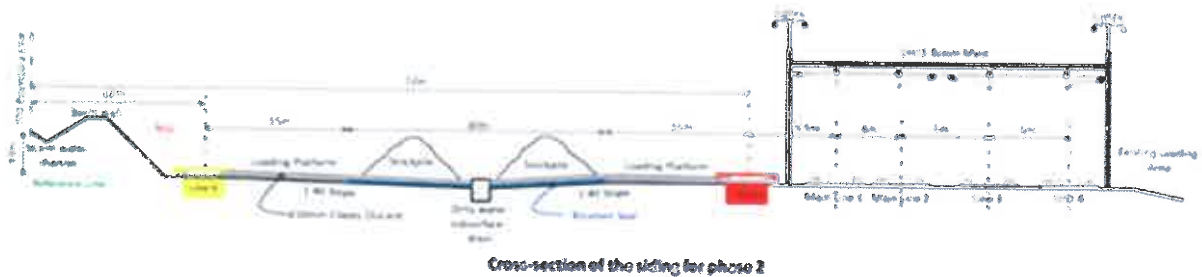


Figure 8.3-2: Cross Section for Phase 2

Water Management Strategy

The proposed water management strategy is summarized as follows:

- Storm water runoff from the catchment area will be guided around the siding by means of the storm water drain and the berm wall.
- For phase 1 the polluted water will be guided to the existing culvert underneath the railway tracks on the eastern side of the siding. From there the existing dirty water channel will discharge it into the existing PCD.
- After completion of phase 2 the entire siding will slope westwards with a fall of 1:100 and then the polluted water will flow that way by means of drainage channels and culverts to be discharged into the silt trap and the new PCD.
- Water will be extracted from the PCD at a rate of 90 000 litres per day (about 27 000m³ per year) for mainly dust suppression purposes.
- There is no need for the supply of potable water due to the infrastructure which already exists on the northern siding.

Soil sealing arrangements

No soil sealing will be performed for the phase 1 layout because this setup will only be in place temporarily. Any pollution that might occur during this period will physically be removed when the phase 2 layout is being constructed. This is evident when comparing the natural ground level line (red line) with the stockpile levels on Figures 8.3-3 and Figure 8.3-4.

The following methodologies will be used for the phase 2 layout in order to comply with the "Class C" specification for landfills in providing a double seal:

The Pollution Control Dam (PCD):

Spray a 1mm thick bitumen emulsion seal / binder on the floor and the sidewalls and then cover it with a 1.5mm thick HDPE membrane. The advantage of this methodology is that the bitumen will "glue" to the HDPE liner and thereby strengthen it. Due to its "gluing" effect it will also localize and inhibits any leakage through the plastic liner.

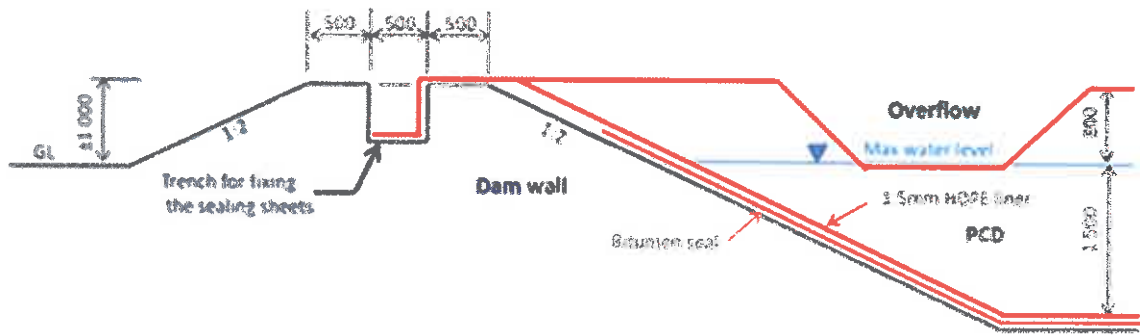


Figure 8.3-3: Sealing arrangement for the PCD

The Silt trap

Sealing the silt trap is similar to the PCD except that the floor or ramp will be covered with a 200mm thick concrete slab.

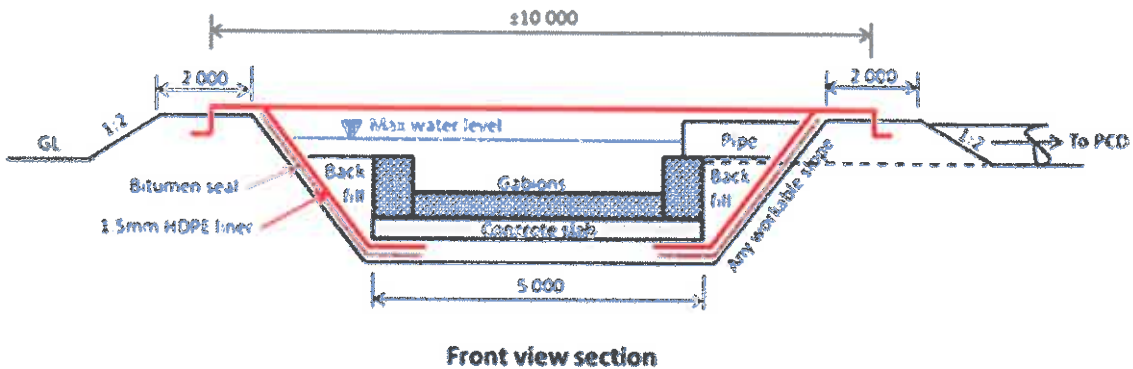
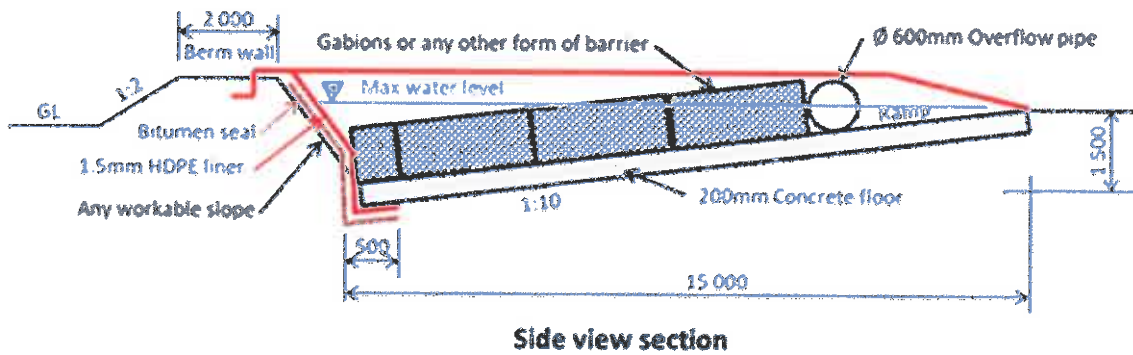


Figure 8.3-4: Sealing arrangements for the silt trap

The Stockpile areas

Spray a 1mm thick bitumen layer on top of the prepared surface area for the stockpiles and cover it with a 150mm low permeable material (such as a clayey discard layer). As soon as water is added (which will be daily) the very fine particles will settle at the bottom of the layer to form a very effective natural

seal. This seal will “grow” over time as the vehicle wheels pulverize the surface particles and the seal will become even more effective.

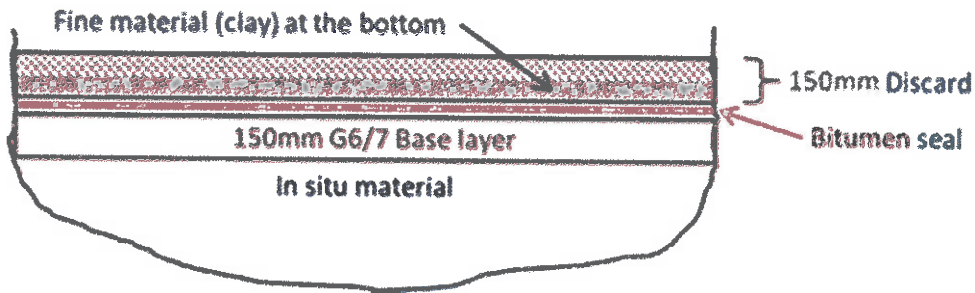


Figure 8.3-5: Sealing arrangement for the stockpiles

The dirty water channels:

Subsurface drains:

Unfortunately, the dirty water catchment drains have to run through the centre line of the stockpile areas for this specific kind of loading area layout. For maintenance and safety reasons it would be better to install subsurface drains to collect and discharge the dirty water in this case.

The subsurface drains will effectively be 500mm x 500mm in size. The drains will be lined with a 1.5mm HDPE liner and the water will permeate to the drainpipe by means of a thick geo-fabric and a coarse sand fill at the top as shown in Figure 7.1-13. The slope of all the subsurface drains will be 1:1000.

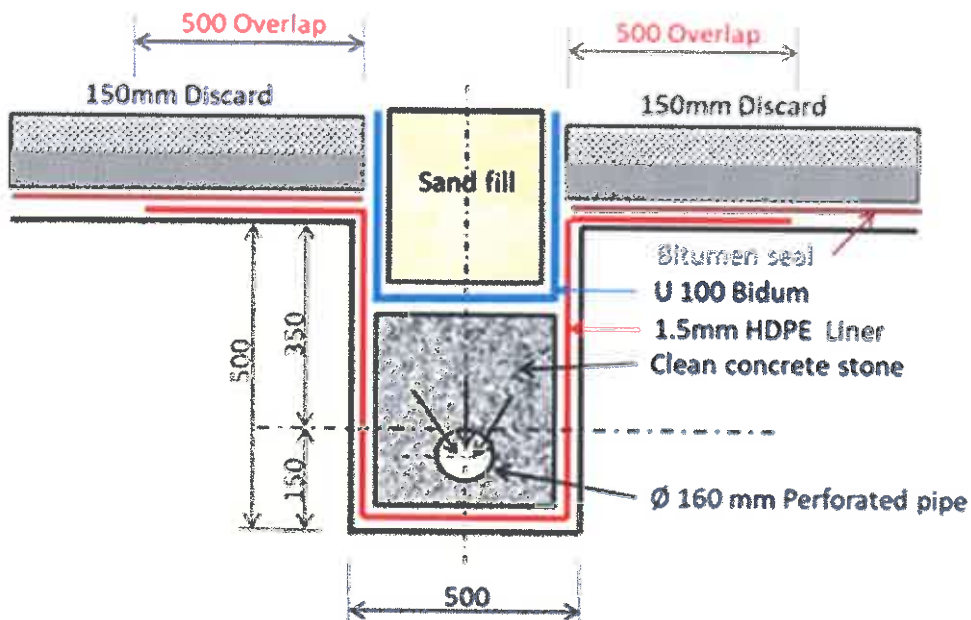


Figure 8.3-6: Layout for the subsurface drains

Surface drains:

Open drains will be lined with a 1.5mm HDPE liner and weighed down at the bottom by means of either sand bags, hand stone or even coarse gravel.

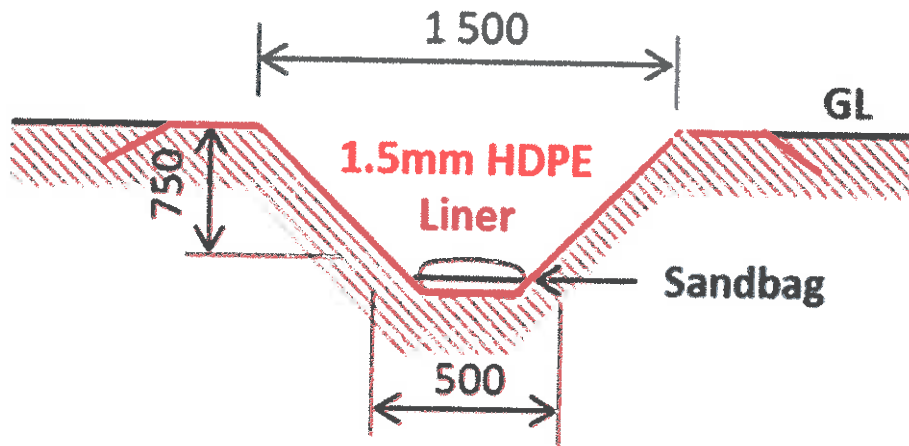


Figure 8.3-7: Sealing of the open drains

Underfloor drainage:

According to the "Class C" specification for landfills subsurface drains have to be installed below the floor of the PCD for monitoring purposes. Due to the relatively small size of the PCD a single ring drain at the floor edges will suffice (Figure 7.1-15). Although the final ground levels for phase 2 are yet unknown it will be assumed that the outlet of the ring drain will daylight inside the storm water channel. These drains are indicated on Figure 7.1-16 by the red lines.

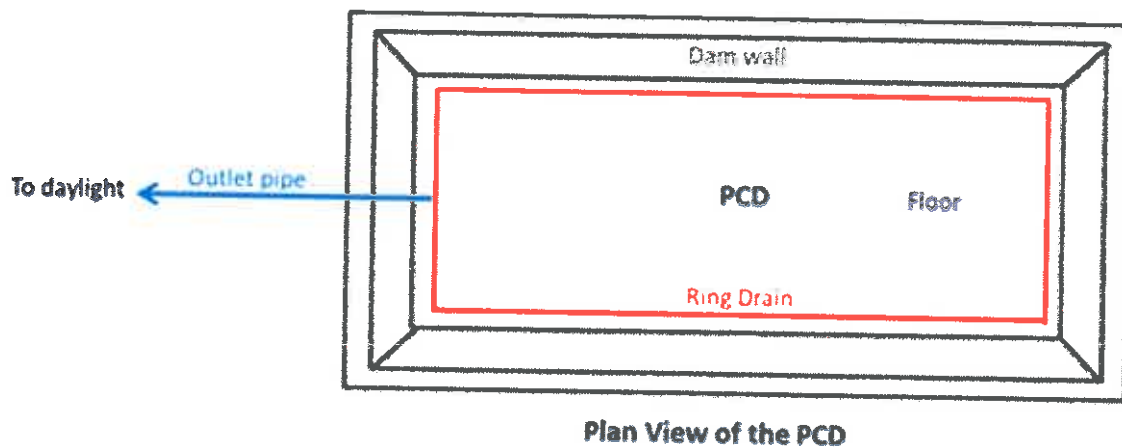


Figure 8.3-8: Layout of the underfloor drains

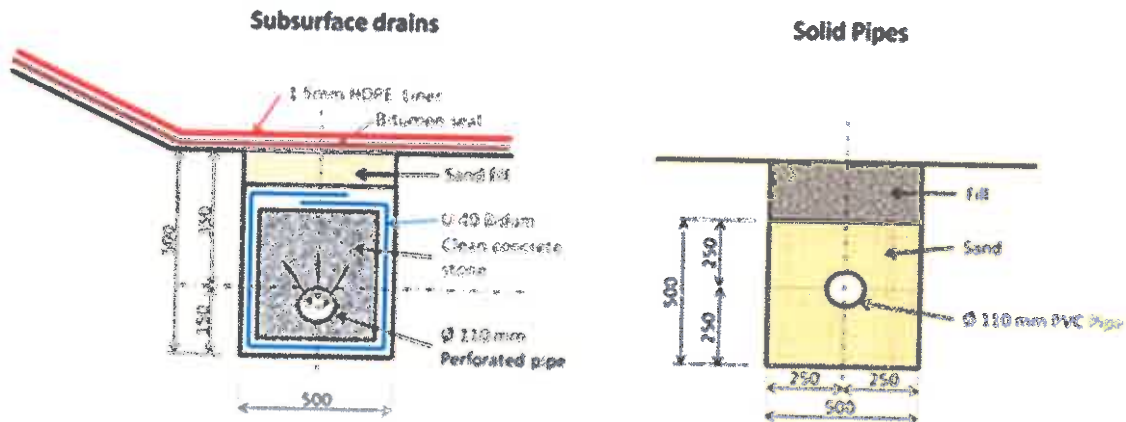


Figure 8.3-9: Layout of the drains and pipes

8.3.1 Energy Use

A diesel truck arrives on site to refuel the Water Bowser and equipment on site. There is no diesel storage tank on site. Use of generator for use during normal services maintenance or load shedding schedules from Eskom.

Metrological data:

The following metrological data were used to calculate the expected runoff volumes for the relevant areas and infrastructure:

- Rainstorm with a 1:50 year return period
- 2-hour storm duration
- Precipitation of 650mm per year
- Evaporation = $1.5 \times \text{Area} \times \text{temperature} / 20$ in m^3 per year
- Average temperature is 18°C
- Runoff factor of 0.2 for the storm water due the agricultural nature for most of the catchment area
- Runoff factor of 0.4 for the dirty water runoff on the siding

Water runoff calculations:

Storm water catchment area:

The size of the catchment area according to Google Earth is about 49.6ha – see the blue shaded area on Figure 8.3-10.



Figure 8.3-10: Storm water catchment area

Dirty water catchment area for phase 1:

The size of the polluted area will be about 3.8ha – see purple shaded area on Figure 8.3-11.



Figure 8.3-11: Polluted area for phase 1

Dirty water catchment area for phase 2:

The size of the polluted area will be about 5.0ha – see purple shaded area on Figure 8.3-12.



Figure 8.3-12: Polluted area for phase 2

9 MOTIVATION FOR THE NEED AND DESIRABILITY FOR THE PROPOSED DEVELOPMENT

The total storage capacity of the existing site is 21 204 tons. The current active operational side herewith, referred to the Northern Side of the Arbor Railway Siding, has been servicing Eskom with 3,8 million tons of coal, over the three-year period, which ended in September 2016.

Subsequently, Gijima targets the export market and Eskom renewed the contract and increased the tonnage to 95 000 000 tons over a 4-year period ending in 30 September 2020. This translates to 198 000 tons per month. There will be challenges in achieving this current contractual demand, since the current active operational area has reached its maximum operational capacity in terms of stockpiling, receiving trucks and loading the trains. Currently, only two trains are operational to service the extended Eskom contract and the current infrastructure is not enough to fulfil Gijima's contractual obligations. The operational capacity will need to be increased and as such there will be additional activities that will be undertaken such as increased stockpiling areas, and to increase the loading capacity with two trains daily. Increase in the capacity of the pollution control dam and/or have a new additional pollution control dam with a silt trap.

The proposed expansion to the operation also presents social and economic benefits for the communities surrounding the site, especially Arbor village, which is within a 1 km radius south of the site. The social benefits include the job opportunities for 25 extra people to be employed for the site. The economic benefits will be realized through the implementation of Transnet Road to Rail Strategy in transporting more coal to the power station, whilst reducing both costs and number of human fatalities. The expansion will transport an increased volume of coal material, which may lead to more stable electricity supply.

The expansion is viewed to be in support of the Transnet Freight Rail Strategy which was proposed in 2012 and linked to the budget allocations for rail infrastructure development within the country. Transnet has been looking at ways of investing in new technological developments in relation to Road to Rail Strategy. They have been piloting on an idea to use truck wagons fitted with tyres that can travel on both road and railway surfaces. This would also reduce the amount of time for loading and offloading at Stockpile areas, the traffic of trucks loading and offloading at stockpile areas would be reduced, the emissions from trucks to and from the stockpile areas. The Transnet Freight Road to Rail Strategy is summarised in Section 2 of this report.

10 MOTIVATION FOR THE PREFERRED SITE, ACTIVITY AND TECHNOLOGY ALTERNATIVE

10.1 Alternatives

10.1.1 Design alternatives

There are several proposed alternatives considered for the site, particularly for the Pollution Control Dam:

- The Construction of a Pollution control dam on the Southern side. This will require a Water Use Licence.
- Divert all the dirty water from the Southern side to the Northern side. An environmental impact assessment to be conducted base on the Engineering designs and layout plans to be finalised and approved.
- Impact assessment of both alternatives to be conducted and mitigation measures to be recommended as per of the monitoring plan for the site.

10.1.2 Technology Alternatives

Technology Alternatives

There are several options considered for the proposed increase in scope for the operations at the Arbor Siding.

Technology Alternative T1 (preferred technology method)

In order to prepare the Southern side for operations, there are several alternative options proposed for the establishment of the Southern side as a Coal Stock Pile Area and a Loading Area. The proposals are as follows:

Option 1:

The plan in to keep the existing track work as is and cut away the loading area with a slope of 1:40 away from the track. Install a dirty water channel at the back end which will tie up with the evaporation dams. The layer works will consist of the compacted in situ material, 150mm sub-base layer and 150mm of sacrificial coal. A typical cross section of the loading area as proposed is shown in Figure 9.1-1 below.

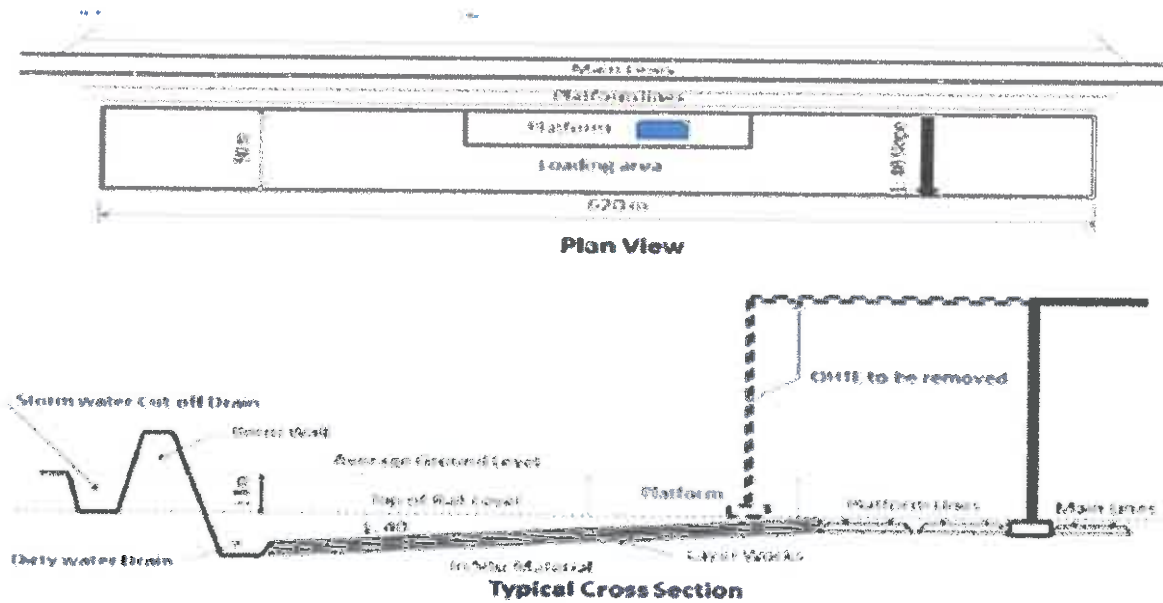


Figure 10.1-1: Option 1 for the Establishment of Loading Area for Southern side.

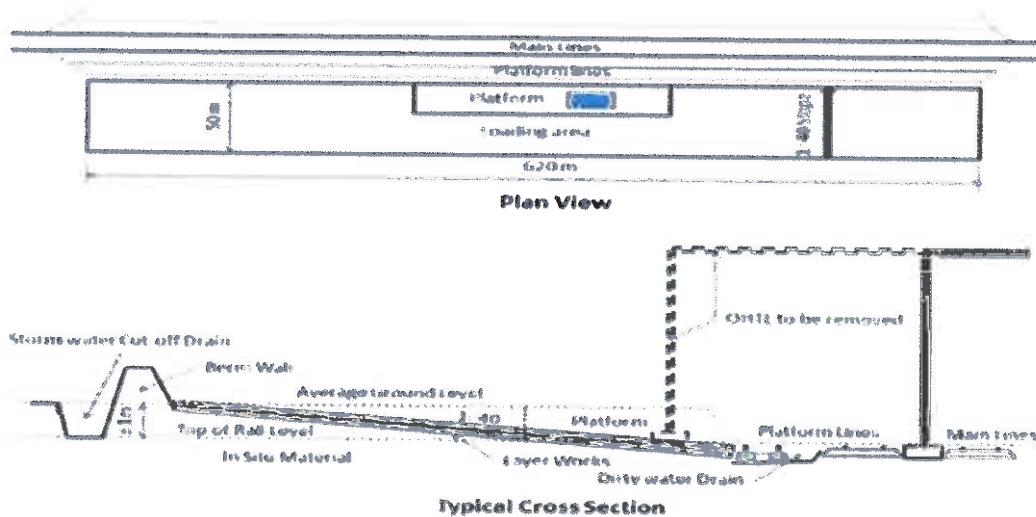


Figure 10.1-2: Option 2 for the Establishment of Loading Area for Southern side.

Option 2:

This option involves the replacement of the platform line with a Tubular Track System. Cut the loading area with a slope of 1:40 towards the track along the natural ground level. The space between the tubular track beams and the adjacent track structure can be utilized as the dirty water drain. This drain will have to be connected to the evaporation dam at the Delmas end of the siding. The layer works will consist of the compacted in situ material, 150mm sub-base layer and 150mm of sacrificial coal. A typical cross section of the loading area with the tubular track system is shown in the Figure 9.1-2 below.

Option 3:

This option entails the diversion of the existing platform line around the platform and cut away the loading area with a slope of 1:40 away from the track. Install a dirty water channel at the back end which will tie up with the evaporation dams. The layer works for the loading area will consist of the compacted in situ material, 150mm sub-base layer and 150mm of sacrificial coal. The 5m wide formation will consist of 150mm sub-base material (G4), then a 200mm A-layer (G6) followed by a 350mm B-layer (G8). The typical cross section is shown in Figure 9.1-3.

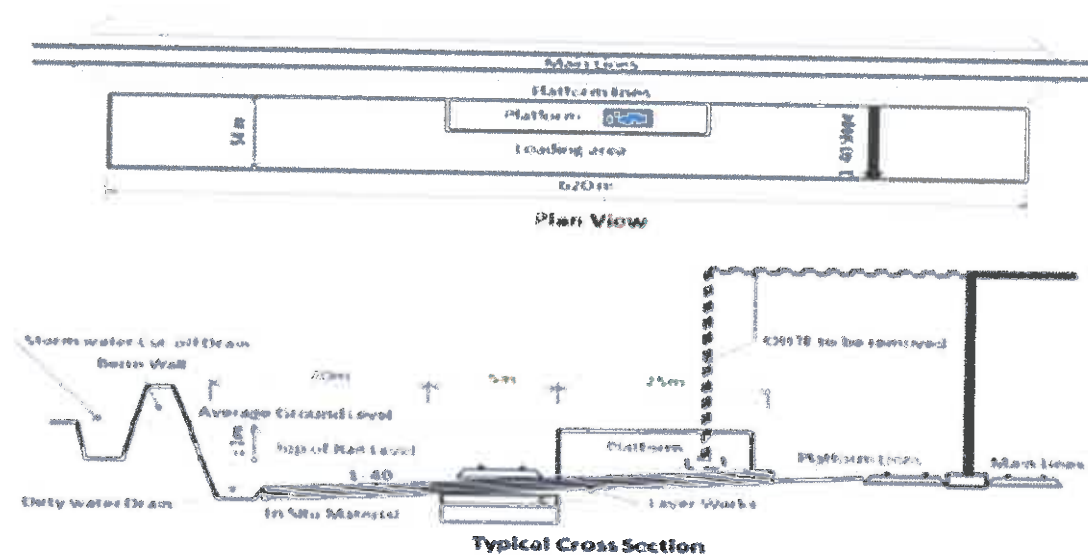


Figure 10.1-3: Option 3 for the Establishment of Loading Area for Southern side.

For all the above mentioned proposed options, there needs to be clear potential impacts for each and mitigation measures for the proposed design. Currently there is one Pollution Control Dam on the Northern side and all the proposed options are on the Southern side are in line with the proposed establishment of an Evaporation dam on the Southern side. However, should the alternative be to link up with the Pollution Control Dam within the Northern side through the use of water channels going under the railway, the designs, impacts and mitigation measures on groundwater will be formulated to ensure minimization of negative impacts to the environment.

Option 4:

Replace the existing platform line with the Tubular Track System and divert it around the platform. Cut away the loading area with a slope of 1: 40 towards the track. Install a dirty water channel between the two platform lines and tie it up with the evaporation dam on the Delmas side of the siding. The layer works for the loading area will consist of the compacted in situ material, 150mm sub-base layer and 150 mm of sacrificial coal. The 4m wide formation will consist of 150mm sub-base material (G4), then a 250mm A-layer (G6) followed by a 400mm B-layer (G8).

10.1.3 No-Go Alternative

Should the development not be approved the benefit discussed under Section 4.2-1 and 4.2-2 will not materialize.

Critically, since the new triggered listed activities are about increasing capacity to meet the Eskom contractual obligations and demand, the efficient delivery of coal to the power stations to ensure electricity generation will be affected and this will impact on the south African economy which is powered by access to energy.

10.2 Details of all the alternative considered

10.2.1 Site Alternatives

All site alternatives that have been considered as the proposed increase in scope are located within the Transnet's land as per the agreed and signed lease agreement with Gijima. The detailed discussion of consideration for the preferred site alternative are provided under Section 11 of this report.

11. PUBLIC PARTICIPATION PROCESS

Public participation is a process that is designed to enable all Interested and Affected Parties (IAPs) to voice their opinions and concerns that enable the practitioner to evaluate all aspects of the proposed development, with the objective of improving the project by maximizing its benefits while minimizing the adverse effects. IAPs include all interested stakeholders, technical specialists, and the various relevant government departments to work together to produce better decisions. The projected milestones for the PPP and the progress to date is provided in Table 10.1-1 below.

11.1 Stakeholder Involvement - Stakeholder Engagement for EMPr Environmental Authorisation – Northern Side

11.1.1 Authorities

The Mpumalanga Department of Agriculture, Rural Development and Land Administration (MDARLA) has been consulted, and preliminary meetings were held with them.

An application for environmental authorization enquiry was lodged with the Mpumalanga Department of Agriculture, Rural Development and Land Administration, on which they responded on 8 December 2010, that the EMP to undertake 50 0000 tons coal loading operations of Portion 1 of the Fam Vandykspruit 214 1R was no longer a listed activity not require an environmental authorization. However, even though the EMP was approved, the application for the WULA was advised. Observation of heritage and cultural significance material were to be reported to SAHRA. The letter also stated the responsibility to comply with the provision for "Duty of Care" and remediation of damage contained in Section 28 of NEMA.

The Ward Councillor was firstly informed about the operation in a letter dated 20 August 2013. The letter also served to update was provided on the developments relating to the operations at the siding. The update also highlighted the approval of the EMP by the then Mpumalanga Department of Agriculture, Rural Development and Land Administration and the application for a Water use licence. A

follow up later was sent to Ward Councillor Mkhabela on the 5th June 2015 to provide an update on the operations.

On the 4th June 2015, communication was sent to Department of Economic, Development, Environment and Tourism to inform them about the commencement of the operations at the facility.

The Mpumalanga Department of Agriculture, Rural Development and Land and Environmental Affairs was consulted in a letter dated 6 April 2016, to inform them about the extension of the operational footprint at the existing Arbor Railway Siding Coal Loading on Portion 1 of Farm Vandyk 214 IR, Kendal/Ogies. This letter forwarded the intention of the client to extend the operational footprint area. The approved EMP and the approval of the Water Use Licence Application on the 18 Dec 2015 was also included.

11.1.2 Interested and affected parties

Notifications about the proposed operations were erected on site and notification letters were given out to the community on the 05 June 2015. Stakeholders were identified and were notified by means of notification letters, which were delivered to them from household to household. Site notices were erected on site the same day. IAP Register for the delivery notices was signed by the neighbours (attached as Appendix 4).

The key stages of the public participation will involve the following process:

- Compilation of stakeholder database.
- Consultation with key stakeholders.
- Distribution of project related information to key stakeholders, IAPs, Ward Councillor, land owner and adjacent land owners.

11.1.3 Stakeholder Involvement - Stakeholder Engagement for Environmental Authorisation – whole site

11.1.3.1 Compilation of Public Participation Report

The stakeholder engagement was initiated from the 15 November 2018 to provide the stakeholders with an opportunity to register as IAPs, raise their concerns and review the Background Information Document (BID). The stakeholder engagement is an ongoing process with the outcomes of the engagements conducted to date provided as Annexure 10.2-1.

The objective of the public participation process was to:

- Confirm the key stakeholders to include in the process, municipal departments, businesses, NGOs and the communities within the Victor Khanye Local Municipality (VLKM) and Arbor Village community;
- Compilation and maintenance of the stakeholder database for the duration of the project as well as the newspaper advert, site notices and background information document;
- Introduce the project to the stakeholders to obtain their inputs in the proposed mitigation measures;
- Communicate with the stakeholders at all key applicable project stages;

- Take into consideration all inputs and comments made during engagement sessions for input into the reports to be generated;
- Hold public meetings in the vicinity of the affected areas (Arbor Village), as necessary.

Table 11.1.3-1: Public participation process

Activity/Task	Objectives	Execution Process	Deliverable
<p>1. Stakeholder profiling, data collection and identification of relevant stakeholders and Interested and Affected Parties (IAPs).</p>	<ul style="list-style-type: none"> • To ensure that all the relevant stakeholders and Interested and Affected Parties (IAPs) are identified in accordance with the National Environmental Management Act (NEMA), EIA Regulations, 2014. • To understand the socio-economic and geographic environment and key role players within these sectors. • Identification of relevant stakeholders and IAPs. The stakeholder profiling was done to identify all the relevant stakeholders upfront, from various stakeholder sectors, as guided by the NEMA regulations, including the following: <ul style="list-style-type: none"> • Mining sector including other mining companies undertaking mining activities in adjacent area e.g. Vlakvarikfontein Mine, Wescoal Mine, Intibane Colliery, Inyanga Mining (Pty) Ltd. • Forestry and Fisheries Science and botanical research institutions such as the South African National Biodiversity Institute (SANBI) Telecommunications, where 	<ul style="list-style-type: none"> • The stakeholder engagement was commenced to alert key stakeholders about the proposed continuation of the mining activities at the application area. The following approach was employed: <ul style="list-style-type: none"> • Understanding of scope of works from applicant. • Sourcing project maps from the Title Deeds office and Geographic Information Systems (GIS) database sources; identification of project locality and neighbouring activities and uses. • Understanding of the site <ul style="list-style-type: none"> ➢ Delineating municipal boundaries and associated ward details. ➢ Literature review of existing documents and reports including the Municipal Integrated Development Plan (IDP), Environmental, Framework, Local Economic Development Plans, Municipal by-laws, and Provincial ordinances. • Literature review of specialists /experts reports that have 	<ul style="list-style-type: none"> • Interested and Affected Parties Register (IAPR) Annexure 11.1-1. • Project local plans • Municipal boundary maps (Figure 3.1-2)

Activity/Task	Objectives	Execution Process	Deliverable
	<p>applicable (Telkom), electricity (Eskom); Water supply; Waste management. Transport such as (Department of Transport).</p> <ul style="list-style-type: none"> • Community development and social service (e.g. municipalities), Non- Governmental Organisations (NGO's). ▪ Relevant private companies. 	<p>contributed to the vegetation and their conservation status in the area.</p> <ul style="list-style-type: none"> • Information sourced from specialist studies undertaken in the area. • Analysis and review of applicable legislation; • Utilising regional and local setting maps to identify: • Landowners, adjacent landowners and occupiers of land adjacent to the proposed mining activities and associated processing areas; • Municipal Councillors of Victor Khanye Local Municipality and Arbor village community, which is the ward in which the project activities are located, as well as the municipalities in which has jurisdiction in the area. • National and provincial government departments were sourced from previous experience and knowledge of the government departments, who administer law relating to matters affecting the environmental aspects relevant to an application for this environmental authorisation. As such the Departments of Agriculture, Forestry, and Fisheries (DAFF); Department of Environment, Department of 	<ul style="list-style-type: none"> • Updated IAPR • Preliminary engagement emails.

Activity/Task	Objectives	Execution Process	Deliverable
		<p>Environmental Affairs (DEA), Department of Public Works, Department of Agriculture, Transport and Roads (DPWTR) and Department of Water and Sanitation (DWS) were preliminarily identified as well as other government structures such as the Competent Authority, Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs (DARDLEA), statutory bodies such as the South African National Biodiversity Institute (SANBI) and National and regional South African Heritage Resource Agency (SAHRA), Non-profit government organisations and community based organisations, and business and industry. Therefore, care was taken to include organs of the state, which have jurisdiction in respect of the activity to which the application relates.</p>	
1.1 Data Verification	<ul style="list-style-type: none"> To validate the preliminary collected data and check credibility to ensure that the relevant Stakeholders and IAPs are contacted 	<ul style="list-style-type: none"> Validation of collated information was done and will still be done through the next project stages such as screening and data analysis through literature review of existing documents and reports including the Municipal IDP, existing Environmental 	

Activity/Task	Objectives	Execution Process	Deliverable
<p>2. Stakeholder engagement: The information collected during stakeholder profiling was used to determine the best engagement strategies. The literacy levels and circumstances that could hinder effective participation had been noted during these stages. As such it was determined that the common language isiZulu is the main language to engage the community. It was discovered that not all community members understand isiZulu and to cater for all community members, Setswana translated leaflets were also distributed.</p>	<p>The main objectives of the stakeholder engagement were as follows:</p> <ul style="list-style-type: none"> • To inform stakeholder authorities about the proposed project; • To clarify legislative and administrative requirements; • To gather issues and concerns regarding the project and ensure that they are addressed in the Basic Assessment Report; • To facilitate review and informed input into the scoping report; • To organise meeting and do a presentation of the project to the stakeholders; • To compile the minutes of the meeting; 	<p>Management Programmes (EMPr), Social Impact Assessment studies and Social and Labour Plans.</p> <ul style="list-style-type: none"> • Contacting key stakeholders to preliminarily introduce the project and verify collected data. <p>The strategy for stakeholder engagement is planned as follows:</p> <ul style="list-style-type: none"> • Pre-consultation meetings before submission of the application form; • Adverts and site notices to engage stake holders during the scoping process; • Notification of stakeholders about the report and adverts during the BAR phase. • To date the activities outlined below were executed: • There were pre-consultation meetings held with key stakeholder. The meetings were held as follows: <ul style="list-style-type: none"> ➤ Ward Councillor on 15 November 2018 and ➤ Arbor Primary School Principal on 29 November 2018. 	<ul style="list-style-type: none"> • Submitted written issues and concerns. • Agendas of meetings • Outcomes of the stakeholder meetings as shown in Annexure 11.1-2 (Outcomes of Stakeholders Meetings). The minutes of the meeting with Ward Councillor (Annexure 11.1-2a) and school principal (Annexure 11.1-2b). • Site Notices (English, isiZulu and Setswana translation) as shown in Annexure 11.2-1. • Background Information Document as shown in Annexure 11.3-1.

Activity/Task	Objectives	Execution Process	Deliverable
	<ul style="list-style-type: none"> To ensure incorporation of issues in the draft and final BAR and EMPr; To facilitate compilation of Comments and Response Report. 	<ul style="list-style-type: none"> The meeting organisation entailed telephonic communication to organise meetings, sending emails to confirm the dates and confirmation of meetings. The ward councillors were preliminary notified about the project via telephonic contact and subsequent emails and were engaged as well during the distribution of the BID and Site notices. 	
3. Notification of stakeholders (adverts and site notices)	<ul style="list-style-type: none"> To ensure that stakeholders are notified about the project and as such are given an opportunity to provide comments and suggested solutions for some of the identified issues. To ensure that the BID and BAR and EMPr are reviewed by the stakeholders 	<p>Distribution of leaflets and emails also worked effectively in this region. Site Notices were also placed at strategic places to allow access.</p> <p>The advert proof sheet was received on 15 Nov 2018 and the final advert was published in the Witbank News on the 16 November 2018.</p> <p>A 610 mm x 420 mm main Site Notice (vinyl print applied to an ABS Board) and A3 sized site notices were printed, laminated and placed on site on the 15 Nov 2018. Site notices were strategically placed on communal notice boards, on the perimeter fence of the site office for the mobile clinic and two Zola Mini markets on the 15 Nov 2018. Additional site notices were</p>	<ul style="list-style-type: none"> Proof of advert (Annexure 11.5-1). Proof of site notices (Annexure 11.5-2). Reply slip (English) (Annexure 11.4-3). Site Notice distribution record (Annexure 11.4-4) Notification email to authorities and IAPs (Annexure 11.4-5) Notification Letter about the BID and advert to

Activity/Task	Objectives	Execution Process	Deliverable
		<p>placed at the Arbor Primary School notice board, entrance gate and on the perimeter fence and communal notice board on the 29 Nov 2018. Photos and site coordinates were taken. The team discovered that the originally placed site notices were removed on the 29 Nov 2018 and replacement site notices were placed. Photos and site coordinates of the replacements were taken. At the Stop sign at the T-Junction of R960 and R555 roads, the Site notice placed on the 15 November 2018 was removed. No sign of the poles of the sign were observed.</p> <p>The 610 mm x 420 mm Site Notice placed at the centre of the site next to the Station Building was also removed, no poles or the sign were observed in surrounding areas.</p> <p>Photographs were taken of where the Site Notice was placed on the 15th November 2019 and also at the same spot on the 29 November 2018 to illustrate the removed Site Notice (as at 29 November 2018). The date and reason for the removal of the Site notices cannot be motivated</p> <p>Copies of the BID and advert were sent to authorities on 21 November</p>	<p>authorities) (Annexure 11.4-6).</p> <ul style="list-style-type: none"> • Site Notice to IAPs (English, isiZulu and Setswana) • IAP Site notice distribution register (Annexure 10.4-7) • Comments received (Annexure 11.4-8).

Activity/Task	Objectives	Execution Process	Deliverable
		<p>2018, via an email web link. The email was structured as follows:</p> <ol style="list-style-type: none"> 1. Notification Letter. 2. Background Information Document (BID) 3. Site Notice 4. Reply Slip <p>An email notifying the stakeholders about the BID and advert was emailed to Ward Councillor and other key stakeholders on 21 November 2018.</p> <p>An IAP distribution register was signed by the households and community members engaged and provided with the leaflets. The IAP distribution register will form part of the Issues and Response report and attached as an Annexure in the application form including the draft and final BAR to be submitted to the Competent Authority.</p> <p>The comments that will be received either, faxed or emailed to the EAP will be incorporated into the draft BA report that will be provided to stakeholders for review.</p>	

11.1.4 Identification of Interested and Affected Parties (IAPs)

The key stakeholders and Interested and Affected parties (IAPs) were identified through previous engagements with key stakeholders and through Windeed Map Search. Using the Farm name and Portion number, the site and adjacent areas were located on the map. The IAP register developed for the compilation and update of the EMPr for the already existing operations on site, was used as a baseline for the compilation of the IAP register for the proposed planned activities.

The IAP Register was updated where new and additional IAPs were identified as key to the process. The parties that are included in the IAP register include, property owners, relevant authorities (competent authorities) and businesses situated around the proposed site.

11.2 Consultation of stakeholders and Regulatory Authority

11.2.1 Regulatory Authority Consultation

A preliminary meeting was held with the Department of Water and Sanitation in relation to the application for a WUL for the increase in scope.

11.3 Consultation with key stakeholders

11.3.1 Key stakeholder Consultation

Preliminary consultative meetings were held with the Ward Councillor and Arbor Primary School. A meeting to introduce the project and request permission to engage with Arbor village community members was held with Ward Councillor Mr Oupa Masilela on the 15 November 2018 and the outcomes of the meeting are attached as Annexure 11.1-2(a). A meeting with the school Principal for Arbor Primary School was held on the 29 November 2018 and the outcomes of the meeting are attached as Annexure 11.1-2(b). The outcomes of the public meeting held on the 23 January 2019 are attached as Annexure 11.1-2(c). A meeting with Chief Mahlangu was held on the 23 January 2019 and the outcomes of the meeting are attached as Annexure 11.1-2 (d).

11.4 Notification of Key Stakeholders and Interested and Affected parties

11.4.1 Newspaper advert

The application for environmental authorisation for the Arbor Siding planned activities and the availability of the BID was advertised in the local newspaper, Witbank News, on the 16th November 2018 affording the public 30 days to register as IAPs and submit comments on the proposed development. The commenting period on the application and BID closed on the 14 January 2019. Copies of the newspaper adverts are attached as Annexure 11.5-1.

11.4.2 Site notification

Site notices of the application and availability of the BID were erected at the proposed site (Arbor railway Siding) and other relevant identified areas on the 15th and 29th November 2018 as shown in Annexure 11.5-2. With the assistance of the Ward Councillor, Arbor Forum members and Arbor Primary School principal, notices were placed in strategic areas (Annexure 11.5-2) within the 100 m radius of the site as follows:

- Site office for the mobile clinic (next to the Arbor Forum site office and Arbor Primary School)
- Communal notice board next to Zola Mini Market 1
- Zola Mini Market 2 (wall at the entrance)
- Corner of R960 by the T-junction of R960 and R555
- Next to Station building at Arbor Railway Siding
- Arbor Primary School notice board, entrance gate and perimeter fence
- Communal notice board close to the main access road to enter and exit Arbor village
- On the steel fence at the Arbor office

The location and site coordinates of the strategically placed site notices are provided in Table 11.4-1.

Table 11.4-1: Location of Site notices

Number	Location	Site Coordinates
1	Site office for mobile clinic. Next to the Arbor Primary School and the Arbor Forum office (red container).	-26.0479700, 28.8904300
2	Community notice board 1 next to the first Zola mini market.	-26.046991, 28.888580
3	On the wall by the entrance of the second Zola mini market.	-26.0469510, 28.8885440
4	The main (610 mm x 420 mm) Site Notice placed by the Station Building and along the main access road leading to Arbor community on 15 Nov 2018. Replacements site notice placed on 29 Nov 2018.	-26.0404490, 28.8826050
5	An A3 sized English site notice close to the road at the stop on R960 before the T-junction of R960 and R555.	-26.0390170, 28.8836920
6	At Arbor Primary School notice board.	
7	Arbor Primary School entrance gate	-26.0474260, 28.8892970
8	Arbor Primary School perimeter fence	-26.047438, 28.889772
9	Replacement site notice at the second Zola Mini market wall by the entrance (place on 29 Nov 2018).	-26.0469510, 28.8885440
10	Communal notice board close to the main access road to enter and exit Arbor village.	-26.043831, 28.881116
11	On the steel fence at the Arbor office	-26.0387780, 28.8806360

11.4.3 Notification of key stakeholders and Abor village community members

Key stakeholders including key state departments and commenting authorities were notified through the distribution of notification letter, BID and site notices through email (Annexure 11.4-5 and Annexure 11.4-6) and the community members within Arbor village were notified by distributing site notification leaflets (Annexure 11.2-1) and signing to acknowledge receipt as shown in the site notice distribution register (Annexure 11.4-7).

11.4.4 Comments and Response Report

Some of the key issues identified during the stakeholder engagement are outlined in Table 11.4-2. All comments received from the preliminary consultation with the stakeholders are captured and presented in the draft and final BAR and attached as Annexure 11.4-8, further comments on the draft BAR will be incorporated during the later phases of the report updating process. All received comments from the Public Participation Process will be consolidated into a Comments and Response Report and attached as an Appendix in the final BAR.

Table 11.4-2: Summary of key issues identified and concerns raised

ISSUE/COMMENT	RAISED BY	RESPONSE	SECTION WITHIN ADDRESSING ISSUE	BAR
<p>Meeting with Adi Environmental CC – EAPs for the proposed development of Arbor Village in Vlakvarkfontein 213 IR – 7th November 2018</p> <p>Arbor Siding: Risks for Arbor Siding in terms of proposed project: What risks were identified in terms of the development being located adjacent to the siding and will the development and siding be able to co-exist?</p>	<p>Adi Environmental cc</p>	<p>The further away the development, the fewer risks for Arbor Siding.</p> <p>The Arbor community identified dust and noise as issues of concern.</p> <p>The development and siding can co-exist if management measures are implemented to reduce potential impacts.</p>	<p>Section 12 Table 12.5-2. Minutes of the meeting attached as Annexure 7.1-1 and comments attached as Annexure 7.1-2.</p>	
<p>Dust</p>	<p>Gijima team</p>	<p>The trucks from Vlakvarkfontein Colliery and Wescoal are mainly responsible for the dust. The siding itself does not create a lot of dust. It is thus an indirect issue affecting their operations and monitoring results.</p> <p>There is a possibility that coal could be obtained from Vlakvarkfontein Colliery. This would reduce the number of trucks on the road as the trucks will only travel from the mine to the siding resulting in a shorter haul. This would have a positive impact in terms of dust and traffic</p> <p>Dust suppression measures are in place. An ambient air quality study was done, focusing on the operational activities of the siding.</p>	<p>Section 12 Table 12.5-2; Impact 1.2 on Air Pollution and Table 12.5-3</p>	
<p>Dust: The trucks from Vlakvarkfontein Colliery and Wescoal are mainly responsible for the dust. The siding itself does not create a lot of dust. It is thus an indirect issue affecting their operations and monitoring results. Suggested that the mines</p>	<p>Gijima team</p>	<p>Adi Environmental cc Noted. Requested that monitoring results (e.g. air quality) be made available. To be investigated as part of the EIA phase.</p>	<p>Section 12 Table 12.5-2 and 12.5-3</p>	

ISSUE/COMMENT	RAISED BY	RESPONSE	SECTION WITHIN ADDRESSING ISSUE	BAR
<p>spray chemical solutions (dust suppressants) on the road entering and exiting the railway crossing as part of their dust suppression measures. An air quality study (including modelling) should be considered for the proposed development taking into account dust from the gravel road and siding.</p>				
<p>Noise impact (trains): The trains travelling past the site are an existing source of noise. The railway line has been there for many years. This noise source cannot be stopped - trains are running 24/7.</p>	Gijima team	<p>Adi Environmental cc Noted. The proposed development is not a greenfields project and existing activities must therefore be taken into account.</p>	Section 12 Table 12.5-2 and 12.5-3	
<p>Waste Waste licence application: Will a waste licence application be submitted with the EIA application? Location of waste collection area: Who drafted the layout plan and was there any particular reason why the waste collection area was placed in the centre of the site?</p>	Gijima team	<p>A waste licence application will be submitted as part of the process, depending on the waste management measures to be implemented at the village. The town planners, Urban Dynamics, compiled the layout plan. The waste collection area (transfer station) was placed in the centre of the site at an old borrow pit. The location of the waste transfer station is still being discussed with the community. The intention is to place skips in the borrow pit, into which the community can dump their waste. The skips will then be removed by the Victor Khanye Local Municipality and emptied at their waste disposal site.</p>	Section 12 Table 12.5-2 and 12.5-3	
<p>Access Road (railway crossing; gravel road to Arbor Village and access from the R555)</p>	Adi Environmental cc	<p>Gijima:</p>	Section 12 Table 12.5-2 and 12.5-3	

ISSUE/COMMENT	RAISED BY	RESPONSE	SECTION WITHIN ADDRESSING ISSUE	BAR
		<p>The railway crossing is located on Transnet property, outside of the lease area, and is thus not manned by Gijima. Wescoal installed the guardhouse and employs people from the community to man the crossing. However, the people are not properly trained. This has already led to several incidents. It is very risky for the community to use this crossing. An alternative access road should be used. The crossing on the eastern side near the Eskom substation is safer and preferable. The existing access road to Arbor Village extends through the Arbor Siding lease area. The existing gravel road is not mentioned in our lease agreement with Transnet. It is an unofficial road with no right-of-way servitude registered. The layout plan drafted for the proposed development did not take this into account</p>		
		<p>Adi Environmental cc Noted. Information forwarded to the town planners (Urban Dynamics) and the civil engineer (BTW & Associates).</p>		
<p>A layout plan was drafted for the expansion of the siding in which the existing gravel road was diverted around the siding. Meetings were held</p>	<p>Gijima team</p>	<p>To be addressed as part of the EIA phase and feedback will be provided in the EIA Report. Noted. Information forwarded to the town planner (Urban Dynamics).</p>		<p>Section 7.1-1. Minutes of meeting attached as Annexure 7.1-1.</p>

ISSUE/COMMENT	RAISED BY	RESPONSE	SECTION WITHIN BAR ADDRESSING ISSUE
<p>with Truter Boerdery to obtain permission for this diversion. The town planner (Urban Dynamics) must be made aware of the intended road diversion and indicate it as such on the layout plan. A copy of the layout plan drafted for the siding will be forwarded to Adi Environmental.</p>		<p>To be addressed as part of the EIA phase and feedback will be provided in the EIA Report. A copy of the layout plan for the siding was received and forwarded to the town planners (Urban Dynamics). To be addressed as part of the EIA phase and feedback will be provided in the EIA Report.</p>	
<p>Access from the R555 to the village is a risk since the access road is located near a dangerous curve in the R555. In addition, trucks tend to speed along this road.</p> <p>Recommended that speed humps be installed to force trucks to reduce speed.</p>	Gijjima team	<p>Access from the R555 to the village is a risk since the access road is located near a dangerous curve in the R555. In addition, trucks tend to speed along this road.</p> <p>Recommended that speed humps be installed to force trucks to reduce speed.</p>	Section 12 Table 12.5-2 and 12.5-3
<p>Meeting with Ward Councillor – 15 November 2018</p> <ul style="list-style-type: none"> • Lack of consultation and follow up on request for a meeting from the applicant • Lack of communication in relation to the clearing done on site • Dust generated by the operations on site. • Commendation of the siding for providing employment opportunities to the Arbor community members and for uplifting the community. <p>Commented that the planned activities present positive opportunities for additional jobs and empowerment for the community.</p>	<p>Ward Councillor Masilela</p>	<p>The concerns of the Ward Councillor are noted and they will be incorporated into the Comments and Response register and report. The concerns raised will also be addressed in the BA report and EMPr.</p>	<ul style="list-style-type: none"> • Minutes of the meeting (Annexure 11.1-2(a)) and IAP Site notice distribution register (Annexure 11.4-7) • Section 12 and Table 12.5-2 and 12.5-3
<p>Meeting with Arbor Primary School Principal – 29 November 2018</p> <ul style="list-style-type: none"> • Dust generated by the operations on site. • Safety issue at the railway crossing 	School Principal	<p>The concerns raised during the meeting with Arbor Primary School principal held on the 29 Nov 2018 are noted. The comments will</p>	Section 12 Table 12.5-2 and 12.5-3

ISSUE/COMMENT	RAISED BY	RESPONSE	SECTION WITHIN BAR ADDRESSING ISSUE
		be included in the Comments Register, Comments and Response report and addressed in the draft Basic Assessment report.	
<p>Distribution of site notice leaflets and engagement with Arbor community members – Household visits</p> <p>Dust from the site during the offloading and loading of coal especially during windy conditions.</p> <p>Safety issue of crossing the railway line Support for Nodite Cooperative in terms of training and development opportunities to grow the business and serve a broader number of customers and businesses in the area. Opportunities for provision of services for businesses such as Gijjima can help them grow further as well</p>	<p>Arbor Village community members</p>	<p>Cooperative needs proper training and development opportunities to grow the business and serve a broader number of customers and businesses in the area. Opportunities for provision of services for businesses such as Gijjima can help them grow further as well.</p> <p>Additional Site Notices (English and Setswana and Zulu translation) were placed on the notice board towards the entrance/exit of the Arbor Village.</p> <p>An A3 size English Site Notice was placed at the spot where the 610 mm x 420 mm Site Notice was removed.</p> <p>The comments and concerns raised during the engagement with the community members are noted. The comments and concerns received will be included in the Comments Register, Comments and Response report and addressed in the draft Basic Assessment report.</p>	<p>Section 12 Table 12.5-2 and 12.5-3</p>
<p>Meeting with Arbor Village Chief Simon Mahlangu - 22 February 2019</p> <p>Chief SM raised issues as follows:</p> <p>Site operations</p>	<p>Chief Simon Mahlangu</p>	<p>The issues raised are noted and will be addressed as part of the BAR process.</p>	<p>Section 12 Table 12.5-2 and 12.5-3</p>

ISSUE/COMMENT	RAISED BY	RESPONSE	SECTION WITHIN ADDRESSING ISSUE	BAR
<p>The planned extension on the Southern Side and the lack of stakeholder engagement. The structure of the community is no longer managed in isolation from each other but is consolidated into one which maximises representation for the greater good of the community. This means that when engaging, the Chief, Ward Councillor, Mr Oupa Masilela and the associated forums/associations need to be present</p> <p>The tombstones located close to the Transnet house,</p>		<p>A public meeting is scheduled for later in the afternoon of the 22 February 2019 to capture the community's issues of concern.</p> <p>The matter is noted and will be investigated as Gijima was not aware of this and that it would need urgent attention as it might have serious implications.</p> <p>A Heritage study has since been commissioned and the report shared with Chief Mahlangu on the 02 April 2019 and his response of no comments was received on the 05 April 2019.</p>	<p>The Heritage Specialist Study Report summary of the findings are outlined in Section 16.2.2 and the full Specialist Study is attached as Annexure 16.2-5.</p>	

11.4.5 Public Revision of the Draft BAR

The registered IAPs will be provided with an opportunity to review the draft BAR and submit their comments through the completion of the reply slip. A period of 30 days will be given to IAPs to forward their comments and concerns.

11.4.6 Final Consultation BAR

The final BAR will be forwarded to the IAPs for their final comments which they will review and submit in writing their comments directly to the Competent Authority.

12. POTENTIAL IMPACTS

The potential impacts have been preliminarily identified for each stage of the project, from construction, operational and decommissioning. The impact assessment undertaken is based on the identification of environmental activities/aspects, anticipated impacts and the impact rating. The significance of the impact is then assessed by rating each variable numerically according to defined criteria as outlined Table 12.5-1 below. The potential impacts associated with the activities on site and their significance ranking are provided in Table 12.5-2.

The identified impacts are divided into Direct Impacts and Cumulative Impacts.

The proposed increased scope to the operations, also presents positive impacts, in the form of social and economic benefits for the communities surrounding the site. The site currently employs 30 locals and the proposed phased development introduces social benefits, which include job opportunities for about 25 extra local people. The economic benefits are also realised through the implementation of Transnet Road to Rail Strategy in transporting more coal directly to the power station, whilst reducing both costs and number of human fatalities on the road. The increased scope to the operation will transport an increased volume of coal material, which may lead to more stable electricity supply.

12.1 Construction Phase

12.1.1 Direct impacts

- Soil disturbance during site establishment for construction of new listed activities.
- Soil pollution due to leakages and spills of oil and diesel.
- Soil erosion due to the loss of soil during clearing, ripping, grading and from storm water runoff etc.
- Noise pollution due to vehicular movement and site workers on site during construction.
- Air quality due to dust generated by all movement of vehicles and personnel on site.
- Water quality due to reduced water quality from soil erosion and sedimentation.
- Potential road accidents.
- Mistrust due to the lack of communication channels.

12.1.2 Cumulative impacts

The potential cumulative indirect impacts include:

- Air Quality and deterioration of road infrastructure due to – Vehicular movement of other trucks outside the boundary of the site generate a lot of dust on the gravel road leading to the site. The increased truck traffic on R555 for haulage of coal has potential to increase dust in the air and impact on the air quality of the area.

12.2 Operational Phase

12.2.1 Direct Impacts

- Deterioration of air quality due to the generation of dust fall out during the loading and off-loading of coal.
- Surface water resources: Contamination of water due to coal spillage from haul trucks; Contamination of water of hydraulic fluid from machinery and trucks.
- Groundwater resources: Contamination of water due to coal stockpile seepage; Contamination of water from pollution control dam seepage.
- Impacts on health and safety personnel and potential road accidents.

12.2.2 Cumulative Impacts

The cumulative impacts include:

- Generation of dust from vehicular movement and air pollution from vehicular emissions.
- Dust emissions are likely to occur due to vehicular movement. The severity of this impact is anticipated to be medium, if mitigation measures such as dust suppression and adherence to speed limits are observed.

12.3 Decommissioning Phase

The direct impacts identified during the decommissioning due to the dismantling of operational structures and associated infrastructure are:

- Impacts on soil resources include loss of land capability, disturbance to soil structure from the ripping of the surface.
- Potential contamination of soil due to hydrocarbon spillages.
- Air pollution – generation of dust.
- Dust will be generated during the dismantling of structure and infrastructure

12.4 Rehabilitation Phase

The direct impacts include:

- After the dismantling of infrastructure, revegetation of the site will be undertaken. This impact is considered positive and its significance is medium, as it will result in the restoration of the site.
- Socio-economic – loss of income will impact on the social and economic status of the community especially Arbor village.

12.4.1 Cumulative impacts

The cumulative impacts include:

- Job losses that add to the current high rate of unemployment in the country and produces non-productivity in the area resulting to Social Instability

12.5 The methodology used in determining and ranking potential impacts

The methodology used in the determining and ranking of potential impacts is outlined in Table 12.5-1 below

Table 12.5-1: Table for Impact Assessment Criteria

Weight	Hazard Effect or Severity		Scope/Extent	Duration			
6	Disastrous/can cause irreplaceable damage		Trans-boundary effects	Residual			
5	Catastrophic/major and cannot be mitigated		National/Severe environmental damage	Residual			
4	High/Critical/serious but can be mitigated		Regional effect	Decommissioning			
3	Medium/ slightly harmful /can be mitigated		Immediate surroundings / local/outside site/project area fencing	Life of operation			
2	Minimal/potentially harmful/can be mitigated		slight permit deviation/on-site	Short term/ construction (6 months-1yrs)			
1	Insignificant/non-harmful /can be reversed		Activity specific/No effect /Controlled	Immediate (0-6 months)			
Weight number	1		2	3	4	5	6
Frequency of impact	Highly unlikely		Rare	Low likelihood	Probable/ possible	Regular/ almost likely	

Weight	Hazard Effect or Severity		Scope/Extent	Duration			
6	Disastrous/can cause irreplaceable damage		Trans-boundary effects	Residual			
5	Catastrophic/major and cannot be mitigated		National/Severe environmental damage	Residual			
4	High/Critical/serious but can be mitigated		Regional effect	Decommissioning			
3	Medium/ slightly harmful /can be mitigated		Immediate surroundings / local/outside site/project area fencing	Life of operation			
2	Minimal/potentially harmful/can be mitigated		slight permit deviation/on-site	Short term/ construction (6 months-1yrs)			
1	Insignificant/non-harmful /can be reversed		Activity specific/No effect /Controlled	Immediate (0-6 months)			
Probability of impact	Practically impossible		Conceivable but very unlikely	Only remotely possible (has happened somewhere)	Unusual but possible	Quite possible (50/50)/ Certain	Is the most likely and expected (has and foresee it happen again)
Frequency of activity	Annually or less		6 monthly/ temporarily	Infrequent/monthly	Weekly/regularly / Life of operation	Daily/permanent	Residual

Activity: a distinct process or task undertaken by an organisation for which a responsibility can be assigned.

Environmental aspect: **an element of an organisation’s activities, products or services which can interact with the environment or cause an environmental impact.**

Environmental impacts: **consequences of these aspects on environmental resources or receptors.**

Receptors: **comprise, but are not limited to people or man-made structures.**

Resources: **include components of the biophysical environment.**

Frequency of activity: **refers to how often the proposed activity will take place.**

Frequency of impact: **refers to the frequency with which a stressor will impact on the receptor.**

Severity: **refers to the degree of change to the receptor status in terms of the reversibility of the impact; sensitivity of receptor to stressor; duration of impact (increasing or decreasing with time); controversy potential and precedent setting; threat to environmental and health standards.**

Spatial scope: **refers to the geographical scale of the impact.**

Duration: **refers to the length of time over which the stressor will cause a change in the resource or receptor.**

		CONSEQUENCE (Severity + Spatial Scope + Duration)														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LIKELIHOOD (Frequency of activity + Frequency of impact)	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
	2	4	6	9	12	15	18	21	24	27	30	33	36	39	42	45
	3	6	9	12	16	20	24	28	32	36	40	44	48	52	56	60
	4	8	12	16	20	25	30	35	40	45	50	55	60	65	70	75
	5	10	15	20	25	30	36	42	48	54	60	66	72	78	84	90
	6	12	18	24	30	36	42	49	56	63	70	77	84	91	98	105
	7	14	21	28	35	42	49	56	64	72	80	88	96	104	112	120
	8	16	24	32	40	48	54	63	72	81	90	99	108	117	126	135
	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	144
	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160

Potential impact = Consequence * Likelihood

Degree to which the impact can be mitigated (e.g. 40 % reduction in oils spillage when the management measure is applied and 70% reduction in contamination of soils).

0-40%; 40%-70%; 80%-100%

The interpretation of the status of the impact

IMPACT STATUS	CRITERIA
Positive	The impact benefits the environment.
Negative	The impact results in a cost to the environment.
Neutral	The impact has no effect on the environment.

Once the significance of an impact has been determined, the CONFIDENCE in the assessment of the significance rating is ascertained using the rating systems outlined in below.

Definition of Confidence Ratings

CONFIDENCE RATINGS*	CRITERIA
High	Wealth of information on and sound understanding of the environmental factors potentially influencing the impact. Greater than 70% sure of impact prediction.
Medium	Reasonable amount of useful information on and relatively sound understanding of the environmental factors potentially influencing the impact. Between 35% and 70% sure of impact prediction.
Low	Limited useful information on and understanding of the environmental factors potentially influencing this impact. Less than 35% sure of impact prediction.

The level of confidence in the prediction is based on specialist knowledge of that particular field and the reliability of data used to make the prediction. The degree to which the impact can be reversed is estimated using the rating system outlined in below.

Definition of Reversibility Ratings

REVERSIBILITY RATINGS	CRITERIA
Irreversible	Where the impact is permanent.
Partially Reversible	Where the impact can be partially reversed.
Fully Reversible	Where the impact can be completely reversed.

The degree to which there will be a loss of resources, table below refers to the degree to which a resource is permanently affected by the activity, i.e. the degree to which a resource is irreplaceable.

Definition of Loss of Resources

LOSS OF RESOURCES	CRITERIA
Low	Where the activity results in a loss of a particular resource but where the natural, cultural and social functions and processes are not affected.
Medium	Where the loss of a resource occurs, but natural, cultural and social functions and processes continue, albeit in a modified way.
High	Where the activity results in an irreplaceable loss of a resource.

Lastly, the degree to which the impact can be mitigated or enhanced is described below

Degree to which impact can be mitigated

DEGREE TO WHICH IMPACT CAN BE MITIGATED	CRITERIA
None	No change in impact after mitigation.
Very Low	Where the significance rating stays the same, but where mitigation will reduce the intensity of the impact.
Low	Where the significance rating drops by one level, after mitigation.
Medium	Where the significance rating drops by two to three levels, after mitigation.
High	Where the significance rating drops by more than three levels, after mitigation.

Table 12.5-2: Potential impacts associated with the activities on site

Activity / Aspect	Potential Impact	Project Phase	Type of Impact	Impact Rating																																												
Availability of Permits and legal authorisations that are in order	Potential illegal operation of the site should the required permits not be available	<ul style="list-style-type: none"> • Planning & Design • Construction • Operational • Decommissioning 	Direct	<table border="1"> <tr> <td>Severity</td> <td>Spatial Scope</td> <td>Duration</td> <td>Consequence (sub-total)</td> </tr> <tr> <td>Serious (3) (PM-2)</td> <td>National (5) (PM- 1)</td> <td>Residual (1) (PM-2)</td> <td>8 (PM-5)</td> </tr> <tr> <td>Frequency of impact</td> <td>Probable 3 PM (2)</td> <td>PROBABILITY 6 (PM-4)</td> <td></td> </tr> <tr> <td>Frequency of activity</td> <td>Infrequent 3 PM (2)</td> <td></td> <td></td> </tr> <tr> <td colspan="4">SIGNIFICANCE OF IMPACT (pre-mitigation)</td> </tr> <tr> <td>Medium (48)</td> <td></td> <td>SIGNIFICANCE OF IMPACT (post-mitigation)</td> <td></td> </tr> <tr> <td>Impact status</td> <td></td> <td>Low (20)</td> <td></td> </tr> <tr> <td>Confidence rating</td> <td></td> <td>Negative</td> <td></td> </tr> <tr> <td>Reversibility</td> <td></td> <td>Medium</td> <td></td> </tr> <tr> <td>Loss of resources</td> <td></td> <td>Partially reversible</td> <td></td> </tr> <tr> <td></td> <td></td> <td>Medium</td> <td></td> </tr> </table>	Severity	Spatial Scope	Duration	Consequence (sub-total)	Serious (3) (PM-2)	National (5) (PM- 1)	Residual (1) (PM-2)	8 (PM-5)	Frequency of impact	Probable 3 PM (2)	PROBABILITY 6 (PM-4)		Frequency of activity	Infrequent 3 PM (2)			SIGNIFICANCE OF IMPACT (pre-mitigation)				Medium (48)		SIGNIFICANCE OF IMPACT (post-mitigation)		Impact status		Low (20)		Confidence rating		Negative		Reversibility		Medium		Loss of resources		Partially reversible				Medium	
Severity	Spatial Scope	Duration	Consequence (sub-total)																																													
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1. Site establishment and assembling of temporary structures	1.1 Impacts on soil resources	Pre-construction	Direct/ Cumulative	<p>The impact on topsoil removal will be low as the site has already been disturbed and is highly transformed. It is further recommended that all machinery to be used should be serviced and inspected daily before and after use. Installation of storm water management system to reduce the risk of flooding, a silt trap to be installed with the pollution control dam to be constructed.</p> <table border="1"> <tr> <td>Severity</td> <td>Spatial Scope</td> <td>Duration</td> <td>Consequence (sub-total)</td> </tr> <tr> <td>Medium(3) (PM-2)</td> <td>On-site (2) (PM- 1)</td> <td>Immediate (1) (PM-2)</td> <td>6 (PM-5)</td> </tr> <tr> <td>Frequency of impact</td> <td>Probable 3 PM (2)</td> <td>PROBABILITY 6 (PM-4)</td> <td></td> </tr> <tr> <td>Frequency of activity</td> <td>Infrequent 3 PM (2)</td> <td></td> <td></td> </tr> <tr> <td colspan="4">SIGNIFICANCE OF IMPACT (pre-mitigation)</td> </tr> <tr> <td>Medium (36)</td> <td></td> <td>SIGNIFICANCE OF IMPACT (post-mitigation)</td> <td></td> </tr> <tr> <td>Impact status</td> <td></td> <td>Low (20)</td> <td></td> </tr> <tr> <td>Confidence rating</td> <td></td> <td>Negative</td> <td></td> </tr> <tr> <td></td> <td></td> <td>Medium</td> <td></td> </tr> </table>	Severity	Spatial Scope	Duration	Consequence (sub-total)	Medium(3) (PM-2)	On-site (2) (PM- 1)	Immediate (1) (PM-2)	6 (PM-5)	Frequency of impact	Probable 3 PM (2)	PROBABILITY 6 (PM-4)		Frequency of activity	Infrequent 3 PM (2)			SIGNIFICANCE OF IMPACT (pre-mitigation)				Medium (36)		SIGNIFICANCE OF IMPACT (post-mitigation)		Impact status		Low (20)		Confidence rating		Negative				Medium									
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1.1.1 Potential for soil erosion	1.1.1 Potential for soil erosion																																															
1.1.2 Potential for soil pollution due to oil and chemical spillages; temporal abatement facilities.	1.1.2 Potential for soil pollution due to oil and chemical spillages; temporal abatement facilities.																																															
1.1.3 Disturbance of topsoil and vegetation	1.1.3 Disturbance of topsoil and vegetation																																															
1.1.4 Potential for soil compaction	1.1.4 Potential for soil compaction																																															
1.1.5 Loss of vegetation cover	1.1.5 Loss of vegetation cover																																															

Activity / Aspect	Potential Impact	Project Phase	Type of Impact	Impact Rating			
				Reversibility	Partially reversible	Medium	
				Loss of resources	Medium		
				Degree to which the impact can be mitigated	High		
1.2 Air pollution 1.2.1 Generation of dust from vehicular movement during site establishment	<ul style="list-style-type: none"> • Pre-construction • Construction • Operational • Decommissioning 	Direct/ Cumulative	Generation of dust during the site establishment, construction, operational and decommissioning phases of the project. Implementation of mitigation measures such as dust suppression will reduce the significance of the impact to low.	Severty	Spatial Scope	Duration	Consequence (sub-total)
				Medium(3) (PM-2)	On-site (2) (PM-1)	Construction (2) (PM-2)	7 (PM-5)
				Frequency of impact	Probable 3 PM (2)	PROBABILITY 8 (PM-4)	
				Frequency activity	Daily 5 PM (2)		
				SIGNIFICANCE OF IMPACT (pre-mitigation)	SIGNIFICANCE OF IMPACT (post-mitigation)		
				Medium (35)	Low (20)		
				Impact status	Negative		
				Confidence rating	High		
				Reversibility	Partially reversible		
				Loss of resources	Medium		
				Degree to which the impact can be mitigated	High		
1.3 Impacts on faunal species 1.3.1 Impacts on faunal habitat 1.3.2 Impacts on faunal diversity		Direct	Impacts on faunal species are anticipated to be low due to the existence of previous rail siding infrastructure therefore limiting the occurrence of faunal species as the area is already disturbed. The operational site is highly transformed and with exception of Eucalyptus species randomly occurring on the boundaries of the site and serve as screening method, the site is unable to carry and sustain any flora species as a habitat due to coal dust footprint.	Severty	Spatial Scope	Duration	Consequence (sub-total)
				Medium(3) (PM-1)	Immediate surroundings (3) (PM-1)	Life of operation(3) (PM-2)	9 (PM-4)

Activity / Aspect	Potential Impact	Project Phase	Type of Impact	Impact Rating																																																
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1.4 Impacts on flora species 1.4.1 Loss of vegetation cover 1.4.2 Loss of flora species diversity	<ul style="list-style-type: none"> Pre-construction Construction Operational Decommissioning 		Direct/ Cumulative	<p>Loss of vegetation cover and flora species diversity could occur during the site clearance, however, it should be noted that the proposed development site is an existing rail siding therefore clearance of vegetation cover and other associated impacts such as loss of species diversity will be low. The operational site is highly transformed and unable to carry and sustain any flora species as a habitat due to coal dust footprint.</p> <table border="1"> <tr> <td>Severity</td> <td>Spatial Scope</td> <td>Duration</td> <td>Consequence (sub-total)</td> </tr> <tr> <td>Minimal (2) (PM-1)</td> <td>On-site (2) (PM-1)</td> <td>Life operation(2) (PM-2)</td> <td>6 (PM-4)</td> </tr> <tr> <td>Frequency of impact</td> <td>Probable 3 PM (2)</td> <td>PROBABILITY 6 (PM-4)</td> <td></td> </tr> <tr> <td>Frequency of activity</td> <td>Infrequent 3 PM (2)</td> <td></td> <td></td> </tr> <tr> <td colspan="4">SIGNIFICANCE OF IMPACT (pre-mitigation)</td> </tr> <tr> <td>Medium (36)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Impact status</td> <td></td> <td>Low (20)</td> <td></td> </tr> <tr> <td>Confidence rating</td> <td></td> <td>Negative</td> <td></td> </tr> <tr> <td>Reversibility</td> <td></td> <td>Medium</td> <td></td> </tr> <tr> <td>Loss of resources</td> <td></td> <td>Partially reversible</td> <td></td> </tr> <tr> <td>Degree to which the impact can be mitigated</td> <td></td> <td>Medium</td> <td></td> </tr> <tr> <td></td> <td></td> <td>High</td> <td></td> </tr> </table>	Severity	Spatial Scope	Duration	Consequence (sub-total)	Minimal (2) (PM-1)	On-site (2) (PM-1)	Life operation(2) (PM-2)	6 (PM-4)	Frequency of impact	Probable 3 PM (2)	PROBABILITY 6 (PM-4)		Frequency of activity	Infrequent 3 PM (2)			SIGNIFICANCE OF IMPACT (pre-mitigation)				Medium (36)				Impact status		Low (20)		Confidence rating		Negative		Reversibility		Medium		Loss of resources		Partially reversible		Degree to which the impact can be mitigated		Medium				High	
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Degree to which the impact can be mitigated		Medium																																																		
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1.5 Surface water resources			Direct	<p>Based on the South African Water Quality Guidelines, developed by the Department of Water Affairs and Forestry (DWAF) (now known as Department of Water and Sanitation), the water quality at the siding has no negative potential impacts for all uses as it falls within the set standards.</p>																																																

Impact Rating

Water for domestic use at the siding is supplied by Eskom and the analyses results show good water quality. Contamination of surface water resources, such as the wetland in the close vicinity outside the boundaries of the siding, could result from the uncontrolled storm water drainage system might find its way to surface water resources leading to deterioration of water quality.

Type of Impact

Project Phase

Potential Impact

1.5.1 Deterioration of water quality

1.5.2 Potential for sedimentation of surface water resources

Severity	Spatial Scope	Duration	Consequence (sub-total)
Medium (3) (PM-2)	Local (3) (PM-3)	Life of operation (3) (PM-2)	9 (PM-7)
Frequency of impact	Probable 4 PM (3)	PROBABILITY 9 (PM-5)	
Frequency of activity	Daily 5 PM (2)		
SIGNIFICANCE OF IMPACT (pre-mitigation)			
Low (20)			
Impact status	Negative		
Confidence rating	High		
Reversibility	Partially reversible		
Loss of resources	Medium		
Degree to which the impact can be mitigated	Medium		

PHASE CONSTRUCTION

2. Construction of new evaporation dams or Alternative:
 To use the existing channels to divert dirty water from the Southern Side the Northern side t link up to Pollution Control Dam through a network of channels under the railway.

2.1 Groundwater resources
 2.1.1 Contamination of groundwater resources from oil and/or chemical oil spillages

Construction Operational Decommissioning

Direct/Cumulative

There is potential for ground water contamination from chemical and/or oil spillage resulting in seepage during the construction phase of the project. It is however anticipated that this impact will be low, after implementation of mitigation measures.

Severity	Spatial Scope	Duration	Consequence (sub-total)
Medium (3) (PM-1)	Local (3) (PM-2)	Life of operation (3) (PM-2)	9 (PM-5)
Frequency of impact	Probable 4 PM (2)	PROBABILITY 9 (PM-4)	
Frequency of activity	Daily 5 PM (2)		
SIGNIFICANCE OF IMPACT (pre-mitigation)			
Low (20)			
Impact status	Negative		
Confidence rating	Medium		
Reversibility	Partially reversible		

Activity / Aspect	Potential Impact	Project Phase	Type of Impact	Impact Rating	Loss of resources	Degree to which the impact can be mitigated																																																
Construction/Upgr ade of the existing building into office block and ablation facility.	2.2 Ablution facilities Contamination of ground surface and water resources	Construction	Direct	<p>There is potential for ground water contamination from chemical and/or oil spillage resulting in seepage during the construction phase of the project. It is however anticipated that this impact will be low, after implementation of mitigation measures.</p> <table border="1"> <thead> <tr> <th>Severity</th> <th>Spatial Scope</th> <th>Duration</th> <th>Consequence (sub-total)</th> </tr> </thead> <tbody> <tr> <td>Medium (3) (PM-1)</td> <td>Local (3) (PM-2)</td> <td>Life of operation (3) (PM-2)</td> <td>9 (PM-5)</td> </tr> <tr> <td>Frequency of impact</td> <td>Probable 4 PM (2)</td> <td>PROBABILITY 9 (PM-4)</td> <td></td> </tr> <tr> <td>Frequency of activity</td> <td>Daily 5 PM (2)</td> <td></td> <td></td> </tr> <tr> <td colspan="4">SIGNIFICANCE OF IMPACT (pre-mitigation)</td> </tr> <tr> <td colspan="4">SIGNIFICANCE OF IMPACT (post-mitigation)</td> </tr> <tr> <td colspan="4">Low (20)</td> </tr> <tr> <td colspan="4">Negative</td> </tr> <tr> <td colspan="4">Medium</td> </tr> <tr> <td colspan="4">Partially reversible</td> </tr> <tr> <td colspan="4">Medium</td> </tr> <tr> <td colspan="4">High</td> </tr> </tbody> </table>	Severity	Spatial Scope	Duration	Consequence (sub-total)	Medium (3) (PM-1)	Local (3) (PM-2)	Life of operation (3) (PM-2)	9 (PM-5)	Frequency of impact	Probable 4 PM (2)	PROBABILITY 9 (PM-4)		Frequency of activity	Daily 5 PM (2)			SIGNIFICANCE OF IMPACT (pre-mitigation)				SIGNIFICANCE OF IMPACT (post-mitigation)				Low (20)				Negative				Medium				Partially reversible				Medium				High				Medium	High
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2.3 Heritage and archaeological resources Impacts on heritage and archaeological resources during site clearing and establishment	<ul style="list-style-type: none"> Pre-construction Construction Operational Decommissioning 	Direct	<p>There is potential for the discovery of heritage resources such as graves and/ or archaeological artefacts during the construction phase of the project due to the diggings and establishment of structures and infrastructures (Loading and stockpile areas), however as the site is an old established site with some existing infrastructure such as the station building the significance is considered to be low. It should however be noted that contractors and personnel should be alerted on the probability of chance findings of archaeological artefacts throughout the project life cycle.</p> <table border="1"> <thead> <tr> <th>Severity</th> <th>Spatial Scope</th> <th>Duration</th> <th>Consequence (sub-total)</th> </tr> </thead> <tbody> <tr> <td>Medium(2) (PM-1)</td> <td>On-site (2) (PM- 1)</td> <td>Life of operation (2) (PM-2)</td> <td>6 (PM-5)</td> </tr> <tr> <td>Frequency of impact</td> <td>Probable 3 PM (2)</td> <td>PROBABILITY 8 (PM-4)</td> <td></td> </tr> <tr> <td>Frequency of activity</td> <td>Daily 5 PM (2)</td> <td></td> <td></td> </tr> <tr> <td colspan="4">SIGNIFICANCE OF IMPACT (pre-mitigation)</td> </tr> <tr> <td colspan="4">SIGNIFICANCE OF IMPACT (post-mitigation)</td> </tr> </tbody> </table>	Severity	Spatial Scope	Duration	Consequence (sub-total)	Medium(2) (PM-1)	On-site (2) (PM- 1)	Life of operation (2) (PM-2)	6 (PM-5)	Frequency of impact	Probable 3 PM (2)	PROBABILITY 8 (PM-4)		Frequency of activity	Daily 5 PM (2)			SIGNIFICANCE OF IMPACT (pre-mitigation)				SIGNIFICANCE OF IMPACT (post-mitigation)				Medium	High																									
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Medium (48)	Low (20)
Impact status	Negative
Confidence rating	Medium
Reversibility	Inreversible
Loss of resources	Medium
Degree to which the impact can be mitigated	High

There is potential for pollution of land, soil and water due to improper waste disposal such as littering, overflowing bins, and burning of waste on site. This impact is considered to be low after implementation of mitigation measures. The building rubble will be removed and disposed appropriately.

Severity	Spatial Scope	Duration	Consequence (sub-total)
Medium (2) (PM-1)	On-site (2) (PM- 1)	Life of Operation (2) (PM-2)	6 (PM-4)
Frequency of impact	Probable 3 PM (25)	PROBABILITY (PM-4)	
Frequency of activity	Permanent 5 PM (2)		
SIGNIFICANCE OF IMPACT (pre-mitigation)	SIGNIFICANCE OF IMPACT (post-mitigation)	SIGNIFICANCE OF IMPACT (post-mitigation)	
Medium (35)		Low (20)	
Impact status		Negative	
Confidence rating		Medium	
Reversibility		Partially reversible	
Loss of resources		Medium	
Degree to which the impact can be mitigated		High	

Activity / Aspect Potential Impact Project Phase Type of Impact Impact Rating

Remove the entire existing concrete drainage infrastructure. Remove the building from the site. Remove the OHTE from the platform line.	2.4 Waste management Land, soil and water pollution due to improper waste management	Pre-construction Construction Operational Decommissioning	Direct/ Cumulative	
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Impact Rating

Type of impact

Project Phase

Potential Impact

Activity / Aspect

Transportation of equipment, machinery and personnel to the site	2.5 Increase in traffic flow	<ul style="list-style-type: none"> Pre-construction Construction Operational Decommissioning 	Direct/ Cumulative	<p>During the construction phase of the project it is anticipated that the traffic volume generated by the movement of vehicles will have a low impact. This is mainly due to the fact that the site has already been established, therefore the required equipment and machinery will not be as much as those required for the establishment of a non-existent site. The vehicles already servicing the Northern side will be used to clear the site for the Southern side.</p>																																																
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Degree to which the impact can be mitigated		High																																																		
2.6 Generation of dust from vehicular movement	<ul style="list-style-type: none"> Pre-construction Construction Operational Decommissioning 	Direct	<p>Dust emissions are likely to occur due to vehicular movement as the access roads are gravel. The severity of this impact is anticipated to be low, if mitigation measures such as dampening of the gravel road and adherence to speed limits are observed. Furthermore, the traffic volume is anticipated to be low during this phase of the project, in comparison with the Operational Phase. Air pollution from emanating from vehicular emissions is also anticipated to be low if the mitigation measures prescribed in this Environmental Management Plan are adhered to. The cumulative impacts of dust in the overall area within a 1 km radius of the Siding is expected as there are a number of trucks travelling on the gravel portion of R960 road towards R555 Ogies road.</p>																																																	
2.7 Air pollution from vehicular emissions			<table border="1"> <thead> <tr> <th>Severity</th> <th>Spatial Scope</th> <th>Duration</th> <th>Consequence (sub-total)</th> </tr> </thead> <tbody> <tr> <td>Critical (4) (PM-1)</td> <td>Regional (4) (PM-1)</td> <td>Life of operation (2) (PM-2)</td> <td>10 (PM-4)</td> </tr> </tbody> </table>	Severity	Spatial Scope	Duration	Consequence (sub-total)	Critical (4) (PM-1)	Regional (4) (PM-1)	Life of operation (2) (PM-2)	10 (PM-4)																																									
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Activity / Aspect	Potential Impact	Project Phase	Type of Impact	Impact Rating																																								
2.8 Impacts on health and safety	<ul style="list-style-type: none"> • Pre-construction • Construction • Operational Decommissioning	Direct	Probable 3 PM (25) Daily 2 PM (2)	PROBABILITY (PM-4)																																								
				SIGNIFICANCE OF IMPACT (post-mitigation) Low (20) Negative Medium Partially reversible Medium High																																								
2.8 Impacts on health and safety	<ul style="list-style-type: none"> • Pre-construction • Construction • Operational Decommissioning	Direct	Probable 3 PM (28) Daily 5 PM (2)	PROBABILITY (PM-4)																																								
				SIGNIFICANCE OF IMPACT (pre-mitigation) Medium (50) Impact status Confidence rating Reversibility Loss of resources Degree to which the impact can be mitigated																																								
Due to the nature of the proposed project it is likely that heavy equipment and machinery will be utilized. The potential for accidents and injuries is therefore likely, however the severity of the impact is considered to be medium. The use of PPE and adherence to the site safety rules and guidelines will be ensured at all times.																																												
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	2.9 Increase in ambient noise levels due to vehicular movement, usage of machinery, and equipment construction activities.	<ul style="list-style-type: none"> Pre-construction Construction Operational Decommissioning 	Direct		High																
					<p>The construction of the structures will only cause a temporal increase in ambient noise levels during construction and decommissioning phase. The noise will only be limited to construction activities. The expected noise caused by these construction vehicles is however, foreseen to be low, as the expected noise will be from the truck engine and generators. The noise will only be experienced during the day and only during construction phase. Therefore probability of excessive noise is low and will have low intensity. It is anticipated that the noise levels will increase during the Operational phase as the trucks offload to stockpile and the front-end caterpillars load coal into the train wagons.</p>																
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3. Energy	Potential energy wastage	<ul style="list-style-type: none"> Pre-construction Construction Operational Decommissioning 	Indirect		<p>There might be a potential for energy wastage during the construction phase. The impact is anticipated to be low after implementation of mitigation measures.</p>																
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Activity / Aspect	Potential Impact	Project Phase	Type of Impact	Impact Rating																																																								
4. Socio-economic	Creation of employment opportunities, SMME development opportunities and capacity building	<ul style="list-style-type: none"> • Pre-construction • Construction • Operational • Decommissioning 	Direct (Positive)	(PM-1)																																																								
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<p>There will be creation of job opportunities (25 new jobs) during the construction and operational phase of the project. However, due to the technical nature of the project and the existence of infrastructure on site, the job opportunities will be limited. The proposed development is an extension of an existing operations on the Northern Side.</p>																																																												
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Open Channels of Communication and Consultation with Stakeholders 1	Impact Potential arising to mistrust arising to lack of transparency in the operation of the site. Loss of trust due to lack of access to public documents such as the EMP	<ul style="list-style-type: none"> • Pre-construction • Construction • Operational Decommissioning 	Direct	High																																								
<p>Open and constant communication between the developer and the key stakeholders is important to enable all parties an opportunity to raise their views and concerns in relation to the proposed development. Key and registered IAPs are to be consulted to ensure their inputs, views and comments are considered and addressed. Consultation on potential practical mitigation measures for identified issues and concerns provide an opportunity for open and transparent communication channels. Consultation with existing key stakeholder forums and Associations will reduce the risk to medium or low.</p>																																												
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PHASE : OPERATIONAL																																												
1. Operational Activities:	1.1 Impacts on soil resources 1.1.1 Potential for soil erosion 1.1.2 Potential for soil pollution due to oil and chemical spillages	Operational	Direct																																									
<ul style="list-style-type: none"> • Haulage of coal • Offloading of coal at stockpile areas • Loading of coal into rail wagons 				<table border="1"> <thead> <tr> <th>Severity</th> <th>Spatial Scope</th> <th>Duration</th> <th>CONSEQUENCE (sub-total)</th> </tr> </thead> <tbody> <tr> <td>Serious (4) (PM-2)</td> <td>Regional (4) (PM- 2)</td> <td>Life of operation (3) (PM-1)</td> <td>11 (PM-5)</td> </tr> </tbody> </table>	Severity	Spatial Scope	Duration	CONSEQUENCE (sub-total)	Serious (4) (PM-2)	Regional (4) (PM- 2)	Life of operation (3) (PM-1)	11 (PM-5)																																
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1.1.3 Disturbance of topsoil and vegetation 1.1.4 Potential for soil compaction				<table border="1"> <tr> <td>Frequency of impact</td> <td>Probable 4 PM (4)</td> <td rowspan="2">PROBABILITY 9 (PM-7)</td> </tr> <tr> <td>Frequency of activity</td> <td>Daily 5 PM (3)</td> </tr> <tr> <td>High risk</td> <td></td> <td>Low (20)</td> </tr> <tr> <td>Impact status</td> <td></td> <td>Negative</td> </tr> <tr> <td>Confidence rating</td> <td></td> <td>Medium</td> </tr> <tr> <td>Reversibility</td> <td></td> <td>Partially reversible</td> </tr> <tr> <td>Loss of resources</td> <td></td> <td>Medium</td> </tr> <tr> <td>Degree to which the impact can be mitigated</td> <td></td> <td>High</td> </tr> </table>	Frequency of impact	Probable 4 PM (4)	PROBABILITY 9 (PM-7)	Frequency of activity	Daily 5 PM (3)	High risk		Low (20)	Impact status		Negative	Confidence rating		Medium	Reversibility		Partially reversible	Loss of resources		Medium	Degree to which the impact can be mitigated		High																					
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1.2 Air pollution 1.2.1 Generation of dust fall out during the loading and offloading of coal		Operational	Directive/ Cumulative	<table border="1"> <tr> <td>Severity</td> <td>Spatial Scope</td> <td>Duration</td> <td>Consequence (sub-total)</td> </tr> <tr> <td>Critical (3) (PM-2)</td> <td>National (5) (PM-1)</td> <td>Operational (2) (PM-2)</td> <td>10 (PM-5)</td> </tr> <tr> <td>Frequency of impact</td> <td>Probable 3 PM (2)</td> <td>PROBABILITY 8 (PM-4)</td> <td></td> </tr> <tr> <td>Frequency of activity</td> <td>Daily 5 PM (2)</td> <td></td> <td></td> </tr> <tr> <td>SIGNIFICANCE OF IMPACT (pre-mitigation)</td> <td>SIGNIFICANCE OF IMPACT (post-mitigation)</td> <td></td> <td></td> </tr> <tr> <td>High risk</td> <td></td> <td>(Low (18))</td> <td></td> </tr> <tr> <td>Impact status</td> <td></td> <td>Negative</td> <td></td> </tr> <tr> <td>Confidence rating</td> <td></td> <td>Medium</td> <td></td> </tr> <tr> <td>Reversibility</td> <td></td> <td>Partially reversible</td> <td></td> </tr> <tr> <td>Loss of resources</td> <td></td> <td>Low</td> <td></td> </tr> <tr> <td>Degree to which the impact can be mitigated</td> <td></td> <td>High</td> <td></td> </tr> </table> <p>Dust fall out during the loading and offloading of coal and emanating from coal stockpiles is anticipated during the operational phase of the project. This impact is considered to be low after the implementation of mitigation measures.</p>	Severity	Spatial Scope	Duration	Consequence (sub-total)	Critical (3) (PM-2)	National (5) (PM-1)	Operational (2) (PM-2)	10 (PM-5)	Frequency of impact	Probable 3 PM (2)	PROBABILITY 8 (PM-4)		Frequency of activity	Daily 5 PM (2)			SIGNIFICANCE OF IMPACT (pre-mitigation)	SIGNIFICANCE OF IMPACT (post-mitigation)			High risk		(Low (18))		Impact status		Negative		Confidence rating		Medium		Reversibility		Partially reversible		Loss of resources		Low		Degree to which the impact can be mitigated		High	
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Activity / Aspect	Potential Impact	Project Phase	Type of Impact	Impact Rating
<p>1.3 Surface water resources</p> <p>1.3.1 Contamination of water due to coal spillage from haul trucks</p> <p>1.3.2 Contamination of water spillage of hydraulic fluid from machine and trucks</p> <p>1.3.3 Contamination of water due to incorrect disposal of industrial and domestic waste</p> <p>1.3.4 Contamination of water due to incorrect handling of waste from ablation facilities</p>	<p>Operational</p>			<p>Impacts emanating from the daily operational activities such as loading of coal, movement of trucks and machinery will result in spillage and seepage into water resources. These impacts are however considered to be low after the implementation of mitigation measures.</p>
<p>1.4 Ground water resources</p> <p>1.4.1 Contamination of water due to coal stockpile seepage</p> <p>1.4.2 Contamination of</p>	<p>Operational Decommissioning</p>			<p>Impacts emanating from the daily operational activities such as loading of coal, movement of trucks and machinery will result in seepage into groundwater resources. These impacts are however considered to be low after the implementation of mitigation measures, as the site is underlain by a minor aquifer class which does not have a high primary permeability, furthermore no evidence of either a perched and/or permanent groundwater level was observed on site.</p>

Severity	Spatial Scope	Duration	Consequence (sub-total)
Medium(2) (PM-1)	Local (3) (PM-3)	Life of operation (3) (PM-2)	8 (PM-6)
Frequency of impact	Probable 2 PM (1)	PROBABILITY Certain 4 (PM-2)	
Frequency of activity	Residual 2 PM (1)		
SIGNIFICANCE OF IMPACT (pre-mitigation)	SIGNIFICANCE OF IMPACT	SIGNIFICANCE OF IMPACT (post-mitigation)	
Medium (32)		Low (12)	
Impact status		Negative	
Confidence rating		High	
Reversibility		Partially reversible	
Loss of resources		Medium	
Degree to which the impact can be mitigated		Medium	

Severity	Spatial Scope	Duration	Consequence (sub-total)
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Activity / Aspect	Potential Impact	Project Phase	Type of Impact	Impact Rating																																								
	from water pollution control dam seepage			<table border="1"> <tr> <td>Medium(2) (PM-1)</td> <td>Local (3) (PM-3)</td> <td>Life of operation (3) (PM-2)</td> <td>8 (PM-6)</td> </tr> <tr> <td>Frequency of impact</td> <td>Probable 2 PM (1)</td> <td>PROBABILITY Certain 4</td> <td></td> </tr> <tr> <td>Frequency of activity</td> <td>Residual 2 PM (1)</td> <td>(PM-2)</td> <td></td> </tr> <tr> <td colspan="4">SIGNIFICANCE OF IMPACT (pre-mitigation)</td> </tr> <tr> <td>Medium (32)</td> <td></td> <td>Low (12)</td> <td></td> </tr> <tr> <td>Impact status</td> <td></td> <td>Negative</td> <td></td> </tr> <tr> <td>Confidence rating</td> <td></td> <td>High</td> <td></td> </tr> <tr> <td>Reversibility</td> <td></td> <td>Partially reversible</td> <td></td> </tr> <tr> <td>Loss of resources</td> <td></td> <td>Medium</td> <td></td> </tr> <tr> <td>Degree to which the impact can be mitigated</td> <td></td> <td>High</td> <td></td> </tr> </table>	Medium(2) (PM-1)	Local (3) (PM-3)	Life of operation (3) (PM-2)	8 (PM-6)	Frequency of impact	Probable 2 PM (1)	PROBABILITY Certain 4		Frequency of activity	Residual 2 PM (1)	(PM-2)		SIGNIFICANCE OF IMPACT (pre-mitigation)				Medium (32)		Low (12)		Impact status		Negative		Confidence rating		High		Reversibility		Partially reversible		Loss of resources		Medium		Degree to which the impact can be mitigated		High	
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1.4.3 Contamination of water spillage of hydraulic fluid from machine and trucks																																												
1.4.4 Contamination of water due to incorrect disposal of industrial and domestic waste																																												
1.4.5 Contamination of water due to incorrect handling of waste from ablution facilities																																												
1.5 Waste Management	Operational			<p>There is potential for land, soil and water pollution during the operational phase of the project due to the various operational activities that will be occurring e.g. movement of vehicles, storage and usage of chemical and hazardous substances.</p> <table border="1"> <tr> <td>Severity</td> <td>Spatial Scope</td> <td>Duration</td> <td>Consequence (sub-total)</td> </tr> <tr> <td>Medium(2) (PM-1)</td> <td>On-site (2) (PM-1)</td> <td>Operational(2) (PM-2)</td> <td>6 (PM-4)</td> </tr> <tr> <td>Frequency of impact</td> <td>Probable 3 PM (2) Certain 5</td> <td>PROBABILITY (PM-4)</td> <td></td> </tr> <tr> <td>Frequency of activity</td> <td>Residual 2 PM (2)</td> <td></td> <td></td> </tr> <tr> <td colspan="4">SIGNIFICANCE OF IMPACT (pre-mitigation)</td> </tr> <tr> <td colspan="4">SIGNIFICANCE OF IMPACT (post-mitigation)</td> </tr> </table>	Severity	Spatial Scope	Duration	Consequence (sub-total)	Medium(2) (PM-1)	On-site (2) (PM-1)	Operational(2) (PM-2)	6 (PM-4)	Frequency of impact	Probable 3 PM (2) Certain 5	PROBABILITY (PM-4)		Frequency of activity	Residual 2 PM (2)			SIGNIFICANCE OF IMPACT (pre-mitigation)				SIGNIFICANCE OF IMPACT (post-mitigation)																			
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1.5.1 Contamination of soil resources due to oil and chemical spillages/leakages																																												
1.5.2 Contamination of water resources due to infiltration of chemical and oil seepages																																												
1.6.3 Land pollution due to littering																																												

Activity Aspect	Potential Impact	Project Phase	Type of Impact	Impact Rating																																											
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1.6 Impacts on health and safety of personnel	<ul style="list-style-type: none"> • Pre-construction • Construction • Operational • Decommissioning 	Direct	<table border="1"> <tr> <th>Severity</th> <th>Spatial Scope</th> <th>Duration</th> <th>Consequence (sub-total)</th> </tr> <tr> <td>Medium(2) (PM-1)</td> <td>On-site (2) (PM- 1)</td> <td>Life of operation(2) (PM-2)</td> <td>6 (PM-4)</td> </tr> <tr> <td>Frequency of impact</td> <td>Probable 3 PM (2) Certain 5 (PM-4)</td> <td>PROBABILITY</td> <td></td> </tr> <tr> <td>Frequency of activity</td> <td>Residual 2 PM (2)</td> <td></td> <td></td> </tr> <tr> <td>SIGNIFICANCE OF IMPACT (pre-mitigation)</td> <td></td> <td>SIGNIFICANCE OF IMPACT (post-mitigation)</td> <td></td> </tr> <tr> <td>Medium (30)</td> <td></td> <td>Low (16)</td> <td></td> </tr> <tr> <td>Impact status</td> <td></td> <td>Negative</td> <td></td> </tr> <tr> <td>Confidence rating</td> <td></td> <td>Medium</td> <td></td> </tr> <tr> <td>Reversibility</td> <td></td> <td>Partially reversible</td> <td></td> </tr> <tr> <td>Loss of resources</td> <td></td> <td>Medium</td> <td></td> </tr> <tr> <td>Degree to which the impact can be mitigated</td> <td></td> <td>High</td> <td></td> </tr> </table>	Severity	Spatial Scope	Duration	Consequence (sub-total)	Medium(2) (PM-1)	On-site (2) (PM- 1)	Life of operation(2) (PM-2)	6 (PM-4)	Frequency of impact	Probable 3 PM (2) Certain 5 (PM-4)	PROBABILITY		Frequency of activity	Residual 2 PM (2)			SIGNIFICANCE OF IMPACT (pre-mitigation)		SIGNIFICANCE OF IMPACT (post-mitigation)		Medium (30)		Low (16)		Impact status		Negative		Confidence rating		Medium		Reversibility		Partially reversible		Loss of resources		Medium		Degree to which the impact can be mitigated		High	
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1.7 Increase in ambient noise levels due to vehicular movement, usage of machinery, equipment and	<ul style="list-style-type: none"> • Pre-construction • Construction • Operational • Decommissioning 	Direct	<p>Noise is expected to be produced during the operational phase of the project. The noise will mostly be experienced during the day and will emanate from vehicles, operation of machinery and equipment; loading of coal into train wagons as well as human interactions. The significance of the impact is anticipated to be low, after implementation of mitigation measures and residents in close proximity of the site will be informed of any activities that will cause excessive levels of noise before commencement(i.e. blasting).</p>																																												

Activity / Aspect	Potential Impact	Project Phase	Type of Impact	Impact Rating																																												
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1.8 Creation of employment opportunities, SMME development opportunities and capacity building	<ul style="list-style-type: none"> Pre-construction Construction Operational Decommissioning 	Direct (Positive)	<table border="1"> <tr> <td>Severity</td> <td>Spatial Scope</td> <td>Duration</td> <td>CONSEQUENCE (sub-total)</td> </tr> <tr> <td>Medium (2) (PM-2)</td> <td>On-site (2) (PM- 2)</td> <td>Operational (2) (PM-1)</td> <td>6 (PM-5)</td> </tr> <tr> <td>Frequency of impact</td> <td>Low 2 PM (4)</td> <td>PROBABILITY Probable 4 (PM-7)</td> <td></td> </tr> <tr> <td>Frequency of activity</td> <td>Temporarily 2 PM (3)</td> <td></td> <td></td> </tr> <tr> <td>SIGNIFICANCE OF IMPACT (pre-mitigation)</td> <td></td> <td>SIGNIFICANCE OF IMPACT (post-mitigation)</td> <td></td> </tr> </table>	Severity	Spatial Scope	Duration	CONSEQUENCE (sub-total)	Medium (2) (PM-2)	On-site (2) (PM- 2)	Operational (2) (PM-1)	6 (PM-5)	Frequency of impact	Low 2 PM (4)	PROBABILITY Probable 4 (PM-7)		Frequency of activity	Temporarily 2 PM (3)			SIGNIFICANCE OF IMPACT (pre-mitigation)		SIGNIFICANCE OF IMPACT (post-mitigation)																										
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There will be creation of job opportunities (25 new jobs) during the operational phase of the project. However, due to the technical nature of the project and the existence of infrastructure on site, the job opportunities will be limited.

Activity / Aspect	Potential Impact	Project Phase	Type of Impact	Impact Rating																																												
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1.9 Potential energy wastage		<ul style="list-style-type: none"> Pre-construction Construction Operational Decommissioning 	Direct / Indirect	There might be a potential for energy wastage during the operational phase. The impact is anticipated to be low after implementation of mitigation measures.																																												
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2.2 Generation of dust from vehicular movement 2.3 Air pollution from vehicular emissions			Direct/ Cumulative	<table border="1"> <tr> <td>Severity</td> <td>Spatial Scope</td> <td>Duration</td> <td>Consequence (sub-total)</td> </tr> <tr> <td>Medium (3) (PM-2)</td> <td>Regional (3) (PM- 1)</td> <td>Life of operation (3) (PM-2)</td> <td>9 (PM-5)</td> </tr> <tr> <td>Frequency of impact</td> <td>Probable 3 PM (2)</td> <td>PROBABILITY 8 (PM-4)</td> <td></td> </tr> <tr> <td>Frequency of activity</td> <td>Daily 5 PM (2)</td> <td></td> <td></td> </tr> <tr> <td>SIGNIFICANCE OF IMPACT (pre-mitigation)</td> <td></td> <td>SIGNIFICANCE OF IMPACT (post-mitigation)</td> <td></td> </tr> <tr> <td>High (35)</td> <td></td> <td>Low (20)</td> <td></td> </tr> <tr> <td>Impact status</td> <td></td> <td>Negative</td> <td></td> </tr> <tr> <td>Confidence rating</td> <td></td> <td>High</td> <td></td> </tr> <tr> <td>Reversibility</td> <td></td> <td>Partially reversible</td> <td></td> </tr> </table>	Severity	Spatial Scope	Duration	Consequence (sub-total)	Medium (3) (PM-2)	Regional (3) (PM- 1)	Life of operation (3) (PM-2)	9 (PM-5)	Frequency of impact	Probable 3 PM (2)	PROBABILITY 8 (PM-4)		Frequency of activity	Daily 5 PM (2)			SIGNIFICANCE OF IMPACT (pre-mitigation)		SIGNIFICANCE OF IMPACT (post-mitigation)		High (35)		Low (20)		Impact status		Negative		Confidence rating		High		Reversibility		Partially reversible					
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Dust emissions are likely to occur due to vehicular movement as the access roads are gravel. The severity of this impact is anticipated to be low, if mitigation measures such as dampening of the gravel road and adherence to speed limits are observed.

Activity / Aspect	Potential Impact	Project Phase	Type of Impact	Impact Rating																																												
2 Rehabilitation	Re-vegetation of the site	Decommissioning Rehabilitation	Direct/ Cumulative	<table border="1"> <tr> <td>Loss of resources</td> <td>Low</td> </tr> <tr> <td>Degree to which the impact can be mitigated</td> <td>High</td> </tr> </table>	Loss of resources	Low	Degree to which the impact can be mitigated	High																																								
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Table 12.5-3: Mitigation Measures for the Southern Side Activities [as compiled by Myezo Environmental Management Services (PTY) Ltd] with more focus on the Southern Side.

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
<p>PHASE: PRE-CONSTRUCTION</p> <p>Proper demarcation of site boundary for the proposed increase in scope on site and the proposed Arbor village establishment .</p>	<p>Encroachment and overlap of boundaries for proposed activities and Arbor village</p>	<p>1. The Transnet Land Surveyor Department, the landowners from Truter Boerdery must consult together with Arbor Siding management and Emalahleni Local Municipality to determine the exact boundaries for the Arbor Siding and the proposed Arbor village.</p> <p>2. Land Surveyor documents from Transnet must be kept on site at all times by Arbor Siding.</p>	<p>Pre-Construction</p>	<p>Managing Director/ Chief Operations Officer Contractor Engineer Transnet Truter Boerdery Emalahleni Local Municipality</p>
<p>Construction Camp Set up</p> <p>Provide with a layout of the site indicating the position of all of the following, as applicable: ablation facilities, storage areas, ready-mix areas, stockpile areas, waste disposal facilities, hazardous substances storage area, etc. prior to the site establishment, for acceptance.</p>	<ul style="list-style-type: none"> • Soil erosion, • Soil pollution • Biodiversity loss • Water Quality • Groundwater quality • Air Quality • Noise pollution • 	<ul style="list-style-type: none"> • All possible design scenarios with the least environmental impact to be considered. • Ensure that alignment is compatible with the natural contours. • Continue ensuring that built structures do not break the horizon. • Ensure finishes are carefully selected to match the surroundings, and free forms are where practicable. • Construction camp & ablation facilities will be out of the sensitive zone areas and proper CEMP (Construction Site Environmental Management Plans) will be implemented together with the EMPr. • Disaster Management Plan and all Site Health and Safety Procedures to be implemented. • Dust suppression will be implemented within the site to minimise air quality and visibility impacts. 	<p>Pre-Construction</p>	<p>Managing Director/ Chief Operations Officer Contractor Engineer Siding Supervisor</p>
	<p>Social disturbances</p>	<ul style="list-style-type: none"> • Prior to establishing the construction camp, the contractor will produce a plan showing the positions of all structures, laydown yards and other infrastructure for approval by the 	<p>Pre-Construction</p>	<p>Managing Director/COO Contractor Engineer</p>

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
		<ul style="list-style-type: none"> • Managing Director and Engineer. • The area chosen for these purposes is the minimum reasonably required and which will involve the least disturbance of vegetation. • Fires will only be allowed in facilities or equipment specially constructed for this purpose. If required by applicable legislation, a firebreak is cleared around the perimeter of the camp and office sites. • Construction and maintenance activities closely of such a nature will be planned properly and monitored as not to disturb the livelihood of adjacent property owners. • A designated place for food preparation and eating will be established at the construction site. • Dry chemical toilets will be made available at a ratio of 1 toilet per 10 staff, within the campsite perimeter and will be cleaned and serviced as requested by the service provider. • Workers movements will be limited to the construction area only and will be enforced in terms of the contracts of appointments • Any complaints are addressed accordingly and record will be kept thereof. • The applicant will ensure that measures are in place to prevent /mitigate disruption of services as result of construction. • Residents will be notified 7 days in advance of disruptions to services 		
Construction aspects	<u>Construction Activities</u>	<ul style="list-style-type: none"> • Construction methods are respectful of the environment - no unnecessary vegetation clearing, excavations or untidiness. • Littering on site and the surrounding areas is prohibited. Clearly marked litterbins are provided on site. The contractor's representative monitors the 	Construction	Contractor Siding Supervisor

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
		<p>presence of litter on the work sites as well as the construction campsite. All bins are cleaned.</p> <ul style="list-style-type: none"> • Waste is disposed, as soon as possible and not allowed to stand on to decay, resulting in bad odours and attracting vermin. • Adequate sanitation and water supply are installed for the construction personnel (authorisation from DWAF may be required). • All waste removed from site is disposed at municipal /permitted waste disposal site. • The contractor ensures that all temporary structures, materials, waste and facilities used for construction activities are removed upon completion of the project. • The contractor cleans up and restores all disturbed areas and implement rehabilitation measures where appropriate as elaborated below. • The contractor ensures that the site is kept tidy at all times, that sufficient refuse bins are provided and that they are emptied regularly. • Refuse or building rubble generated on the premises is deposited on adjacent properties, roads verges or open spaces. It is contained on site, then removed and disposed of at an approved dumping site at least every two weeks. • Disturbed and open areas are rehabilitated and re-vegetated as soon as possible after construction. • No unnecessary removal of indigenous vegetation are allowed, but should rather be incorporated into the landscaping design. • The construction site is contained to prevent any visual intrusion and be kept in a clean and orderly state at all times. • Retainment of as much of the existing vegetation as possible in an undisturbed state i.e. not part of the estate footprint. 		

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
Construction aspects	<u>Storage of material including Hazardous material</u>	<ul style="list-style-type: none"> • Identification of those operations and activities that are associated with the identified significant environmental impacts as outlined in the EMPr and development of aspect registers • Planning of these activities, including maintenance, in order to ensure that they are carried out under specified conditions as stipulated in the procedure and existing EMP. • Storage of materials (including hazardous materials) • Choose storage area location by considering prevailing winds, distances to water bodies, general onsite topography and water erosion potential of the soil. Impervious surfaces will be provided where necessary; • Designate, demarcate, fence off and secure all storage areas to minimize the risk of crime; storage areas should be safe from access by unauthorized persons; • Provide fire prevention facilities at all storage facilities. • Store all hazardous materials such as oils, paints, thinners, fuels, chemicals, etc. in properly constructed and impermeable bunded areas. Hazardous materials will not be allowed to contaminate the subsurface or enter into drainage systems. Siting of hazardous material storage areas will be approved by the Project Manager. • Implement and monitor adherence to <u>SHEQ Policy and Procedures</u> 	Construction	Contractor Siding Supervisor
Safety of workers	<u>Health and Safety</u>	<ul style="list-style-type: none"> • Procedures on site: • Management of Fire Extinguishing equipment • Contractor site audit Inspection Sheet • Emergency management plan 	Contractor Siding Supervisor	Construction

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
		<ul style="list-style-type: none"> • OHS Act 85 of 1993 (Section 37(2)) • Health and Safety Plan • Incident Reporting • Non-conformance procedures • Personal Protective clothing • SHEQ Agenda • SHEQ Induction Training • Management procedures and inspection checklists • Legislative appointments • Safe working procedures for Weighbridge, offloading and loading of Coal at Arbor • Safety Talks • Vehicle Management System • SHE Policy 		
<ul style="list-style-type: none"> • Effect on Water Quality • Construction of roads, Services infrastructure, dwellings; • Construction camp • Materials Stockpiles • Maintenance of haul roads • Personnel discipline • Temporal Ablution facilities installation (Toilet facilities shall occur at a minimum ratio of 1 toilet per 20 workers (preferred 1:15). 	<p><u>Water Quality:</u> Sedimentation Pollution</p> <p><u>Groundwater Quality:</u> Pollution</p>	<ul style="list-style-type: none"> • Proper management of construction activities to reduce erosion and increased silt load on water flowing over uncovered soil. • Top soil will be susceptible to erosion; run-off of soil during rain events that may cause sedimentation, poor water quality, riparian vegetation disturbed • All water flow will be directed through controlled management into the existing drainage system. The contractor will ensure that no erosion and siltation of existing drainage system occurs, as a result of construction / development activities. • Toilets, permanent or portable/ temporary, shall be maintained in a hygienic state and serviced regularly. • Portable toilets should be serviced by a reputable contractor and the contents shall be removed to a licensed disposal facility. No spillage is to occur when portable toilets are cleaned or emptied. 	Construction	Contract Siding Supervisor
<ul style="list-style-type: none"> • Impact on Soil 				

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
<ul style="list-style-type: none"> • Clearing of vegetation for construction • Stripping of topsoil • Levelling, grading and compaction • Material Stockpiling • Construction of roads services, infrastructure, dwellings • Construction of additional infrastructure • Construction of slurry dams • Fuelling of trucks - use of diesel storage tank in the Northern Side of site • Servicing and Maintenance of trucks (oil change, service checks etc.). • Remove the entire existing concrete drainage infrastructure. • Clearing of the concrete rubble and dispose appropriately • Removal of trees (Eucalyptus mature trees) 	<p>Soil: Soil Erosion Loss of topsoil Disturbance to soil structure Soil Pollution from spills and leakages from the diesel storage tank during refuelling or machinery maintenance servicing Soil loss Exposure of soil, increased erosion levels due to run-off of water. Little precipitation and evaporation, loss of habitat life, reduced water table levels</p>	<ul style="list-style-type: none"> • Appropriate soil erosion and control procedures are applied to all embankments that are disturbed and established. • Occurrence of erosion is monitored during operational phase and corrective measures taken if necessary. • Clearance activities will be phased to ensure that only a limited area is cleared. • Vegetation clearance will be kept to a minimum to ensure as much of the natural area as possible is maintained. • Topsoil is stockpiled in heaps not exceeding 2,0 m in height and be protected from erosion. • Re-usable subsoil stripped from construction sites is stockpiled separately and clearly identified as such. • Soil is not stockpiled on drainage lines or near watercourses. • The diesel storage facility will have impermeable and chemical resistant floors and maintained regularly. Ensure that the drainage and containment system capable of collecting and storing all runoff water arising from the storage facility in the event of a flood is constructed. The system will also under the heavy rainfall event, maintain a freeboard of half a meter. • Operation equipment will be inspected regularly and kept in good running order, and leaks repaired immediately. • Spillages of oil, grease and hydraulic fluids will be reported to the site manager, cleaned up using an oil spill kit by removing the soil and disposing such soil in a separate waste bin which will be labelled 'contaminated soil'. The drum will be taken to a soil farm for decontamination. • Contractors, staff and drivers will be trained on how to deal with spillages. • There will always be a soil decontaminant on site. 	<p>Construction</p>	<p>Contractor Siding Supervisor</p>

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
<ul style="list-style-type: none"> • Impact on Storm Water Management • Divert and extend the storm water drainage channel. • Construct a berm wall on the station side of the channel with the excavated material. • Backfill and compact the old channel where required. 	<p>Stormwater Management: Storm water control Soil Erosion Contamination of soil and surrounding area</p>	<ul style="list-style-type: none"> • There will be incident registers stored on site during operation in phase. • Suitable personal protective equipment (PPE) and protective clothing will be provided as prescribed by the company's standard operating procedures. • Disturbance of large footprint areas will be avoided. • All cleared area will be rehabilitated and landscaped. • Any tree cutting will be done in line with municipal by-laws and a licence will be sought before cutting of any listed or indigenous trees on site. • Restrict operation activities to demarcated areas and consider all other areas as no-go areas to minimise disturbance or loss of undisturbed land. 	Construction	Contractor Siding Supervisor
<ul style="list-style-type: none"> • Impact on Storm Water Infrastructure • Extend the existing storm water culvert for the full width of the loading area and connect it to the new storm water cut-off drain. 	<p>Stormwater Infrastructure: Storm water control Soil Erosion Contamination of soil and surrounding area</p>	<ul style="list-style-type: none"> • Berms and storm water channels will be considered during the construction phase in order to divert clean runoff from the external catchment away from the disturbed areas. • Ensure the design and layout of the storm water infrastructure causes minimal environmental impact. • Ensure it is easy to maintain, repair and replace without negatively affecting the environment. 	Construction	Contractor Siding Supervisor
<ul style="list-style-type: none"> • Impact on Air Quality • Dust from the clearing of vegetation for the construction camp establishment 	<p>Air Quality: Dust: Wind direction is from the west-northwest which is directly towards</p>	<ul style="list-style-type: none"> • The neighbours will be informed about the planned construction and operational times. Communication protocols including the registration of complaints relating to site activities will be also outlined. 	Construction	Contractor Siding Supervisor

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
<ul style="list-style-type: none"> Dust generated from the removal of the building rubble Dust generated from the removal of mature trees. Dust generated from the Stockpiled coal without dust suppression treatment. 	<p>the position of the residential house in the vicinity of the site. The residential house next to the site on the Southern Side will be affected by the wind blowing over the coal stockpile and the dust generated from the trucks transporting coal to and from the stockpile area to the loading areas.</p> <p>Visibility will be affected</p> <p><u>Waste Management:</u> Concrete rubble</p> <p><u>Waste Management:</u></p>	<ul style="list-style-type: none"> The contractor's representative or environmental officer notifies all people living within 100m of the construction site of proposed activities. In the event of serious levels of dust pollution, the implementation of constant dust monitoring by qualified consultants is undertaken. Vehicles used on or entering the site are serviced regularly to ensure that they do not emit smoke of fumes. Sprinkle water on all exposed surfaces especially during dry and windy conditions. Ensure that the Site Health & Safety protocols and systems are in place and implemented. All workers will wear PPE safety wear at all times. Minimise removal of vegetation cover. Speed limit is enforced in all areas to limit the levels of dust pollution Rehabilitate all bare areas as soon as possible with local indigenous water-wise vegetation. Monitor the cumulative PM10, SO2, CO and VOC air quality impact due to vehicle entrainment on unpaved road surfaces and during loading and off-loading of coal at the site. The predominant wind direction within the site is from the west- northwest on which during daytime there is an increase in these winds velocity. Less frequent winds are from the southern directions With exception of Sulphur dioxide, the pollutants recorded within the site falls within the NAAQ air quality threshold targets. Monitor ambient air quality variables especially Sulphur dioxide levels against the target threshold as determined by AQA and SANA 1929:2005 standards in all four sites. 		

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
		<ul style="list-style-type: none"> • Monitor the Modelled ambient PM10 concentrations to ensure compliance to the daily NAAQ PM10 limit applicable from 1 January 2015. • Monitor cumulative impacts associated with the contribution of Arbor Siding operations. • Ensure that four dust buckets stands be strategically erected to the main areas or sensitive receptor area to verify predicted cumulative impacts and refine controls accordingly. Dust samples from the dust buckets will be taken to analyse the Gravimetric Dust Fallout content. • The PM10, SO2, CO and VOC concentrations determined through active sampling in order to measure these variables against national ambient air quality guidelines should be conducted in a monthly basis in order verify predicted cumulative impacts and refine the operational site impacts with the aim of lowering the exceeding SO2 concentrations. • Dust suppression in the form of water spraying the areas of frequent vehicular movement should be done in a 3 hours interval to minimize the generated dust whilst avoiding water accumulation to the surface. • Monitor changes within the dust fall out gravimetric weight and compliance against the set SANS 1929 standards and within or outside the DEA AQ target 	Construction	Contractor Siding Supervisor
Waste generated from the breaking and removal of concrete rubble.	<u>Waste Management:</u> Concrete rubble	<ul style="list-style-type: none"> • Clear the concrete rubble and ensure dust suppression is implemented on the area as soon as possible. • All rubble from demolition activities will either be used on site as part of the existing development, or will be taken away from the project site and disposed off appropriately. • Rubble will not be dumped on site but will be placed within a receptacle for regular removal. 	Construction	Contractor Siding Supervisor

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
<ul style="list-style-type: none"> Remove the building rubble from the site. Remove the OHTE from the platform line. 	<p><u>Waste Management:</u></p>	<ul style="list-style-type: none"> Construction rubble shall be disposed of in registered and legal construction waste disposal site. Transport and dispose to relevant registered legal Council disposal site. Collect Dust fall out samples for comprehensive analysis do Implement Waste collection and sorting from the source. Ensure Proper Waste Management Measures. Public Awareness regarding importance and function of water resource 	Construction	Contractor Siding Supervisor
Construct new evaporation dam.	<p><u>Pollution Management:</u></p>	<ul style="list-style-type: none"> Water use licence required. No construction of evaporation dam before the issuing of a Water Use Licence. Ensure the designs and mitigation measures for leakage or spillages are in place. Implement and adhere to conditions of the WUL to be applied for. Should the use of the Pollution Control Dam on the Northern side be used, management measures as listed within the WUL will be adhered to: The Pollution Control Dam shall be operated and maintained to have a minimum freeboard of 0.8 metres above full supply level and all other water systems related to thereto shall be operated in such a manner that it is at all times capable of handling the 1:50 year flood event on top of its mean operating level. The Licensee shall use acknowledged methods for sampling and the date, time and sampler will be indicated for each sample. Flow metering devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than once in two years. Calibration certificates shall be available for 	Construction	Contractor Siding Supervisor

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
<ul style="list-style-type: none"> Noise from use of heavy machinery Noise from vehicular movement - clearing, grading, levelling etc. Noise from Siding workers 	<p>Noise Pollution:</p>	<p>inspection by the Provincial Head or his representative upon request.</p> <ul style="list-style-type: none"> Dust and noise generation are monitored during operational phase. Machinery with low noise levels to be used. Construction activities to take place during daytime periods only. Vehicles to comply with the standards as provided in the IFC's Environmental Health & Safety Regulations. Generators will be placed in such a manner that it is away from noise sensitive areas or acoustically screened off. 	Construction	Contractor Siding Supervisor
<ul style="list-style-type: none"> Noise from use of heavy machinery Noise from vehicular movement - clearing, grading, levelling etc. Noise from Siding workers 	<p>Heritage Resources:</p> <ul style="list-style-type: none"> Destruction of undiscovered subsurface heritage resources during construction activities. Sites of heritage significance Graves 	<ul style="list-style-type: none"> Archaeologist to check any further clearance with construction crew for possible heritage resources. Where any significant resources are found the archaeologist will assess and make the appropriate mitigation requirements. Stop construction if any heritage resources – such as graves, human remains or fossils are identified. Should graves, fossils or any historical artefacts be identified during construction, activities will cease and the South African Heritage Resources Agency (SAHRA) or provincial Heritage Resources Agency will be informed of the find. Work may only continue once the relevant heritage resources agency has provided approval for the continuation. Old station building. According to its style and the material used in its construction, this building probably dates to the 1940s. It is similar in style, layout and material as other stations on the same line, e.g. Dryden and Argent. The structure is fenced off and well protected by an alarm system. The Transnet house is outside the demarcated site boundary. 	Construction	Contractor Siding Supervisor

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
<ul style="list-style-type: none"> Arbor Station built structure 	<ul style="list-style-type: none"> Heritage significant resource 	<ul style="list-style-type: none"> Avoidance/Preserve: This is viewed to be the primary form of mitigation and applies where any type of development occurs within a formally protected or significant or sensitive heritage context and is likely to have a high negative impact; or, alternatively Archaeological investigation: This is appropriate where development occurs in a context of heritage significance and where the impact is such that it can be mitigated. Mitigation is to excavate the site by archaeological techniques, document the site (map and photograph) and analyse the recovered material to acceptable standards. 	Construction Operational Decommission Rehabilitation	Contractor Siding Supervisor
<ul style="list-style-type: none"> Sourcing of labour and suppliers. Direct economic benefit to the community 	<ul style="list-style-type: none"> <u>Socio-economic Impacts</u> To increase positive benefits of the project 	<ul style="list-style-type: none"> Job opportunities in terms of positions to be filled within the expansion of the Siding will be given first preference to the qualifying local community members within the vicinity of the site before extending to other areas outside the site proximity. Sourcing of materials from local suppliers will be encouraged to boost the local economic status of the community. The Siding Supervisor will also source previously disadvantaged contractors or BBBEE compliant companies for services such as sanitation, environmental control on site, storm water structures and rehabilitation. Preference will be given to locals for supply of goods and services during construction. A database will be formulated for the locals to submit their credentials for consideration during construction. 	Construction	Contractor Siding Supervisor
Proximity of the proposed activities to the proposed Arbor village development	Dust	<ul style="list-style-type: none"> Implement dust suppression in the form of water spraying the areas of frequent vehicular movement should be done in a 3 hours interval to minimize the generated dust whilst avoiding water accumulation to the surface. 	Construction Operational Decommission Rehabilitation	Contractor Siding Supervisor

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
		<ul style="list-style-type: none"> Monitor changes within the dust fall out gravimetric weight and compliance against the set SANS 1929 standards and within or outside the DEA AQ target. Collect Dust fall out samples for comprehensive analysis done from the 4 buckets strategically placed at the site. Collect samples through the use of dust buckets from the various locations; To submit the samples for comprehensive analysis; To report on the compliance of the analytical results against standards and guidelines in order to identify problem areas and make recommendations for remedial actions; To identify areas and sources of pollution; Mitigation measures such as dust suppression as set within the conditions of the WUL will be implemented and as described in the EMP. Compile and submit copies of the dust fallout monitoring reports to the client for monthly submission and bi-annually to the relevant government authorities. 		
	Noise	<ul style="list-style-type: none"> Machinery with low noise levels to be used. Construction activities to take place during daytime periods only. Vehicles to comply with the standards as provided in the IFC's Environmental Health & Safety Regulations. Generators will be placed in such a manner that it is away from noise sensitive areas or acoustically screened off. Train movement schedule to be communicated to the adjacent community and land owners. 	Construction Operational Decommission Rehabilitation	Contractor Siding Supervisor
	Safety issues at railway crossing	<ul style="list-style-type: none"> Provide employment and proper training opportunity of personnel at railway crossing. A pedestrian crossing to rather be considered on the farm land's side next to the ESKOM substation. 	Construction Operational Decommission Rehabilitation	Mine Management, Contractors and Employees

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
Legal Compliance	Legal Compliance	<ul style="list-style-type: none"> • Ensure legal compliance throughout the Site planned activities in all phases until closure. • Maintenance of compliance with legal and other environmental requirements • Determination of applicable legal and other environmental requirements when: <ul style="list-style-type: none"> • A new process or service is planned • An existing process is to be modified • EMP kept at reception and personnel informed through inductions about availability of EMP. • Compliance with Section 24 of the Constitution of South Africa (Act No. 108 of 1996). • Consultation of Section 21 (a) and (g) of NWA. • Compliance with the EIA regulations in terms of Chapter 5 of NEMA as amended. • Compliance with all the relevant Provincial regulations and Municipal by laws. • Compliance with the EMP and Record of Decisions. • Compliance with the provisions for duty of Care and Remediation of Environmental Damage contained in Section 28 of the National Environmental Management Act (Act 107 of 1998). 	Pre -Construction Construction Decommission Rehabilitation	Contractor Siding Supervisor
Data management system	Information & Data Management	<ul style="list-style-type: none"> • Ensure that all acquired monitoring data is captured on a database linked to the operator's information system. • Upon capturing, the data is analysed and plotted visually on a time series graph, for the purposes of establishing improvement of deterioration in water quality. • Once analysed, the data is consolidated into a monitoring report, and a copy is sent to the Department of Water and Sanitation at a frequency prescribed in the permit. 	Construction Decommissioning	Contractor Siding Supervisor
The amount of dirty water runoff to the natural water bodies through	Water Quality: Sedimentation	<ul style="list-style-type: none"> • Exposed/cleared surfaces will be kept to a minimum to minimise the volume of dirty run-off generated. 	Operational	Siding Supervisor

Activities	Environmental impact/Aspect	Mitigation	Phase	Responsibility
<p>storm water and potential flooding in the area.</p>		<ul style="list-style-type: none"> • Adequate sedimentation control measures are instituted at any prominent drainage lines, water crossings and construction trenches. • Sedimentation and silt in watercourses will be monitored. • Where possible construction activities will be positioned away from drainage lines and areas with a perched water table. • All fuel, chemical, oil, etc will be confined to areas where the drainage of water can be controlled. Use appropriate structures and methods for storage and handling. • No dumping of foreign material in streams, rivers and/or wetland areas is allowed. • No washing and or cleaning of clothes, eating utensils, tools or equipment is allowed in water bodies. • Adequate sanitation for all personnel is supplied on site. • No permanent stock piling of any kind allowed within the 1:100 year flood line or within 10m of any watercourses. • The gradient of the site is designed in a way that allows water to gravitate towards a centre then drain in to an evaporation pond. • A 100mm sacrificial layer of coal is placed on top of the natural surface. This layer of sacrificial coal will always be kept constant between the surface soil and the coal material stored on site. • Pollution control dams with appropriate liners are constructed by an approved engineer. • The silt in the dam (fine coal) is reclaimed regularly and disposed in an environmental sound manner. • The water is recycled on site 		
• PHASE OPERATIONAL				
<ul style="list-style-type: none"> • Use of temporal ablation facilities 	<p><u>Groundwater Quality:</u></p>	<ul style="list-style-type: none"> • Ensure proper use of ablation facilities. 		

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
<ul style="list-style-type: none"> • Maintenance of ablation facilities on site • Leaks or spillage from Diesel Storage tank • Spillage of coal during haulage of coal in and out of Loading area. 	Pollution	<ul style="list-style-type: none"> • Ensure proper maintenance of ablation facilities. • Ensure there are no leakages or spillages from the diesel storage tank. • Ensure spills and leakages are attended to as soon as possible and the incident report is kept updated. • Make use of portable chemical latrines to handle sewerage, until such time as more permanent facilities have been constructed. • Chemical latrines will be serviced by an outside contractor in accordance with local by-laws. • Depending on the number of persons utilising change-house facilities during the operational phase, a decision will be made on the construction of appropriate sewerage handling facility. • Provision of appropriate sewage and works septic tanks, pump stations and soakaways. 		
Implementation of WUL conditions	<p>WUL Conditions:</p> <ul style="list-style-type: none"> • Surface water quality monitoring • Groundwater quality monitoring • Dust suppression 	<ul style="list-style-type: none"> • Implement WUL Conditions • External WUL Audit • Awareness and Training • Confirmation of commencement of WULA activities • Annual soil chemistry study and mapping • Design water quality monitoring program (surface and ground) • Annual water balance study • Water quality monitoring, reporting and feedback to DWS • Limited access to pollution control dam • The licence is subjected to all applicable provision of the National Water Act, 1998 (Act 36 of 1998). • The responsibility for complying with the provision of the licence is vested in the Licence and not any other person or body. • The licence is subjected to all applicable provision of the National Water Act, 1998 (Act 36 of 1998). 	Operational	Siding Supervisor

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
		<ul style="list-style-type: none"> • The Licensee will immediately inform the Responsible Authority of any change of name, address, premises and/or legal status. • if the properties in the respect of which this licence is issued is subdivided or consolidated, the Licensee will provide full details of all changes in respect of the properties to the responsible Authority within 60 days of the said change taking place. • If a Water User Association is established in the area to manage the resource, membership of the Licensee to the Association is compulsory. Rules, regulation and water management stipulation of such association will be adhered to. • The Licensee shall be responsible for any water use charges and/or levies imposed by a Responsible Authority. • While effect will be given to the Reserve as determined in terms of the Act, where a lower confidence determination of the Reserve has been used in issuance of this licence, the licence conditions may be amended should a higher confidence reserve be conducted. • When compulsory licensing is implemented for the water resource in of which this licence was issued, the water use authorized in this licence may be subject to appropriate conditions on quantity and quality. • The licence shall not be construed as exempting the Licensee from compliance with the provision of any other applicable Act, Ordinance, Regulation or By-law. • • The licence and amendment of this licence are also subjected 		
		<ul style="list-style-type: none"> • Protected plants occurring within the footprint are translocated in consultation with an approved 		

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
		<p>specialist after obtaining the necessary permits from authorities.</p> <ul style="list-style-type: none"> All protected species occurring within the footprint are clearly marked for the duration of the construction phase and should remain intact and undisturbed. If this is unavoidable, the contractor follows procedures as advised by the . Where alien invasive plants occur they are uprooted, cut and / or chemically treated. (use only approved chemicals) The use of alien invasive plants for landscaping is prohibited and a long term management plan for the eradication and control of existing alien invasive plants is implemented. No wild animal are under any circumstance handled, removed or be interfered with. No wild animal is fed on site No domesticated animals (i.e. chickens and pigs) are permitted at the staff village and/or campsite. If applicable, regularly undertake checks of the surrounding natural vegetation, in the fences and along game paths to ensure no traps have been set. Remove and dispose of any snares or traps found on or adjacent to the site. Problem animals and vermin are removed by an appropriate organisation or authority (i.e. such as the Parks Board, the SPCA or a registered exterminator) No use is made of any pesticides, unless approved by the Project Management Team. 		
<p>Excess surface water runoff and control of storm water</p>	<p><u>Storm Management:</u> Storm water control Soil Erosion Contamination of soil and surrounding area</p>	<ul style="list-style-type: none"> Clearing will be limited to only areas that will be worked-on. There will be storm water control to ensure separation of clean and dirty water. Clean water will also be diverted way from the dirty work areas via culverts, bunds and diversion trenches. 	Operational	Siding Supervisor

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
		<ul style="list-style-type: none"> The storm water is controlled and disposed of into the natural area at points where the volume of water becomes too much to be accommodated by the V-drain shaped roads. Energy breakers in the form of natural rock is created at these disposal points and erosion control measures are implemented. Storm water is diverted away from working area to prevent clean water contamination. 		
Maintenance of the storm water infrastructure	<p>Stormwater Management: Storm water control Soil Erosion Contamination of soil and surrounding area</p>	<ul style="list-style-type: none"> A maintenance schedule for clearing silt at the culvert crossing will be designed and implemented. Flood protection structures like attenuation walls will be designed and constructed for flood risk areas. 	Operational	Siding Supervisor
<ul style="list-style-type: none"> Operation of trucks for the loading, offloading of coal at stockpile areas Loading of coal into train wagons 	<p>Air Quality: Dust Visibility</p>	<ul style="list-style-type: none"> Ensure all the Ambient Emission Licence (AEL) conditions are met. Utilise measures such as dust suppression systems and vehicular and haul trucks speed control. Monitor air quality levels and where levels exceed the maximum allowance, investigate source points and implement mitigation measures. Areas of disturbance will be limited to footprints given in the final layout drawings and vehicular movement outside these demarcated areas will be restricted. Conduct dust suppression through dampening and watering of road, which could potentially generate dust. Suppress dust using dust suppression mechanism such as water 	Operational	Siding Supervisor SHE Officer
Hazardous waste generated from the oil changes, maintenance of truck and machinery	<p>Waste Management: Hazardous waste</p>	<ul style="list-style-type: none"> Hazardous wastes will be separated from general wastes, stored within secondary containment in appropriate containers. Certificates of hazardous waste disposal (waybills) are to be retained for auditing purposes. Hazardous storage and refuelling areas are to be bunded with an impermeable liner to protect 	Operational	Siding Supervisor

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
<p>All pollution generating activities related to the operation of the Siding</p>	<p>Pollution Management: All activities with the potential to cause pollution to the environment in general (soil, surface water, groundwater, air quality, health etc).</p>	<p>groundwater quality and will comply with relevant SANS codes.</p> <ul style="list-style-type: none"> • Monitor the efficiency of any installed sewage system. • To enhance the impermeability of the study area, the following additional steps are recommended: • Remove the sparse vegetation over the entire area to be developed. Any roots will be removed entirely and the resultant 'crater' will be backfilled with soils compacted in 150 mm thick layers. • Shape the entire surface to a suitable cross-fall to facilitate effective run-off drainage (possibly a slope of 1:50 or steeper). It may be required to install suitable drainage systems at the lower point to collect run-off. • Scarify the surface to a depth of at least 150mm and re-compact to at least 90% Mod AASHTO density at OMC to OMC + 2%. • In the event that a specific Tank is used, the tank will be banded and made permeable to prevent leakage. • Ensure there is permission for using anything that falls under the leased area. • Waste/ pollution control. • Industrial and domestic waste management. • Management of refuse and waste disposal to avoid visual intrusion and prevent a health hazard. • Implementation of clean-up programmes for spillages. • Management of refuse and waste disposal to minimize impact on water quality. • Sewage management. • Provision of appropriate sewage and works septic tanks, pump stations and soakaways. • Fuel and lubricant management. • Prevention of soil and water contamination due to fuel spillage. 	<p>Operational</p>	<p>Siding Supervisor</p>

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
<ul style="list-style-type: none"> Noise from use of heavy machinery Noise from vehicular movement - loading and offloading of coal at stockpile areas and the loading of coal into train wagons etc. Noise from Siding workers Vibrations from the movement of the train 	<p>Noise pollution Residential house in the vicinity of the house to be consulted on the route and access roads for the trucks and operating hours of the train.</p>	<ul style="list-style-type: none"> Noise complaints will be recorded and followed with formal response. A complaints register will be kept on site. All equipment and vehicles will be maintained in good operating condition. Any worn or faulty exhaust- and/or intake silencers will be replaced immediately Landowner will be informed of the plan to do 24hr operation will be done and recommended measures to alleviate noise will be implemented. A buffer zone between the rail (source) and noise sensitive areas (residential receptors) will be maintained. This buffer will be maintained by means of noise screening trees and at least a radius of 100m from any residential structure will be maintained and no noisy activities will be done, except for transportation activities via access roads to and from the site and actual loading. Noise control measures are implemented. All noise levels are controlled at the source. All employees are given the necessary ear protection gear if the noise levels exceed 70db. Interested and affected parties are informed about impending excessive noise. Generators and pumps are housed in casings to help reduce any noise in operation. No loud music or excessive noise generated by employees is allowed on site and in construction camps. 	Operational	Siding Supervisor
Disturbance of heritage resources	<p>Heritage Resources: Destruction of undiscovered</p>	<ul style="list-style-type: none"> Should there be any identification of archaeological artefacts, South African Heritage Resources Agency will be notified. Should graves, fossils or any historical artefacts be identified during construction, activities will cease and the South African 	Operational	Siding Supervisor

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
		<ul style="list-style-type: none"> instructs the responsible person to remove or control these species according to the most effective methods as given in the relevant literature. The arranged an environmental briefing and training session with the contractor and his crew prior to commencement of construction activities. 	Operational	Siding Supervisor
PHASE DECOMMISSIONING & REHABILITATION				
Demolishing of infrastructure - debris may flow into natural water bodies during rainy season e.g. flash floods, unmanaged storm water flow	<u>Water Quality:</u> Sedimentation	<ul style="list-style-type: none"> Ensure water sources within the area are protected from effects of sedimentation resulting from the demolishing activities. 	Decommissioning	Contractor Siding Supervisor
Demolishing of Dirty water channels and Pollution Evaporation Dams (PCDs)	Pollution	<ul style="list-style-type: none"> Ensure that all infrastructure is demolished and the debris disposed in an environmentally friendly manner. Disposal of rubble to be done at a legal and properly registered disposal facility. 		Contractor Siding Supervisor
<ul style="list-style-type: none"> Tear down of the Diesel Storage Tank Phasing off of the Coal Loading zones 	<u>Groundwater Quality:</u> Pollution	<ul style="list-style-type: none"> Ensure that the groundwater is protected from the demolition activities planned during decommissioning of all infrastructure on the site. 		Contractor Siding Supervisor
<ul style="list-style-type: none"> Demolishing of all infrastructure on site Clearing, levelling and rehabilitation activities 	<u>Soil:</u> Soil Erosion <u>Topography:</u> Scenic view Ground stability	<ul style="list-style-type: none"> Bare surfaces will be managed as small as possible. Any disturbed areas will be rehabilitated and landscaped to create a better scenic view. The current disturbance will be cleaned All temporary infrastructures will be demolished during closure. Waste will be disposed of at a licensed Municipal waste disposal site. The landscape will blend with the surrounding areas to avoid water ponding. 	Decommissioning	Contractor Siding Supervisor
<ul style="list-style-type: none"> Tear down of the Diesel Storage Tank Phasing off of the Coal Loading zones Demolishing of Dirty water channels and 	Soil Pollution	<ul style="list-style-type: none"> Ensure there are no leaks or spillages from the decommissioning of the Diesel Storage tank and the Chemical storage area. Ensure there is no leakages from the Coal Loading zones during decommissioning and all the coal residue is removed from the area. 	Decommissioning	Contractor Siding Supervisor

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
Pollution Evaporation Dams (PCDs) <ul style="list-style-type: none"> • Tear down all infrastructure on the site 	<p>Biodiversity: Fauna and flora loss</p> <p>Storm Management: Storm water control Soil Erosion Contamination of soil and surrounding area</p> <p>Storm infrastructure: Storm water control Soil Erosion Contamination of soil and surrounding area</p>	<ul style="list-style-type: none"> • Ensure the local and indigenous flora species are protected and used during rehabilitation of the site. • Ensure all the storm water management infrastructure is removed without causing further negative impact to the environment. • Ensure proper disposal of the rubble at the legal and registered disposal site or sent to recycling centre. • Construction staff only use authorised temporary paths and roads. • The Environmental Control Officer ensures that all temporary structures, materials, waste and facilities used for construction activities are removed upon completion of the project. • Upon completion of the construction period, the ensures that any/all temporary access roads and returned to a state no worse than prior to construction commencing. • Once heavy machinery has cleared the bulk of these material stockpiles, the disturbed areas is levelled and cleared of any foreign material manually. • Fully rehabilitate all disturbed areas and protect them from erosion. • Slopes will be designated according to predefined specifications, aimed at the prevention of soil erosion, of efficient storm water control of the eventual re-establishment of vegetation and of ultimately achieving aesthetically acceptable landscapes. • In general, no slopes steeper than 1(V):3(H) are allowed. • Cut slopes are not steeper than 1:2(V:H) and rounded off on the top edge. 	Decommissioning Decommissioning	Contractor Siding Supervisor Contractor Siding Supervisor

Activities	Environmental Impact/Aspect	Mitigation	Phase	Responsibility
		<ul style="list-style-type: none"> • Bulk and fine shaping is executed according to design, aimed at the prevention of soil erosion, of efficient storm water control, of the eventual re-establishment of vegetation and of ultimately achieving aesthetically acceptable landscapes. • On the man-made slopes, the following rehabilitation methods are applied: • Replacing and redistribution of stripped topsoil to a minimum depth 200mm 		

Table 12.5-4: Monitoring Plan

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
<ul style="list-style-type: none"> • Security - unauthorised access to site • Monitoring of perimeter soil berm used as fencing for the site. • Soil erosion - Heavy rainfall /floods 	<ul style="list-style-type: none"> • Security and access control to site. • Sedimentation of watercourses resulting from the silt and soil eroded from soil berm especially during heavy rainfall or floods 	<ul style="list-style-type: none"> • Safety of communities surrounding the site. No access to safety- hazard areas without permission and proper site safety clothing. • Check the soil berm for any disturbance or damage and repair. • Ensure the soil berm is stable. 	<ul style="list-style-type: none"> • Siding Supervisor • Security Officer 	<ul style="list-style-type: none"> • Foot or vehicle patrol. Record • Frequency of reporting. • Monthly and following any heavy rainfall will be included in the monthly report.
<ul style="list-style-type: none"> • Biodiversity monitoring should be undertaken. • Faunal mortality • Biodiversity loss 	<ul style="list-style-type: none"> • Disturbance to the fauna and flora on site will be minimised. • All impacts affecting biodiversity will be mitigated as per the listed mitigation measures in the EMP. • Habitat pollution due to uncontrolled storm water drainage poses a 	<ul style="list-style-type: none"> • Visual assessment of site to record species occurrence of terrestrial biodiversity including various plant communities, invasive alien species, fauna and other ecosystems occurring on the site. • Annual surveys of TSF with respect to success of vegetation establishment. • Monitor species activities and other activities taking place within or adjacent to the project area. • Monitor the movement and activities of the Avi-fauna, animals and small mammals observed on site. Regular site inspection of fauna species within the site. 	<ul style="list-style-type: none"> • Siding Supervisor 	<ul style="list-style-type: none"> • Will include, but is not limited to: • Monitoring of the condition of habitats, ecosystems, topsoil stockpiles, species inventory and alien vegetation control including the storm water drainage system leading outside the Arbor Siding boundary.

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
<ul style="list-style-type: none"> • Monitoring of erosion • Roads 	<p>significant risk to the National Freshwater Ecosystem Priority Areas (NFEPA) ecosystem in the close vicinity to the operational site outside the Arbor Siding boundary.</p>	<ul style="list-style-type: none"> • Determine or map the ecological sensitivity of the area. • Proper storm water drainage and maintenance plan will be put in place to prevent the storm water draining into the nearest freshwater ecosystem. • Visual observation of the NFEPA ecosystem to be done regularly and traces of coal residue monitored, mitigated and reported. 		<ul style="list-style-type: none"> • Photographic records to be kept. • Monthly internal site inspection reporting. • Annual report and submit to Biodiversity section of provincial DEA and DMR • Annually
<ul style="list-style-type: none"> • Monitoring of erosion • Roads 	<ul style="list-style-type: none"> • Soil Erosion resulting from heavy traffic flow of trucks offloading coal at stockpile area • Soil erosion from heavy rainfall events • Roads sides eroded and unstable for trucks to transport coal to stockpile and loading areas. 	<ul style="list-style-type: none"> • Sedimentation of water resources. • Stability of the operational areas within the site. Flat surfaces to ensure stable transportation of coal to weighbridge; offloading at stockpile area; loading of coal into train wagons. • Railway ground infrastructure stability to be monitored and inspected especially after heavy rainfall events. Repairs to be done timeously to prevent further damage and safety hazards to the personnel on site and neighbouring community. • Topography to be inspected to ensure efficiency in the offloading at stockpile area and the loading at loading zone without incidents that could impact the environment. 	<ul style="list-style-type: none"> • Siding Supervisor 	<ul style="list-style-type: none"> • Visual inspection of the site and rail infrastructure. • Walk over rehabilitated areas, drive along roads • Monthly report to DMR and DWS • Every 6 months and following any heavy rainfall

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
<ul style="list-style-type: none"> Inappropriate tree felling or removal of alien invasive plants Monitoring of alien plants over the whole site 	<ul style="list-style-type: none"> Infestation of alien invasive plants within the site. Uncontrolled growth and spread of invasive alien species (Eucalyptus). 	<ul style="list-style-type: none"> Visual assessment of site to record species occurrence of terrestrial biodiversity including various plant communities, invasive alien species, fauna and other ecosystems occurring on the site. Monitor species activities and other activities taking place within or adjacent to the project area. Determine or map the ecological sensitivity of the area. 	<ul style="list-style-type: none"> Siding Supervisor 	<ul style="list-style-type: none"> Visual inspection on foot patrol Map presence of invasive plants Plan removal, remove and document area covered on monthly basis Verify with Photographs Monthly.
<ul style="list-style-type: none"> Monitoring of Water Quality – from selected points. Stockpiling of coal poses a significant risk to water resources - both surface water and groundwater. 	<ul style="list-style-type: none"> Surface and ground water pollution from surface runoff from the stockpile area and the pollution control dam. Changes in surface and groundwater quality will be monitored regularly. The change in hydrological characteristics of the area can affect surface runoff, soil moisture, and 	<ul style="list-style-type: none"> The objective is to prevent and minimise water pollution. As part of the approved and issued Integrated Water Use Licence (04/B20F/G/4009 File No: 27/2/B620/12/9), surface water quality monitoring reporting will be done on the following variables: <ul style="list-style-type: none"> pH Electrical conductivity (mS/m) Chloride (mg/L) Sulphate (mg/L) Fluoride (mg/L) Sodium (mg/L) Potassium (mg/L) Calcium (mg/L) Magnesium (mg/L) Aluminium (mg/L) Iron (mg/L) Manganese (mg/L) 	<ul style="list-style-type: none"> Siding Supervisor 	<ul style="list-style-type: none"> Identify sources of potential contamination. Assess possible impact of receiving water environment. Chemical and bacteriological tests at identified boreholes as recommended in the EMP. Build up database and graph the results. Compare with limits and take

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
<ul style="list-style-type: none"> Stockpiling of coal - Air Quality 	<p>evapo-transpiration and groundwater behavior.</p> <ul style="list-style-type: none"> Air quality deterioration due to coal dust in the air and potential low visibility and health impacts to personnel on site. Air Quality - dust fall out 	<ul style="list-style-type: none"> Nitrate (mg/L) Total Dissolved solids [TDS] Total hardness Ground water monitoring: Identification of sources of potential contamination Determine the extent of any pollution plume that may occur and prevent the contamination from moving off site Assessment of possible impact on the receiving water environment in order to formulate remedial measures should ground water contamination be evident Monthly sample collection bottling, labelling, storage and transportation for laboratory analysis. The analysis according to the DWAF South African Water Quality Target Value (SAWQTV) to be conducted. Bi-annual quality surveys conducted to measure the gravimetric dust fall out at the operational and cumulative impacts currently in effect causing poor air quality in the site. Four (4) monitoring buckets installed at Arbor Siding in four directions (i.e. north, east, south and west) provide the data used for the analysis. The points are located as follows: 	<ul style="list-style-type: none"> Siding Supervisor Air Quality Specialist 	<p>action on non-conformances</p> <ul style="list-style-type: none"> Water quality samples collected monthly Report submitted to DWS Water monitoring report every month Submit monitoring report every 3 months and annually. Air Quality - dust fall out samples taken for comprehensive analysis done from the 4 buckets strategically placed at the site. Collect samples through the use

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
	<p>monitoring programme.</p> <ul style="list-style-type: none"> Monitor changes within the dust fall out gravimetric weight and compliance against the set SANS 1929 standards and within or outside the DEA AQ target. 	<ul style="list-style-type: none"> North point monitored dust generated by Arbor activities, Ntshovela mine and an access point for the neighbouring residential area; East point monitored dust generated during accessing Arbor Siding facilities and the above mentioned neighbouring land-uses; and activities along the R555; South point monitored the actually operational activities at the siding during the off-loading and loading of coal; and West point monitored the dust generated during the loading of coal (no longer valid as stand was stolen). The buckets are left open so that generated dust at the study site can settle in them for periods of 30+/-2 days. After the running period the dust were collected, sealed on site and sent to a laboratory for analysis. The masses of the water-soluble and insoluble components of the material were collected and the results were obtained by gravimetric weight and reported as mg/m² /day. Determine if the results obtained are within the set SANS 1929 standards or exceed the set standard and are within or outside the DEA AQ target. 		<p>of dust buckets from the various locations;</p> <ul style="list-style-type: none"> To submit the samples for comprehensive analysis; To report on the compliance of the analytical results against standards and guidelines in order to identify problem areas and make recommendations for remedial actions; To identify areas and sources of pollution; and Mitigation measures such as dust suppression as set within the conditions of the WUL will be implemented and as described in the EMP.

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
<ul style="list-style-type: none"> Rehabilitation of all areas within the site. 	<ul style="list-style-type: none"> Potential disturbance to soil structure, increased biodiversity returning to site post operation, soil pollution from demolition and dismantling of PCD and diesel tank storage area. 	<ul style="list-style-type: none"> Implement corrective action and mitigation measures put in place as described in the EMP, the Site Management Best Practices and the Air Quality Management Plan. The North and East and South monitoring points exceeds the SANS 1929 standards but are within DEA AQ target and the average is still within industrial threshold of between 600 and 1200 as per target guidelines and DMR. 	<ul style="list-style-type: none"> Siding Supervisor 	<ul style="list-style-type: none"> Compile and submit copies of the dust fallout monitoring reports to the client for submission to the relevant government authorities. Monthly to client Bi-annual to authorities
<ul style="list-style-type: none"> Contamination of water sources and ground water due to seepage or leakages due to 	<ul style="list-style-type: none"> Potential contamination of surface water sources and groundwater from leakage 	<ul style="list-style-type: none"> Check compliance with gradients and variation in topography. Monitoring of All Rehabilitation Areas. Ensure implementation of Site rehabilitation Plan in accordance with the Best Practice and Guidelines for the site and the EMP. Monitoring of stability of water storage facilities. 	<ul style="list-style-type: none"> Siding Supervisor 	<ul style="list-style-type: none"> Survey – map new rehabilitated areas. Plot on map and calculate area treated. Every six months. Follow specifications in mandatory code of practice for water storage facilities.

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
<ul style="list-style-type: none"> instability of water storage facilities. 	<p>and destruction from instable water storage facility.</p> <ul style="list-style-type: none"> Instable water storage facility could lead to increased surface run off thus increasing soil erosion and sedimentation of water sources. 			<ul style="list-style-type: none"> Regular physical inspections of the physical structural integrity of the infrastructure. Inspect for crack, wear and tear and implement necessary mitigation measures. Follow Incident Reporting Protocol as a when required. Monthly internal report to client. Periodically
<ul style="list-style-type: none"> Storage and use of Hazardous material on site during construction and operational phase. 	<ul style="list-style-type: none"> Potential contamination of water and soil through seepage or spillage and leakage of stored material or hazardous material. Potential of a fire should materials not be stored properly on site. 	<ul style="list-style-type: none"> Monitoring of disposal of old oil, oil filters, old oil drums, oily cloths, batteries, fluorescent tubes, tyres and contaminated soil. (Hazardous waste site). Monitor implementation of Waste management Plan for site. 	<ul style="list-style-type: none"> Siding Supervisor 	<ul style="list-style-type: none"> Record each load sent off the site Give used oils to oilkol Ensure safe disposal certificates are obtained from suppliers if the material are given back to them Annual

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
	<ul style="list-style-type: none"> Potential Safety hazard should materials not be handled properly. 			
<ul style="list-style-type: none"> Construction waste (rubble); general waste generation (litter, solid waste) 	<ul style="list-style-type: none"> Potential contamination of water resources from littering and improper waste management practices and disposal. 	<ul style="list-style-type: none"> Monitoring of maintenance of general waste disposal 	<ul style="list-style-type: none"> Siding Supervisor 	<ul style="list-style-type: none"> Running total of loads of waste taken. Record of waste taken to waste disposal site Keeping records of waste taken to disposal site . All loads of waste to be recorded and quantity extrapolated. Covering of waste pit Monthly
<ul style="list-style-type: none"> Sanitation/ Ablution facility set up, use and decommissioning 	<ul style="list-style-type: none"> Potential soil pollution, surface water and groundwater pollution due to lack of protective barrier, location and distance from sensitive areas. 	<ul style="list-style-type: none"> Monitoring of condition of sewage facilities 	<ul style="list-style-type: none"> Siding Supervisor 	<ul style="list-style-type: none"> Visual inspection. Record condition.

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
<ul style="list-style-type: none"> Fuel storage - Diesel storage tank 	<ul style="list-style-type: none"> Poor use and maintenance of sanitation facilities. Potential seepage or leakage from the tank or during the refuelling of trucks or during maintenance servicing could lead to pollution of the soil and water sources. 	<ul style="list-style-type: none"> Monitoring of condition of bunded areas around diesel fuel tanks, re-fuelling area, old oil tank; and petrol tanks. Heavy impermeable lining on the diesel storage area 	<ul style="list-style-type: none"> Siding Supervisor Siding Supervisor 	<ul style="list-style-type: none"> Visual inspection
<ul style="list-style-type: none"> Observations of all ground breaking activities during the construction phase in accordance with the Heritage Impact Assessment report. Survey to identify the status of existing heritage sites during operation 	<ul style="list-style-type: none"> Disturbance of any existing heritage significant resources or sites during construction, operation and decommission phase. Disturbance to existing heritage sites or resources during operation. 	<ul style="list-style-type: none"> Visual observation of heritage resources or sites Record sites or resources Report the sites or resources observed to SAHRA Visual observation of heritage resources or sites Record sites or resources Report the sites or resources observed to SAHRA 	<ul style="list-style-type: none"> Siding Supervisor Heritage specialist 	<ul style="list-style-type: none"> Report during survey before construction and at decommissioning As and when discovered Every Six months Report on survey during operational phase. Annual report

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
<ul style="list-style-type: none"> Use of wastewater from the Pollution Control Dam for dust suppression. 	<ul style="list-style-type: none"> Water use at the site. Water allocation for dust suppression to comply with licence condition. 	<ul style="list-style-type: none"> Monitoring of water usage and ensuring water flow meters are installed at the pollution control dam. Monitor volume of water from PCD used per month for dust suppression not to exceed the target set in the WUL conditions. 	<ul style="list-style-type: none"> Siding Supervisor 	<ul style="list-style-type: none"> Record total water use and water use at different plants by recording flow meters. Ensure compliance with licence.
<ul style="list-style-type: none"> Compliance to site EMP 	<ul style="list-style-type: none"> All aspects listed within EMP that require monitoring. 	<ul style="list-style-type: none"> Refine the existing EMP and compile a site specific Operation EMP. 	<ul style="list-style-type: none"> Siding Supervisor 	<ul style="list-style-type: none"> Daily Monthly report
<ul style="list-style-type: none"> Alien vegetation control 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Compile an Alien Invasive Management Plan 	<ul style="list-style-type: none"> Ecological specialist 	<ul style="list-style-type: none"> Annual reporting
<ul style="list-style-type: none"> Soil Management: Soil erosion, pollution, disturbance, topography, 	<ul style="list-style-type: none"> Areas with a high inherent risk of soil erosion, soil wash or flooding; Areas with a high risk of soil damage, i.e. where there are vulnerable soils and/or topography, and where climatic and farm management practices may combine to 	<ul style="list-style-type: none"> Compile a soil management plan (storing, sloping, and vegetation of topsoil) 	<ul style="list-style-type: none"> Ecological specialist 	<ul style="list-style-type: none"> Daily Monthly report Annual report

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
	<p>damage the soils particularly easily.</p> <ul style="list-style-type: none"> • "Soil damage" includes all of the following: <ul style="list-style-type: none"> • wind erosion; • water erosion, • erosion related to tillage and harvesting ; • compaction, including puddling, crusting (=surface capping), or developing impermeable "pans". • organic matter decline; • salinization; • acidification; • landslides; • subsidence; • desertification; • adverse effects of climate change on the soil, and 			

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
<ul style="list-style-type: none"> Biodiversity protection on site 	<ul style="list-style-type: none"> soil biodiversity loss. Potential biodiversity loss and faunal mortality from site operations from construction to rehabilitation. 	<ul style="list-style-type: none"> Protection and handling of fauna found within the site at all stages of operation. 	<ul style="list-style-type: none"> Siding Supervisor 	<ul style="list-style-type: none"> Site observation report Monthly Every six months for seasonal change Annually

12.6 Monitoring System

12.6.1 Water Monitoring

As part of the EMPr and Integrated Water Use License, Arbor will conduct water quality monitoring reporting on the following parameters: pH, Electronic Conductivity, Sulphates, Nitrates, Sodium, Fluorides, Magnesium and Calcium.

A database will be created for storage of water quality data, this database will be designed such that it is flexible enough to allow future additions/refinements to the monitoring programme. A suitably qualified person will manage the data and appropriate control mechanisms defined to ensure that no errors occur.

12.6.2 Groundwater Monitoring

The following water monitoring methodology is recommended:

- Record the static pre- pumped water level, prior to sampling.
- Install the pump and purge the hole. Installation depth, type of pump, purging rates and times should be recorded in the monitoring protocol.
- Whilst purging, record the following field parameters:

Temperature, pH and Electrical conductivity

- Record the quantity of water removed during purging. While removing the stagnant water from the borehole take continuous readings of EC and pH until the readings are stable.
- The unfiltered sample will be collected (in clearly marked 1L plastic bottles) for major cation and anion as well as trace and heavy metal analysis.
- The filtered samples (clearly marked 1 L plastic bottles) will be collected for trace and heavy metal analysis. The filtered water should be immediately acidified to pH<2.
- Samples will be kept in a cooler box and sent to the laboratory within 48 hours.

Quarterly monitoring will be conducted to reflect the following variables:

- pH-Value at 25 ° C
- Conductivity at 25° C in mS/m
- Total Dissolved Solids
- Suspended Solids
- Nitrate & Nitrite as N
- Chlorides as Cl
- Total Alkalinity as CaCO₃
- Fluoride as F
- Sulphate as SO₄
- Calcium as Ca
- Magnesium as Mg

- Sodium as Na
- Potassium as K
- Iron as Fe
- Manganese as Mn
- Aluminium as Al

12.6.3 Sampling Methods and Guidelines

Samples collected will be preserved so as to ensure that the samples are maintained in a condition representative of their in-situ state. The sampling and sample preservation will be undertaken according to the following guidelines:-

- "Groundwater sampling: a comprehensive guide for sampling methods", compiled by John M Weaver for the Water Research Commission (WRC Report TT 56/92).
- SABS ISO 5667-11 : 1993 Guidance on sampling of groundwater
- SABS ISO 5667-1 : 1980 Guidance on the design of sampling programs
- SABS ISO 5667-2 : 1991 Guidance on sampling techniques
- SABS ISO 5667-3: 1994 Guidance on the preservation and handling of samples

The site will be left neat and tidy after the sampling work has been completed.

12.6.4 Surface Water Monitoring

Surface water samples will be collected on a monthly basis. Monthly Monitoring will be conducted to reflect the following:

- pH-Value at 25 ° C
- Conductivity at 25° C in mS/m
- Total Dissolved Solids
- Suspended Solids
- Nitrate & Nitrite as N
- Chlorides as Cl
- Total Alkalinity as CaCO₃
- Fluoride as F
- Sulphate as SO₄
- Calcium as Ca
- Magnesium as Mg
- Sodium as Na
- Potassium as K
- Iron as Fe
- Manganese as Mn
- Aluminium as Al

12.6.5 Sample bottling and labelling

All samples will be collected utilizing sterilized bottles provided by the Lab. Before a sample can be collected, a prescribed sampling bottle will be labelled in correspondence with the point identity from which sampling will take place.

12.7 Key Aspects on Site and Existing Management Measures

Some examples of aspects identified on site and how they are managed is provided in Table 12.3-1 below. The mitigation measures for identified impacts will be designed and management plan/programme be designed to ensure that there is compliance with the conditions of authorisation

Table 12.7-1: Key Aspects on Site and Existing Mitigation Measures

Key Aspect	Mitigation Measure
Potential diesel spillage during refuelling	Drip trays used during refuelling.
Potential spillage during storage	Care taken when packing the materials in storage. Materials Data Sheet kept on site.
Rainwater contaminated on the stockpile area with coal/oil/diesel flows into the river/spruit	Pollution control dam design structure and the Storm Water Management Plan are done. An experienced engineer produced the sketches of the designs for the pollution control dam.
Oil spillages on soil	Designate an area for vehicle maintenance and place a drip tray under the vehicles during maintenance.
Incorrect disposal of hazardous waste at landfill site	Use of a certified hazardous waste collector engaged to dispose of waste at a registered landfill site. Promote, reduce, reuse and recycle principles. Reuse and recycle material that is still in good condition to be used.
Incorrect disposal of general waste on illegal premises	Use of a certified general waste collector engaged to dispose of waste at a registered landfill site. Promote reduce, reuse and recycle principles. Reuse and recycle material that is still in good condition to be used.
Inadequate design/capacity of French drains resulting in high levels of bacterial/solid matter entering the environment (groundwater/streams/rivers)	Use of experienced civil engineer to create the design of drains (i.e. storm water control pollution dam).
Noise generation	Service trucks/vehicles regularly to ensure that they do not make unbearable noise and emit high levels of harmful gases.
Vehicular emissions	Service trucks/vehicles regularly to ensure that they do not make unbearable noise and emit high levels of harmful gases.
Coal spillage next to the road	Ensure that the trains are well enclosed during transportation of coal.
Dust generation when tarpaulins are not closed properly	Ensure that the trains are well enclosed during transportation of coal.
Dust generation during the stockpiling of coal	Stockpile the coal in various small piles. Minimise the dust emission by spraying water on the surrounding ground (dust suppression).

12.8 Positive and negative impacts that the proposed activity and alternatives

12.9 Cumulative Impacts

13. SITE AND TECHNOLOGY ALTERNATIVES

13.1 Details of all the Site Alternative considered

13.1.1 Site Alternatives S1 and S2

During the site identification phase, there are four sites which fall within the land leased by Transnet (Portion 1 of Farm Van Dyksput No. 214 IR.

The sites considered including the currently operational areas as illustrated in Figure 3.1-1 are:

- Northern Side area marked on Figure 3.1-1 as DWX1470J is S1
- Northern Side area marked on Figure 3.1-1 as DWX1468J is S2
- Southern Side area marked as Figure 3.1.1 as DWX1469J is S3
- Southern Side area marked as Figure 3.1-1 as DWX1471J is S4

Some consideration that was taken in the site selection is provided in Table 13.1-1 below. The site selection matrix is provided in Table 13.1-1.

Table 13.1-1: Site alternatives selection considerations

Site Alternative considered	Factors for consideration
Northern Side area marked on Figure 3.1-1 as DWX1470J – Site Alternative S1	<ul style="list-style-type: none"> • Not enough space for the proposed increase scope of work due to already existing operational infrastructure. • No available space for additional planned stockpiling and loading of coal. • Too close to the access road and railway crossing.
Northern Side area marked on Figure 3.1-1 as DWX1468J– Site Alternative S2	<ul style="list-style-type: none"> • Close proximity to the artificial wetland. • Not enough space for the proposed increase scope of work due to already existing operational infrastructure – water pollution dam, storage container, offices with ablution block, weighbridge etc. • No available space for additional planned stockpiling and loading of coal.
Southern Side area marked as Figure 3.1.1 as DWX1469J– Site Alternative S3	<ul style="list-style-type: none"> • Vacant land • Land still within the lease agreement with Transnet. • Adequate space for the proposed increase in scope of work including the stockpiling and loading of coal for haulage • No current existing human settlement adjacent to the Transnet boundary. • Planned development of an established township by Victor Khanye Local Municipality for the Arbor village on Portion 2 and 5 of Farm Vlakvarkfontein 213 IR is in close proximity to the Transnet

Site Alternative considered	Factors for consideration
	boundary and one of the preferred sites for the proposed increase in scope of work. <ul style="list-style-type: none"> • Close proximity the Arbor Station building identified as a Heritage significant resource. • Close proximity to the public access road and railway crossing.
Southern Side area marked as Figure 3.1-1 as DWX1471J– Site Alternative S4	<ul style="list-style-type: none"> • Vacant land • Land still within the lease agreement with Transnet. • Adequate space for the proposed increase in scope of work including the stockpiling and loading of coal for haulage. • No current existing human settlement adjacent to the Transnet boundary. • Planned development of an established township by Victor Khanye Local Municipality for the Arbor village on Portion 2 and 5 of Farm Vlakvarkfontein 213 IR is in close proximity to the Transnet boundary and one of the preferred sites for the proposed increase in scope of work. • Close proximity the Arbor Station building identified as a Heritage significant resource.

The details of each Site Alternative are provided in Table 13.1-1 above.

Alternative S3 and S4 (preferred alternative)

This alternative is preferred from an environmental and spatial perspective as the area proposed for the increased scope of work is adequate to accommodate the planned activities and associated infrastructure such as weighbridge, railway upgrades, new pollution control dam and silt trap, stockpile and loading areas. The proximity of the Arbor Station, considered a heritage significant resource has been considered and the recommendations of the Heritage specialist and mitigation measures as prescribed in the EMPr must be implemented and adhered to.

Alternative S3 and S4 (least preferred alternative)

This alternative is least preferred from an environmental and spatial perspective as the area proposed for the increased scope of work is not adequate to accommodate the planned activities and associated infrastructure such as weighbridge, railway upgrades, new pollution control dam and silt trap, stockpile and loading areas. The site is already operational with existing infrastructure established such as the weighbridge, storage container, pollution control dam, existing railway infrastructure and water channels, offices and ablution facilities. The existence of an artificial wetland on the site restricts the options to increase the developmental footprint.

The selection matrix for the site alternatives is provided as Table 13.1-2

13.2 Site Selection Matrix

1. Available space for additional infrastructure development
2. Land leased

3. Existing railway line infrastructure
4. Available space for coal stockpiling and loading
5. Close proximity to watercourse
6. Close proximity to heritage significant resource

Table 13.2-1: Site selection matrix

Site Alternative	1-	2	3	4	5	6
Northern Side area marked on Figure 3.1-1 as DWX1470J is Site Alternative S1	No	Yes	Yes	No	No	No
Northern Side area marked on Figure 3.1-1 as DWX1468J is Site Alternative S2	No	Yes	Yes	No	Yes	No
Southern Side area marked as Figure 3.1.1 as DWX1469J is Site Alternative S3	Yes	Yes	No	Yes	No	Yes
Southern Side area marked as Figure 3.1-1 as DWX1471J is Site Alternative S4	Yes	Yes	No	Yes	No	Yes

13.2.1 A concluding statement indicating the preferred alternatives, including preferred location of the activity

The site alternative S3 and S4 are the preferred sites for the proposed increase in scope of work to the Siding. An alternative considered also included the option of linking the existing water channels from the Southern Side S3 and S4 to decant dirty water into the existing pollution control dam located in the Northern Side (Site Alternative S2). This option was considered not ideal as it would have resulted in the water channels passing underneath the existing railway lines. The alternative to rather construct a new pollution dam on Site Alternative S4 highly outweighed the anticipated environmental impacts and cost implications of channelling dirty water from the Southern Side to the Northern Side underneath the railway line.

The design and technology alternative 1 was chosen as the preferred technology alternative as it entails keeping the existing rail track as is with modifications such as extension of Line 5 and diversion of Line 6. The placement of the PCD in the Southern side is preferred as the expansion of the PCD in the Northern side will be within the wetland area – even though this is applied for and mitigation measure will be provided.

The proposed mitigation measures as set out in the EMPr must be implemented as to safeguard the environment against all the identified, assessed and cumulative impacts related to the proposed increase in scope of work on the Arbor Railway Siding.

14. DESCRIPTION OF ALL ENVIRONMENTAL ISSUES AND RISKS THAT WERE IDENTIFIED

14.1 An assessment of the significance of each issues and risk and an indication of the extent to which the issues and risk can be avoided or addressed by the adoption of mitigation measures.

The identified potential impacts, their risks, significance and mitigation measures have been assessed as outlined in Table 10.1-1 and Table 10.1-2. The mitigation is further outlined in the EMPr attached as an annexure to this draft BAR report.

15. SUMMARY OF KEY FINDINGS OF THE ENVIRONMENTAL IMPACT ASSESSMENT

Some of the key issues and findings during the environmental impact assessment are summarized as follows:

- Dust generation from truck vehicular movement, coal stockpiling and coal loading onto train for haulage
- Noise from truck vehicular movement and the train
- Potential diesel spillage during refuelling
- Potential spillage of coal onto exposed soil during stockpiling
- Rainwater contaminated on the stockpile area with coal/oil/diesel flows into the river/spruit
- Potential oil spillages on soil
- Incorrect disposal of hazardous waste at landfill site
- Incorrect disposal of general waste on illegal premises
- Inadequate design/capacity of French drains resulting in high levels of bacterial/solid matter entering the environment (groundwater/streams/rivers)
- Noise generation
- Vehicular emissions from the public access road and railway crossing towards Arbor Village
- Pedestrians's safety at the railway crossing

16. EXISTING SPECIALISTS STUDIES

The following studies were already undertaken:

- Biodiversity Study
- Water Quality Study
- Stockpile Bulk Handling Capacity Study
- Ambient Air Quality

16.1 Existing Monitoring Air quality monitoring and water quality monitoring

For monitoring dust, the Siding has buckets around the site to measure gravimetric dust fall out. To reduce the amount of dust on site dust suppression is done daily at regular times.

16.2 Water Quality Monitoring

Water quality monitoring is also undertaken. Water samples are taken every month from the water monitoring sampling points and analysed at an accredited laboratory. The water monitoring reports are submitted quarterly to the DWS.

16.2.1 Surface Water and Ground Water Studies

A water specialist has been engaged on site and quarterly water quality sampling and monitoring is currently conducted on the operational Northern Side of the Siding.

A Water Management Plan for the proposed increase in scope has also been developed to illustrate water related infrastructural developments proposed. A water management plan was developed in September 2018 for the proposed increase in scope of work of the existing operations on the Southern side of Arbor railway siding and is attached as Annexure 16.2-1. The Integrated Waste and Water Management Plan is attached as Annexure 16.2-2. The Rehabilitation Strategy and Implementation Programme is outlined as Annexure 16.2-3 and the Soil Chemistry is attached as Annexure 16.2-4.

16.2.2 Heritage Impact Assessment (HIA)

A desktop analysis was conducted and a range of resources such as archival sources, database survey, maps and aerial imagery were used. A site survey was conducted at Arbor Railway Siding on the 28 March 2019 by J A van Schalkwyk and the report is attached as Annexure 16.2-5.

Identified sites

The sites identified during the physical survey, which could be sites, features or objects of cultural significance were:

- (a) Old station building (illustrated as Figure 16.2-1).



Figure 16.2-1: Front view of the Old station building



Figure 16.2-2: Rear view of the Old station building

Impact assessment

The impact assessment indicated a high significance rating and recommends that as mitigation measures the following must be done:

- (i) Avoid/ preserve
- (ii) Conduct archaeological studies

Legal requirements

For this proposed project, the assessment has determined that no sites, features or objects of heritage significance except for the Station building that occurs in the study area.

Reasoned opinion as to whether the proposed activity should be authorised:

- From a heritage point of view, it is recommended that the proposed development be allowed to continue on acceptance of the conditions proposed below.

The proposed conditions for inclusion in the environmental authorisation:

- The Paleontological Sensitivity Map (SAHRIS) indicate that the study area has a moderate sensitivity of fossil remains to be found and therefore a paleontological desktop study of the area is required.
- Should archaeological sites or graves be exposed in other areas during construction work, it must immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made.

16.2.3 Biodiversity Studies

A biodiversity study was undertaken to establish the types of fauna and flora that exist within the Siding. A full biodiversity report is provided as Annexure 16.2-6.

16.2.4 Stockpile Capacity Storage Study

A specialist was engaged to determine the Stockpile capacity for the Arbor Railway Siding. The storage of coal on site does not exceed the threshold that requires an atmospheric licence in terms

of the National Management: Air Quality Act (Act 39 of 2004). Gravimetric dust fall monitoring and reporting is currently done on the Northern side and will be extended to the Southern Side.

The bulk handling capacity for the site has been calculated. The total volume of storage for the Northern Side is reported as 26 505 m³. At a loose coal density of 800 kg/m³, which equates to a total weight of 21 204 tons.

On the Southern Side the total volume storage is reported as 20 847 m³. At a loose coal density of 800 kg/m³, which equates to a total weight of 16 678 ton. A full report is attached as Annexure 16.2-7.

17. A REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED – RECOMMENDATION FROM EAP

It is the opinion of the EAP that any potential negative impacts associated with the proposed increase in scope of activities for the operations at Arbor Siding can be mitigated through proper planning and execution in order to prevent any possible environmental damage.

Implementation and monitoring of proposed mitigation measures as outlined in the monitoring plan must be adhered to. The conditions as set out in the existing WUL must continuously be adhered to.

The proposed project will provide socio-economic benefits to the community, including training and capacity development. The project will further assist address the implementation of the Transnet Road to Rail Strategy.

Therefore, the EAP highly recommend this project, not only for its socio-economic gains, but for the environmental protection too.

18. AN UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP AND APPLICANT

18.1 An undertaking under oath or affirmation by the EAP Declaration

The independent Environmental Assessment Practitioner

I, Babalwa Fatyi of Myezo Environmental Management Services declare under oath that I --

- Act as the independent environmental assessment practitioner in this application ;
- Do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2006;
- Have and will not have no vested interest in the proposed activity proceeding;
- Have no, and will not engage in, conflicting interests in the undertaking of the activity;
- Undertake to disclose, to the competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;
- Will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- Will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- Will keep a register of all interested and affected parties that participated in a public participation process; and
- Will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.



Signature of the Environmental Assessment Practitioner:

Myezo Environmental Management Services (Pty) Ltd

Name of company:

20 June 2019

Date:

Mvdzee.

COMMISSIONER OF OATHS (RSA)

Marina Van Der Zee

Ex Officio Professional Accountant (SA)

Membership Number: 15964

Suite no 2, Garsfontein Office Park

645 Jacqueline Drive, Garsfontein

Mvdzee.

Signature of the Commissioner of Oaths:

20 June 2019.

Date:

Accountant.

Designation:

Official stamp (Above)

19. REFERENCES

Victor Khanye Local Municipality (2017 -2021). Final Integrated Development Plan IDP – 2018.2019 Review, Delmas, Mpumalanga.

Victor Khanye Local Municipality Spatial Development Framework

Department of Environmental Affairs (1998), NEMA, Pretoria

Department of Environmental Affairs (1998), EIA Regulations, Pretoria

Adi Environmental, 2018, Draft Scoping report, Vlakvarkfontein (Arbor) Rural Village, Delmas (Ref: EIA2018/01)

Adi Environmental, 2018, Arbor Background Information Document

Adi Environmental, 2019, Final Scoping Report, Vlakvarkfontein (Arbor) Rural Village, Delmas (Ref: EIA2018/01) » Scoping Report

20. LIST OF ANNEXURES FOR DRAFT BAR

Annexure 1.1-1: The copy of the commitment from Eskom in relation to the envisaged monthly tonnage.

Annexure 1.1-2: An application for the expansion of the lease area to Transnet Freight Rail (TFR) has been submitted by Gijima and a recent communique in relation to the progress of the application

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Annexure 11.1-2(a): Outcomes of meeting with Ward Councillor

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Annexure 11.2-1: Site Notices (English, isiZulu, Setswana Translation)

Annexure 11.3-1: Background Information Document

Annexure 11.5-1: Proof of newspaper advert

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Annexure 11.5-8: Comments received (email etc)



MYEZO ENVIRONMENTAL MANAGEMENT SERVICES

Environmental Stewardship

- GIJIMA – ARBOR RAILWAYS SIDING – BASIC ASSESSMENT
- COMMENTS AND RESPONSE REPORT FOR THE PROPOSED ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE PROPOSED ACTIVITIES AT THE EXISTING OPERATING ARBOR RAILWAY SIDING IN DELMAS, MPUMALANGA PROVINCE
- Document Name: GAB – PI – Comments and Response Report
- Date: 18 June 2019
- Myezo Ref: GAB 2018/11

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MYEZO ENVIRONMENTAL MANAGEMENT SERVICES

Environmental Stewardship

GIJIMA – ARBOR RAILWAY SIDING – BASIC ASSESSMENT REPORT
**COMMENTS AND RESPONSE REPORT FOR THE PROPOSED ENVIRONMENTAL
AUTHORISATION APPLICATION FOR THE PROPOSED ACTIVITIES AT THE EXISTING
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11.5 Details of public participation process undertaken in terms of Regulation 41 of the Regulations, including copies of the supporting documents and input.

11.5.1 Introduction of PPP

The proposed increase in scope of activities at Arbor Railway Siding will take place on Portion 1 of Farm Van Dyksput No. 214 - IR within the Victor Khanye Local Municipality (VKLM), under the Nkangala Magisterial District, Mpumalanga Province. The Siding is located about 5km west of the Kendal Power Station and 2km south of Kusile Power station along the R555 road and west of N12. It falls within the Olifants Water Management Area (WMA 4), in the Quaternary Catchment B20F.

Gijima Supply Chain Management Services (Pty) Ltd (Gijima) currently has a lease agreement with Transnet Freight Rail on a portion of Arbor Siding No. 740527 – Northern side (DWX1470J, DWX1468J) and intend to increase the scope of their operations to the Southern side (DWX1469J and DWX1471J). The total storage capacity of the existing site is 21 204 tons. The current active operational side herewith, referred to the Northern Side of the Arbor Railway Siding, has been servicing Eskom with 3,8 million tons of coal, over the three-year period, which ended in September 2016.

Subsequently, Gijima targets the export market and Eskom renewed the contract and increased the tonnage to 9 5 000 000 tons over a 4-year period ending in 30 September 2020. This translates to 198 000 tons per month. There will be challenges in achieving this current contractual demand, since the current active operational area has reached its maximum operational capacity in terms of stockpiling, receiving trucks and loading the trains. Currently, only two trains are operational to service the extended Eskom contract and the current infrastructure is not enough to fulfil Gijima's contractual obligations. Hence, the operational capacity will need to be increased and as such there will be additional activities that will be undertaken such as increased stockpiling areas, an increase to the loading capacity with two trains daily and an increase in the capacity of the pollution control dam and/or have a new additional pollution control dam with a silt trap.

The Arbor Railway Siding operations form part of a broader vision established by Transnet and Eskom to reduce the number of trucks on the road network as well as poverty alleviation through job creation and eradication on inequalities.

To comply with the National Environmental MA, as amended, and its regulations, Sasol has also appointed Myezo Environmental Management Services (Pty) Ltd, as Environmental Assessment Practitioners (EAPs), to conduct environmental studies and apply for environmental authorisation for any listed activities that might be triggered through the execution of this project. The environmental studies will determine the potential significant environmental impacts, that will emanate from the proposed project. In addition, the study will also recommend mitigation or management measures for these significant impacts.

The development will trigger listed activities in terms of NEMA and that is the reason why an environmental authorisation application is being undertaken. The details of listed activities are provided under Section 5 of the Basic Assessment Report (BAR).

11.5.2 Stakeholder engagement approach

Table 11.5-1: Detailing stakeholder engagement plan

Activity/ Tasks (What will be done)	Objectives (Why)	Execution Plan (How)	Deliverables
<p>1. Stakeholder profiling, data collection and identification of relevant stakeholders and Interested and Affected parties (IAPs).</p>	<p>✓ To ensure that all the relevant stakeholders and Interested and Affected Parties (IAPs) are identified in accordance with the National Environmental Management Act (NEMA), EIA Regulations, 2014;</p> <p>✓ To understand the socio-economic and geographic environment and key role players within these sectors;</p> <p>✓ Identification of relevant stakeholders and IAPs. The stakeholder profiling will be done to identify all the relevant stakeholders upfront, from various stakeholder sectors including national, provincial and local authorities; civil society sectors and industries. These include the following:</p> <ul style="list-style-type: none"> ➢ Water Affairs (Department of Water and Sanitation (DWS)), ➢ Environmental Affairs (Department of Environmental Affairs, Mpumalanga Department of Agriculture and Rural Development, Land and Environmental Affairs (DARDLEA)), ➢ Mpumalanga Tourism and Parks Agency (MTPA), ➢ South African Heritage Resources Agency (SAHRA), ➢ Working for Wetlands, ➢ Parastatal organisations, ➢ Farmers Association, ➢ Business Association, ➢ Rate Payer's association, 	<ul style="list-style-type: none"> • The key stakeholders will be notified about the Environmental Studies /Environmental Impact Assessment to be conducted. The following approach will be employed: <ul style="list-style-type: none"> • Understanding of scope of work from the applicant; • Identification of project locality and neighbouring activities and; • Understanding of the site; • Literature review of existing documents and reports including the Municipal Integrated Development Plan (IDP), Spatial Development Frameworks, Mpumalanga Growth Development Strategy, Local Economic Development Plans, Municipal by-laws, and Provincial ordinances; • Literature review of specialists /experts reports that have contributed to the understanding of this water management unit • Analysis and review of legislation; • Utilised local setting maps to identify stakeholders such as: <ul style="list-style-type: none"> ○ Occupiers of land adjacent to the study area that might be affected or impacted upon by the project execution ○ Current and planned land uses and similar projects that are planned for the study area • National, Provincial and local authorities will be sourced from previous experience and knowledge of the government departments who administer laws relating to matters 	<ul style="list-style-type: none"> • Interested and Affected Parties (I&AP) Register; see Annexure 11.2-1. • Project locality map, see Figure 2.1-1, 2.1-2 and 2.1-3 in BAR. • Background information document (BID), see Annexure 11.2-2. A comprehensive and technical background information document (BID) was compiled and distributed electronically with the notification emails on 21 November 2018 to the respective key stakeholders. The leaflet will further be sent as part of the public participation process (PPP).

Activity/ Tasks (What will be done)	Objectives (Why)	Execution Plan (How)	Deliverables
	<ul style="list-style-type: none"> ➤ Police Department, ➤ Water User Association, ➤ City Power, ➤ Roads and Transport Department, ➤ Civil society sectors e.g. Non-Governmental Organisations (NGO) and Community Based Organisations (CBO), and ➤ Industries. 	<p>affecting the environmental aspects relevant to the study area. The application for environmental authorisation included the following: Department of Water and Sanitation (DWS), Department of Agriculture, Rural Development, Land and Environmental Affairs (DARDLEA).</p>	
<p>1.1 Data verification and preliminary consultation</p>	<ul style="list-style-type: none"> • To validate the preliminary collected data and check credibility to ensure that the relevant Stakeholders and IAPs are contacted, and the correct contact details are recorded. • To validate the legislative requirements and administration. 	<ul style="list-style-type: none"> • Validation of collated information will be done through literature review of existing documents and reports such as the Municipal IDP and Spatial Development Framework • Analysis of data collected from meetings with stakeholders such as Ward Councillors. Various data verification meetings with key stakeholders and various experts from the project team. 	<ul style="list-style-type: none"> • Updated I&AP Register, see Annexure 11.2-1. • Preliminary engagement discussions/minutes, see Annexure 11.2-3.
<p>2. Notification of stakeholders and IAPs. 2.1. Compilation of Background Information Document (BID). 2.2. Development of adverts site notices and notification letter. 2.3. Distribution of BID and notifying stakeholders about adverts output date</p>	<ul style="list-style-type: none"> • To ensure that I&APs are informed about the project; • Give stakeholders and I&APs an opportunity to liaise any concerns, or suggest solutions they might have in relation to the proposed project; • To ensure stakeholders are notified and broader geographic representation of stakeholders is reached; • To distribute the technical BID and leaflet; • To ensure that I&APs receive a notification email; and • Hold focus group meetings and a public meeting. 	<ul style="list-style-type: none"> • Confirmation of the local newspaper – as published Witbank News as distributed on 16 November 2018. • Check with newspaper for their geographic distribution boundaries; • Send advert to newspaper • Send notification and information sharing documents to key stakeholders • Engaged the Ward Councillor. 	<ul style="list-style-type: none"> • BID, see Annexure 11.2-2. • Meeting minutes/outcomes, see Annexure 11.2-3. • Notification letter, see Annexure 11.2-4. • On 21 November 2018, notification letters were sent to the key stakeholders to introduce the proposed development and

Activity/ Tasks (What will be done)	Objectives (Why)	Execution Plan (How)	Deliverables
and sourcing and organising meetings.			invite the respective I&AP's database. <ul style="list-style-type: none"> • Copy of the published advert, see <i>Annexure 11.2-5</i>. • Posted site notice, see <i>Annexure 11.2-8</i>. • Updated I&AP Register, see <i>Annexure 11.2-1</i>.
3. Stakeholder engagement <ul style="list-style-type: none"> • The information to be collected during stakeholder profiling will be used to determine the best engagement strategies. The literacy levels and circumstances that could hinder effective participation was noted during these stages. 	The main objectives of the stakeholder engagement will be as follows: <ul style="list-style-type: none"> • To inform stakeholder authorities about the proposed project; • To clarify legislative and administrative requirements; • To gather issues and concerns regarding the project and ensure that they are addressed in the Basic Assessment Report; • To facilitate, review and inform input into the Basic Assessment Report; and • To conduct meetings and facilitate presentations of the project to the stakeholders and IAPs. 	The strategy for stakeholder engagement was conducted as follows: <ul style="list-style-type: none"> • Engagement meetings were conducted to gather data from stake holders: • A meeting with Ward Councillor representative on 19 February 2019 • A pre-consultation meeting was held with DWS on 04 March 2019 • A pre-application meeting was held, with DARDLEA on 07 March 2019 • Public meetings will be held with stakeholders and IAPs in Ogies on a date to be confirmed. • A meeting is also being scheduled with SAHRA so that the organisation might verify the heritage status of the area 	<ul style="list-style-type: none"> • Submitted written issues and concerns, see <i>Annexure 11.2-7</i>. • Notification letter and email, see <i>Annexure 11.2-4</i>. • Presentations held during meetings. • Agendas of meetings.
4. Telephonic engagements to solicit data also done in isiZulu when necessary by the dedicated facilitator.	<ul style="list-style-type: none"> • To compile the minutes of the meetings; • To ensure incorporation of issues in the Basic Assessment Report; and • To facilitate compilation of issues and Response Report. 	<ul style="list-style-type: none"> • The meeting organisation entailed telephonic communication to organise meetings, sending emails and meeting requests to confirm the dates and confirmation of meetings and circulation of proposed agenda. 	

Activity/ Tasks (What will be done)	Objectives (Why)	Execution Plan (How)	Deliverables
5. Collation and consolidating of issues raised during the IAP engagement and Public Participation Process.	<ul style="list-style-type: none"> To identify and record all the details relevant stakeholder details; To receive and respond to issues raised by interested and affected parties; Capture analysed data; and To analyse data received from IAP engagement. 	<ul style="list-style-type: none"> The identified Ward Councillors were preliminary notified about the project via telephone communication which was subsequently followed by an invitation and attendance to a site meeting conducted on 19 February. The ward telephonic contact and subsequent councillor were engaged with regarding the language of communication other than English and IsiZulu was suggested as the language of communication that can be used. Site notices will be translated to the main language, IsiZulu and will be erected at strategic points to be identified. Issues raised will be collated and the communications and responses will be captured in the issues and response report The process followed during the public participation will be recorded and recorded in the comments and response report. Update IAP register with relevant IAPs. 	<ul style="list-style-type: none"> Issues and Response Report, see <i>Table 11.5-1 in this report</i> Complete I&AP register, see <i>Annexure 11.2-1.</i> BAR Annexure with details and proof of the undertaken public participation process, kindly see all above-mentioned supporting documents referenced as Appendices.

11.5.3 Identification of I&AP's and establishment of database

The activities pertaining to the identification of the I&AP's and adjacent landowners/occupants as identified in Table 11.5-2 are detailed below.

Table 11.5-2: Activities undertaken

Site	I&AP Identification	Date	Challenges
Arbor Railway Siding (Southern Side)	WinDeed Search	October 2018	<ul style="list-style-type: none"> The limited property details regarding the full property description of the bridges. The political climate.
	On site identification of I&AP (walking and driving door-to-door)	15 and 29 November 2018	<ul style="list-style-type: none"> Getting a hold of residents due to the hours in which the site identification was conducted. Getting a hold of the household representative. Language.
	I&AP's referrals	15 and 29 November 2018	<ul style="list-style-type: none"> Getting a hold of a variety of participants contrary to being directed by the preliminarily registered I&AP's/ Bias.
	I&AP's registration	15 and 29 November 2018	<ul style="list-style-type: none"> Not reaching all the I&AP's as a result to further property layout and subdivision.

11.5.4 Meetings

The details of the held meetings; focus group meetings and public meetings are provided in Table 11.5-3.

Table 9.2-3: Meeting details

Meeting No.	Description	Date	Location
1	Informal Focus Group Meeting: Principal	15 November 2018	Arbor Primary School
2	Focus Group Meeting: Ward Councillor	15 November 2018	Local Municipal Offices
3	Public Meeting	23 January 2019	Arbor Primary School
4	Focus Group Meeting: Chief Simon Mahlangu	23 January 2019	Arbor Railway Siding
5	Focus Group Meeting: Adjacent Landowner – Ntshovelo (Mbuyelo Coal) and Truter	25 February 2019	Arbor Railway Siding

11.6 A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them.

The details of the raised issues, comments and concerns are detailed in Table 11.6-1, the input has been collated from the respective site visits, focus group meetings, reply slips and will further

be incorporated from the draft BAR, the planned public meeting and additional focus group meetings.

Table 11.6-1: Issues and Comments Received

No.	Issue/Comment	Raised by	Response	Received by	Section Addressed in BAR
1.1	The environmental issues of flooding and silt build up needs to be addressed.	By interested and affected parties (I&AP's) that had an encounter the project team on site; 19 February 2019.	The comments have been noted.	During a Focus Group Meeting/Site Visit held on 19 February 2019.	Table 12.5-2, Table 12.5-3 and Table 12.5-4 and Annexure 16.2-1.
1.2	How does Gijjima decide to involve us at Phase 2 of the development and not at Phase 1?	Ms Dudu Manyisa	All comments and questions were expressed then recorded to allow for an answer session, however a consensus was reached to leave the meeting until the expressed reoccurring issues are addressed.	During a Public Meeting held on 23 January 2019.	Table 12.5-2, Table 12.5-3, Annexure 11.1-2 (c).
2.1	What about the tombstones located close to the Transnet house	Chief Mahtlangu	This issue has been addressed in the Heritage Study and will further include engagement with the South African Heritage Resource Agency (SAHRA).	During a Focus Group Meeting held on 23 January 2019.	Table 12.5-2, Table 12.5-3, Table 12.5-4, Section 16.2-2 and Annexure 16.2-2.
2.2	Stays very close to the Siding and his main concern is the dust, particularly coal dust. He is further concerned about the proximity of the planned activities to his residence, especially the additional trucks to be brought in will mean increase in dust and noise.	Ward Councillor Oupa Masilela	The comment will be addressed	During a Focus Group Meeting held on 15 November 2018.	Section 7.9, Table 11.6-2, Table 12.5-2, Table 12.5-3, Table 12.5-4 and Section 16.1
2.3	Will Gijjima be bring in more trucks? As is, there are strongly failing at controlling traffic and accidents are high. In addition, some of the key aspects where they are failing us as a community includes dust suppression, employment of locals, local development, the tombstones which are on site, the site clearance which they had no legal obligation to conduct; by this token Gijjima does cannot manage their current operation therefore, no need for the extension.	Mr Mandisa	All comments and questions were expressed then recorded to allow for an answer session, however a consensus was reached to leave the meeting until the expressed reoccurring issues are addressed.	During a Public Meeting held on 23 January 2019.	Section 12, Table 12.5-2, Table 12.5-3; Section 16.2-2.

No.	Issue/Comment	Raised by	Response	Received by	Section Addressed in BAR
3.1	<p>We have had consultation before, however, these EAP's fail us by not coming back and reporting on their deliverables. As such, this process is futile as we do not benefit anything but receive a lot of empty promises.</p>	Mr Andries Nkosi	All comments and questions were expressed then recorded to allow for an answer session, however a consensus was reached to leave the meeting until the expressed reoccurring issues are addressed.	During a Public Meeting held on 23 January 2019.	
3.2	<p>Concern with the lack of consultation from Gijima in relation to the commencement of activities on site. Councillor also indicated that from the previous Arbor meetings held, he was commissioned by the Arbor Forum to consult with Gijima on their behalf in order to understand what was happening on site, particularly with the clearing. He indicated that they are aware that there is no work that must commence on site without proper permission or authorisation, and clearing indicates the commencement of work on site.</p>	Ward Councillor Oupa Masilela	The comment will be addressed in the BAR.	During a Focus Group Meeting held on 15 November 2018.	Section 12.5 and Table 12.5.2
3.3	<p>I stay on stand AB12, so I am a direct neighbour to the Arbor Railway Siding. I am highly disappointed in Gijima, more so, I am even more disappointed that there is no representative present today.</p>	Ms Poppy	All comments and questions were expressed then recorded to allow for an answer session, however a consensus was reached to leave the meeting until the expressed reoccurring issues are addressed.	During a Public Meeting held on 23 January 2019.	Section 11 and Annexure 11.1-2 (c).
3.4	<p>In my opinion this meeting must end as Gijima is not present in this meeting. I know what will happen from here on, we as community members will strike, find police on site and then get wounded by the attack. Gijima preliminarily failed us from Phase 1 therefore, nothing at this point will help. We need Benny and Veille present for this meeting to reach its objective. Gijima handled this whole process wrong therefore, they need to come in and account to that.</p>	Mr Mokhonza	All comments and questions were expressed then recorded to allow for an answer session, however a consensus was reached to leave the meeting until the expressed reoccurring issues are addressed.	During a Public Meeting held on 23 January 2019.	Section 11 and Annexure 11.1-2 (c).

No.	Issue/Comment	Raised by	Response	Received by	Section Addressed in BAR
3.5	In a meeting held in August 2018, Vellele himself stated that he had no obligation to engage with community members but with Transnet as the land belong to Transnet. My issue is that the dust and noise impact affect the Arbor Village community members and not Transnet. Vellele from his comments seems like he does not care. Even with employment, he promised jobs but there and training and there are only six (6) locals that are employment by Gijima from Arbor and of the six (6) some are not original residents.	Mr Happy	All comments and questions were expressed then recorded to allow for an answer session, however a consensus was reached to leave the meeting until the expressed reoccurring issues are addressed.	During a Public Meeting held on 23 January 2019.	Section 11 and Annexure 11.1-2 (c).
3.6	Gijima has failed us and have a lot to say to express my dissatisfaction. Furthermore, I do not stand for us signing the register or leaving our contact details as we as the residents of Arbor Village will be left with Gijima and Myezo will not be present to answer our daily issues.	Ms Dudu Manyisa	All comments and questions were expressed then recorded to allow for an answer session, however a consensus was reached to leave the meeting until the expressed reoccurring issues are addressed.	During a Public Meeting held on 23 January 2019.	Section 11 and Annexure 11.1-2 (c).
3.7	Petitioned to not sign the register and not stay in the meeting until Gijima comes to answer their questions.	Mr Andries Nkosi	All comments and questions were expressed then recorded to allow for an answer session, however a consensus was reached to leave the meeting until the expressed reoccurring issues are addressed.	During a Public Meeting held on 23 January 2019.	Section 11 and Annexure 11.1-2 (c).
3.8	Gijima needs to come in and account for their actions.	Mr Mandisa	All comments and questions were expressed then recorded to allow for an answer session, however a consensus was reached to leave the meeting until the expressed reoccurring issues are addressed.	During a Public Meeting held on 23 January 2019.	Section 11 and Annexure 11.1-2 (c).
4.	BID Comments				
4.1	Your e-mail (dated: 26 November 2018) and Background Information Document with regards to the proposed expansion of the Arbor Siding has reference.	Riana J. van Rensburg – Adi Environmental	Thank you for your comments. We have noted them and they will be addressed in the basic assessment report.	11 December 2019	Table 12.5-2, Table 12.5-3 Figure. 12.6.1 Refer to emails received and response sent.

No.	Issue/Comment	Raised by	Response	Received by	Section Addressed in BAR
	<p>As previously indicated, Adil Environmental cc is currently busy with an Environmental Impact Assessment with regards to the establishment of the Arbor Rural Village to be located on a portion of Portion 5 of the farm Vlakvarkfontein 213 IR and a portion of the Remaining Extent of Van Dykspuit 214 IR, Delmas.</p> <p>This project entails the formalization of the existing Arbor Village and the provision of new residential, business and community stands. The project applicant is Victor Khanye Local Municipality.</p> <p>Potential impacts (e.g. dust, noise, etc.) as a result of the coal loading and stockpiling activities at Arbor Siding on this residential area must be identified and mitigation measures proposed to reduce these impacts.</p> <p>We recommend that the Arbor Village leadership be consulted as part of your process, namely Councilor Oupa Masilela, Chief Simon Mahlangu, Arbor Forum, Arbor Steering Committee and Arbor Trading Association.</p> <p>Also take note of the following: From the figures provided it appears as if the proposed expansion project would extend onto the Remaining Extent of Van Dykspuit 214 IR (registered to Truter Boerdery Trust) that forms part of the proposed rural village development. This potential impact would have to be investigated as part of your Basic Assessment.</p>		<p>We will do follow-up with the stakeholders you mentioned a well. A meeting was also held with the Councilor.</p>		

No.	Issue/Comment	Raised by	Response	Received by	Section Addressed in BAR
5. General	Further comment to be provided upon review of the Draft Basic Assessment Report and Water Use Licence application.				
5.1	Thanked Gijima for arranging the meeting as he has stayed in the Arbor Community for years, prior to the establishment of the Siding	Chief Mahlangu Simon	The comment was well received and noted.	During a Focus Group Meeting held on 23 January 2019.	Section 11 and Annexure 11.1-2 (d)
5.2	Tried several times after contacting Mr Benny with no success to request a meeting with Mr Velile Ramphele in order for him to understand the process of the activities undertaken on site particularly with the clearing done. Consultation and communication is key and as a business and provider of employment to the Arbor village community members there must be constant communication.	Ward Councillor Oupa Masilela	This will be curbed by engaging with the developer on the matter.	During a Focus Group Meeting held on 15 November 2018.	Section 11 and Annexure 11.1-2 (a), Table 12.5-2.
5.3	I stay on stand AB12, so I am a direct neighbour to the Arbor Railway Siding. I am highly disappointed in Gijima, moreso, I am even more disappointed that there is no representative present today.	Ms Poppy	All comments and questions were expressed then recorded to allow for an answer session, however a consensus was reached to leave the meeting until the expressed reoccurring issues are addressed.	During a Public Meeting held on 23 January 2019.	Table 12.5-2 and Annexure 11.1-2 (c).
6. Request and Registration	Requested the existing Environmental Management Programme report (EMPr) for the Northern Side.	Riana J. van Rensburg	The request was attended to by sending an electronic copy of the existing EMPr.	Sent an email on 12 November 2018.	-
6.1	As bona fide residence of Arbor Farm, I hereby request to be registered as directly interested and affected person, for the above-mentioned licencing prospecting. I would highly appreciate if the communication of this fashion will meet your favourable consideration.	Thembinkosi Simon Skhosana	Thank you for your registration as an interested and affected party. You will receive further communication.	Sent an email on 01 December 2018.	See IAPR.
6.2					

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- **Volume 2 of 3 – EMPr**
- **Volume 3 of 3 – Specialist Reports**

- **Volume 1 of 3 – BAR**

Annexure 1.3-1: The copy of the commitment from Eskom in relation to the envisaged monthly tonnage.

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Annexure 1.1-1: EAP CV

Annexure 1.1-2: Company profile

Annexure 1.1-3: Copy of commitment from ESKOM

Annexure 1.1-4: Communique in relation to the lease agreement for Southern Side

Annexure 1.1-5: EMPr Environmental authorisation

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Annexure 16.2-1: Water Management Plan for the proposed increase in scope activities

Annexure 16.2-2: Integrated Water and Waste Management Plan (IWWMP)

Annexure 16.2-3: Rehabilitation Strategy Implementation Programme

Annexure 16.2-4: Soil Chemistry Report

Annexure 16.2-5: Heritage Specialist Report

Annexure 16.2-6: Biodiversity Management Plan

Annexure 16.2-7: Stockpile Coal Handling Capacity Report

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Thuli Hlatshwayo
Senior Manager, Sales: (coal)
Transnet Freight Rail
138 Eloff Street Building
Johannesburg
2000

Dear Thuli

PLANNED RAIL TONNAGES THROUGH ARBOR RAIL SIDING

In support of the rail strategy, Eskom commits to transport 220kt of coal per month through the Arbor rail siding. This commitment is based on the mines that Eskom has contracted which are close to this siding resulting in the lower road logistic costs of moving coal from the mine to the rail siding. The contract period with these mines is 4 years, with the potential of being reviewed and extended.

Yours sincerely

Mzimkulu Fatyi

.....
MANAGER: RAIL LOGISTICS

Date: 18/07/2016

Annexure 1.4-1: An application for the expansion of the lease area to Transnet Freight Rail (TFR) has been submitted by Gijima and a recent communique in relation to the progress of the application

Gijima Supply Chain Management Services (Pty) Ltd
Reg. No: 2001/015676/07

Arbor Siding
Portion 1 of Farm Vandykspuit
R555
26° 2' 19.78"S
28° 52' 51.23"E

Suite 345
Private bag X1 : mobile: 082 550 6536 or 082 561 7

Northcliff : www.gijimasupplychains.co.za
2115 : Fax2email. 0866 11 8181



Mr. D Ramokone
TRANSNET FREIGHT RAIL

Date: 15 March 2017

For attention: Lease Governing Council

Dear Sir,

GIJIMA : LEASE APPLICATION: ARBOR – SOUTHERN SIDE (AREA DWX1469J & DWX1471J)

Since our initial submission and application for development of the Southern Side of Arbor siding in August 2012, various engagements with Transnet representatives (Me. N Mosebo / Mr. I Munzhelele / Me. T Hlatshwayo / Mr. D Ramokone – all the aforementioned with regards to the lease application) took place. Gijima herewith, again submits our application attached for your urgent approval please.

Our application highlights the following:

1. Gijima has successfully delivered more than 4million tons between 2013-2016.
2. Gijima has successfully renegotiated our contract with Eskom which provides for 198 000 tons per month for the next 4 years = 9,5 million tons over 4 years.
3. Unfortunately due to Arbor constraints and the delay in our application, as well as our request to extent the current loading line, both our Organisations are being withheld to capitalize on the potential value of this contract. To compound this, Gijima has to decline business growth opportunities for Majuba trains and Export

Directors: V C Ramphele (Chairman), J P Cronje (Managing Director)

Gijima Supply Chain Management Services (Pty) Ltd
Reg. No: 2001/015676/07

Arbor Siding
Portion 1 of Farm Vandyksput
R555
26° 2' 19.78"S
28° 52' 51.23"E

Suite 345
Private bag X1 : mobile: 082 550 6536 or 082 561 7700

Northcliff : www.gijimasupplychains.co.za +27 11 658 1332
2115 : Fax2email. 0866 11 8181

trains, in a time that the commodity price is busy recovering and demand for coal is increasing.

4. Gijima has presented our needs to increase coal volumes by Rail on numerous occasions the last number of years, hence our need to expand our operations at Arbor.
5. In order for Gijima to load our contractual 198 000 tons a month for Eskom, we need 3 trains a day. Our interaction with Eskom also indicates that Arbor siding can increase its volumes to 220 000 tons per month. Eskom's letter sent to Transnet dated 18 July 2016, confirming the throughput, is attached for ease of reference.

In order to fulfill our obligations we request that our Lease application for the Southern side be approved, as a matter of urgency. This will also enable Gijima and TFR to attract new export business from this Terminal.

We are looking forward to grow the rail volumes in the best interest of all stakeholders.

Kind regards

ELECTRONICALLY SIGNED: VELILE RAMPHELE
VELILE RAMPHELE
EXECUTIVE CHAIRMAN

Annexure 1.5-1: Water Use Licence (WUL) on the 8 December 2015 (Licence No. 04/B20F/G/4009)



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

MPUMALANGA

Private Bag X11259, Nelspruit, 1200. Prorom Building, Cnr Brown & Paul Kruger Street

Eng: AM Rambuda

E-mail: Rambudaa@dwa.gov.za

Tei: 013 932 2061

Fax: 013 932 2071

Ref : 27/2/2/B620/12/9

P. O. Box 71486
Bryanston East
2012

ATTENTION: Mr. Velile Ramphela

RE: GJIMA SUPPLY CHAIN MANAGEMENT SERVICES (PTY) LTD

I acknowledge the receipt of the above mentioned water use licence.

Manager Or representative

Signature 

Name (Print) Velile Ramphela

Designation Executive Chairman

Date: 06-01-2016

Provincial Office representative

Signature 

Name (Print) ADV. H. H. RAMBUDA

Designation EO

Date: 6/01/2016

Please do not hesitate to contact the Department's Provincial Office should you have any queries.



water & sanitation

Department
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Private Bag X313, Pretoria, 0001, Sedibeng Building, 185 Francis Baard Street, Pretoria,
Tel: (012) 336-7500, Fax: (012) 325-4472/ (012) 326-2715

**LICENCE IN TERMS OF CHAPTER 4 OF THE
NATIONAL WATER ACT, 1998 (ACT NO 36 OF 1998) (THE ACT)**

I, *Margaret-Ann Diedericks* in the Department of Water and Sanitation acting under authority of the powers delegated to me by the Minister of Water and Sanitation, hereby authorise the following water uses in respect of this licence.

SIGNED: 

DATE: 18 DECEMBER 2015

LICENCE NO: 04/B20F/G/4009

FILE NO: 27/2/2/B620/12/9

1. Licensee: **Gijima Supply Chain Management Services (Pty) Ltd**
Postal Address: **P.O. Box 71486
Bryanston East
2021.**

2. **Water uses**

2.1 Section 21 (a) of the Act: Taking of water from a water resource Appendices I and II

2.2 Section 21(g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource, subject to the conditions as set out in Appendices I and III.

3. **Properties and owners in respect of which this licence is issued**

Table 1: Property and Land Owners

Property detail	Title deed property owner
Portion 1 of the farm Van Dyksput 214 IR.	Transnet Freight Rail

B 06643

4. Licence and Review Period

This licence is valid for a period of twenty (20) years from the date of issuance and may be reviewed every five (5) years after issuance.

5. Definitions

"Any terms, words and expressions as defined in the National Water Act, 1998 (Act 36 of 1998) shall bear the same meaning when used in this licence".

"Provincial Head" means the Provincial Chief Director: Mpumalanga: Department of Water and Sanitation, Private Bag X11259, NELSPRUIT, 1200

"Report" refers to the report entitled: Integrated Water and Waste Management Plan for Gijima Supply Chain Management Services prepared by Letsolo Water and Environmental Services cc

6. Brief description of the activity

The Licensee, Gijima Supply Management Services (Pty) Ltd is authorised for section 21 (a) and (j) water uses associated with operating arbor siding. They are leasing the property from Transnet Freight Rail. This property falls within Water Management Area 4 (Olifants Water Management Area), in the quaternary catchment B20F.



APPENDIX I

General conditions for the licence

1. This licence is subject to all applicable provisions of the National Water Act, 1998 (Act 36 of 1998).
2. The responsibility for complying with the provisions of the licence is vested in the Licensee and not any other person or body.
3. The Licensee must immediately inform the Responsible Authority of any change of name, address, premises and/or legal status.
4. If the property/ies in respect of which this licence is issued is subdivided or consolidated, the Licensee must provide full details of all changes in respect of the properties to the Responsible Authority within 60 days of the said change taking place.
5. If a Water User Association is established in the area to manage the resource, membership of the Licensee to the Association is compulsory. Rules, regulations and water management stipulation of such association must be adhered to.
6. The Licensee shall be responsible for any water use charges and/or levies imposed by a Responsible Authority.
7. While effect must be given to the Reserve as determined in terms of the Act, where a lower confidence determination of the Reserve has been used in issuance of this licence, the licence conditions may be amended should a higher confidence reserve be conducted.
8. When compulsory licensing is implemented for the water resource in respect of which this licence was issued, the water use authorized in this licence may be subject to appropriate conditions on quantity and quality.
9. The licence shall not be construed as exempting the Licensee from compliance with the provisions of any other applicable Act, Ordinance, Regulation or By-law.
10. The licence and amendment of this licence are also subject to all the applicable procedural requirements and other provisions of the Act, as amended from time to time.
11. The Licensee shall conduct an annual internal audit on compliance with the conditions of this licence. A report on the audit shall be submitted to the Responsible Authority within one month of the finalization of the audit.
12. The Licensee shall appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. Both these audits may be subjected to external audit.
13. Any incident that causes or may cause water pollution must be reported to the Responsible Authority or a designated representative within 24 hours.



14. If the water use described in this licence is not exercised within 3 years of the date of the licence, the authorization will be withdrawn. Upon commencement of the water use, the Licensee must inform the relevant authority in writing.
15. Notices prohibiting unauthorized persons from entering water use premises must be displayed.
16. The Department accepts no liability for any damage, loss or inconvenience, of whatever nature, suffered as a result of / amongst other things.
 - 16.1 Shortage of water;
 - 16.2 Inundation of flood;
 - 16.3 Any *force majeure* event;
 - 16.4 Siltation of the river or dam basin; and
 - 16.5 Required Reserve releases.
17. The Licensee shall establish and implements a continual process of raising awareness amongst itself and its workers and stakeholders with respect to water conservation and water demand management initiatives.

APPENDIX IV

Section 21(g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource

1. CONSTRUCTION AND OPERATION

1.1 The Licensee shall carry out and complete all the activities, including the construction and operation of the Pollution Control Dam according to the Report and according to the final plans Technical Design Report as approved by the Provincial Head.

Table 2: Summary of water uses applied for

Name of disposal facility:	Disposal quantity (m3/annum)/ tonnages	Type of waste to be disposed and source	GPS coordinate, centre point	Property description
Dust Suppression with water emanating from the PCD	14432	Contaminated water	26°02'21" S 28°52'54" E	Portion 1 of Van Dyksput farm 214 IR
Pollution Control Dam which collects surface water run-off from the dirty area of the project	14432	Contaminated water	26°2'24"S 28°53'5"E	Portion 1 of Van Dyksput farm 214 IR
Coal Stock Piles	N/A. 5000 000 tons	Coal Storage	26°3'24" S 28°53'5" E	Portion 1 of Van Dyksput farm 214 IR

1.2 The construction of the Pollution Control Dam must be carried out under the supervision of a professional Civil Engineer, registered under the Engineering Profession of South Africa Act, 1990 (Act 114 of 1990), as approved by the designer.

1.3 Within 30 days after the completion of the activities referred here in accordance with the relevant provisions of this licence, the Licensee shall in writing, under reference, , inform the Provincial Head thereof. This shall be accompanied by a signature of approval from the designer referred to above that the construction was done according to the design plans referred to in the Report.

1.4 The Licensee shall as well submit a set of as-built drawings to the Provincial Head after the completion of the Pollution Control Dam.



1.5 The Pollution Control Dam shall be operated and maintained to have a minimum freeboard of 0.8 metres above full supply level and all other water systems related thereto shall be operated in such a manner that it is at all times capable of handling the 1:50 year flood-event on top of its mean operating level.

1.6 The Licensee shall use acknowledged methods for sampling and the date, time and sampler must be indicated for each sample.

1.7 Flow metering devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than once in two years. Calibration certificates shall be available for inspection by the Provincial Head or his representative upon request.

1.8

2. DUST SUPPRESSION

3.1 This Licence authorises the use of fourteen thousand four hundred and thirty two (14 432 m³) of wastewater per annum from the pollution control dam for dust suppression on Portion 1 of Van Dyksput farm 214 IR.

3.2 No excessive dust suppression that leads to saturated conditions and no dust suppression during wet periods.

3.3 An annual soil chemistry map must be compiled and submitted, with a report, to the Provincial Head. The soil chemistry map shall cover the areas covered by the dust suppression and map concentrations of pH, Electrical Conductivity and Sodium. This map must be interpreted by a professional soil scientist and recommendations and conclusions must be included in a report.

4. QUALITY OF WASTE WATER TO BE DISPOSED OF THE WASTE WASTER CONTAINMENT FACILITY

The quality of wastewater disposed of on the waste water containment facility shall not exceed the following limits as specified in Tables 5 below:

Table 5: Wastewater qualities to be disposed of the waste water containment facility

Variables	Measurement	Quality
pH	pH	5.0-9.5
Electircal Conductivity	mS/m	<150
Calcium	mg/L	-

Variables	Measurement	Quality
Magnesium	mg/L	50.6
Sodium	mg/L	59.9
Chloride	mg/L	38.6
Sulphate	mg/L	400
Nitrate	mg/L	3
Fluoride	mg/L	0.44

5. MONITORING

5.1 Monitoring of waste water

5.1.1 The Licensee shall monitor the water quality of the treated water continuously with online water quality monitoring of the key variables as indicated in Table 7

5.2 Surface Water Quality

5.2.1 The Licensee shall submit within one month of the date of the issuance of the licence, a surface water quality monitoring programme, with the GPS co-ordinates and the criteria used in the selection of the water monitoring points.

5.2.2 The location of additional monitoring points, which may from time to time be specified by the Provincial Head, shall be communicated in writing to the Licensee and this communication shall be regarded as part of the licence.

5.2.3 Monitoring for quality shall only be carried out at the monitoring points listed below:

5.2.4 The following variables (constituents) shall be included in the surface monitoring programme

pH	
Electrical Conductivity (EC)	mS/m
Chlorides (Cl)	mg/l
Sulphates (So4)	mg/l
Fluoride (F)	mg/l
Sodium (Na)	mg/l
Potassium (K)	mg/l
Calcium (Ca)	mg/l
Magnesium (Mg)	mg/l
Aluminium (Al)	mg/l
Iron (Fe)	mg/l



Manganese (Mn)	mg/l
Nitrate (NO ₂)	mg/l
Iron (Fe)	mg/l
Total dissolved solids (TDS)	mg/l
Total hardness	mg/l

5.3 Groundwater Quality

- 5.3.1 The Licensee shall submit within one month of the date of the issuance of this licence, a ground water quality monitoring programme which must provide the detailed criteria followed in the establishment of the groundwater monitoring point.

6. STORM WATER MANAGEMENT

- 6.1 Storm water leaving the Licensee's premises shall in no way be contaminated by any substance, whether such substance is a solid, liquid, vapour or gas or a combination thereof which is produced, used, stored, dumped or spilled on the premises.
- 6.2 Increase runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that storm water does not lead to bank instability and excessive levels of silt entering the stream.
- 6.3 Storm water shall be diverted from the site and roads and shall be managed in such a manner as to disperse runoff and concentrating the storm-water flow.
- 6.4 Where necessary works must be constructed to attenuate the velocity of any storm-water discharge and to protect the banks of the affected watercourses.
- 6.5 Storm water control works must be constructed, operated and maintained in a sustainable manner throughout the impacted area.
- 7.6 Increased runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that storm water does not lead to bank instability and excessive levels of silt entering the streams.
- 7.7 All storm water that would naturally run across the pollution areas shall be diverted via channels and trapezoidal drains designed to contain the 1:50 year flood.
- 6.7 The polluted storm water system shall be designed and implemented to provide suitable routing and pumping capacity for contaminated storm water from the

individual facilities to the respective storm water dams in accordance with the design specifications as contained in the Technical Design Report.

7. ACCESS CONTROL

- 7.1 Strict access procedures must be followed in order to gain access to the property. Access to the Pollution Control Dam must be limited to authorised employees of the Licensee and their Contractors only.
- 7.2 Notices prohibiting unauthorised persons from entering the areas referred to in condition 2.1 of Appendix III, as well as internationally acceptable signs indicating the risks involved in case of an unauthorised entry must be displayed along the boundary fence of these areas.
- 7.3 The Licensee must take all reasonable steps to maintain service roads in a condition which ensures unimpeded access to the siding residue facility for vehicles involved in closure
- 7.4 The Licensee must ensure that all entrance gates are manned during the hours of operation/closure construction and locked outside the hours of operational/closure construction.

8. CONTINGENCIES

- 8.1 Accurate and up-to-date records shall be kept of all system malfunctions resulting in non-compliance with the requirements of this licence. The records shall be available for inspection by the Provincial Head upon request. Such malfunctions shall be tabulated under the following headings with a full explanation of all the contributory circumstances:
- 8.1.1 operating errors;
 - 8.1.2 mechanical failures (including design, installation or maintenance);
 - 8.1.3 environmental factors (e.g. flood);
 - 8.1.4 loss of supply services (e.g. power failure); and
 - 8.1.5 other causes.
- 8.2 The Licensee must, within 24 hours, notify the Provincial Head of the occurrence or potential occurrence of any incident which has the potential to cause, or has caused water pollution, pollution of the environment, health risks or which is a contravention of the licence conditions.

8.3 The Licensee must, within 14 days, or a shorter period of time, as specified by the Provincial Head, from the occurrence or detection of any incident referred above, submit an action plan, which must include a detailed time schedule, to the satisfaction of the Provincial Head of measures taken to:-

- 8.3.1 correct the impacts resulting from the incident;
- 8.3.2 prevent the incident from causing any further impacts; and
- 8.3.3 prevent a recurrence of a similar incident.

9. REPORTING

9.1 The Licensee shall update the water balance annually and calculate the loads of waste emanating from the activities. The Licensee shall determine the contribution of their activities to the mass balance for the water resource and must furthermore co-operate with other water users in the catchment to determine the mass balance for the water resource reserve compliance point.

9.2 The Licensee shall submit the results of analysis for the monitoring requirements to the Provincial Head on a quarterly basis under Reference number 27/2/1/B620/107/1

10. AUDITING

10.1 The Licensee shall conduct an annual internal audit on compliance with the conditions of this licence. A report on the audit shall be submitted to the Provincial Head within one month of finalisation of the report, and shall be made available to an external auditor should the need arise.

10.2 The Licensee shall appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted within 3 (three) months of the date this licence was issued and a report on the audit shall be submitted to the Provincial Head within one month of finalisation of the report.

11. INTEGRATED WATER AND WASTE MANAGEMENT

11.1 The Licensee must prepare an *Integrated Water and Waste Management Plan (IWWMP)*, which must together with the *Rehabilitation Strategy and Implementation Programme (RSIP)*, be submitted to the Provincial Head for approval within one (1) year from the date of issuance of this licence.

11.2 The IWWMP shall thereafter be updated and submitted to the Provincial Head for approval, annually.

- 11.3 The Licensee must, at least 180 days prior to the intended closure of any facility, or any portion thereof, notify the Provincial Head of such intention and submit any final amendments to the WWMP and RSIP as well as a final *Closure Plan*, for approval.
- 11.4 The Licensee shall make full financial provision for all investigations, designs, construction, operation and maintenance for a water treatment plant should it become a requirement as a long-term water management strategy.

[END OF LICENCE]



Annexure 2.1-1: EAP CV

SACNASP

South African Council for Natural Scientific Professions

herewith certifies that

Babalwa Atalanta Fatyi

Registration number: 400123/01

is registered as a

Professional Natural Scientist

in terms of section 20(3) of the Natural Scientific Professions Act, 2003
(Act 27 of 2003)

in the following field(s) of practice (Schedule 1 of the Act)

Botanical Science

Effective 15 November 2001

Expires 31 March 2020



Botha

President

R. J. ...

Executive Director

CURRICULUM VITAE
OF
BABALWA ATALANTA FATYI

Short Profile

Babalwa Atalanta Fatyi

Founder and Managing Director of Myezo Environmental Management Services (Pty) Ltd, an Environmental Consulting Company, that provides a range of environmental services, cutting across various sectors and specialising in the mining sector.

Babalwa is a:

- Registered Professional Natural Scientist with Master of Science (Cum Laude) (1999) (Registration No. 400123/01).
- Registered Environmental auditor: Institute of Environmental Management and Assessment (IEMA), Lincoln, UK. (Registration No.0025153)
- Associate Member: Land Rehabilitation Society of Southern Africa (LaRSSA) (Registration No. 91430)
- Received a SA Association for Advancement of Science Award or an outstanding MSc degree in the Faculty of Science, 1999.
- Business Women Association: Finalist for Regional Achiever Awards, 2007.
- Celebrating Excellence in Organizations Global: Africa's Most Influential Women Awards (Arts and Culture Sector 2015) and Professional Service (2016).
- Author of Greetings from My Core and When Mulberry Trees are Uprooted- Poetry books.
- Published in Journals such as South African Journal of Botany and Journal of Arid Environments, amongst others.
- Woman Entrepreneur of the Year for the Tshwane Business Awards, 2016.
- CEO Global Professional Services Award of 2017.

Academic Qualifications

- Master of Science - Wits University (Cum Laude), 1999
- Bachelor of Science Honours (Botany) - Wits University, 1997
- Bachelor of Science - University of Transkei, 1996

Babalwa has environmental consulting experience, having worked for a consulting company, SRK Consulting from 1999 to 2002. She has also worked for a mining company from 2002 to 2005, responsible for overseeing the company's compliance with its environmental obligations and was active in promoting environmental consciousness through all the different mining development phases. Her work experience has allowed her an insight with respect to sector specific environmental requirements ranging from authorizations, implementation and monitoring. She is thus still active in promoting environmental stewardship, through utilisation of a series of integrated environmental management tools, for attainment of long lasting and meaningful economic prosperity. She is experience in undertaking sustainability project using integrated environmental management tools such as environmental impact assessment and is a registered environmental auditor for compliance and monitoring stages of developments. She subscribes to the forward thinking of keeping resources in use for as long as possible, extracting the maximum value from them whilst in use, and then recovering and regenerating used products and materials at the end of each service life of these products and materials.

Babalwa has contributed to the redesign of the University curriculum regarding sustainability courses, which she did as part of her partnership with Cape Town University of Technology and City of Tshwane Universities, in their Integrated Workplace Learning Programme.

The contribution in the curriculum includes assessment of the current industry requirements and comparing those with what learners are being exposed to at school and providing areas of improvements or new courses that are required to achieve United Nations Sustainable Development Goals by have learners and industry who are focusing on the fields that will ensure achievement of the world wide targets.

As a South African female business owner and entrepreneur, she is determined to be a voice of consciousness, an instrument of change in the manner in which development and environmental matters are handled. She sees her poetry as a conduit through which, all the information that has been imparted unto her through various spheres of association, schooling and by unsung heroic mentors, can be released unto others and be utilized in collaborative thought processes and contribute in decision making for the betterment of our country.

PERSONAL DETAILS

Name Babalwa Atalanta Fatyi (South African)

ID Number: 7212252528082

Postal address: Postnet Suite B165, Private Bag X18, Lynnwood Ridge, 0040

Tel: (012) 998-7642 **Cell:** 082 772 2418

Fax: (012) 998-7641

Website: babalwaonline.co.za

WORK EXPERIENCE

2005 – to date

Myezo Environmental Management Services (Founder and Director)

- Environmental management programmes
- Environmental impact assessments
- Environmental auditing
- Public consultation
- Water licence use

2003 – 2005

Trans Hex Operation (Pty) Ltd

Environmental Management Co-ordinator with activities including:

- Development of legal registers
- Water Use Licence applications
- Environmental Auditing (internal audits)
- Environmental management programmes
- Implementation of various statutes for both land and marine operations
- Implementation of environmental management plans
- Rehabilitation and closure plans
- Development of waste management plans
- Stake holder involvement
- Environmental awareness and competence training

1999 – 2003

SRK Consulting - Environmental Department. Activities include:

- Environmental impact assessments
- Public/stakeholder consultation
- Environmental management programme reports
- Environmental training
- Environmental auditing
- Environmental management systems
- Project co-ordination and management

A list of projects undertaken to date is provided in Page 9.

1996 – 1998

University of the Witwatersrand

- Teaching assistant.
- Participated in Wits Partnership Programme - Teaching biological and physical sciences in high schools.

SKILLS COMPETENCY TRAINING

- Executive preparation programme - Preparation for active participation in the mining industry: Provided by Mining Qualifications Authority in conjunction with University of Johannesburg for a period of six months - 2005.
- Microsoft Project - Basic/Intermediate Course provided by Companion ICT Training – 20 May 2013.
- Safety, Health, Environment and Quality Awareness provided by Hydro Training Academy (Pty) Ltd- 28 January 2014.
- Competence to Perform Basic First Aid provided by Hydro Training Academy (Pty) Ltd- 12 February 2014.
- SHE Representative by Hydro Training Academy (Pty) Ltd-07 March 2014.
- B-BBEE Champions Course by Transcend Corporate Advisors-21-23 January 2014.
- Transition from ISO 14001: 14001:2015 Environmental Management Systems, CEM-03.6b, in North West University.
- Global Mapper advanced on training GIS case studies and examples, advanced data processing, and LIDAR processing, 3D modelling and terrain analysis.

EDUCATION

Junior Secondary

Nggunge Junior Secondary School – Physical Science, Mathematics and Chemistry – Umtata - 1986

High School

Matriculated at St John's College. – Physical Science, Mathematics and Chemistry- Umtata – 1990

Qualifications obtained

- BSc (University of Transkei), 1996
- BSc (Hons) Wits), 1997
- MSc Wits (*Cum Laude*), 1999

Major courses obtained

- Botany
- Zoology

All the above-mentioned courses enhanced my understanding of structure and functioning of ecosystems as well as integrated environmental management and its associated tools such as environmental impact assessment. The research equipped me with thinking and problem-solving skills including drawing well reasoned conclusions from complex data, recognising developing problems and handling them.

OTHER AREAS OF COMPETENCY

Languages

- English: speak, read, write – Excellent
- Xhosa: Speak, read, write – Outstanding
- Zulu: speak; read, write – Good

Environmental legislation

I have acquired skills in environmental legislation interpretation. I have an excellent understanding of legal requirements with respect to various environmental management tools.

Skills acquired

- Project management skills
- Report writing skills
- Colleague liaison skills
- Communication skills
 - Presentation and facilitation skills
 - Stakeholder and regulatory involvement
- Environmental legislation interpretation and application
- Business development skills
- Client partnering skills
- Budget control and monitoring skills
- Statistical analysis (Stats packages: Systat)

Undertaking environmental impact assessments and public consultation within the consulting industry has strengthened my skills in being able to realise the objectives of the clients as well as empower the public so they better understand their environmental rights and opportunities in a particular development situation. Working in various phases of development projects has enhanced my appreciation of the holistic view/approach in project management. In addition, my role within the mining industry has strengthened my expertise with respect to implementation of various programmes.

AWARDS

- Business Women Association: Finalist for Regional Achiever Awards 2007.
- South African Association for Advancement of Science Medal: awarded for an outstanding MSc degree in the Faculty of Science (2000).
- Celebrating Excellence in Organizations Global (CEO): Finalist in Africa's Most Influential Women Awards. Arts and Culture Sector 2015 and Professional Services Sector in 2017
- Women of Wonder Awards (WOW) (2016): One of the recipient for the prestigious Annual Women of Wonder Awards for hard work, perseverance and dedication that has managed to courageously strive to achieve dreams and aspirations and serve as a role model to South Africans.
- First runner up for BBQ Awards (BBQ- October 2016): South Africa's Premier Black Business Awards.
- Nominated for Phenomenal African Woman Awards (PAW – 2016): Women with A Difference.
- Professional Business Woman of South Africa (PBWSA - 2016): Celebrating the Power of Colour/ It's All About You.

- Winner - 2016 Standard Bank Tshwane Business Awards (Women Entrepreneur of the Year).
- Nominated as one of the top 100 Difference Makers in South Africa. And made it to Top 10 South African Difference makers in 2017.
- CEO Global Professional Services Award of 2017.

SOCIO-ECONOMIC CONTRIBUTIONS

- National Research Foundation Mentorship Programme- Mentor for 2017.
- Tsogang Re Direng board of Directors Non-Profit Organisation Director: Advisory and coaching role.
- Vintage Recycling Project Non-Profit Company Director: Strategic Direction Guidance.
- Part of the #FutureFit mentoring programme lead by Hadithi Media which is part of the Global mentoring initiative (Also participated in Global mentoring walk in 2018) and is set up in South Africa with @ikamvayouthsa #Mamelodi. This also incorporates the parents and community as pillars carved to support the mindset that is fit for the future in their kids as they manoeuvre their way in this VUCA (volatile, uncertain, complex and ambiguous) world.
- International Association for Impact Assessment South Africa (IAIAsa): IAIAsa Student Mentorship Programme (ISMP) – Mentor 2018.
- Myezo Growth and Development Institute: Board of Directors -upliftment and empowerment of youth and communities.
- Judging Black Business Quarterly (BBQ) Awards in March 2019 at Emperors Palace.
Contributions to promote the message of environmental stewardship and consciousness, through poetic engagements available on request.

AFFILIATIONS

- International Association of Impact Assessments - South African Affiliate
- The Institute of Directors in Southern Africa - South African Affiliate

PROFESSIONAL REGISTRATION

- Registered in terms of Article 11 of the Natural Scientific Professions Act, 1993 (Act 106 of 1993). Professional title: Pr. Sci.Nat (400123/01).
- Associate Environmental Auditor: Institute of Environmental Management and Assessment (IEMA), Lincoln, UK. (0025153).
- Associate Member: Land Rehabilitation Society of Southern Africa (LaRSSA), (91430)

COMPANY CONTRIBUTIONS

- SRK's Business Development Committee: Represented environment department in discussions on general company marketing initiatives and activities (2001).
- Employment Equity Committee: Review, monitor and make recommendations on SRK's employment policies, procedures and practices as stipulated in the Employment Equity Policy and Plan (2000-2003).
- Visionary (2005-todate)

PUBLICATIONS

B.A Mballo (Fatyi) and E. T. F. Witkowski (1997): Tolerance to soil surface temperatures experienced during and after the passage of fire in seeds of selected savanna woody plant species. *South African Journal of Botany*, 63: 423-425.

N. Mol and **B.A Mballo (Fatyi)** (2001): South African Legislation: A step in the right direction. Presented at the Chamber of Mines Conference on Environmentally Responsible Mining: Conference Proceedings, 2001.

ETF Witkowski and **BA Mballo (Fatyi)** (2002): Interactive effects of post fire cues, soil nitrate and smoke on germination. *Journal of Arid Environments* 38: 541- 550.

B.A Fatyi (2014) *Greetings from my core*. Xlibris. United Kingdom: Greetings from my core is about acknowledgement of our role in the sustainability agenda through all the areas of our lives.

B.A Fatyi (2017) *When Mulberry Trees are Uprooted*. Xlibris. United Kingdom: Self-help poetry book about hope, aspirations and encouragement to be the best we can be.

SPEAKING ENGAGEMENTS

Africa MBA Indaba Conference and Career Fair (Fatyi) (2016): One of the 70 Dynamic speakers at the Africa MBA Indaba Conference and Career Fair under the session *'Women Trailblazers - Hear stories from successful women who have navigated the business world and are breaking down barriers for the next generation of women' (panel)*, which was addressing amongst others the prejudices experienced on my journey, how as women we overcame and continue to overcome, how are we paying it forward for those that will come behind us and the advice that we would say now to our younger self as "Women" Trailblazers.

PASA Global and BMW Best Auto (2015): Ultimate Achievers Seminar where I have performed **The Woman I Have Become** and also spoke on *"How to build a Successful Enterprise"*.

Progressive Women in Golf (2016): Annual fundraising golf day where I have performed poetry

PASA Global and Tenacity TV (2017): Ultimate Achievers Seminar Event was for those with or who have more than a wish list but who have a Goal – what Napoleon Hill called *"A dream with a deadline"* The focus of the event was on wealth creation with a diverse and complementary program to maximise all aspects of business, entrepreneurial and personal development.

Tsongang Re Direng (2017): Fund Raising Event where I was a speaker emphasized the importance of staying true to yourself and authentic personal brand, 15 teenagers were reached and 20 adults.

Naledi Farm (2017): Guest speaker at The Harvest Table on the topic *"Reconnecting with our Authentic Self"*.

IAIAsa (2017): Guest speaker on the topic of *Indigenous knowledge and knowledge management*. Where the highlight was based on the value of honouring our indigenous knowledge and making sure we do not lose it but that we rather bring it into the sustainability agenda.

Prof Segalo on behalf of Tsongang Re Direng (2018): *Fund Raising Event* where I was a speaker and provided a narrative addressing sustainable development goals of education, gender equality and poverty alleviation.

The Liverpool Legends (2018): Presented a Poetic Narrative: *"Empowered and will not be disenfranchised"* with the message of hope brought about by the football stars and Madiba Legacy.

IAP2 in collaboration with IAIAsa (2018): Rendered a presentation on the theme: *"Dynamic and Rapid Changing Nature of Public Consultation and Engagement by Civil Society within the Field of Environmental Management"*

IAP2 (2018): Collaborated with Dim- Dep faces for environmental success doing a stage act and poetic narration of the *"Value of protection of our natural resources"* as part of welcome dinner for international delegates.

Ethekwini Local Municipality (2018) Guest Speaker for topic titled *"Dr Nelson Rolihlahla Mandela the Environmental Champion"* at the Mayoral Reception and Nelson Mandela Lecture ahead of the IAIA18 Conference held at the Moses Mabhida Stadium, Ethekwini Municipality.

IAIA18 (2018a): Guest speaker on the topic of "*Indigenous Knowledge: A Poetic Narrative*". Where the highlight was on information and knowledge, through the opportunity of honouring our indigenous knowledge and incorporating it into the sustainability agenda.

Future Fit Programme with ikamva Youth (2018): Speaker with the theme "*Solutions thinking, design and project management*".

South African Council for Natural Scientific Professions (SACNASP) (2018): Guest speaker where I educated, registered and dispatched "*For such a times as these*", the natural Scientist Tale of heeding the Global trumpet call towards sustainable development/ green economy.

iAiAsa (2018): Guest speaker at a Full Day Conference where I performed a poetic narrative "*Indigenous knowledge*" where the highlight was on information and knowledge through the opportunity of honouring our indigenous knowledge and incorporating it into the sustainability agenda.

Future Fit Programme with ikamva Youth (2018): Speaker with the theme "Reporting effectively for meaningful engagement" where she was coaching some Matric students to compile a report on social researches they have conducted in their communities.

SHORT COURSES (Week)

- **Carbon Tax Workshop.** Hosted by Imbewu Sustainability Legal Specialists – 2019
- **Mine Closure and Recent Case Law Workshop.** Hosted by Imbewu Sustainability Legal Specialists – 2019
- **The Integration of Climate Change Assessments in EIAs.** Hosted by International Association for Impact Assessment South Africa (IAIASa) - 2019
- **Waste Management and Waste-to-Energy: Biogas Basics and Entrepreneurial Opportunities in South Africa,** unlocking business opportunities for women-owned entities with interest to participate in the sector. Hosted by UNIDO in partnership with UN Women - 2018.
- **IAIA18 Annual Conference: 38th Annual Conference** focusing on Environmental Justice in Societies in Transition - 2018.
- **Gauteng Waste Management Forum:** Waste management. Hosted by the Gauteng Department of Agriculture and Rural Development - 2018.
- **Tyre Industry in the Republic of South Africa; Management Plans:** Hosted by the Department of Environmental Affairs (DEA) – 2018.
- **Sustainability Week South Africa:** Conference on the advancement discussion on the Green Economy by creating platforms for African stakeholders from across sectors to share knowledge, thought leadership, experience, and to learn from each other. Hosted by the City of Tshwane - 2017.
- **IAIASa Annual Conference:** 22nd Annual National Conference focusing on inspiring integrated environmental management; crafting innovative solutions to persistent environmental and social problems - 2017.
- **Monitor the Application of Health, Safety and Environmental Protection Procedures:** In accordance to the Occupational Health and Safety (OSH) (Act 85 of 1993); hosted by Hydro Training Academy - 2017
- **iAiAsa Workshop:** City of Johannesburg (COJ) Stormwater Manual - 2017.
- **Global Climate Change Indaba: Issues around climate change and the implications.** Hosted by the Gauteng Department of Agriculture and Rural Development - 2017.
- **IAIASa Workshop:** Corporate Governance Matter - 2017.
- **Africa MBA Indaba Conference and Career Fair:** Investment Conference, Women Trailblazers and Learning Revolution platform - 2016.
- **Environmental Impact Assessment (EIA) 2014 Legal Regime Workshop:** Hosted by Imbewu Sustainability Legal Specialists– 2014.

- **Induction Training Workshop in Occupational Health and Safety:** Hosted by SHESHA Management Services – 2015.
- **Mineral Resources Compliance and Reporting Conference:** 6th Annual Conference. Hosted by Intelligence Transfer Centre - 2015.
- **Individual Voice 1 Pronunciation Programme:** Hosted by The Voice Clinic – 2015.
- **Transition from ISO 14001: 2004 to ISO14001: 2015 Environmental Management System:** hosted by North West University under the Centre for Environmental Management – 2015.
- **SHE Representative Training** - Hosted by Hydro Training Academy – 2014.
- **Corporate Elegance and Etiquette Training:** Hosted by P.C.E.E Consultants – 2014.
- **Implementing Integrated Management Systems: ISO 9001, ISO 14001 and OHSAS 18001–** Potchefstroom University - 2006.
- **Mining Qualifications Authority:** Executive preparation programme focusing on understanding key elements and principles of mining: presented by University of Johannesburg - 2005.
- **Microsoft Project 2000:** Introduction: project management tool. Presented by Executrain - 2001.
- **National Environment Management: Integrated Coastal Management Act, 24 of 2008:** Presented by Imbewu Sustainability Legal Specialists – 2010.
- **Environmental Auditing:** Techniques and Methodologies. Presented by Eagle Environmental - 1999.
- **Implementing Environmental Management Systems (SABS/ISO 14001):** Presented by Centre for Environmental management –Potchefstroom University - 2002.
- **Waste Management for Environmental Managers:** Presented by Centre for Environmental Management –Potchefstroom University - 2003.
- **Environmental Management Tools in the Workplace:** Presented by Centre for Environmental management –Potchefstroom University - 2003.
- **Sustainable Development short course** - Tools and techniques at mining operations. Presented by centre for sustainability in mining and industry - 2003.
- **Environmental Auditor's course:** Aspects International, UK - IEMA approved. Presented by Crystal Clear Consulting and Merchants (Pty) Ltd - 2004.
- **Business Finances for Non-Financial Managers:** Presented by Weidemann Consulting: Engineering and Management - 2001.
- **Introduction to Ground Water.** Presented by Ground Water Division of the Geological Society of South Africa - 2000.
- **Resource Conservation Biology:** University of Witwatersrand - 1998.
- **Population and Ecosystem Modelling:** University of Witwatersrand -1998.
 - Good understanding of Scenario models -exploring management options; harvesting models adaptive management, surplus production, optimum sustainable yield, stock reduction, over -harvesting, uncertainty and harvest quotas.
- **Resource Economics:** University of Witwatersrand - 1998.
- **Geographic Information Systems (IDRISI for windows)** University of Witwatersrand -1998.

REFERENCES

Mr Mervyn Carstens
 Executive Director: SA Land operations
 Trans Hex Operations (Pty) Ltd
 P O Box 723

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7499
Tel: 021 937 2000
Email: mervync@transhex.co.za

Mr Muleso Kharikha
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Department of Environmental Management Services
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PROJECT EXPERIENCE

(Project Manager role in all the projects listed in this section unless otherwise specified)

APPLICATION FOR ENVIRONMENTAL AUTHORISATION

Environmental impact assessments and plans as well as associated public involvement (Stakeholder engagement strategists and facilitator roles) in terms of National Environmental Management Act, 1998 (Act No. 107 of 1998)

NB. Played a lead role in all projects unless otherwise specified

- **Rockstar Trading (Pty) Ltd (trading as CDF Chrome):** Environmental management plan (EMP) and stakeholder engagement, in terms of NEMA for a Chrome Beneficiation Plant on Portion 86 of the Farm Hartebeesfontein 445 JO, Madibeng Local Municipality, North West Province (2011).
- **Elgagen (Pty) Ltd:** EMP and stakeholder engagement process design and facilitation, done for a Chrome Beneficiation Plant on Portion 181 (A Portion of Portion 2 of the Farm Zandfontein 447 JQ Madibeng Local Municipality, North West province. (2011).
- **Athi River Mining South Africa (Pty Ltd):** Environmental impact assessment and stakeholder engagement strategy development and facilitation in terms of National Environment Management Act, 1998 (Act 107 of 1998) for a Proposed Mafikeng Cement Project and Associated Activities, including quarry within Ngaka modiri Molema district Municipality (2010-2011).
- **The GHAAP Abattoir Ostrich (Pty) (Ltd) (GHAAP), funded by Sishen Iron Ore Company – Community:** Development Trust (SIOC-CDT): Environmental impact assessment/basic assessment for a proposed abattoir and deboning plant in Kuruman located at Portion 1 of ERF 1, next to municipal testing grounds, opposite livestock auction premises, and diagonally opposite the red meatabattoir within Ga-Segonyana Municipality under John Taolo Gaetsewe District Municipality, Northern Cape (2011).

- **Solid Waste Technologies SA (Pty) Ltd:** Public participation coordination for hazardous waste treatment facility in City Deep- Johannesburg (2009) and application for environmental authorisation for a transfer station in Durban (2010).
- **Sasoí Mafutha (Pty) Ltd:** Sub-contracted to SE Solutions to assist with public involvement coordination and reports review for four EIA's done for Mafutha Mine, Town development, Coal to Liquid plant and Services corridor (2009–2010).
- **Independent Development Trust:** EIA and associated public involvement lead, for proposed secondary school in Freedom Park (2008 -2010).
- **Meitsweding District Municipality:** EIA and associated public involvement lead for proposed Cemetery at Ekandustria (2008 - 2010).
- **SES Labour Solutions:** Public participation coordination for proposed capacity expansion of the iron making, steelmaking and rolling facilities at Arcelor Mittal Steel South Africa, Newcastle Works (2008 - current).
- **SES Labour Solutions:** Public participation coordination for planned coke oven expansion at Arcelor Mittal Steel (2007-2008).
- **SES Labour Solutions:** Public consultation coordination for a planned by-product mixing plant at Arcelor Mittal Steel (2006).
- **Clear Channel Independent:** EIA and associated public participation management for proposed erection of advertising billboards (2006-2007).
- **Toka Outdoor Advertising (Pty) Ltd:** EIA and associated public participation management for proposed erection of advertising billboards (2006-2007).
- **Mbokod Outdoor (Pty) Ltd:** EIA and associated public participation management for proposed erection of advertising billboard (2006).
- **Dolphin Outdoor:** EIA and associated public participation management for proposed erection of advertising billboards (2006).
- **Primedia Outdoor (Pty) Ltd:** EIA and associated public participation management for proposed erection of advertising billboards (2006-2007).
- **Matla Consultants:** Environmental scoping study and associated public participation management for a road upgrade in the Brits District, Northwest Province (2005).
- **Rustenburg Local Municipality:** Basic assessment/EIA and associated public participation management for the proposed construction of Bokamoso Sewage Pipeline, Rustenburg Local Municipality, North West Province (2012).
- **Mafikeng cement (Pty) Ltd:** Environmental Impact Assessment and associated public participation management and stakeholder engagement facilitation for the proposed Mafikeng Cement Project within Mahikeng and Ditsobotla Local Municipalities, North West Province (2010).
- **Tsosoletso Resources (Pty) Ltd:** Environmental Management Plan for Sunbury Siding Project, within Mpumalanga Province (2012).
- **Trans Hex Operations (Pty) Ltd** -Application for consolidating application in Terms of Sub-Regulation 14(1) of EIA Regulations, 2010 (GNR 543 of 18 June 2010), under the National Environmental Management Act, 1998 (Act No. 107 of 1998) for Environmental Authorization for Sea Concession 5a, 6a, 7a,3b and 5b within the Administrative District of Namaqualand (2015)
- **SALP Constructions (Pty) Ltd**-Environmental Management Plan for the proposed development at Masebe Nature Reserve with the Mogalakwane Local Municipality, Limpopo (2014).

- **Gijima Supply Chain Management Services (Pty) Ltd**-Environmental Control Officer for Arbor Siding, within Mpumalanga Province (2015-to-date).
- **West Coast Resources (Pty) Ltd**- Amendment of an Environmental Management Programme, coupled with Environmental Impact Assessment and stakeholder engagement strategy development and facilitation, in support of a mining right held by West Coast Resources (WCR), over the Namaqualand Mines, in terms of the National Environmental Management Act (Act No. 107 of 1998) and Mineral and Petroleum Resources Development Act, (Act No. 28 of 2002), within the Administrative District of Namaqualand, Northern Cape (2013 – 2016).
- **Sound Mining Solution (Pty) Ltd**: EIA in support of the mining right for Coal prospecting proposed development in the Farm Vetleegte 304 LQ, situated in Lephalale municipality, District of Waterberg, Limpopo province (2018).
- **Aplorox (Pty) Ltd**: EIA for Forfar Railway Siding located at Portion 1 of the Farm Van Dykspuit 214 IR, Bronkhorstspuit, Kungwini District Municipality, Gauteng Province (2018).
- **Eskom Holdings Soc Ltd**: Subcontracted by Nako Illiso (Pty) Ltd to undertake Public Involvement in respect to a proposed Eskom's Donatello Gas Insulated Substation within Sandton, Gauteng Province (2018).
- **Translogix (Pty) Ltd**: Environmental Management Programme for a coal handling railway siding located on Portion 237R of the farm Rietkol within the Victor Khanye Local Municipality, Nkangala District Municipality, Mpumalanga (2018).

Basic Assessment Report in terms of National Environmental Management Act (Act No. 107 of 1998)

- **Aplorox CC**-Basic Assessment Report for the proposed coal storage at Forfar Siding on Portion 131 of the Farm Vaalbank 511-JR with the Kungwini Local Municipality, Gauteng (2014).
- **Lebone Engineering (Pty) Ltd**-Basic Assessment Report and leader for stakeholder engagement and facilitation for the environmental studies that was undertaken in Klip Middle Soweto, in Johannesburg, with the city of Johannesburg Municipality (2015-2016)
- **Vuka Africa Consulting Engineers and Project Managers (Pty) Ltd**- Basic Assessment Process and associated stakeholder engagement for the construction of the proposed Bokamoso Sewage Outfall Pipeline (current), North West Province (2012-2013).
- **SALP Constructions (Pty) Ltd**- Application of Environmental Authorisation, Basic Assessment Report with associated stakeholder engagement and facilitation, for the proposed development at Masebe Nature Reserve with the Mogalakwane Local Municipality, Limpopo (2014 – 2015).
- **Vuka Africa Consulting Engineers and Project Managers (Pty) Ltd**- Basic Assessment Report for the K11 Bypass in Randfontein, Rand West City Local Municipality, Gauteng Province. (2016 – current).
- **Leko Engineering**- Basic Assessment Report for the Caledonian Stadium upgrade in Tshwane Municipality (2017- 2018).
- **Zethu Consulting Services (Pty) Ltd** – Basic Assessment Report for the Matsulu Waste Transfer Station within Mbombela Local Municipality, Mpumalanga Province (2017 – 2018)
- **Gubha Mining Resources (Pty) Ltd**: Basic Assessment Report in support of a prospecting right in terms of Section 16 of the Mineral and Petroleum Development Act, 2002 (Act No. 28 of 2002) for proposed development at Naudesbank in Mpumalanga (2015).
- **Gijima Supply Chain Management Services (Pty) Ltd**: Basic Assessment Report regarding the proposed activities at the existing operating Arbor Railway Siding a coal handling site in Delmas, Mpumalanga Province (2018).

- **Thomas Properties Consultants (Pty) Ltd:** Basic Assessment Reports for 65 sites for the construction of Telkom masts within the various sites in South Africa (2018).
- **Sasol Mining (Pty) Ltd:** Joint Venture with MDT Environmental (Pty) Ltd for the purpose of compiling Basic Assessment Report regarding the proposed maintenance and desiltation activities upstream and downstream to Vulindlela Bridge crossings in Phola township within Emalahleni Local Municipality, Mpumalanga (2019).

APPLICATION FOR MINING AUTHORISATION

Environmental impact assessments and plans in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)

- **Double Ring Mineral Resources (Pty) Ltd:** Environmental Management Plan for the proposed gold processing site within the Farm Batavia 176 KP in Thabazimbi, Limpopo Province (2012).
- **ALS BEE Projects:** Environmental Management Plan for TCC Gravel Mine in support of mining permit (Site 1 and 2) on Portion of the Remainder Portion 488 of Town and Townlands, 235 JQ Potchefstroom within Tlokwe City Council (2011).
- **Smart Geo Science:** Environmental Management Plan amendment for a mining permit for Batavia Project, within Mpumalanga Province (2012).
- **Smart Geo Science:** Environmental Management Plan for an application for prospecting right, for Remainder and Portion 1(Samekos) of Farm Kookfontein No 31, Portion 1,2,3,4 and the Remainder of farm No 33, Portion 1 and the Remainder of Farm 49, Portion 1,2,3 and the Remainder of Farm Van Wyksfontein No 50 and Portion 1,2 and Remainder of Farm of Farm No 51. Barkley west, within Northern Cape Province.
- **Smart Geo Science:** Environmental Management Plan for an application for prospecting right, for portion 2 and 63 of the Farm Middelevlei 255 IQ, District of Randfontein (2012).
- **Alizay Properties 31 (Pty) Ltd:** Environmental Management Plan in support of the prospecting operation, in respect of the farms Blaauwkop 271 it, Schimmelhoek 272 it, Steenkoolspruit 275 it, Onverwacht 273 it and others (situated within the Magisterial District of Ermelo, Mpumalanga Province).
- **Silver Unicorn Trading 33 (Pty) Ltd:** Environmental Management Plan for an application for prospecting right, for Silver Unicorn Trading 33 (Pty) Ltd located at portion of the farm and remaining extent of portion 112 of farm Nooitgedacht 268 it, situated within the Magisterial District of Ermelo, Mpumalanga Province (2011).
- **African Exploration Mining and Corporation (Pty) Ltd:** Environmental Management Plan in support of application for a prospecting right, on Farms Paynesvale 608, Kingston 607, Klippan 377, Geduld 661, Thanet 126 and Steyn'Shoek, within the Magisterial District of Kroonstad, Free State Province (2010).
- **Sound Mining Solution (Pty) Ltd:** Social and Labour Plan in support of application of prospecting right for the proposed development in the Farm Vetleegte 304 LQ in the Lephalale Local Municipality, Waterberg District, Limpopo Province (2018).

Environmental management programmes and stakeholder engagement and facilitation in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)

- **Athi River Mining South Africa (Pty) Ltd:** Environmental Management Programme and stakeholder engagement and facilitation is support of a mining right in terms of Section 39 and of Regulation 50 and 51 of Mineral and Petroleum Resource Development Act, 2002 (Act No.28 of 2002), Mahikeng, North West Province. (2012-2013).
- **Enermin Africa (Pty) Ltd:** Environmental Management Programme and associate environmental studies and stakeholder engagement an facilitation, is support of a mining right in terms of Section 39 and of Regulation 50 and 51 of Mineral and Petroleum Resource Development Act, 2002 (Act No.28 of 2002), Mahikeng, North West Province. (2012-2013).
- **Trans Hex Operation (Pty) Ltd:** Development of environmental management plans and environmental performance audits for marine and land operations (2005-2012 (on going).
Projects include:
 - Environmental management programme updates, audit and closure plan for Brazil Farm.
 - Environmental management programme updates for Hondeklip Bay Operation.
 - Environmental management plans for more than 30 prospecting rights application in the Limpopo, Gauteng, Northwest and Northern Cape.
 - Closure plans for more than twenty prospecting rights.
- **Environmental Resource Management (SA):** Coordination and management of an environmental impact statement for a Burkina Faso Zinc Mine (2005).
- **Mineral Capital Assets:** Development of prospecting environmental management plans for farms on the Northwest Province. (2005).
- **Enermin Africa (Pty) Ltd:** Environmental Management Programme Report for the proposed Koi Koi Stone Quarry Project (2012), MR.
- **Mafikeng Cement (Pty) Ltd:** Environmental Management Programme Report submitted for an application for mining right for Mafikeng Cement Project (2012), MR.
- **Trans Hex Operations (Pty) Ltd:** Revised Environmental Management Programme Report updates for Sea Concession 5a, 6a, 7a, 3b and 5b Northern Cape (2013), MR.
- **Alexkor SOC Ltd:** Environmental Management Programme in respect of Sea Concession 1(c) Mining Project, Northern Cape Province (2013) MR.
- **Alexkor SOC Ltd:** Environmental Management Programme in respect of Sea Concession 4(a) Mining Project, Northern Cape Province (2013) MR.
- **Alexkor SOC Ltd:** Section 93 order in for a mining right issued on Portion 14, 15, 16, 17 and 19 of the Farm Korridor WES No.2, Farm 1, Farm Brandkaros No.617, Farm Arrisdraft No.616, Farm No.155 and Remainder of Farm Gypsums No.5 Situated in the Administrative District of Namaqua (2013).

Country reports, sustainability reports and closure plans

- **Department of Environmental Affairs and Tourism:** Fourth Country Report for United Nations Convention to Combat Desertification, including stakeholder engagement and facilitation of regional workshops (2008).
- **Wesizwe:** Development of sustainability framework including policies, standards and guidelines (2008-2009).

- **Etruscan Resources Inc:** Environmental Management Programme and associated stakeholder engagement and facilitation of workshops and open days, in support of a mining right application (2007)
- **Trans Hex Operations (Pty) Ltd:** Closure plans and associated performances assessment audits and financial provision calculations for prospecting farms. (200-current).
- **Unimining Joint Venture:** Implementation of environmental measures during rehabilitation of an asbestos Mine – Heningvlei (2006-2007).
- **Department of Minerals and Energy-Council for Scientific and Industrial Research Project for abandoned Mines:** Myezo subcontracted by CSIR for development of Environmental Best Practice guidelines for Granite Mines in the North –West Province. (2005).
- **Alexkor SOC Ltd:** Alexkor's Five Year Implementation Land Rehabilitation Plan at its Alexander Bay Mine in Northern Cape (2014).
- **Trans Hex Operations (Pty) Ltd:** Application for Closure Certificates in terms of Section 43 (4) of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), were prepared for various prospecting activities undertaken in the following farms in Northern Cape by Trans Hex. (10 Closure Plans were prepared) (2009).
- **Trans Hex Operations (Pty) Ltd:** Application for Closure Certificates in terms of Section 43 (4) of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), were prepared for various prospecting activities undertaken in the following farms in North West by Trans Hex. (23 Application for Closure Plans were prepared) (2009).
- **Trans Hex Operations (Pty) Ltd:** Application for Closure Certificates in terms of Section 43 (4) of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), were prepared for various prospecting activities undertaken in the following farms in Limpopo by Trans Hex. (19 Application for Closure Plans were prepared) (2009).
- **Trans Hex Operations (Pty) Ltd:** Application for Closure Certificate in terms of Section 43 (4) of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), for Sea Concession 11c, 13c and 18d, Vredendal District, Western Cape (2012).
- **Trans Hex Operations (Pty) Ltd:** Application for Closure Certificate in terms of Section 43 (4) of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), in for Portion 1 of Farm Amam No. 46, Namaqualand District, Northern Cape (2013).
- **Alexkor SOC Ltd:** Climate Change Plan as Directed by the Department of Public Enterprises Climate Change Policy Framework for State Owned Companies (2014).
- **Gordon Institute of Business Science and JP Morgan:** Development of a Research Proposal to determine the level of readiness in South African Business Schools to engage with the green economy and related key global, continental and national development agenda with the view to inform research and innovation as well as teaching and community engagement of such schools (2018).
- **Kimopax (Pty) Ltd:** Compilation of Rehabilitation Plans for five mines for Exxaro Coal Mine Central Mines (2018).

Environmental Training

- **Gropec (Pty) Ltd:** Developed training material and provided environmental awareness training to about 600 employees of Eskom's Kendal Powerstation on matters related environmental rights as prescribed by Section 24 of National Environmental Management Act (107 of 1998) and waste management, auditing and general matters related to pollution control. (2012-2013).

- **Elgagen (Pty) Ltd:** Environmental awareness training for personnel responsible for implementing the EMP and also awareness provided for the adjacent community to partner with the plant in monitoring environmental commitments (2010).
- **Trans Hex Operations (Pty) Ltd:** Ongoing environmental training of employees with environmental obligations to promote compliance with conditions of the environmental management plans – Environmental awareness and competence training on how to implement environmental commitments (for Baken Mine, Bloeddrift Mine and Reuning Mine. Focusing on Mining and Earth moving, Mineral Processing and Support and services such as water supply personnel. Training also incorporated members of community property association who are responsible for monitoring EMP implementation on site. (2005, 2006, 2009 and 2010).
- **Reuning Mine:** Environmental awareness training on waste management for all employees with environmental responsibilities to ensure that there is waste minimisation and proper handling and management of waste disposal landfill sites (2010).
- **CGM Louis Trichardt Joint Venture, Kutama-Senthumule Maximum Security Prison:** Training of senior construction site personnel in environmental management. (2000).
- **Etruscan Diamonds (Pty) Ltd:** Environmental training of employees with environmental obligations to promote compliance with conditions of the environmental management plans (2008).
- **Etruscan Diamonds (Pty) Ltd:** Environmental training of the community who were 26% shareholders in the mining venture to be able to understand the environmental commitments and assist in monitoring compliances (2008).
- **Abongi Bemveio Services:** Environmental training of personnel in environmental management – introduction to mining (2008).
- **Gropec (Pty) Ltd:** Environmental Awareness Training Course for Eskom's Kendal Power Station employees, Witbank, Mpumalanga (2012).
- **Gropec (Pty) Ltd:** Managing Environmental Aspects – Waste Management Training Course for Eskom's Kendal Power Station employees, Witbank, Mpumalanga (2013).
- **Aplorox (Pty) Ltd:** Environmental Management and Waste Management Training Course (2017).
- **Gijima Supply Chain Management Services (Pty) Ltd:** Environmental Management and Waste Management Training Course (2017).
- **Brazen Alger Rail Logistics cc:** Environmental Awareness and Waste Management Training Course at Hawerklip Railway Siding (2018).

Environmental Auditing

- **Trans Hex Operations (Pty) Ltd:** Lead auditor for annual external audits undertaken for Trans Hex's mining operations- Baken Mine, Bloeddrift Mine and Reuning Mine, Northern Cape (2005, 2006, 2007 and 2008).
- **Trans Hex Operations (Pty) Ltd:** Lead Auditor for biannual performance assessment external audits for Baken Mine, Bloeddrift Mine and Reuning Mine, Northern Cape (2010, 2012).
- **Trans Hex Operations (Pty) Ltd:** Lead auditor and environmental audit reports compilation for prospecting mining closure applications (More than 20 audits and closure application (2008-ongoing).
- **Trans Hex Operations (Pty) Ltd:** Lead auditor for Annual and quarterly internal audits undertaken for five mining operations in preparation for the external audits (2003-2004).
- **Trans Hex Operations (Pty) Ltd:** Annual and two-yearly external monitoring and performance assessment audits and annual financial provision revision for Sea Concession 11(a) and 12(a) and 13 (a), Northern Cape 2005-2011 (in progress).

- **Trans Hex Operations (Pty) Ltd:** Performance assessment audits for sea concession area 3(b), 5(b) (5a), 6(a) and 7(a), Northern Cape (2012).
- **Trans Hex Operations (Pty) Ltd:** Performance assessment biannual audits for Hondeklip Bay Mine and Brazil Mine. (2012).
- **Makson Trading Enterprise CC:** Performance Assessment Report for Makson Trading Enterprise CC located in Xhalanga Local Municipality within the Magisterial District of Chris Hani, in Eastern Cape Province (2015).
- **Double Ring Mineral Resources (Pty) Ltd:** Performance Assessment for prospecting activities on Farm Goedehoop 196 HT, Piet Retief in Mpumalanga Province (2012).
- **Enermin Africa (Pty) Ltd:** Performance Assessment for Enermin Africa (Pty) Ltd prospecting activities on Farm Molopo Ratshidi 302, within the Mafikeng Local Municipality, North West Province (2013).
- **Alexkor Ltd:** Performance assessment report for the prospecting activities undertaken over Sea Concession 1(c), within the Administrative District of Namaqualand, Northern Cape (2013).
- **Double Ring Mineral Resources (Pty) Ltd:** Performance assessment report for the mining activities on Farm Batavia 176 KP, within the Magisterial District of Thabazimbi, Limpopo province (2013).
- **Trans Hex Operations (Pty) Ltd-**Performance Assessment Report for Sea Concession 11(A), 12(A), 13(A) and corresponding Surf Zones and Admiralty Strip (2013).
- **Trans Hex Operations (Pty) Ltd-**Performance assessment report for Transhex Bloeddrift Agricultural Activities located on Farm 11 and Portion 5 of Bloeddrift within the Richtersveld Local Municipality, Northern Cape Province (2013).
- **Trans Hex Operations (Pty) Ltd-**Performance Assessment Audit for Baken Mine Situated in The Richtersveld Local Municipality Under the Namakwa District Municipality, Northern Cape Province (2014).
- **Trans Hex Operations (Pty) Ltd-**Performance Assessment Audit for Bloeddrift Mine Situated in The Richtersveld Local Municipality Under the Namakwa District Municipality, Northern Cape Province (2014).
- **Trans Hex Operations (Pty) Ltd-**Performance Assessment Audit for Reuning Mine Situated in The Richtersveld Local Municipality Under the Namakwa District Municipality, Northern Cape Province (2014).
- **Alexkor SOC Ltd:** Renewal report for the prospecting activities undertaken over Sea Concession 1(c) within the Administrative District of Namaqualand, Northern Cape Province (2013).
- **Alexkor SOC Ltd:** Performance assessment for the prospected Sea Concession 1(c) located with Administrative District of Namaqualand, Northern Cape Province (2013).
- **Gijima Supply Chain Management Services (Pty) Ltd:** Monthly Performance Assessment Audit for the operation of a Railway Siding on portion 1 of Farm Vandykspruit 214 IR within Delmas Local Municipality in the Nkangala district, in Mpumalanga Province (2015- ongoing).
- **Wescoal (Pty) Ltd:** Performance Assessment Audit for Water Use Licence for the Goedehoop Processing Plant located on Portions 38, 43 and 45 of the Farm Goedehoop315 JS within, Steve Tshwete Local Municipality in the Nkangala District in Mpumalanga Province. (2018).
- **Trans Hex Operations (Pty) Ltd:** Environmental Management Programme Assessment Audit for Baken Mine located in Sanddrif within the Richtersveld Local Municipality in Northern Cape Province (2018).
- **Wescoal (Pty) Ltd:** Performance Assessment Audit for Water Use Licence for the Goedehoop Processing Plant located on Portions 38, 43 and 45 of the Farm Goedehoop315 JS within, Steve Tshwete Local Municipality in the Nkangala District in Mpumalanga Province. (2019).

Boat Launching Application in terms of Regulation 7 of the regulations published in terms of Section 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and GN No. 1399 of 21 December 2001

- **Trans Hex Operations (Pty) Ltd:** Boat Launching Application in terms of Regulation 7 of the regulations published in terms of Section 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and GN No. 1399 of 21 December 2001 for the proposed Brazil Boat Launching Site, in Northern Cape (2012).

Waste License Application in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)

- **Trans Hex Operations (Pty) Ltd:** Environmental Impact Assessment Report for Baken and Bloeddrift Mine Waste Disposal Site, Northern Cape (2012).
- **Matsulu Waste Transfer Station:** Basic Assessment Report for License Application for the proposed construction of a Waste Transfer Station in Matsulu Township in Mbombela Local Municipality (2017).

Water Use Licence Application in terms of the National Water Act, 1998 (Act No. 36 of 1998)

- **Trans Hex Operations (Pty) Ltd:** Integrated Water and Waste Management Plan (IWWMP) in terms of the National Water Act, 1998 (Act No. 36 of 1998), for De Punt Mine located within the Matzikana Municipality, Western Cape (2013).
- **Trans Hex Operation (Pty) Ltd:** Water use licence applications (2006-ongoing).
- **Enermin Africa (Pty) Ltd:** Water Use Licence Application for Koi-Koi Crushers Project, Situated on Part of Farm Molopo-Ratshidi 302 Jo, within Mafikeng Local Municipality.
- **Yuka Afrika Consulting Engineers and Project Managers:** Water use licence application for the construction of the proposed Bokamoso Sewage Outfall Pipeline (2011-current), North West Province.
- **Aplorox (Pty) Ltd:** Water Use Licence Application for the Proposed Operations of Railway Siding and Associated Environmental Aspects on Forfar Railway Siding Portion 131 of The Farm Vaalbank 511 Jr Within the Kungwini Local Municipality (2014).
- **Clover Alloys (SA) (Pty) Ltd:** Water Use Licence Application for the proposed Crushing and Screening Beneficiation Plant on Portion 23 (Portion 13-Lg 306) of Farm Rietfontein, Under Rustenburg Local Municipality (2014).
- **Richtrau 256 (Pty) Ltd:** Water Use Licence application for a proposed prospecting right within farm Panfontein 437 IR in the Magisterial District of Meyerton (2018).

Rectification of an Unlawful Activity in terms of Section 24 G of the National Environmental Management Act, 1998 (Act No. 107 of 1998)

- **Alexkor SOC Ltd-** Application for rectification an unlawful activity on Farm No. 1 and Port Nolloth Reserve No. 115 within the Namaqualand District Municipality, Northern Cape.

Environmental Screens

- **Gijima Supply Chain Management Services (Pty) Ltd**-Environmental screen tool designed for use in assessing lease application for Arbor Siding Project within Emalahleni Local municipality, Mpumalanga (2014 and 2016).

OTHER PROJECTS INVOLVEMENT PRIOR TO 2005

Environmental Impact Assessments

- **BHP/Resolute Joint Venture, Beiahouro Gold Project:** Co-ordination of pre-feasibility level environmental scan for Belahouro Gold Mining Project, Burkina Faso (1999).
- **Rio Tinto Zimbabwe, National Power United Kingdom, Zimbabwe Electricity Supply Authority, Gokwe North Project, Zimbabwe:** Gokwe North Power Project environmental impact assessment (EIA), Zimbabwe: Legislation interpretation for an EIA to ensure compliance with World Bank requirements (1999).
- **Maguga dam Joint Venture:** Co-ordinated and managed Environmental impact assessment as required by the Swazi Environmental Authority for the construction of an attenuation dam downstream of Maguga Dam to regulate flow into the Komati River, Swaziland. (2001)
- **Jeffares and Green Inc and Gauteng Department of Public Works and Transport, PWV 9 Road:** Co-ordination and public involvement of the scoping study in support of environmental authorisation for the development of the PWV 9 toll highway, Gauteng. (1999 – 2001).
- **Ericsson Cellular SA (Pty) Ltd / Skanska Telecom Networks (Pty) Ltd / Proconord International OY, Installation of Cellular Network:** Co-ordinated site screening, visual impact assessment and report writing for the proposed installation of cellular base stations, Gauteng. (2000-2001).
- **Rustenburg Local Municipality:** Basic Assessment for Construction of the Proposed Bokamoso Sewage Pipeline on Portion 1,2,10,13,50 and 86 of the Farm Paardekraal 279 JQ, Portion 19 and 38 of the Farm Waterval 303 JQ and Remainder of Farm Waterval 303 JQ, Rustenburg Local Municipality, North West Province (2013).

Environmental Management Programme Reports

- **Barplats Mines Limited, Re-opening of Crocodile River Mine:** Co-ordination and a management of an EIA for the re-opening of Crocodile River Mine in the North West Province. The EIA was used to produce an environmental management programme report (EMPR) that was submitted to obtain mining authorisation in terms of the Minerals Act (No. 50 of 1991). (1999-2000).
- **Nkomati Joint Venture, Expansion of Nkomati Mine:** Management of a public involvement programme for an EIA to produce an EMPR for expansion of the Nkomati Mine, Mpumalanga, using open cast mining methods. (1999-2000).
- **Kroondal Platinum Mines Limited, Phase Ii Expansion:** Management of a public involvement programme for an amendment to an environmental management programme report, North West Province (2000-2001).
- **Rustenburg Platinum Mine-Union Section:** Co-ordination of an amendment (tailings dam, opencast section, a railway line and a mineral processing plant) to an environmental management programme report, Northwest, (2001-2002).

- **Rustenburg Platinum Mine-Union Section:** Management of a revision of an approved environmental management programme report into environmental management system format according to ISO 14001 specifications, Northwest Province (2001-2003).
 - **Rustenburg Platinum Mine-Rustenburg Section:** Co-ordination of an environmental management programme report for an open cast mine in Waterval 306 JQ farm in Rustenburg, Northwest. (2001-2002).
 - **Anglo American Platinum, Potgietersrust Platinums Limited:** Managed compilation of an environmental management programme report amendment for a new tailings dam in Potgietersrust, Northern Province. (2002).
-

Annexure 2.1-2: Company Profile



WITZO ENVIRONMENTAL MANAGEMENT SERVICES (Pty) Ltd
We care for you.

ACCOUNTABILITY

MYEZO ENVIRONMENTAL MANAGEMENT SERVICES
Environmental Stewardship

COMPANY PROFILE

Celebrating a Successful

10 YEARS



WITZO ENVIRONMENTAL MANAGEMENT SERVICES (Pty) Ltd
We care for you.

EXECUTION TO EXCEL




MYEZO ENVIRONMENTAL MANAGEMENT SERVICES [Pty] Ltd
Environmental Stewardship

Company Profile



MYEZO ENVIRONMENTAL MANAGEMENT SERVICES [Pty] Ltd
Environmental Stewardship



WITZO ENVIRONMENTAL MANAGEMENT SERVICES (Pty) Ltd
We care for you.

MYEZO ENVIRONMENTAL MANAGEMENT SERVICES
Environmental Stewardship

Environmental impact assessments | Management systems | Waste management plans | Public involvement | Environmental workshops | Environmental monitoring and compliance | Rehabilitation management plans | Coastal management plans and support services for unlocking of the marine economy

As Environmental Consulting Company, We provide a variety of Environmental Services starting at site visits, setting up monitoring systems, conducting investigations, and field visits, often in partnership with other service providers.

- Environmental impact assessments for land and sea mining operations
- Environmental management programme reports including development/implementation of environmental management plans
- Integrated Safety, Health and Environmental, Quality and Risk Management Systems
- Integrated Water and waste management plans including waste and water use licenses and waste feasibility studies and Atmospheric emissions licences
- Communication and socio-economic development plans as social facilitation
- Public involvement (liaisons with stakeholders and regulatory authorities),
- Environmental workshops
- Monitoring and compliance in the form of environmental auditing
- Rehabilitation management plans
- Coastal management plans and support services for unlocking of the marine economy



WITZO ENVIRONMENTAL MANAGEMENT SERVICES (Pty) Ltd
We care for you.

RESPECT

Business Excellence Model - CARE

Our values are our ethical roots and we are committed to upholding them. Myezo Environmental Management Services is built on five values that embody what we term as CARE. Upholding these values has helped the business develop and prosper into the environmental management services company it is today and has sustained return clientele, including S&P listed companies and those who had been voted amongst the top 100 companies.



Company Mission

To provide wise environmental solutions which promote responsible environmental stewardship as well as upliftment of social, economic and ecological sanity.

Uniting Success Preparation

Peace of mind through mutual win-win implementable environmental solutions.

Openly engage, empower and facilitate stakeholder engagements designed to achieve integrated environmental solutions and transparent governance.

Good quality reports with jointly tested and assessed alternative solutions that not only comply with your project regulatory requirements but are tailored to promote easy implementation, monitoring and continuous improvement.

Environmental solutions which optimise environmental resource use and promote your environmental stewardship.



Offered Services



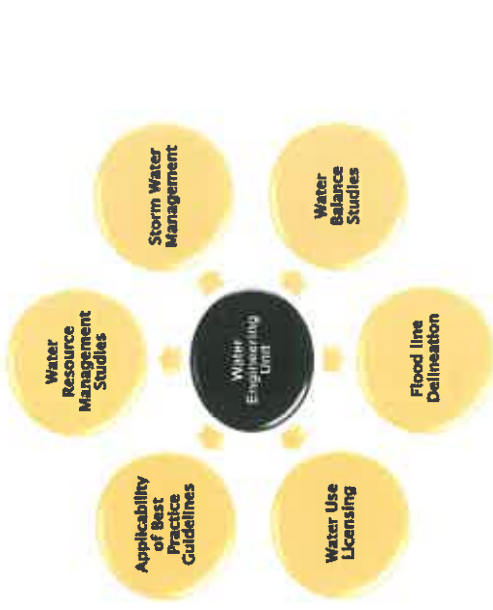
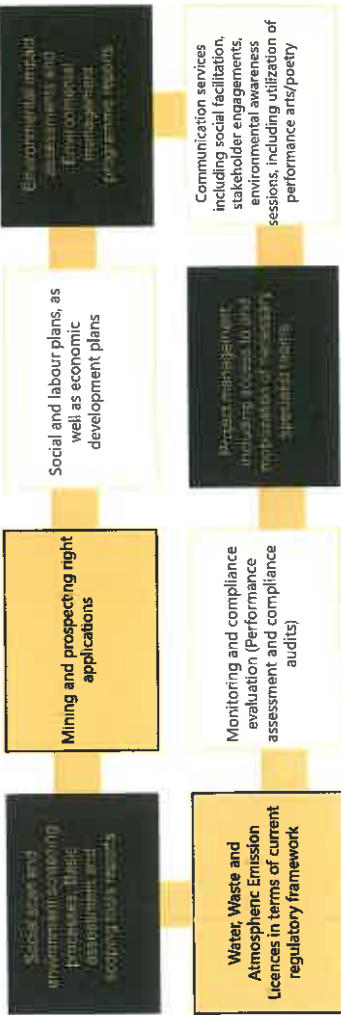
Over Special Excellence Guarantee

- We guarantee 100% legal compliance.
- We guarantee delivery by mutually agreed project phases.
- Guaranteed delivery on mutually agreed target timelines provided all stakeholders deliver at specified time periods or 1% discount on the overall cost of each project phase that we do not deliver at agreed time frame.

Benefits of Working with Myezo

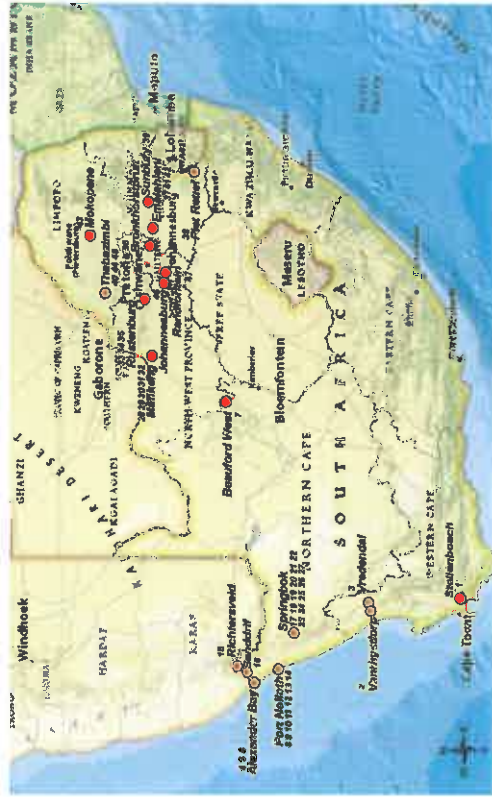
- You will make a difference in your bottom line by avoiding unnecessary environmental authorisation delays and excessive costs.
- You will comply with regulatory requirements.
- You will be in control of your business by integrating implementation and monitoring of your environmental solutions into your existing business systems.
- You will continuously improve on your environmental performance and be an admired environmental steward.





Geographical Representation

Progress Undertaken by Myezo: Regional/Local Setting



Project Experience in the Past 3 years

Athi River Mining South Africa (Pty) Ltd:

Environmental Management Programme in support of a mining right in terms of Section 39 and of Regulation 50 and 51 of Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), Kamberg, North West Province, 2012-2013.



West Coast Resources (Pty) Ltd:

Administrative and Environmental Management Programme (EAD) and Environmental Impact Assessment (EIA) in support of a mining right for West Coast Resources (WCR) over the Namaqualand Mines in terms of the National Environmental Management Act No. 107 of 1998, NEMAA and Mineral and Petroleum Resources Development Act No. 28 of 2002 (MPRDA) within the Namaqualand District of Namaqualand, Northern Cape 2013 - 2016.

Trans Hex Operation (Pty) Ltd:

Development of an Environmental Management Programme and Environmental Impact Assessment (EIA) in support of a mining right for Trans Hex Operations (Pty) Ltd over the Rhenish and Rhenish Westphalian Coalfields in the North West Province, 2012-2013.

Project Experience in the Past 3 years

Environmental Auditing

Trans Hex Operations (Pty) Ltd:

Lead auditor for annual external audits undertaken for Trans Hex's mining operations - Baken Mine, Bloodruff Mine and Reuning Mine, Namaqualand, Northern Cape (2005-2015)

Gijima Supply Chain Management Services (Pty) Ltd:

Environmental Control Officer role, performance assessment audits, ISO based SHERQ system development and maintenance



Trans Hex Operations (Pty) Ltd:

Annual and two yearly external auditing and performance assessment audits, and annual financial provision reviews for Seta Efforters (14) and (15) and (16), and some (5) Seta contractors. Western Cape, lead in various studies (1) and (2) on various locations and strategy steps, (including) health, mining operations) in the Montserrat Province, 2005-2015.

Alexkor Ltd:

Performance assessment (audit) for a processing plant in the Northern Cape Province, 2005-2015.

Country Report: Environmental Report and Green Africa

Department of Environmental Affairs and Tourism:

Lead Country Report and Green Africa Country Report, 2005-2015



Trans Hex Operations (Pty) Ltd:

Climate change and associated performance assessment audits and financial provision calculations for prospecting plans (2005-2014)

Unimining Joint Venture:

Development of an Environmental Management Programme and Environmental Impact Assessment (EIA) in support of a mining right for Unimining Joint Venture, 2005-2015.

Project Experience in the Past 3 years

Country Parks Sustainability, Ecosystems and Closure Plans

Department of Minerals and Energy-Council for Scientific and Industrial Research Project for abandoned Mines:
Myezo subcontracted by CSIR for development of Environmental Best Practice guidelines for Granite Mines in the North-West Province (2005).

Maikeng Cement (Pty) Ltd:
Environmental Impact Assessment for the proposed Maikeng Cement Project within Maikeng and Ditsobotla Local Municipalities, North West Province (2010-2011)

Trans Hex Operations (Pty) Ltd:

Apply for the Closure Certificates in terms of Section 43 (4) of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) and the Environmental Resources Development Act, 2002 (Act No. 37 of 2002) and prepared the various activities including activities such as closure and rehabilitation plans in Mafikeng, Cape District, Hex (10 Closure Plans were prepared) (2009-2013).

Trans Hex Operations (Pty) Ltd:

Application for Closure Certificates in terms of Section 43 (4) of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), were prepared for various prospecting activities undertaken in the following farms in North West by Trans Hex (23 Application for Closure Plans were prepared) (2009-2013).

Project Experience in the Past 3 years

Environmental Impact Assessments and Plans in terms of the Mineral & Petroleum Resources Development Act 2002 (Act No. 28 of 2002)

ALS BEE Projects:

Environmental Impact Assessment for CCSO and BEE in Gaborone Botswana (2011) and 10 in Botswana (10 applications for the Act) in South West Province (10 Projects were done) (2009-2013)

Environmental Impact Assessments and Plans in terms of the Mineral & Petroleum Resources Development Act 2002 (Act No. 28 of 2002)

Environmental Impact Assessments and Plans in terms of the Mineral & Petroleum Resources Development Act 2002 (Act No. 28 of 2002)

Silver Unicorn Trading 33 (Pty) Ltd:

Environmental Impact Assessment for the proposed Silver Unicorn Trading 33 in the Northern Cape Province (10 Closure Plans were prepared) (2010-2011)

Project Experience in the Past 3 years

Environmental Impact Assessments and Closure Plans of Abandoned Environmental Management Act 2002 (Act No. 28 of 2002)

Athi River Mining South Africa (Pty) Ltd:

Environmental Impact Assessment for the proposed Athi River Mining South Africa (Pty) Ltd in the Northern Cape Province (2009-2013)

Lubone Engineering (Pty) Ltd

Apply for the Closure Certificates in terms of Section 43 (4) of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) and the Environmental Resources Development Act, 2002 (Act No. 37 of 2002) and prepared the various activities including activities such as closure and rehabilitation plans in Mafikeng, Cape District, Hex (10 Closure Plans were prepared) (2009-2013).

SALP Constructions (Pty) Ltd

Apply for the Closure Certificates in terms of Section 43 (4) of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) and the Environmental Resources Development Act, 2002 (Act No. 37 of 2002) and prepared the various activities including activities such as closure and rehabilitation plans in Mafikeng, Cape District, Hex (10 Closure Plans were prepared) (2009-2013).

Project Experience in the Past 3 years

Environmental Impact Assessments and Plans in terms of the Mineral & Petroleum Resources Development Act 2002 (Act No. 28 of 2002)

Trans Hex Operations (Pty) Ltd:

Apply for the Closure Certificates in terms of Section 43 (4) of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) and the Environmental Resources Development Act, 2002 (Act No. 37 of 2002) and prepared the various activities including activities such as closure and rehabilitation plans in Mafikeng, Cape District, Hex (10 Closure Plans were prepared) (2009-2013).

Trans Hex Operation (Pty) Ltd:

Water Use License Applications in terms of the National Water Act (Act No. 36 of 1998)

Environmental Impact Assessments and Plans in terms of the Mineral & Petroleum Resources Development Act 2002 (Act No. 28 of 2002)

Yuka Afrika Consulting Engineers and Project Managers:

Environmental Impact Assessment for the proposed Yuka Afrika Consulting Engineers and Project Managers in the Northern Cape Province (10 Closure Plans were prepared) (2010-2011)

Environmental Training



EMPLOYMENT OPPORTUNITIES

Trans Hex Operations (Pty) Ltd: Ongoing environmental training of employees with environmental obligations to promote compliance with conditions of the environmental management plans – Environmental awareness and competence training on how to implement environmental commitments (for Baken Mine, Bloeddrift Mine and Reuning Mine). Focusing on Mining and Earth moving, Mineral Processing and Support and services such as water supply personnel. Training also incorporated members of community property association who are responsible for monitoring EMP implementation on site. (2005, 2006, 2009 and 2010).

Gropec (Pty) Ltd: Managing Environmental Aspects – Waste Management Training Course for Eskom's Kendal Power Station employees, Witbank, Mpumalanga (2013).

Aplorox (Pty) Ltd : Environmental aspects and compliance requirements related to a rail siding, Nkungwini Local Municipality, Mpumalanga (2017).



Premier Project Team

Project Teams & Associates

Myezo has a pool of associates to act as support structures for individual projects. We have built relationships with specialists from across a variety of fields e.g. ground water.

We are able to manage and coordinate a suite of specialists as part of the contribution to the impact assessment evaluations as well as in determination of management measures for particular projects.



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Environmental Training

Water Use License Application in terms of the National Water Act 1998 (Act No. 36 of 1998)

Aplorox (Pty) Ltd:

Water Use License Application in terms of the National Water Act 1998 (Act No. 36 of 1998)

Clover Alloys (SA) (Pty) Ltd:

Water Use License Application in terms of the National Water Act 1998 (Act No. 36 of 1998)

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BEE Empowerment (Level 1)



Black Owned Black Economic Empowerment & Accredited/Verified

Verification - Exempted micro enterprise from DTI's codes of Good Practice for BEE Level 1 Professional Registrations.

Professional Registrations

Pr.Sci.Nat – Council for Scientific Natural professions.
Auditor - Auditor (IEMA-UK).
Memberships with professional bodies - WISSA, Institute of directors of SA, IWMSA
Collaboration

B. A Mbalo (Faby) and E. T. F. Witkowski (1997): Tolerance to soil surface temperatures experienced during and after the passage of fire in seeds of selected savanna woody plant species. South African Journal of Botany, 63: 423-425.
Journal of Arid Environments.

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Page 25

Myezo Environmental Management Services (Pty) Ltd was founded by Babalwa Atalanta Fatyi – in 2005.

- Celebrating Excellence in Organizations Global: Africa's Most Influential Women Awards. Finalist in Arts and Culture Sector (2015) and Professional Services Sector (2016)
- Women of Wonder Awards (WOW) (2016): One of the recipient for the prestigious Annual Women of Wonder Awards or hard work, perseverance and dedication that has managed to courageously strive to achieve dreams and aspirations and serve as a role model to South Africans.
- First runner up for BBQ Awards (BBQ- October 2016): South Africa's Premier Black Business Awards.
- Nominated for Phenomenal African Woman Awards (PAW – 2016): Women with A Difference.
- Winner - 2016 Standard Bank Tshwane Business Awards (Women Entrepreneur of the Year).
- Awarded a Top 10 status after Nomination as one of the top 100 Difference Makers in South Africa.
- Business Women Association: Finalist for Regional Achiever Awards 2007.
- South African Association for Advancement of Science Medal: awarded for an outstanding MSc degree in the Faculty of Science (2000).



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Myezo Environmental Management Services (Pty) Ltd was founded by Babalwa Atalanta Fatyi – in 2005.

- Master of Science - Wits University (Cum Laude), 1999
- Bachelor of Science Honours (Botany) - Wits University, 1997
- Bachelor of Science - University of Transkei, 1996
- International Association of Impact Assessments – SA African affiliate
- Registered in terms of Article 11 of Natural Scientific Professions Act, 1993 (Act 106 of 1993). Professional title: Pr.Sci.Nat Environmental Auditor: Institute of Environmental Management and Assessment (IEMA), Lincoln, UK



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Myezo Environmental Management Services (Pty) Ltd was founded by Babalwa Atalanta Fatyi – in 2005.

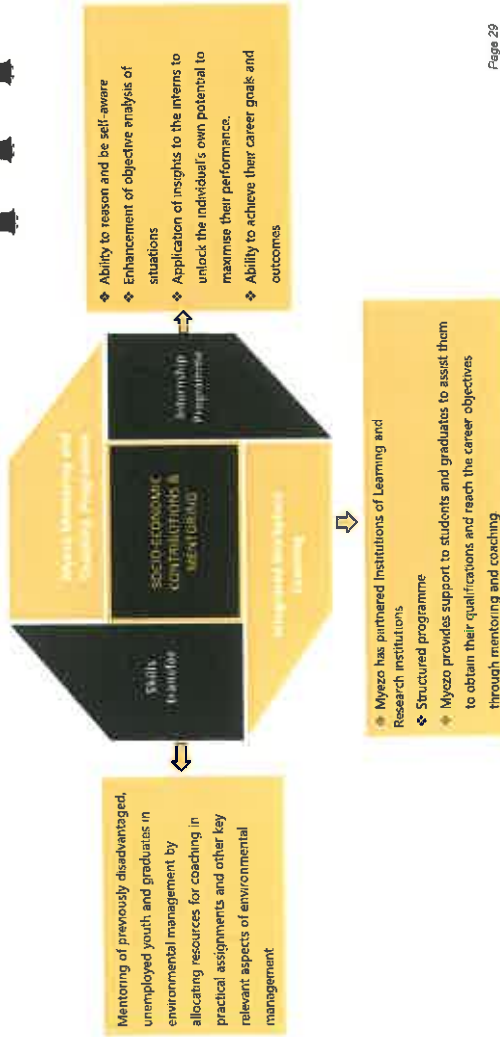
- Master of Science - Wits University (Cum Laude), 1999
- Bachelor of Science Honours (Botany) - Wits University, 1997
- Bachelor of Science - University of Transkei, 1996
- International Association of Impact Assessments – SA African affiliate
- Registered in terms of Article 11 of Natural Scientific Professions Act, 1993 (Act 106 of 1993). Professional title: Pr.Sci.Nat Environmental Auditor: Institute of Environmental Management and Assessment (IEMA), Lincoln, UK



Mentoring and Coaching



Socio-Economic Contributions & Mentoring



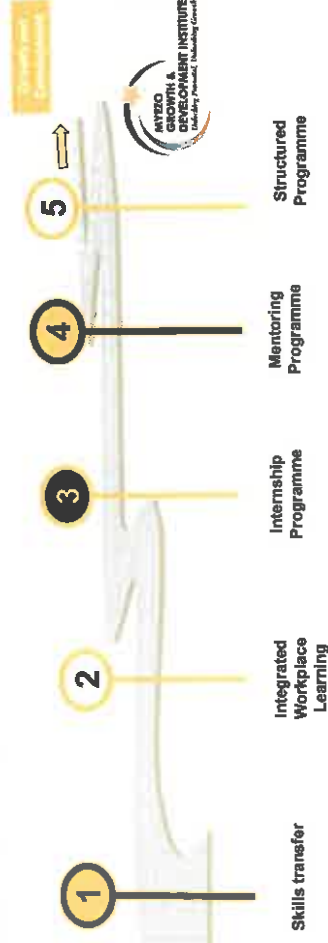
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PROVIDING OPPORTUNITY



Mentoring and Coaching



CONTACT

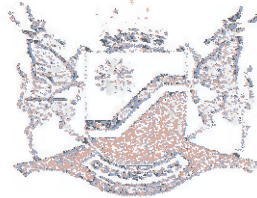
Babalwa Fatyi - Pr.Sci.Nat [Director]
Tel: +27 (0) 12 998 7642 | Fax: +27 (0) 12 998 7641 | Cell: +27 (0) 82 772 2418
Email: babalwa@myezo.co.za - www.myezo.co.za



Annexure 5.8-1: EMPr Environmental Authorisation

MPUMALANGA PROVINCIAL GOVERNMENT

Cnr Justice & Kruger Str
Koorhof Building
3rd Floor
WITBANK
1035
E-mail: gmondlane@wit.mpu.gov.za



Private Bag x 7255
WITBANK
1035
Tel: (013) 690 1279
International Tel +27 13 690 1279
Fax: (013) 656 1065
International Fax +27 13 656 1065

Department of Agriculture and Land Administration

Litiko lasekulima kanye Nekuphatfwa
Kwemihlaba

UmnYango wezokulima Nebhoduluko
KweNarha

Department van Landbou, en
Grondadministrasie

Gijima Supply Chains Pty Ltd
PO Box 71486
Bryanston
2191

Fax: 086 603 4195

Dear Mr. Mthethwa

RE: ENVIRONMENTAL MANAGEMENT PLAN TO UNDERTAKE 50 000 TONNES COAL LOADING OPERATIONS ON PORTION 1 OF THE FARM VANDYKSPUT 214 IR, KENDAL/OGIES, MPUMALANGA

The department would like to inform you that the project is no longer listed activity in terms of new 2010 EIA regulation.

The department would like to approve the EMP you submitted, as long as you would mitigate against any possible significant impacts.

You are advised to do a Water Use License Application in terms of Section 40 of the National Water Act (Act 36 of 1998) for your evaporation dams and associated activities.

Should any material of cultural or archeological significance be encountered during construction, all activities must cease immediately and the South African Heritage Resources Agency (SAHRA) must be informed accordingly.

The applicant is responsible for compliance with the provisions for "Duty of Care" and remediation of damage contained in Section 28 of the National Environmental Management Act

Any deviation to your submitted EMP must be communicated with us within ten (10) working days

Hope you will find the above in order and thank you in anticipation

Yours truly,


Musa Mondlane
Environmental Officer
Environmental Impact Management

09/12/2010
Date

Annexure 6.1-1: Minutes of Meeting convened with Adi Environmental

AGENDA

MEETING WITH GIJIMA SUPPLY CHAIN MANAGEMENT SERVICES

Date: 7 November 2018
Time: 12h00-13h30
Venue: Arbor Siding

1. Welcome and Introductions
2. Apologies
3. Objective of the meeting
4. Overview of proposed project
5. Discussion
6. Way Forward
7. Closure

Thank you for attending this meeting
and providing valuable input!










Ad 
Environmental

Attendance register - Gijima Supply Chain Management Services

Date: Wednesday, 7 November 2018

Place: Arbor Siding

Time: 12h00-13h30

NAME	PHONE	EMAIL	SIGNATURE
Gijima Supply Chain Management Services			
Benny Kesho	074 381 3436	benny@gijima-arbor.co.za	
Vellie Ramphale		vellier@gijimasupplychains.co.za	
Peet		peetc@gijimasupplychains.co.za	
Myezo Environmental			
Babalwa Fatyi	082 772 2418	Babalwa@myezo.co.za	
Dineo Kotane	083 900 5557	dineo@myezo.co.za	
Other			
Adie Erasmus	013-697 5021	adie@adienvironmental.co.za	
Riana J van Rensburg	013-697 5021	riana@adienvironmental.co.za	
Tobogg Nobete	0780009127	admin@gijima.co.za	
Tobogg Tshane	081 4333947	admin@gijima.co.za	

MINUTES OF THE MEETING HELD WITH GIJIMA SUPPLY CHAIN MANAGEMENT SERVICES (ARBOR SIDING)

7 November 2018 @ 12:00, Arbor Siding Boardroom

PRESENT

V Ramphele	Gijima Supply Chain Management Services (Pty) Ltd
P Cronje	Gijima Supply Chain Management Services (Pty) Ltd
T Mabote	Gijima Supply Chain Management Services (Pty) Ltd
T Tone	Gijima Supply Chain Management Services (Pty) Ltd
B Fatyi	Myezo Environmental Management Services (Pty) Ltd
D Kotane	Myezo Environmental Management Services (Pty) Ltd
A Erasmus	AdiEnvironmental cc
R van Rensburg	AdiEnvironmental cc

1. WELCOME AND INTRODUCTION

A Erasmus welcomed everyone to the meeting and requested that those present introduce themselves.

2. APOLOGIES

The following apologies were recorded:

- B Xesha - Gijima Supply Chain Management Services (Pty) Ltd

3. OBJECTIVE OF THE MEETING

A Erasmus indicated the objectives of the meeting as follows:

- to discuss the proposed Arbor Rural Village development;
- to record any issues of concern with regards to the proposed development;
- to obtain information regarding the current and proposed activities at Arbor Siding.

4. OVERVIEW OF PROPOSED PROJECT

A Erasmus provided an overview of the proposed project (i.e. location of site, reason for development, layout plan, service provision, etc.).

5. DISCUSSION

The following points were discussed:

Proposed Arbor Rural Village:

- ⊗ V Ramphele - What type of houses will be constructed?
- ⊗ A Erasmus - The existing informal settlement will be formalized and additional RDP houses will be provided.
- ⊗ B Fatyi - How many stands are required by Truter Boerdery?
- ⊗ R van Rensburg - Approximately 150 stands are required.
- ⊗ B Fatyi - What determined the number of stands?
- ⊗ R van Rensburg - The number of residents to be relocated.
- ⊗ A Erasmus - And also to cater to future needs.
- ⊗ B Fatyi - Will a water use licence application be submitted for the proposed development?
- ⊗ A Erasmus - A water use licence application will be submitted.
- ⊗ D Kotane - Will a Social Impact Assessment be conducted?
- ⊗ A Erasmus - No, a Social Impact Assessment was not commissioned. A social study was however, commissioned in order to determine the number of households present, number of persons per household, etc. This information will be included in the Environmental Impact Assessment (EIA).
- ⊗ D Kotane - Pointed out that there is an error on Page 1 of the Background information Document. Listed Activity 5 should be Listed Activity 9.
- ⊗ R van Rensburg - Thanked D Kotane for pointing this out.

MINUTES OF THE MEETING HELD WITH GIJIMA SUPPLY CHAIN MANAGEMENT SERVICES (ARBOR SIDING)

7 November 2018 @ 12:00, Arbor Siding Boardroom

Waste:

- ⊗ B Fatyi - Will a waste licence application be submitted with the EIA application?
- ⊗ A Erasmus - A waste licence application will be submitted as part of the process, depending on the waste management measures to be implemented at the village.
- ⊗ V Ramphele - Who drafted the layout plan and was there any particular reason why the waste collection area was placed in the centre of the site?
- ⊗ A Erasmus - The townplanners, Urban Dynamics, compiled the layout plan. The waste collection area (transfer station) was placed in the centre of the site at an old borrow pit. The location of the waste transfer station is still being discussed with the community.
- ⊗ R van Rensburg - The intention is to place skips in the borrow pit, into which the community can dump their waste. The skips will then be removed by the Victor Khanye Local Municipality and emptied at their waste disposal site.

Arbor Siding:

- ⊗ V Ramphele - What risks were identified in terms of the development being located adjacent to the siding and will the development and siding be able to co-exist?
- ⊗ A Erasmus - The Arbor community identified dust and noise as issues of concern. The development and siding can co-exist if management measures are implemented to reduce potential impacts.
- ⊗ B Fatyi - The further away the development, the fewer risks for Arbor Siding.
- ⊗ P Cronje - The trains traveling past the site are an existing source of noise. The railway line has been there for many years. This noise source cannot be stopped - trains are running 24/7.
- ⊗ A Erasmus - Agreed. The proposed development is not a greenfields project and existing activities must therefore be taken into account.
- ⊗ A Erasmus - What management measures are currently in place at the siding?
- ⊗ B Fatyi - Dust suppression measures are in place. An ambient air quality study was done, focusing on the operational activities of the siding. A stockpile handling capacity study was also conducted.
- ⊗ V Ramphele - The trucks from Vlakvarkfontein Colliery and Wescoal are mainly responsible for the dust. The siding itself does not create a lot of dust. It is thus an indirect issue affecting their operations and monitoring results.
- ⊗ P Cronje - Suggested that the mines spray chemical solutions (dust suppressants) on the road entering and exiting the railway crossing as part of their dust suppression measures.
- ⊗ B Fatyi - An air quality study (including modeling) should be considered for the proposed development taking into account dust from the gravel road and siding.
- ⊗ A Erasmus - Requested that monitoring results (e.g. air quality) be made available.
- ⊗ B Fatyi - The consultants have to assess cumulative impacts. This will require co-operation and sharing of information from both sides.

Arbor Siding expansion plans:

- ⊗ A Erasmus - When will the siding become operational again?
- ⊗ V Ramphele - We are waiting for Transnet to sign the new lease agreement. The siding is however, operational on the northern side - Eskom will advise shortly when loading operations will commence.
- ⊗ A Erasmus - What authorisations are in place?
- ⊗ B Fatyi - The existing siding does have an environmental authorisation in the form of a Section 28 EMP approval that was issued by Mpumalanga DARDLEA. An environmental authorisation must however, still be obtained for the triggered activities associated with the expansion, which is why the siding on the southern side is not operational yet. Myezo Environmental Management Services was appointed to conduct the Environmental Impact Assessment. A water use licence application will be submitted for the pollution control dam. It is still being discussed with DWS whether this should be an amendment to the existing water use licence or an integrated licence encompassing already authorised activities.
- ⊗ A Erasmus - Requested a copy of the Environmental Authorisation and Environmental Management Plan with regards to the existing siding.

MINUTES OF THE MEETING HELD WITH GIJIMA SUPPLY CHAIN MANAGEMENT SERVICES (ARBOR SIDING)

7 November 2018 @ 12:00, Arbor Siding Boardroom

- ⊗ A Erasmus - Pointed out that a wetland extends onto the eastern portion of the proposed siding area.
- ⊗ D Kotane - Was the wetland delineated or was it a desktop study?
- ⊗ A Erasmus - The wetland was delineated.
- ⊗ V Ramphele - There is a possibility that coal could be obtained from Vlakvarkfontein Colliery. This would reduce the number of trucks on the road as the trucks will only travel from the mine to the siding resulting in a shorter haul. This would have a positive impact in terms of dust and traffic.

Railway crossing:

- ⊗ A Erasmus - A guard house was noted at the railway crossing. Is the railway crossing manned by Arbor Siding?
- ⊗ P Cronje - The railway crossing is located on Transnet property, outside of the lease area, and is thus not manned by Gijima.
- ⊗ V Ramphele - Wescoal installed the guardhouse and employs people from the community to man the crossing. However, the people are not properly trained. This has already led to several incidents. It is very risky for the community to use this crossing. An alternative access road should be used. The crossing on the eastern side near the Eskom substation is safer and preferable.
- ⊗ A Erasmus - Requested contact information for the relevant Transnet official in order to initiate discussions regarding the railway crossing.
- ⊗ P Cronje - Benny Xesha must forward the details of the local TFR contact person.

Access road (R555 and gravel road):

- ⊗ V Ramphele - The existing access road to Arbor Village extends through the Arbor Siding lease area. It is an unofficial road with no right-of-way servitude registered. The layout plan drafted for the proposed development did not take this into account.
- ⊗ P Cronje - The existing gravel road is not mentioned in our lease agreement with Transnet.
- ⊗ P Cronje - A layout plan was drafted for the expansion of the siding in which the existing gravel road was diverted around the siding. Meetings were held with Truter Boertery to obtain permission for this diversion. The townplanner (Urban Dynamics) must be made aware of the intended road diversion and indicate it as such on the layout plan.
- ⊗ P Cronje - A copy of the layout plan drafted for the siding will be forwarded to AdiEnvironmental by B Fatyi.
- ⊗ V Ramphele - Access from the R555 to the village is a risk since the access road is located near a dangerous curve in the R555. In addition, trucks tend to speed along this road. Recommended that speed humps be installed to force trucks to reduce speed.
- ⊗ A Erasmus - There are plans on the table to upgrade the R555.

Relationship with Arbor community:

- ⊗ P Cronje - Arbor Siding currently employs 30+ people from the local community. The presence of the siding is therefore of benefit to the community.
- ⊗ V Ramphele - The expansion of the siding will result in more employment opportunities. An agreement is in place with the community to employ community members if they have the required skills. Training is currently given in basic PC knowledge and operating front-end loaders and the weighbridge. We are a small company but we endeavor to do what we can for the community.
- ⊗ B Fatyi - Discussions have taken place with the Arbor community leadership structures.
- ⊗ A Erasmus - Enquired which community structures were consulted (e.g. Arbor Forum, Arbor Steering Committee, etc.).
- ⊗ V Ramphele - Indicated that a copy of the attendance registers and minutes will be provided to AdiEnvironmental in this regard.
- ⊗ R van Rensburg - The councilor (Oupa Masilela) indicated that he would like to arrange a meeting with Arbor Siding. To date, he has been unable to get hold of anybody at the siding.

MINUTES OF THE MEETING HELD WITH GIJIMA SUPPLY CHAIN MANAGEMENT SERVICES (ARBOR SIDING)

7 November 2018 @ 12:00, Arbor Siding Boardroom

6. WAY FORWARD

A Erasmus indicated that minutes of the meeting would be prepared, providing a summary of the issues discussed. The said minutes would be forwarded.

R van Rensburg asked who the contact person would be going forward. It was indicated that B Fatyi would be the contact person (i.e. on behalf of Arbor Siding).

D Kotane wanted to know if they should complete the comment sheet and forward it to AdiEnvironmental. R van Rensburg indicated that written comment would be appreciated. A Erasmus added that the minutes and the comment received would be included in the Draft Scoping Report, which would be made available for comment for a period of 30 days.

B Fatyi indicated that they will not object to the proposed development. She recommended that everyone work together to ensure that the community's lives are not affected.

7. CLOSURE

A Erasmus thanked everyone for attending the meeting and for their valuable input.

DEVELOPMENT OF A RURAL VILLAGE ON A PORTION OF PORTION 5 OF THE FARM VLAKVARK-FONTEIN 213 IR AND A PORTION OF THE REMAINING EXTENT OF VAN DYKSPUT 214 IR, DELMAS

Reference number assigned by AdiEnvironmental cc: EIA2018/01

It would be appreciated if you could indicate on this form whether you have any comments with regards to the proposed activity.

FIRST NAME: Mr Vellele	POSTAL ADDRESS:
SURNAME: Ramphele	Arbor Siding, Portion 1 Van Dykspuit, Delmas, 1039
ORGANIZATION / FARM NAME:	TEL: 011 658 0349
Gijima Supply Chain Management (Pty) Ltd - Arbor Siding	FAX: 086 611 8181
PHYSICAL ADDRESS:	CELL: 082 550 6536
Portion 1, Farm Vab Dykspuit 241 IR, Delmas	E-MAIL: vellier@gjimasupplychains.co.za

Do you wish to remain on the mailing list?

Y **N**

How do you think the proposed activity will impact on you?

We wish to tabulate our concerns as voiced during the meeting of the 7th November 2018. We will comment on the minutes to ensure there is understanding of our concerns, suggestions and solutions and those minutes issues and comment register. Please note all correspondence to be forwarded to our consultant on the following details: Babalwa Fatyi – Cell 082 772 2418 - Email: babalwa@myezo.co.za. We wish to tabulate that we have an existing water use licence: Licence No. 04/B20F/G/4009 for Department of Water and Sanitation (DWS), as well as environmental management programme report authorisation from Mpumalanga Department of Agriculture and Administration. The process for the planned railway upgrade has commenced with discussions with the Department of Water and Sanitation around matters pertaining to amendment of the WU/LA amongst other things.

Any suggestions to mitigate potential impacts?

We reiterate our concern regarding safety and suggest that the pedestrian crossing be rather considered on the farm land's side.

Please provide details of any other parties (e.g. Tribal Authorities, land-owners, community members, etc.) who should be consulted.

Ms Babalwa Fatyi - Environmental Assessment Practitioner (EAP)

Director - Myezo Environmental Management Services (Pty) Ltd - Cell 082 772 2418 - Email: babalwa@myezo.co.za

Please disclose any direct business, financial, personal or other interest that you may have in the approval or refusal of the application.

None

Please use additional sheet(s) if necessary


.....
Signed

12/11/2018
.....
Date

NOTE:

Please forward the completed form to AdiEnvironmental cc.

Adi Environmental

AdiEnvironmental cc
P.O. Box 647
Witbank 1035
Tel/fax: (013) 697-5021
e-mail: riana@adienvironmental.co.za
Contact person: Riana van Rensburg

BACKGROUND INFORMATION DOCUMENT

DEVELOPMENT OF A RURAL VILLAGE ON A PORTION OF PORTION 5 OF THE FARM VLAKVARKFONTEIN 213 IR AND A PORTION OF THE REMAINING EXTENT OF VAN DYKSPUT 214 IR, DELMAS

Reference number assigned by AdEnvironmental cc: EIA2018/01

Ad
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Introduction and Legal Requirements

Purpose of this document

- Overview of the proposed project;
- Overview of the Environmental Impact Assessment Process (EIA);
- Parties that Interested and Affected Parties (I&APs) understand the process;
- Invitation to I&APs to participate in the EIA process by:
 - ⇒ Indicating their view points, issues and concerns regarding the activity;
 - ⇒ Suggesting alternatives or ways of mitigating negative impacts and enhancing positive impacts.

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Victor Khanye Local Municipality intends to formalize the existing informal settlement on a portion of Portion 5 of the farm Vlakvarkfontein 213 IR, known as Arbor Village. As part of this project, additional residential stands and a cemetery will be provided on a portion of the Remaining Extent of the farm Van Dyksput 214 IR.

The proposed rural village will be ±138ha in extent. The site is located south of the N12 national road and Arbor Siding (±20km north east of Delmas and 7km north west of Kendal Power Station), and adjacent to Vlakvarkfontein Colliery (Figure 1).

The Minister of Environmental and Water Affairs listed in terms of Sections 24(2) and 24D of the National Environmental Management Act, 1998 (Act No. 107 of 1998), a number of activities that require an environmental impact assessment (either a Basic Assessment or a full Environmental Impact Assessment) before undertaking these activities.

The proposed project could involve the following listed activities (Government Notice R327 and R325 of 7 April 2017) as identified in terms of Section 24(2), 24(5), 24D and 44, read with section 47A(1)(b) of the National Environmental Management Act, 1998:

- **GN R327 – Listing Notice 1, Listed Activity 5:** The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water— (i) with an internal diameter of

0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where— (a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.

- **GN R327 – Listing Notice 1, Listed Activity 12:** The development of (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a water course; - excluding (aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies; (dd) where such development occurs within an urban area; (ee) where such development occurs within existing roads, road reserves or railway line reserves; or (ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.

- **GN R327—Listing Notice 1, Listed Activity 19:** The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse but excluding where such infilling, depositing, dredging, excavation, removal or moving - (a)

will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; (c) falls within ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.

- **GN R327 – Listing Notice 1, Listed Activity 23:** The development of cemeteries of 2 500 square metres or more in size.
- **GN R327—Listing Notice 1, Listed Activity 26:** Residential, retail, recreational, tourism, commercial or institutional developments of 1 000 square metres or more, on land previously used for mining or heavy industrial purposes; excluding (i) where such land has been remediated in terms of part 8 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies; or (ii) where an environmental authorisation has been obtained for the decommissioning of such a mine or industry in terms of this Notice or any previous NEMA notice; or (iii) where a closure certificate has been issued in terms of section 43 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) for such land.
- **GN R327 – Listing Notice 1, Listed Activity 28:** Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.
- **GN R325 – Listing Notice 2, Listed Activity 15:** The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for—(i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.
- **GN R324—Listing Notice 3, Listed Activity 14:** The development of (i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.

In order to obtain approval (authorization) for this project, a specific procedure must be followed as stipulated in the Environmental Impact Assessment Regulations, 2014 (as amended), which requires specific documentation (Scoping Report and Environmental Impact Assessment Report) to be submitted.

Once all the required documentation has been submitted and the environmental process completed, the responsible authority must make a decision on the application.

The environmental decision making authority for this application is the Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs (DARDLEA).

Applications in terms of the National Water Act, 1998 (Sections 21(a), (c) and (i)) and the National Heritage Resources Act, 1999 will also be submitted.

Part of the above-mentioned process is to inform interested and affected parties (I&APs) of the proposed project and to obtain any issues of concern. You are hereby invited to register as an I&AP and provide input with regards to the proposed activity.

Environmental Consultant

AdiEnvironmental was appointed as independent environmental consultant to conduct the required environmental Impact assessment and compile the necessary documentation.

AdiEnvironmental cc

P.O. Box 647

Witbank (eMalahleni Central)

1035

Tel/fax: (013) 697-5021

E-mail: riana@adienvironmental.co.za

Contact person: R. van Rensburg

Ad
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Public Participation

Aim of Public Participation

- To inform Interested and Affected Parties (I&APs) and Stakeholders of the proposed project.
- To allow for the registration of I&APs and thereby present I&APs with the opportunity to comment on the project, contribute ideas, raise concerns and review reports.

In order to ensure that you are identified as an interested and/or affected party; please submit your name, contact information and interest in the matter to the contact person within 30 days of receipt of this document (i.e. no later than 12 November 2018).

If you know of any other interested and affected party who should be registered as an I&AP, it would be appreciated if you could forward the relevant contact details to AdiEnvironmental.

Public meeting

At this stage, it is not anticipated that a public meeting will be held. Should this change, the public meeting will be announced and all I&APs will be invited to attend the meeting.

Who are interested and affected parties?

An interested and affected party (I&AP) can be defined as any person, group of persons or organisation interested in or affected by a proposed activity or any organ of state that may have jurisdiction over any aspect of the activity.

The public participation process allows I&APs the opportunity to:

- Obtain clear and accurate information about the proposed activity;
- Indicate their viewpoints, issues and concerns regarding the activity;
- Suggest alternatives or ways of mitigating negative impacts and enhancing positive impacts.

What are the responsibilities of an interested and affected party?

In order to participate effectively, I&APs should:

- Become involved in the process as early as possible;
- Register as I&APs;
- Advise the consultant of other I&APs who should be consulted;
- Contribute towards the design of the public participation process to ensure that it is acceptable to all I&APs;
- Follow the process once it has been accepted;
- Read the material provided and actively seek to understand the issues involved;
- Give timely responses to correspondence;
- Be respectful and courteous towards other I&APs and the environmental consultant;
- Refrain from making subjective, unfounded or ill-informed statements;
- Recognize that the process is confined to issues that are directly relevant to the application.

Availability of Reports

The following reports will be made available to interested and affected parties for evaluation purposes-

- Background Information Document (BID);
- Draft Scoping Report;
- Draft Environmental Impact Report (including Environmental Management Programme (EMPr));
- Environmental Authorisation and Reasons for Decision.

A copy of the above-mentioned documents will also be provided on our website: www.adienvironmental.co.za

How to comment

Comments, questions, issues of concern or objections can be made in writing (by fax, e-mail or post). For your convenience, a comment sheet is attached to this document. Should you not be able to provide us with written comment, please give us a call.

If you do not wish to submit comments, please still provide us with your contact details and indicate whether you would like to remain on the mailing list.

Project Description

Victor Khanye Local Municipality intends to formalize the existing informal settlement (known as Arbor Village) located on a portion of Portion 5 of the farm Vlakvarkfontein 213 IR (Figure 1). The said property belongs to Ntshovelo Mining Resources (Pty) Ltd.

Arbor Village is located south of the N12 national road and Arbor Siding, ± 20 km north east of Delmas and 7km north west of Kendal Power Station (Figure 1). It is located adjacent to Vlakvarkfontein Colliery (Figure 1) belonging to Ntshovelo Mining Resources (Pty) Ltd.

As part of this project, additional residential stands and a cemetery will be provided on a portion of the Remaining Extent of the farm Van Dykspuit 214 IR, located directly adjacent to the existing village, and belonging to Truter Boerdery Trust (Figure 2).

Ntshovelo Mining Resources (Pty) Ltd and Truter Boerdery Trust intend to donate the said properties to the Victor Khanye Local Municipality for the purposes of the said rural village.

The proposed rural village will be ± 138 ha in extent (Figure 2) and will comprise of: residential stands, business stands, municipal stands, a cemetery, a school, community facilities and public open spaces. The proposed layout plan is provided in Figure 2.

For this village, water will be obtained from boreholes, electricity from Eskom and biological toilets will be installed. Access to the site will be obtained from the R555 provincial road using an existing road extending over the railway line (Figure 1 and Figure 2).

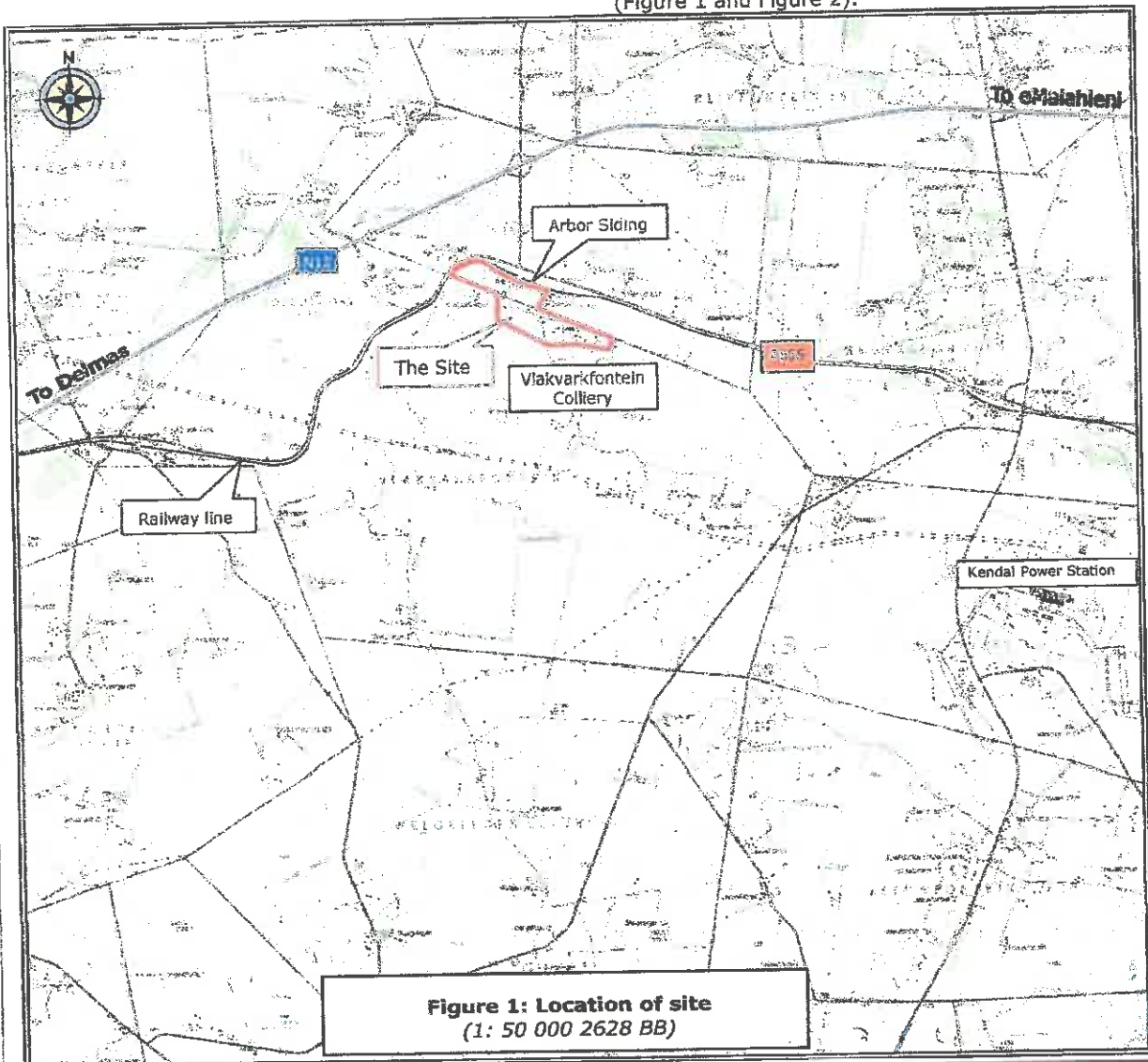
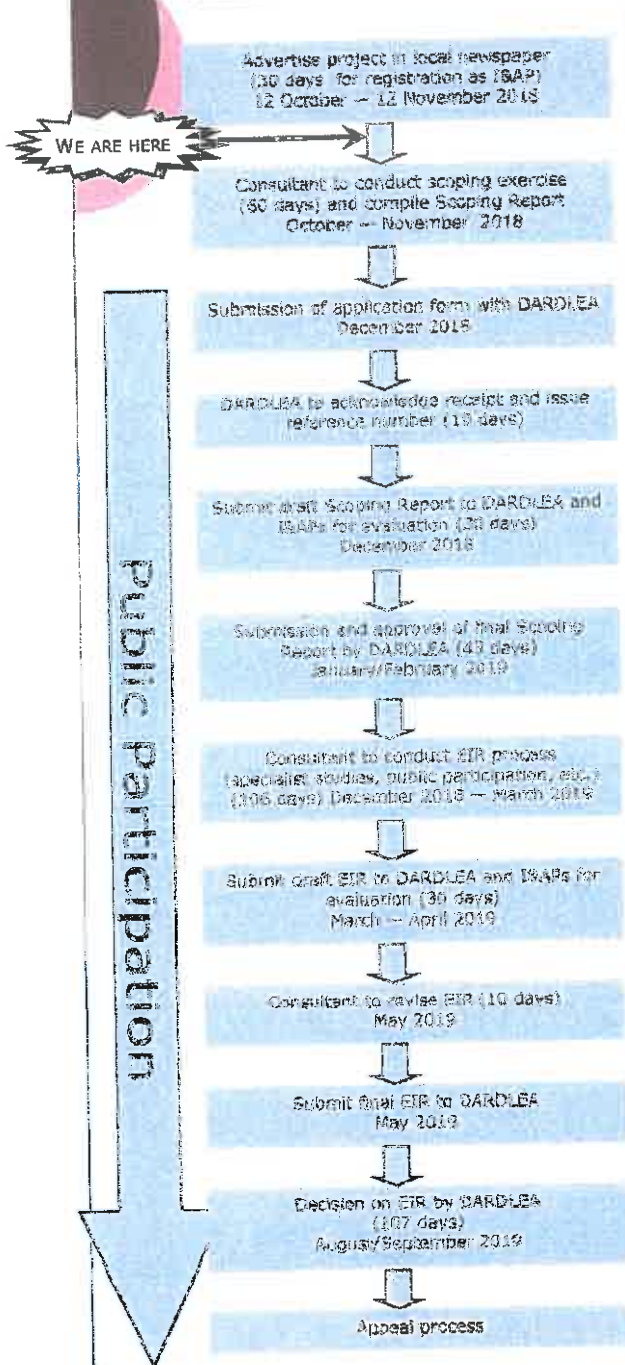


Figure 2: Proposed layout plan



Process to be followed



PLEASE NOTE: TIME TABLE SUBJECT TO CHANGE THROUGH PROCESS FOLLOWED

In order to determine whether approval can be obtained for a proposed activity, a specific procedure must be followed. Government Notice R326 regulates the procedure for the submission, processing and consideration of applications. In short, the Environmental Assessment Practitioner (EAP) must:

- complete an application form (Regulation 16);
- compile a Scoping Report, Environmental Impact Report and Environmental Management Programme (Regulations 21–23 and Appendices 2, 3 and 4 to the Regulations);
- follow a public participation process (Regulations 39–44).

The process that will be followed by the EAP as well as the anticipated timeframes are attached for perusal. The aim of the process is to ensure that the environmental impacts are considered, the relevant I&APs are consulted and the decision making authorities are provided with sufficient information to make an informed decision.

Information with regards to the following environmental features of the said site will be provided in both the Scoping Report and the Environmental Impact Report:

- Topography
- Geology
- Soil
- Land use
- Natural vegetation/plant life
- Animal life
- Surface water
- Groundwater
- Air quality
- Noise
- Sites of archaeological or cultural interest
- Sensitive landscapes
- Visual aspects
- Traffic
- Sense of place
- Interested and affected parties

The Environmental Impact Report will thus provide information regarding the planned activity, the environmental features of the said site and the public participation process followed. It will also provide an indication of the potential impacts that could result during the construction and operational phases of this project as well as possible mitigation/management measures to be implemented.

*It would be appreciated if you could complete the attached comment sheet indicating your issues of concern and/or objections and could forward this comment sheet to AdiEnvironmental by **12 November 2018**.*

DEVELOPMENT OF A RURAL VILLAGE ON A PORTION OF PORTION 5 OF THE FARM VLAKVARK-FONTEIN 213 IR AND A PORTION OF THE REMAINING EXTENT OF VAN DYKSPUT 214 IR, DELMAS

Reference number assigned by AdiEnvironmental cc: EIA2018/01

It would be appreciated if you could indicate on this form whether you have any comments with regards to the proposed activity.

FIRST NAME: Mr Velile	POSTAL ADDRESS:
SURNAME: Ramphele	Arbor Siding, Portion 1 Van Dyksput, Delmas, 1039
ORGANIZATION / FARM NAME:	TEL: 011 658 0349
Gijima Supply Chain Management (Pty) Ltd - Arbor Siding	FAX: 086 611 8181
PHYSICAL ADDRESS:	CELL: 082 550 6536
Portion 1, Farm Vab Dyksput 241 IR, Delmas	E-MAIL: veliler@gjimasupplychains.co.za

Do you wish to remain on the mailing list?

Y
 N

How do you think the proposed activity will impact on you?

We wish to tabulate our concerns as voiced during the meeting of the 7th November 2018. We will comment on the minutes to ensure there is understanding of our concerns, suggestions and solutions and those minutes issues and comment register. Please note all correspondence to be forwarded to our consultant on the following details:
 Babalwa Fatyi – Cell 082 772 2418 - Email: babalwa@myezo.co.za. We wish to tabulate that we have an existing water use licence: Licence No: 04/B20E/G/4009 for Department of Water and Sanitation (DWS), as well as environmental management programme report authorisation from Mpumalanga Department of Agriculture and Administration. The process for the planned railway upgrade has commenced with discussions with the Department of Water and Sanitation around matters pertaining to amendment of the WULA amongst other things.

Any suggestions to mitigate potential impacts?

We reiterate our concern regarding safety and suggest that the pedestrian crossing be rather considered on the farm land's side.


Please provide details of any other parties (e.g. Tribal Authorities, land-owners, community members, etc.) who should be consulted.

Ms Babalwa Fatyi - Environmental Assessment Practitioner (EAP)
 Director - Myezo Environmental Management Services (Pty) Ltd - Cell 082 772 2418 - Email: babalwa@myezo.co.za

Please disclose any direct business, financial, personal or other interest that you may have in the approval or refusal of the application.

None

Please use additional sheet(s) if necessary

.....

 Signed

12/11/2018
 Date

NOTE:

Please forward the completed form to AdiEnvironmental cc.



AdiEnvironmental cc
 P.O. Box 647
 Witbank 1035
 Tel/fax: (013) 697-5021
 e-mail: riana@adienvironmental.co.za
 Contact person: Riana van Rensburg

Annexure 6.1-2: Comments to the BID and Scoping Report

From: Babalwa Fatyi
Sent: 03 January 2019 01:52 PM
To: Riana J. van Rensburg
Cc: 'Adie Erasmus'; Dineo Kotane; Lehlogonolo Mashego
Subject: RE: Comment on BID - Arbor Siding Expansion

Dear Riana

Thank you for your comments.

We have noted them and they will be addressed in the basic assessment report.

We will do follow-up with the stakeholders you mentioned as well. A meeting was also held with the councillor.

Kind Regards

Babalwa Fatyi Pr.Sci.Nat

Director

Winner : Woman Entrepreneur of the Year (Tshwane Business Awards 2016)

M +27 82 772 2418 | T +27 12 998 7642 | F +27 012 990 7641 | Fax to email +27 86 543 1698

F babalwa@myezo.co.za | www.myezo.co.za |



From: Riana J. van Rensburg <riana@adienvironmental.co.za>
Sent: Tuesday, December 11, 2018 12:05 PM
To: Babalwa Fatyi <Babalwa@myezo.co.za>
Cc: 'Adie Erasmus' <adie@adienvironmental.co.za>
Subject: Comment on BID - Arbor Siding Expansion

Dear Ms Fatyi

Your e-mail (dated: 26 November 2018) and Background Information Document with regards to the proposed expansion of the Arbor Siding has reference.

As previously indicated, AdiEnvironmental cc is currently busy with an Environmental Impact Assessment with regards to the establishment of the Arbor Rural Village to be located on a portion of Portion 5 of the farm Viakvarkfontein 213 IR and a portion of the Remaining Extent of Van Dyksput 214 IR, Delmas.

This project entails the formalization of the existing Arbor Village and the provision of new residential, business and community stands. The project applicant is Victor Khanye Local Municipality.

Potential impacts (e.g. dust, noise, etc.) as a result of the coal loading and stockpiling activities at Arbor Siding on this residential area must be identified and mitigation measures proposed to reduce these impacts.

We recommend that the Arbor Village leadership be consulted as part of your process, namely Councilor Oupa Masilela, Chief Simon Mahlangu, Arbor Forum, Arbor Steering Committee and Arbor Trading Association.

Also take note of the following: From the figures provided it appears as if the proposed expansion project would extend onto the Remaining Extent of Van Dyksput 214 IR (registered to Truter Boerdery Trust) that forms part of the proposed rural village development. This potential impact would have to be investigated as part of your Basic Assessment.

Further comment to be provided upon review of the Draft Basic Assessment Report and Water Use Licence application.

Regards
Riana J. van Rensburg

AdiEnvironmental cc
Tel/fax: 013-697 5021
P.O. Box 647
Witbank
1035

Adi
Environmental

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Lehlogonolo Mashego

From: Babalwa Fatyi
Sent: 01 December 2018 10:09 AM
To: Thembinkosi Simon Skhosana; Lyn Madziwanzira; Lehlogonolo Mashego
Subject: Re: Gijima - Arbor APPLICATION TO BE REGISTER AS IAP FOR PROPOSED GIJIMA LICENSE

Dear Sir

Thank you for your registration as an interested and affected party. You will receive further communication.

Warm regards

Babalwa Fatyi
0827722418

Sent from my Samsung Galaxy smartphone.

----- Original message -----

From: Thembinkosi Simon Skhosana <tssa99@gmail.com>
Date: 2018/12/01 08:08 (GMT+02:00)
To: Babalwa Fatyi <Babalwa@myezo.co.za>
Subject: APPLICATION TO BE REGISTER AS IAP FOR PROPOSED GIJIMA LICENSE

Morning Sir or Madam,

As bona fide residence of Arbor Farm, I hereby request to be registered as directly interested and affected person, for the above-mentioned licensing prospecting.

I would highly appreciate if the communique of this fashion will meet your favorable consideration.

Thanking you in advance.

Regards,

Lehlogonolo Mashego

From: Babalwa Fatyi
Sent: 21 November 2018 01:41 PM
To: Lehlogonolo Mashego
Subject: Fwd: Registration as I&AP-Arbor Siding Expansion

Pls see her date of the advert and confirm

Sent from my Samsung Galaxy smartphone.

----- Original message -----
From: "Riana J. van Rensburg" <riana@adienvironmental.co.za>
Date: 2018/11/20 08:25 (GMT+02:00)
To: Babalwa Fatyi <Babalwa@myezo.co.za>
Subject: RE: Registration as I&AP-Arbor Siding Expansion

Good morning Babalwa

Thank you very much.

Regards
Riana J. van Rensburg

AdiEnvironmental cc
Tel/fax: 013-697 5021
P.O. Box 647
Witbank
1035

Ad
Environmental

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From: Babalwa Fatyi [mailto:Babalwa@myezo.co.za]
Sent: 19 November 2018 07:23 PM
To: Riana J. van Rensburg; Lehlogonolo Mashego
Cc: Dineo Kotane; 'Adie Erasmus'
Subject: RE: Registration as I&AP-Arbor Siding Expansion

Dear Riana

Your communication has been noted and you will receive the background information document tomorrow. You will also be registered as an Interested and Affected party on behalf of Arbor Rural Village development.

Kind regards

Babalwa Fatyi Pr.Sci.Nat

Director

M +27 82 772 2418 | **T** +27 12 998 7642 | **F** + 27 012 998 7641 | **Fax to email** + 27 86 543 1698
E babalwa@myezo.co.za | www.myezo.co.za |

From: Riana J. van Rensburg <riana@adienvironmental.co.za>
Sent: Monday, November 19, 2018 2:15 PM
To: Babalwa Fatyi <Babalwa@myezo.co.za>
Cc: Dineo Kotane <dineo@myezo.co.za>; 'Adie Erasmus' <adie@adienvironmental.co.za>
Subject: Registration as I&AP-Arbor Siding Expansion

Good afternoon Babalwa

We noticed that the proposed Arbor Siding expansion was advertised in the Witbank News on Friday, 16 November 2018.

AdiEnvironmental cc would hereby like to register as an Interested and Affected Party on behalf of the Arbor Rural Village development project team.

Please could you forward a copy of the Background Information Document for the proposed expansion. We shall provide comment once we have reviewed the BID.

If you have any queries, please don't hesitate to contact me.

Regards
Riana J. van Rensburg

AdiEnvironmental cc
Tel/fax: 013-697 5021
P.O. Box 647
Witbank
1035

Adi
Environmental

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Lehlogonolo Mashego

From: Babalwa Fatyi
Sent: 20 November 2018 05:38 PM
To: Riana J. van Rensburg; Lehlogonolo Mashego
Cc: Dineo Kotane; 'Adie Erasmus'
Subject: RE: Registration as I&AP-Arbor Siding Expansion

Hi Riana

Please kindly do not expect this BID today as we have a technical glitch in sending the link-It is rather big and we are working on that.

Kind Regards

Babalwa Fatyi Pr.Sci.Nat

Director

Winner : Woman Entrepreneur of the Year (Tshwane Business Awards, 2016)

M +27 82 772 2418 | **T** +27 12 998 7642 | **F** + 27 012 998 7641 | **Fax to email** + 27 86 543 1698

E babalwa@myezo.co.za | www.myezo.co.za |



From: Babalwa Fatyi
Sent: Monday, November 19, 2018 7:23 PM
To: Riana J. van Rensburg <riana@adienvironmental.co.za>; Lehlogonolo Mashego <Lehlogonolo@myezo.co.za>
Cc: Dineo Kotane <dineo@myezo.co.za>; 'Adie Erasmus' <adie@adienvironmental.co.za>
Subject: RE: Registration as I&AP-Arbor Siding Expansion

Dear Riana

Your communication has been noted and you will receive the background information document tomorrow. You will also be registered as an Interested and Affected party on behalf of Arbor Rural Village development.

Kind Regards

Babalwa Fatyi Pr.Sci.Nat

Director

M +27 82 772 2418 | **T** +27 12 998 7642 | **F** + 27 012 998 7641 | **Fax to email** + 27 86 543 1698

E babalwa@myezo.co.za | www.myezo.co.za |

From: Riana J. van Rensburg <riana@adienvironmental.co.za>
Sent: Monday, November 19, 2018 2:15 PM
To: Babalwa Fatyi <Babalwa@myezo.co.za>
Cc: Dineo Kotane <dineo@myezo.co.za>; 'Adie Erasmus' <adie@adienvironmental.co.za>
Subject: Registration as I&AP-Arbor Siding Expansion

Good afternoon Babalwa

We noticed that the proposed Arbor Siding expansion was advertised in the Witbank News on Friday, 16 November 2018.

AdiEnvironmental cc would hereby like to register as an Interested and Affected Party on behalf of the Arbor Rural Village development project team.

Please could you forward a copy of the Background Information Document for the proposed expansion. We shall provide comment once we have reviewed the BID.

If you have any queries, please don't hesitate to contact me.

Regards
Riana J. van Rensburg

AdiEnvironmental cc
Tel/fax: 013-697 5021
P.O. Box 647
Witbank
1035

Ad 
Environmental

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Lehlogonolo Mashego

From: Babalwa Fatyi
Sent: 19 November 2018 08:30 PM
To: umcebowethusupplies@yahoo.com
Cc: Lehlogonolo Mashego
Subject: RE: Arbor Railway Siding in Delmas

Dear Victor

Your communication has been noted and we will send you the background information document.

Thank you for your participation.

Kind regards

Babalwa Fatyi Pr.Sci.Nat

Director

M +27 82 772 2418 | T +27 12 998 7642 | F + 27 012 998 7642 | Fax to email + 27 86 543 1698

babalwa@myezo.co.za | www.myezo.co.za

From: Umcebowethu Supplies <umcebowethusupplies@yahoo.com>

Sent: Monday, November 19, 2018 7:50 PM

To: Babalwa Fatyi <Babalwa@myezo.co.za>

Subject: Arbor Railway Siding in Delmas

Dear Babalwa,

Kindly add Umcebowethu Supplies as a I&AP for the above project and also send me a background report or basic assessment report.

Looking forward to hear from you.

Regards,

Victor Sikhosana (Director)

UMCEBOWETHU SUPPLIES PTY LTD

Registration Nr: 2015/149897/07

Cellphone Nr: 079 037 0809 / 072 679 5542

Fax Nr: 086 275 7113

E-mail: umcebowethusupplies@yahoo.com

[05]

Annexure 11.1-1: IAP Register



GIJIMA - ARBOR RAILWAY SIDING - BASIC ASSESSMENT

INTERESTED AND AFFECTED PARTIES REGISTER (IAPR)

Document Name: GAB-PI-IAPR

Date: 18 June 2019

Myezo Ref No: GAB 2018/11

First Name	Last Name	Company	Position	Tel	Fax	Mobile	E-mail	Postal Address	Physical Address	City	Code	Public Participation Process			
												Type of notification, date and any engagement	Comments received and date	Response and date	
Gijima Supply Chain Management Services (Pty) Ltd															
Velle	Ramphele	Gijima Supply Chain Management Services (Pty) Ltd	Director	011 658 0349	086 611 8181	0825506536	velier@gijimasupplychains.co.za		Arbor Railway Siding, Portion 1 of Farm Vandyksput R555	Delmas	1039				
Peet	Cronje	Gijima Supply Chain Management Services (Pty) Ltd	Director	011 658 0349	086 611 8181	0825617700	peetc@gijimasupplychains.co.za		Arbor Railway Siding, Portion 1 of Farm Vandyksput R555	Delmas	1039				
Benedictus	Xesha	Gijima Supply Chain Management Services (Pty) Ltd	Site Supervisor	011 658 0349	086 611 8181	074 3813436	benny@gijimaarbor.co.za		Arbor Railway Siding, Portion 1 of Farm Vandyksput R555	Delmas	1039				
Thato	Tone	Gijima Supply Chain Management Services (Pty) Ltd	Administrator	011 658 0349	086 611 8181	079 2587545	admin@gijima-arbor.co.za		Arbor Railway Siding, Portion 1 of Farm Vandyksput R555	Delmas	1039				
Myezo Environmental Management Services (Pty) Ltd															
Babalwa	Fatyi	Myezo Environmental Management Services (Pty) Ltd	Director	012 998 7642	012 998 7641	082 772 2418	babalwa@myezo.co.za	Postnet Suite B165, Private Bag X 18, Lynnwood Ridge,0040	378 Kinross Lane, Faerie Glen	Pretoria	0080				
Sicelo	Jebe	Myezo Environmental Management Services (Pty) Ltd	Stakeholder Relations Manager	012 998 7642	012 998 7642	078 00 55 903	sicelo@myezo.co.za	Postnet Suite B165, Private Bag X 18, Lynnwood Ridge,0040	378 Kinross Lane, Faerie Glen	Pretoria	0080				
Lehlogonolo	Mashego	Myezo Environmental Management Services (Pty) Ltd	Environmental Project Assistant	012 998 7642	012 998 7642	076 891 6475	lehlogonolo@myezo.co.za	Postnet Suite B165, Private Bag X 18, Lynnwood Ridge,0040	378 Kinross Lane, Faerie Glen	Pretoria	0080				
Dineo	Kotane	Myezo Environmental Management Services (Pty) Ltd	Environmental Project Coordinator & Report writing	012 998 7642	012 998 7642	083 200 5557	kotane.dineo@gmail.com	Postnet Suite B165, Private Bag X 18, Lynnwood Ridge,0041	378 Kinross Lane, Faerie Glen	Pretoria	0080				
Lynn	Madziwanzira	Myezo Environmental Management Services (Pty) Ltd	Environmental Project Assistant	012 998 7642		073 894 7282	lynmadzi@gmail.com	Postnet Suite B165, Private Bag X 18, Lynnwood Ridge,0040	378 Kinross Lane, Faerie Glen	Pretoria	0080				
Pacy Bukhokho	Marondji	Myezo Environmental Management Services (Pty) Ltd	Environmental Project Assistant	012 998 7642	012 998 7642	084 403 4851	marondjibukoko@gmail.com	Postnet Suite B165, Private Bag X 18, Lynnwood Ridge,0040	378 Kinross Lane, Faerie Glen	Pretoria	0080				
Transnet Freight Rail															
Dan	Ramokone	Transnet Freight Rail	Property owner at Van Dyksput	011 773 8963		0832763763	Daniel.Ramokone@transnet.net		Van Dyksput, Farm 214, Portion number 1				On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, background information document (BID) and registration form).		
Tshildzi	Mavulwana						tshildzi.mavulwana@transnet.net						On Thurs, 22 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Given	Mongwe						given.mongwe@transnet.net						On Thurs, 22 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Ndivhuwo	Netshilaphala	Transnet Freight Rail	Environmental Specialist	011 584 0528	011 584 1330	071 856 3667	ndivhuwo.netshilaphala@transnet.net						On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Eskom SOC Ltd															
Shumani	Mavhungu	Eskom SOC Ltd - PED Environmental Department		011 811 3175		079 733 2173	MavhuSN@eskom.co.za		Eskom Head Office -- Megawatt Park, Sunninghill				On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Ditha	Nkoga	Eskom SOC Ltd - PED Environmental Department	Rail Operation Manager	011 800 4395		082 7822 192	NkogaPD@eskom.co.za		Eskom Head Office -- Megawatt Park, Sunninghill				On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		

Brand	Herman	Eskom SOC Ltd - PED Environmental Department	Manager: Rail Logistics	011 8003131		0824690806	BrandH@eskom.co.za		Eskom Head Office - Megawatt Park, Sunninghill			On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Franz De Lange Consulting														
Franz	De Lange	Franz De Lange Consulting	Engineer	012 661 5612		083 655 0413	fdelange@nyeleti.co.za	PO Box 68863, Highveld Park, Gauteng, South Africa, 0169		Centurion	0169	On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Government Departments														
Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs														
Okwethu	Fakude	Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs	Environmental Officer	013 692 6300		082 214 7435	ocqfakude@mpg.gov.za	Cnr Rosemead and Ryan Road, Klipfontein		Witbank	1035	On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Thokozile	Sithole	Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs	Environmental Programme Manager									On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Robyn		Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs	Director									On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Pamella	Ntuli	Department of Agriculture, Rural Development, Land and Environmental Affairs		013 766 6067/8		082 520 3680	pnntuli@mpg.gov.za	Private Bag x11304 Nelpruit 1200	Block 4 Cycad Building Riverside Park	Nelspruit	1200	On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Dudu	Sibiya	Department of Agriculture, Rural Development, Land and Environmental Affairs		013 766 6067/8			dasibiya@mpg.gov.za	Private Bag x11304 Nelpruit 1200	Block 4 Cycad Building Riverside Park	Nelspruit	1200	On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Robyn	Luyt	Department of Agriculture, Rural Development, Land and Environmental Affairs		013 759 4078			rluyt@mpg.gov.za	Private Bag x11304 Nelpruit 1200	Block 4 Cycad Building Riverside Park	Nelspruit	1200	On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Eric	Sambo	Department of Agriculture, Rural Development, Land and Environmental Affairs	Environmental Officer Control: Pollution and Waste Management				aesambo@mpg.gov.za	Private Bag x11304 Nelpruit 1200	Block 4 Cycad Building Riverside Park	Nelspruit	1200	On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Kholiwe	Nkambule	Department of Co-operative Governance and Traditional Affairs		013 766 7919			kmnkambule@mpg.org.za	Private Bag x11304 Nelpruit 1200	Block 4 Cycad Building Riverside Park	Nelspruit	1200	On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Victor Khanye Local Municipality														
Oupa	Masilela	Victor Khanye Local Municipality (Ward 9)	Ward Councillor			082 220 5852	maselilaoupa@webmail.co.za					Attended an Project Introductory meeting on Thursday, 15 Nov 2018. On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).	Raised concerns include: a) The lack of dust control and monitoring, b) The lack of environmental authorisation before the commencement of the site clearance with the use of the Southern Side site and c) The lack of engagement before the commencement of the Southern Side site use.	Formal response to the raised concerns is still pending.
Xolisile	Nkosi	Victor Khanye Local Municipality		013 665 6000		073 276 1946	xolisile@victorkhanyelm.gov.za							
Jacob	Nkabine	Victor Khanye Local Municipality	Environmental Officer				jacobn@victorkhanyelm.gov.za							
Department of Environmental Affairs														
Ephraim	Maradzwa	Department of Environmental Affairs	Environmental Officer	012 399 9367			emaradzwa@environmental.gov.za		473 Steve Biko Road, Arcadia	Pretoria	0083	On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Department of Water Affairs														
Gloria	Moloto	Department of Water Affairs: Bronkhorstspuit	Environmental Officer	013 932 2061	086 616 0005	066 301 4511	molotom@dws.gov.za		22 Roth Street, Bronkhorstspuit	Bronkhorstspuit	1020	On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Adivhaho	Rambuda						arambuda@dws.gov.za							
Nkangala District Municipality														

Mpho	Nembilwi	Nkangala District Municipality	Environmental Officer	013 249 2160/2165			nembilwim@nkangaladm.gov.za		2A Walter Sisulu Street, Middleburg	Middleburg		On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).			
Emalahleni Local Municipality															
Nomasonto Lizzy	Mofokeng	Emalahleni Local Municipality	Ward Councillor	013 643 1027	013 690 6207	078 408 3878			PO Box 3, Emalahleni	29 Mandela Street, eMalahleni	Emalahleni	1035	Called on Wed, 14 Nov 2018 to confirm whether she was the Ward Councillor for Ward 9 where it was confirmed that she is not and that she does not fall within the specified Municipality.	No comments received.	N/A.
Sandile	Maseko	Emalahleni Local Municipality	Environmental and Waste Management Director	013 690 6555			environmental@emalahleni.gov.za		PO Box 3, Emalahleni	29 Mandela Street, eMalahleni	Emalahleni	1035	On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Other Government Departments															
Hannes	Botha	Mpumalanga Tourism & Parks Agency		013 262 4184											
KM	Mohlasedi	Department of Public Works, Roads and Transport					kmmohlasedi@mpg.gov.za								
First Name	Last Name	Company	Position	Tel	Fax	Mobile	E-mail	Address 1 (Postal Address)	Address 2	City	Code	Public Participation Process	Type of notification, date and any engagement	Comments received and date	Response and date
Interested and Affected Party															
Ian	Skhosana	Community Member				078 7567578			A4B Arbor	Arbor	2230				
Ntombi	Mahlang	Community Member				072 3510484		PO Box A06		Arbor	2230				
Elizabeth	Mahlang	Community Member				0833442229		PO Box A06		Arbor	2230				
Lileno	Mabene	Community Member				0623894761		PO Box A06		Arbor	2230				
Sunday Mavis	Dlamini	Community Member				081 8436011		PO Box A4C		Arbor	2230				
Nkosinathi	Mpervu	Community Member				0822100513		PO Box A8B		Arbor	2230				
Ernest	Skhosana	Community Member				0788332881		PO Box A10		Arbor	2230				
Sofie	Sibangoni	Community Member				0726049392		PO Box A11		Arbor	2230				
Amos		Community Member				0787092627		PO Box A9		Arbor	2230				
Makhonto	Ngobeni	Community Member				0793437987		PO Box N8		Arbor	2230				
Makhanana	Ngoma	Community Member				0799992157		PO Box A4		Arbor	2230				
Anna	Sikhosana	Community Member				0607476559			N3 Arbor Farm	Arbor	2230				
Mpind	Makhathu	Community Member				0792744966		PO Box AB12		Arbor	2230				
	Pase	Community Member				0791180141			A01 Arbor	Arbor	2230				
Victor	Sikhosana	Umcebowethu Supplies (Pty) Ltd	Director		086 275 7115	079 037 0809/072 679 5542	umcebowethusupplies@yahoo.com						IAP sent an email on Mon, 19 Nov 2018 requested to be registered onto the IAP database. On Thurs, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Thembinkosi Simon	Skhosana						tssa99@gmail.com						On Tues, 04 Dec 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Jeroen	te Haar	J&S Boedery/Community Member		013 665 5253		072 107 7085	heriesemail@yahoo.com						On Wed, 21 Nov 2018, a notification letter was sent, consisting of the full notification letter and its supporting appendices (locality map, advert, translated site notices, BID and registration form).		
Chris	Truter	Truter Boedery/Community Member				082 490 1504			Portion 3, 4 Van Dyksput 214 IR	Arbor	2230				
Property Owners															
Ashlee	Becker	JJ P Ged 6 Van Gedeelte 2 Van Vlakvarkfontein 213 (Pty) Ltd	Owner at Vlakvarkfontein	011 570 5848		083 445 0145	ashlee@ledume.gov.za	Vlakvarkfontein, Farm 213, Portion Number 6							
Ian		Ntshovelo Mining Resources (Pty) Ltd	Owner at Vlakvarkfontein	011 433 0594		083 354 9947		Vlakvarkfontein, Farm 213, Portion Number 5							
Jaco	Truter	Truter Boedery Trust	Owner at Van Dyksput			0825249606		Van Dyksput, farm 214, Portion Number 0							
		Truter Boedery Trust	Owner at Boschpoort	013 648 8910				Boschpoort, Farm 211, Portion Number 0							
Arbor Forum															
Benedictus	Xesha	Arbor Forum/Gijima Member				074 381 3436	benny@gijimaarbor.co.za			Arbor	2230				
Berry	Manyis	Arbor Forum				071 830 3855				Arbor	2230				
Dudu	Siphosama	Arbor Forum				078 437 5247				Arbor	2230				
White Raymond	Mahlang	Arbor Forum				082 714 4074				Arbor	2230		Following the site visit on 15 Nov 2018, the IAP confirmed that they do not have an email address.		

Nokuthula	Hlongwane	Arbor Forum	
Bongeni	Moyo	Arbor Forum	
Thokozani	Manana	Arbor Forum	
Steven	Mkhonza	Arbor Forum	
Mandisa	Mangaliso	Arbor Forum	
Nhlanhla	Mabuza	Arbor Forum	
Velle	Ramphele	Arbor Forum/Gijima Member	
Sin	Roogen	Arbor Forum/Contractor	
Secondary Schools			
Moses	Msiza	Mafa Max Motioung High	Principal
S.N.	Moshesha	Phaphamani High	Principal
Monroe	Mashego	Swartklip Combined	Principal
J.J	De Jongh	Delmas High	Principal
G.B	Lesia	Botleng High	Principal
R.N	Khumalo	Sundra High	Principal
Media			
Lizelle	Botha	Witbank News	Editor
Ruen	Ruysschaert	Witbank News	
Associations			
Paul	Bartels	WESSA	
Leigh	Combrink	EWT (Endangered Wildlife Trust)	
South African Heritage Resources Agency (SAHRA)			
Gert	Moduka	Mpumalanga Heritage Resources Authority	Heritage Officer
Benjamin	Moduka		
Nokukhanya	Khumalo	South African Heritage Resources Agency	
Clinton	Jackson	South African Heritage Resources Agency	
Phillip	Hine	South African Heritage Resources Agency	
Amadiba Mining			
Amadiba Power Station			
Mascoal			
Ian			
Vlaakfontein Coal Mine			
Selo			

Annexure 11.1-2: Outcomes of meetings



**GIJIMA SUPPLY CHAIN MANAGEMENT SERVICES – ARBOR RAILWAY SIDING – BASIC ASSESSMENT
FOCUS GROUP MEETING WITH TRUTER AND NTSHOVELO, IN RESPECT OF THE PLANNED ENVIRONMENTAL
AUTHORISATION APPLICATION FOR THE PROPOSED ACTIVITIES AT THE EXISTING OPERATING ARBOR
RAILWAY SIDING IN DELMAS, MPUMALANGA PROVINCE**


Document Name: GAB – PI – M – PM – Focus Group Meeting (4) Minutes

Document Status: Ver 0.3

Date: 12 March 2019

Myezo Ref: GAB 2018/11

Document No:	Myezo-QMS-Min-0011-2
Revision:	V1
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Document Approval	
Director: Myezo Environmental Management Services (Pty) Ltd.	
Name:	Babalwa Fatyi
Date:	30 November 2015
Document Name	GAB -PI -M-PM – Public Meeting Minutes
Signature:	

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**MYEZO ENVIRONMENTAL
 MANAGEMENT SERVICES**
Environmental Stewardship

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 babalwa@myezo.co.za |

Postnet Suite B165, Private Bag X18, Lynnwood
 Ridge, 0040, Pretoria, South Africa

645 Jacqueline Drive, Garsfontein, 0081
 Pretoria, South Africa

Minutes of Meeting:	Focus Group Meeting	
Venue:	Arbor Railway Siding - Boardroom	
Date:	25 February 2019	
Time:	11h00 – 12h00	
Chairperson:	Mr Caspa Neluheni	
Scribe:	Ms Lehlogonolo Mashego	
Date of next meeting:	To be determined	
Attendees	Apologies	
Kindly refer to Attachment 1	<ul style="list-style-type: none"> • Mr Velile Ramphela from Gijima Supply Chain Management Services. • Truter representative. • Mbuyelo Coal (Ntshovelo) representative. 	
	Copy to	
	Gijima Supply Chain Management Services (Pty) Ltd	

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1. Objectives of the meeting

The objectives of the meeting are outlined below:

- i. To introduce the project to adjacent landowners.
- ii. To provide a platform for the landowners to comment and raise any issues related to the proposed planned activities.

2. Meeting Outcomes

Mr Peet Cronje welcomed all attendees and requested that we give the landowners a few minutes to arrive. Lehlogonolo Mashego went on to do a follow-up with the proposed attendees,

- i. Humphrey from Mbuyelo Coal had preliminarily accepted the invite but did not answer the call when the attempt to reach him was done.
- ii. Reneliwe from Mbuyelo Coal delegated the responsibility to one of her colleagues, the representative called to confirm that she would be attending the meeting but then further sent an email to alert the project that she would not be attending the meeting.
- iii. Representative from Truter was called and stated that he would not be attending the meeting, he did however, ask that we send him the presentation for his reference.

Mr Peet Cronje, then proceeded to provide the project update to Myezo Environmental Management Services (Pty) Ltd (Myezo). Gijima Supply Chain Management Services (Pty) Ltd (Gijima) has received a signed lease from Transnet Freight Rail with the detailing requirements.

The project team further contacted Ishmael Phalane to get an update on the water use licence application (WULA) regarding the Southern Side of the Arbor Railway Siding. Ishmael Phalane stated that the process for a WULA runs for an approximated period of 300 calendar days, as such Letsolo Water and Environmental Services CC is presently in Phase 2 of the application. Peet Cronje expressed the urgency of WULA as the process was scheduled to commence in November/December 2018, as a result, Peet Cronje asked that this application be prioritised.

Mr Peet Cronje thanked Myezo for attending the meeting and closed the meeting at 11h30.

3. Way Forward

Actions:

- Send the presentation to Truter and Ntsovelo – Lehlogonolo Mashego
- Send the updated project progress report to Peet Cronje – Lehlogonolo Mashego
- Send out minutes – Lehlogonolo Mashego

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Attachment 1: Attendance Register



**MYEZO ENVIRONMENTAL
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Environmental Stewardship

012 998 7642 012 998 1881 012 72 2416
Email: info@myezo.co.za

345 Janqueline Drive, Gaitferris, 0031
Pretoria, South Africa

GIJIMA SUPPLY CHAIN MANAGEMENT SERVICES - ARBOR RAILWAY SIDING - BASIC ASSESSMENT

ATTENDANCE REGISTER WITH LANDOWNERS AT ARBOR RAILWAY SIDING, IN MPUMALANGA PROVINCE

Document Name: GAB - PI - M - Attendance Register with Landowners

Date: 25 February 2019

Myezo Ref No: GAB 2018/11

First Name	Last Name	Company	Position	Tel	Fax	Mobile	E-mail	Address	City	Code	Signature
Caspa	Nelutani	Myezo	Consultant			084 98 0153	Caspa@myezo.co.za		Pretoria		
Peet	Crope	Gijima	M.S.			082 581 7708					
Rennu	Kesha	Gijima	Ops Manager			074 55 84 36	Rennu@myezo.co.za				
Lehlogonolo	Mashego	Gijima	Jnr Consultant			076 837 5240	lehlogonoloe@myezo.co.za		Pretoria		



**GIJIMA SUPPLY CHAIN MANAGEMENT SERVICES – ARBOR RAILWAY SIDING – BASIC ASSESSMENT
 PUBLIC MEETING WITH ARBOR VILLAGE COMMUNITY MEMBERS, IN RESPECT OF THE PLANNED
 ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE PROPOSED ACTIVITIES AT THE EXISTING
 OPERATING ARBOR RAILWAY SIDING IN DELMAS, MPUMALANGA PROVINCE**


Document Name: GAB – PI – M – PM – Public Meeting Minutes

Document Status: Ver 0.3

Date: 29 January 2019

Myezo Ref: GAB 2018/11


Document No:	Myezo-QMS-Min-0011-2
Revision:	V1
Effective Date:	30 November 2015
Status:	Final
Approval Authority:	Director

Document Approval	
Director: Myezo Environmental Management Services (Pty) Ltd.	
Name:	Babalwa Fatyi
Date:	30 November 2015
Document Name	GAB -PI -M-PM – Public Meeting Minutes
Signature:	

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 MYEZO ENVIRONMENTAL MANAGEMENT SERVICES <i>Environmental Stewardship</i>		012 998 7642, 012 998 7641, 082 772 2418 babalwa@myezo.co.za Postnet Suite 6165, Private Bag X18, Lynnwood Ridge, 0040, Pretoria, South Africa 545 Jacqueline Drive, Garsfontein, 0081 Pretoria, South Africa
Minutes of Meeting:	Public Meeting	
Venue:	Arbor Primary School	
Date:	23 January 2019	
Time:	15h00 – 16h00	
Chairperson:	Ms Dineo Kotane	
Scribe:	Ms Lehlogonolo Mashego	
Date of next meeting:	To be determined	
Attendees	Apologies	
Kindly refer to Attachment 1	<ul style="list-style-type: none"> • Mr Peet Cronje, Mr Veille Ramphela and Mr Benedictus from Gijima Supply Chain Management Services. • Ward Councillor Mr Oupa Maselila • Chief Mr Simon Mahlangu 	
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	Gijima Supply Chain Management Services (Pty) Ltd	

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1. Objectives of the meeting

The objectives of the meeting are outlined below:

- i. To introduce the project to community members.
- ii. To provide a platform for community members to comments and raise any issues.

2. Meeting Outcomes

Mr Raymond Mahlangu (RM) from the Arbor forum opened the public meeting and began the meeting by thanking all attendees for making the time to attend the meeting. He then proceeded to introduce Myezo Environmental Management Services (Pty) Ltd (Myezo) and thanked them for organising the meeting and thus making it possible for the community to be informed about the project. RM went on to ask the Myezo team to take over the meeting and lead in discussion. It must be noted that the meeting was conducted in the local languages of isizulu and Isi Ndebele to ensure that all parties understood each other.

Ms Dineo Kotane (DK) thanked all community members for making time to be present at the meeting, she introduced herself, Ms Lehlogonolo Mashego (LM) and Mr Caspa Neluheni (CN).DK began the discussion by giving a background of the public participation conducted thus far. The pre-consultation commenced in November 2018 where there was a Newspaper Advert placement in Witbank News, Site Notices were placed at strategic points around the site and Arbor Village and she mentioned that some of the community members would recall Myezo placing the adverts as some members of the community were engaged during the process. Furthermore, there were several focus group meetings held with regulative authority and other consultants conducting studies in the area.

In respect to the proposed extension of the Arbor Railway Siding, DK mentioned that there is a list of triggered activities under the National Environmental Management Act (Act No. 107 of 1998) as amended in 2017 (NEMA) as such we are here to engage with all attendees to get comments and/or suggestions as part of the consultation process. The site is undergoing the application of environmental authorisation (EA) in support of the extension of the Arbor Railway Siding on the Southern side of the site. As stipulated under NEMA, Gijima Supply Chain Management Services (Pty) Ltd (Gijima) will be required to application for EA, under the NEMA Regulations, Gijima will need to follow the Basic Assessment (BA) Process. This process allows Environmental Assessment Practitioners (EAP) to quantify the environmental, economic and social implications. As such, we are required to follow this process as this is an intricate part of the outcome of the EA.

DK mentioned to the community that, as part of the public participation process (PPP), we received a comment stating that most members of the Arbor Village are not able to read nor write, thus prohibiting them from fully engaging in the PPP. For this public meeting, minutes will be taken by LM and as such, members were asked that they introduce yourself before expressing their comments and/or questions. CN went on to ask if pictures could be taking and detailed the purpose of the pictures, it was decided that no pictures would be taken as it was not agreed by I&AP's.

DK mentioned that the key comments received from the community during the consultation process in 2018, were regarding dust generated from the siding .DK informed the community that Gijima undertakes dust monitoring and practices dust suppression to align their practice to their licence. There are Specialists which conduct monitoring to ensure that the impact is minimal where recommendations are proved and deemed necessary for the environmental compliance of Gijima. Furthermore, water monitoring is conducted, and reports are submitted to the Department of Water and Sanitation (DWS).

DK thanked all attendees and handed over to RM to lead the comment session. RM reiterated that each person that will be coming forth should clearly state their name and then proceed to comment or raise their question. Table 1 Below outlines the responses that were received from the community during the meeting.

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Table 1.1-1: Responses from the community

NAME	TYPE OF ISSUE	ISSUE RAISED
Ms Dudu Manyisa	Stakeholder engagement	How does Gijima decide to involve us at Phase of the development?
		Gijima has failed us and have a lot to say to express my dissatisfaction. Furthermore, I do not stand for us signing the register or leaving our contact details as we as the residents of Arbor Village will be left with Gijima and Myezo will not be present to answer our daily issues.
Mr Andries Nkosi		We have had consultation before, however, these EAP's fail us by not coming back and reporting on their deliverables. As such, this process is futile as we do not benefit anything but receive a lot of empty promises.
Ms Poppy	Stakeholder engagement, open channels of communication and accessibility	I stay on Stand AB12, so I am a direct neighbour to the Arbor Railway Siding. I am highly disappointed in Gijima, moreso, I am even more disappointed that there is no representative present today.
Mr Mandisa	Traffic management	Will Gijima be bring in more trucks? As is, there are strongly failing at controlling traffic and accidents are high. In addition, some of the key aspects where they are failing us as a community includes dust suppression, employment of locals, local development, the tombstones which are on site, the site clearance which they had no legal obligation to conduct; by this token Gijima does cannot manage their current operation therefore, no need for the extension.
	Open channels of communication and accessibility	Gijima needs to come in and account for their actions.
Mr Steven Mokhonza	Stakeholder engagement, open channels of communication and accessibility	In my opinion this meeting must end as Gijima is not present in this meeting. I know what will happen from here on, we as community members will strike, find police on site and then get wounded by the attack. Gijima preliminarily failed us from Phase 1 therefore, nothing at this point will help. We need Benny and Velile present for this meeting to reach its objective. Gijima handled this whole process wrong therefore, they need to come in and account to that.
Mr Happy	Stakeholder engagement, open channels of communication and accessibility	In a meeting held in August, Velile himself stated that he had no obligation to engage with community members but with Transnet as the land belong to Transnet. My issue is that the dust and noise impact affect the Arbor Village community members and not Transnet. Velile from his comments seems like he does not care. Even with employment, he promised jobs but there are only six (6) locals that are employment by Gijima and of the six (6) some are not original residents. (DK enquired if there were any minutes of the meeting that Mr Happy referred to, in order to verify the comments that

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		were made. Mr Happy mentioned that minutes were taken, and Benny from Gijima also has the minutes.
Andries Nkosi	Directive Action	Petitioned to not sign the register and not stay in the meeting until Gijima comes to answer their questions

It must be noted that at approximately 16h03 the attendees of the public meeting started walking out. RM advised Myezo not force any further engagement and the meeting was then closed.

During the meeting, Myezo acknowledged and recorded issues as they were raised by each community member. Myezo was however, not afforded an opportunity to respond directly to the specific issues that were raised during the question session, as the community walked out during the process. The communicated response at that moment was a form of a way forward, which provided commitment that the issues raised would nevertheless be recorded in the comments register and will be addressed as part of the environmental impact assessment which will be done as per the BAR process reporting.

A decision was made by Myezo and the remaining few members to end the meeting and give feedback to Gijima that the community does not want to engage with Myezo any further until Gijima agrees to a meeting with the community. A collective decision was taken by the community during the meeting not to sign the attendance register. The Myezo public participation team and RM who was facilitating the meeting, are the only people who signed the attendance register.

3. Way Forward

- To arrange a community meeting with Gijima and the community – Lehlogonolo Mashego /Thato
- To arrange focus group meeting with Arbor Community Forum, Arbor Steering Committee, Arbor Trading Association, the Chief and Ward Councillor.

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Attachment 1: Attendance Register



**GIJIMA SUPPLY CHAIN MANAGEMENT SERVICES – ARBOR RAILWAY SIDING – BASIC ASSESSMENT
FOCUS GROUP MEETING WITH CHIEF, IN RESPECT OF THE PLANNED ENVIRONMENTAL AUTHORISATION
APPLICATION FOR THE PROPOSED ACTIVITIES AT THE EXISTING OPERATING ARBOR RAILWAY SIDING IN
DELMAS, MPUMALANGA PROVINCE**

Document Name: GAB – PI – M – PM – Focus Group Meeting Minutes

Document Status: Ver 0.3

Date: 25 February 2019

Myezo Ref: GAB 2018/11

Document No:	Myezo-QMS-Min-0011-2
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Document Approval	
Director: Myezo Environmental Management Services (Pty) Ltd.	
Name:	Babalwa Fatyi
Date:	30 November 2015
Document Name	GAB -PI -M-PM – Public Meeting Minutes
Signature:	

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**MYEZO ENVIRONMENTAL
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Environmental Stewardship

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 645 Jacqueline Drive, Garstonfein, 0081
 Pretoria, South Africa

Minutes of Meeting:	Focus Group Meeting	
Venue:	Arbor Railway Siding - Boardroom	
Date:	23 January 2019	
Time:	12h00 – 13h00	
Chairperson:	Ms Dineo Kotane	
Scribe:	Ms Lehlogonolo Mashego	
Date of next meeting:	To be determined	
Attendees	Apologies	
Kindly refer to Attachment 1	Ward Councillor Mr Oupa Masilela	
	Copy to	
	Gijima Supply Chain Management Services (Pty) Ltd	

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1. Objectives of the meeting

The objectives of the meeting are outlined below:

- i. To introduce the project to community members.
- ii. To provide a platform for the Chief to comment and raise any issues related to the proposed planned activities.

2. Meeting Outcomes

Mr Velile Ramphela (VR) opened the meeting by welcoming Chief Simon Mahlangu (SM). He provided a background to how Gijima Supply Chain Management Services (Gijima) started operating on the Arbor Railway Siding to create employment; local employment, as there is dignity amongst those that are independent. The establishment started in 2008, as such the intention is to extend the activities on site. The extension is associated with environmental requirements as stipulated under the National Environmental Management Act (Act 107 of 1998) as amended in 2017. Chief SM responded by thanking Gijima for arranging the meeting as he has stated in the Arbor Community for years, prior to the establishment of the Siding. There has been previous engagement with Mr Benedictus Xesha (BX) and the key concerns and issues have been raised with him accordingly; these include site operations, the planned extension on the Southern Side and the lack of stakeholder engagement. What resonates at this stage is that contrary to the prior attempt to engage with Gijima, the meeting is finally happening. Additionally, the structure of the community is no longer managed in isolation from each other but is consolidated into one which maximises representation for the greater good of the community. This means that when engaging, the Chief, Ward Councillor; Mr Oupa Masilela and the associated forums/associations need to be present.

VR stressed the fact that the aim is to build each other and that entails working on the relations, regardless of the message in the community. The contributions which Gijima vary from economic and social activities, therefore these should not go unnoticed as we engage further. VR acknowledged that there might have been mistakes before, but the basis of the engagement now is to rectify the errors, additionally, the references we had are to be revisited. Mr Peet Cronje (PC) emphasises the national strategy to move from road-to-rail, which was further reiterated by Dan Mashego from Eskom SOC. What this means is that the road will be safer for passengers and car users, traffic management, reduction in accidents, better quality of roads. BX notified the team that Chief SM is also part of the Logistics and Rail Industry as he is a Rail Engineer for Aveng; this means that the background and need of operations such as Arbor Railway Siding is understood.

Ms Dineo Kotane (DK) of Myezo Environmental Management Services (Myezo) presented the project background, opportunities and impacts. The engagement with key stakeholders' forms part of the public participation process (PPP) therefore the comments correlated will be incorporated into a report. The competent authority (CA) for the project is the Department of Agriculture, Rural Development, Land and Environmental Affairs (DARDLEA) which Myezo as the appointed Environmental Assessment Practitioners has to liaise with adhere to the set legal requirements.

The site operations as it stands operate on the Northern Side and Transnet has agreed for Gijima to lease on the Southern Side, but the outstanding process is the required environmental authorisation (EA) from DARDLEA. The reason behind the required EA is to ensure that developers operate within the prescriptions of a regulated guideline, taking the environmental, economic and social impacts into consideration. The land did get surveyed to determine the feasibility of proposed extension, consultations with adjacent developers is required and the EAP will then determine the impacts and incorporate it into a Basic Assessment Report which will be submitted to DARDLEA as part of the application for environmental authorisation.

The triggered activities under NEMA fall under Listing 1 and 3 as there is an artificial wetland which was identified, as such the full Environmental Impact Assessment process is not deemed necessary. Arbor Railway Siding has a standing Environmental Management Programme report (EMPr) that Gijima complies with, ensuring that dust and water monitoring are conducted monthly. What needs to be understood is that there are seasons which are prone to higher rates of dust, as such means of further minimising in those seasons are being investigated.

The PPP conducted thus far includes the newspaper advertisement, site notices, notification email, notification letter physical delivery and focus group meetings; Ward Councillor and Arbor Primary School Principal. Furthermore, a public meeting will be held and focus group meetings with the Department of Water Affairs, Arbor Community Forum, Arbor Steering Committee and Arbor Trading Association. The comments received thus far include the limited communication channel, dust pollution, safety and risk associated with crossing the rail, traffic management and employment opportunities.

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Chief SM asked about the tombstones located close to the Transnet house, it was then deliberated that the matter will be investigated as Gijima was not aware of this and that it would need urgent attention as it might have serious implications.

VR concluded by stating that Gijima is obliged by their values to fulfil the needs of the greater community and this means doing what they can within their capacity to fulfil the needs. He thanked Chief SM, all present and then closed the meeting at 13h20pm.

3. Way Forward

Recommendations:

- Talk to everyone as under the structure – Chief Simon Mahlangu
- Transparency is key and keep going with the PPP – Chief Simon Mahlangu

Actions:

- Engage with Transnet to get the site boundary - Benny
- Get a database of the local service providers along with their contact details – Thato and Lehlogonolo
- Send out minutes - Lehlogonolo

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Attachment 1: Attendance Register



GIJIMA SUPPLY CHAIN MANAGEMENT - ARBOR RAILWAY SIDING - BASIC ASSESSMENT

FOCUS GROUP MEETING (2) ATTENDANCE REGISTER WITH THE TRIBAL/LOCAL AUTHORITY REGARDING THE PRE-CONSULTATION OF THE PLANNED ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE PROPOSED ACTIVITIES AT THE EXISTING OPERATING ARBOR RAILWAY SIDING IN DELMAS, MPUMALANGA PROVINCE

Document Name: GAB-PI-M- Focus Group Meeting Attendance Register

Date: 23 January 2019

Time: 12h00 - 13h00

Venue: Gijima Supply Chain Management Services (Pty) Ltd - Boardroom

Myezo Ref: GAB 2018/11

First Name	Last Name	Company	Position	Tel	Fax	Mobile	E-mail	Address	City	Code	Signature
Benny	Xesha	Arbor Gijima	Ops Manager	074 381 3486		071 40 75242	Benny@gijima-arbor-co-za				
Thato	Tone	Arbor Gijima	Admin	081 400 9697		081 400 9697	thatobonea@.com				
Casper	Melulani	Myezo	Environmental Consultant	086 518 0750			caspa@myezo.co.za				
Velile	Ramphela	Gijima	Executive Chair	082 550 6536		same	vramphela@icloud.com				
Peet	Gyasi	"	M.A.	082 561 7700			peete@gijima supply chain co.za				
Ewis	Mahlangu	CHIEF Assistant		060 871 5751			ewis@mahlangu@gmail.com	A15 ARBOR FARM D 103			
Simon	Mahlangu	CHIEF		082 452 1324			Simon.Mahlangu@wstmail.co.za		Delmás	9310	
DINEO KOTANE	KOTANE	MYEZO	Environmental Consultant	0832005557		0832005557	Kotane.dineo@gmail.com		Faerie Glen	0081	
Lehlogonolo	Mashaga	Myezo	Jnr Consultant	012/998 7642 0768375240	012 998 7642	0768375240	lehlogonolo@myezo.co.za		Faerie Glen	0081	



MYEZO ENVIRONMENTAL MANAGEMENT SERVICES

Environmental Stewardship

**GIJIMA SUPPLY CHAIN MANAGEMENT – ARBOR RAILWAY SIDING – BASIC
ASSESSMENT**

**FOCUS GROUP MEETING MINUTES WITH THE WARD COUNCILLOR REGARDING
THE PLANNED ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE
PROPOSED ACTIVITIES AT THE EXISTING OPERATING ARBOR RAILWAY SIDING,
IN DELMAS, MPUMALANGA PROVINCE**

DOCUMENT NAME: GAB-PI-Focus Group Meeting (1) Minutes

VERSION: 0.2

Myezo Ref: GAB 2018/11

**GIJIMA SUPPLY CHAIN MANAGEMENT – ARBOR RAILWAY SIDING – BASIC
ASSESSMENT**

**FOCUS GROUP MEETING MINUTES WITH THE WARD COUNCILLOR REGARDING THE
PLANNED ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE PROPOSED
ACTIVITIES AT THE EXISTING OPERATING ARBOR RAILWAY SIDING, IN DELMAS,
MPUMALANGA PROVINCE**

DOCUMENT NAME: GAB-PI- Focus Group Meeting (1) Minutes

VERSION: 0.2

Myezo Ref: GAB 2018/11

DOCUMENT REVIEW AND APPROVAL



**MYEZO ENVIRONMENTAL
MANAGEMENT SERVICES**

Environmental Stewardship

<i>Prepared by</i>	<i>Dineo Kotane</i>		
<i>Reviewed by</i>	<i>Lehlogonolo Mashego</i>		
<i>Document Authorisation</i>	<i>Name</i>	<i>Signature</i>	<i>Date</i>
<i>Approved by</i>	<i>Babalwa Fatyi</i>	<i>[Signature]</i>	<i>03 April 2019</i>

**GIJIMA SUPPLY CHAIN MANAGEMENT – ARBOR RAILWAY SIDING – BASIC
ASSESSMENT**

**FOCUS GROUP MEETING MINUTES WITH THE WARD COUNCILLOR REGARDING THE
PLANNED ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE PROPOSED
ACTIVITIES AT THE EXISTING OPERATING ARBOR RAILWAY SIDING, IN DELMAS,
MPUMALANGA PROVINCE**

DOCUMENT NAME: GAB-PI- Focus Group Meeting (1) Minutes

VERSION: 0.2

Myezo Ref: GAB 2018/11

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**MYEZO ENVIRONMENTAL
MANAGEMENT SERVICES**
Environmental Stewardship

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GIJIMA SUPPLY CHAIN MANAGEMENT – ARBOR RAILWAY SIDING – BASIC ASSESSMENT

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Name:	Babalwa Fatyi
Date:	03 April 2019
Document Name:	GAB-PI- Focus Group Meeting (1) Minutes
Signature	



**MYEZO ENVIRONMENTAL
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Environmental Stewardship

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Minutes of Meeting:	Focus Group Meeting Minutes with the Ward Councillor regarding the Planned Environmental Authorisation Application for the Proposed Activities at the Existing Operating Arbor Railway Siding, in Delmas, Mpumalanga Province	
Venue:	Victor Khanye Local Municipality offices, Delmas, Mpumalanga	
Date:	15 November 2018	
Time:	15:00 pm – 15:30 pm	
Chairperson:	Dineo Kotane	
Scribe:	Lehlogonolo Mashego	
Date of next meeting:	To be confirmed	
Attendees	Apologies	
Ms Lehlogonolo Mashego (LM) – Environmental Project Assistant (LM) for Myezo Environmental Management Services (Pty) Ltd (Myezo) Ms Dineo Kotane (DK) – Consultant for Myezo Environmental Management Services Mr Oupa Masilela (OM) Ward Councillor for Ward 9 – Victor Khanye Local Municipality	None	
	Copy to	
	Ward Councillor - Mr Oupa Masilela	

1. Objectives of the meeting

The objectives of the meeting are outlined below:

- i. Introduce the project to the Ward Councillor
- ii. Outline the environmental authorisation process to be followed
- iii. Gather issues and concerns the proposed project might present
- iv. Establish communication structures to be engaged with
- v. Request permission to engage with community and place notices at strategic places within the community (Arbor Village)

2. Summarised Outcomes

- Councillor Masilela (OM) welcomed the Myezo Environmental Management Services (Pty) Ltd (Myezo) team, opened the meeting and asked the team to lead the discussions.
- DK thanked Councillor OM for the opportunity to meet with the Myezo team represented by LM the environmental project assistant and DK the project coordinator consultant to Myezo.
- DK provided a short summary of the proposed project by Gijima Supply Chain Management Services (Pty) Ltd (Gijima) at Arbor Railway Siding seeking to extend their operations for additional activities planned on site to increase business operations.
- She further outlined that Gijima as the Applicant commissioned Myezo as Independent consultants and as Environmental Assessment Practitioners (EAP) for environmental authorisation application in relation to the proposed project. To date this is the first pre-application consultation with the Ward Councillor and Myezo has submitted the advert to be published in Witbank News in relation to the proposed project. The project is currently at Public Participation phase and as part of the Public Participation and public involvement, the first step is to identify and consult with the relevant key community authority, hence the meeting with the Ward Councillor.
- DK further provided further information into stakeholder engagement with particular emphasis to a more comprehensive stakeholder engagement process to be undertaken during the submission of the first draft of the Basic Assessment Report (BAR) for public review.
- DK further stated that as Myezo team, the meeting also seeks to establish concerns and issues the proposed project presents to the Arbor village and Ward Councillor.
- LM handed out the handouts of the site notice document with planned activities layout plans and the registration form to document comments and issues about the proposed project. LM highlighted that further information will be provided in the form of a Background Information Document (BID) that will be emailed as part of the Interested and Affected Parties (IAP) notification process.
- Ward Councillor OM thanked the team to request to meet with him and introduce the project. He further expressed his concern with the lack of consultation from Gijima in relation to the commencement of activities on site. He emphasised that the Arbor Forum was concerned about the clearing that has taken place on site without being informed on the process. Councillor also indicated that from the previous Arbor meetings held, he was commissioned by the Arbor Forum to consult with Gijima on their behalf in order to understand what was happening on site, particularly with the clearing. He indicated that they are aware that there is no work that must commence on site without proper permission or authorisation and clearing indicates the commencement of work on site.
- Councillor OM stated that he has tried several times after contacting Mr Benny with no success to request a meeting with Mr Velile Ramphela in order for him to understand the process of the activities undertaken on site particularly with the clearing done.

- He also added that he stays very close to the Siding and his main concern is the dust, particularly coal dust. He is further concerned about the proximity of the planned activities to his residence, especially the additional trucks to be brought in will mean increase in dust and noise.
- He further emphasised that he is for the opinion that things must be done properly, and he is glad that Gijima has started to undertake the proposed project and follow the proper process. He emphasised that consultation and communication is key and as a business and provider of employment to the Arbor village community members there must be constant communication.
- DK provided a summary of the Basic Assessment Report process to be followed highlighting the timelines required by the Competent Authority and public involvement and review period (30 days for registration and reviews).
- DK asked when the Arbor Forum meetings were scheduled so as to link the scheduled meetings with the planned stakeholder consultation process for the Basic Assessment report process. The Arbor Forum can be one focus group meeting.
- Councillor responded to say although they have a set schedule for meetings, there is a possibility to ensure that the Arbor Forum meeting is available to meet with Myezo team when requested.
- Councillor asked if there will be more meetings set with the community, DK responded at the moment it is not clear if there will be a public meeting and if there would be when it will be held.
- Councillor added that he was asking in relation to the upcoming National elections in May 2019, so that we are mindful of their busy schedule and unavailability particularly around that time.
- DK added to Councillor's concern that with every project a risk assessment and management plan is done and with this project a risk of the National Elections has been identified and management strategies have been proposed. She emphasised the importance of the meeting with the Councillor OM so as to establish a communication channel so as to be aware of any issues or processes within the community and outside that might affect the proposed project schedule and its planned outcomes.
- LM asked Councillor OM for additional key stakeholders to be engaged in relation to the proposed project. Councillor OM stated that he is available to assist with providing information and support when requested. He is available on his mobile and also through email.
- DK asked Councillor OM where the strategic places to have the Site Notices erected for the public visibility and access and mentioned the Arbor Primary and the clinic as potential sites. Councillor OM, responded to say the Arbor village does not have a clinic, but a mobile clinic that comes to a fenced site next to the Arbor Primary School.
- DK requested for permission to place the Site Notices on strategic places around the village and Councillor granted the permission and suggested that the local spaza shops also be used as points to place the Site Notices.

3. Proposed Action Plan and Way Forward

- (a) Myezo team to place Site Notices at strategic places as agreed
- (b) Myezo to communicate with Councillor on progress particularly public engagement in Arbor
- (c) Myezo team to do the following:
 - Register OM as an I&AP
 - Include him in future stakeholder participation
 - Provide BID and other information
 - Send copy of minutes of the meeting
 - Consult Councillor on further developments on the project

**GIJIMA SUPPLY CHAIN MANAGEMENT – ARBOR RAILWAY SIDING – BASIC
ASSESSMENT**

**FOCUS GROUP MEETING MINUTES WITH THE WARD COUNCILLOR REGARDING THE
PLANNED ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE PROPOSED
ACTIVITIES AT THE EXISTING OPERATING ARBOR RAILWAY SIDING, IN DELMAS,
MPUMALANGA PROVINCE**

DOCUMENT NAME: GAB – Pi - Focus Group Meeting (1)

VERSION: 0.2

Myezo Ref: GAB 2018/11

Dear Councillor Oupa Masilela

These are proceedings of the meeting held as follows:

- **Date:** 15 November 2018
- **Time:** 15h00 pm – 15h30 pm
- **Venue:** Victor Khanye Local Municipality Offices, Delmas

As attended by attendees listed under attendee section of the same proceedings, are hereby being adopted as a true reflection of this discussion held on this day.

Accepted by:

Designation:

Date:

Signature:

Appendix 1.1-1: Attendance Register

Annexure 11.2-1: Site Notices (English, isiZulu, Setswana Translation)



KITSISO KA SETSHA

KITSISO E E YANG GO BATHO BOTLHE BA BA NANG LE KGATLHEO KA POROJEKE E BILE BA ANGWA KE YONE E E AMANANG LE KOPO E E RULAGANYEDITSWENG GO DIRWA YA GO NEWA TETLA YA GO DIRWA GA DITIRO TSE GO TSHITSHINTSWENG GORE DI DIRWE KWA BODIRELONG JO DITIMELA DI THOTANG MALATLHA KWA GO JONE KWA ARBOR, KWA DELMAS, POROFENSE YA MPUMALANGA

Letlha: 15 November 2018

Modirakopo: Gijima Supply Chain Management Services (Pty) Ltd (Gijima)

Lefelo la porojeke: Tlhabololo e go tshithintsweng gore e dirwe ya Bodirelo jo ditimela di thotang malatla kwa Arbor (26 02' 19.78" S and 28 52' 51.23" E) e tla dira mo Karolo 1 ya Moraka wa Vandykspuit 214 IR, mo teng ga Mmasepala wa Selegae wa Victor Khanye (Victor Khanye Local Municipality [VKLM]), ka Tumelelo ya Mmagiseterata wa Kgaolo wa Emalahleni, kwa Porofenseng ya Mpumalanga. Setsha seno se kwa bophirima jwa N12, mme go ka tsenwa mo go sone ka R555 e e elang kwa Ogies gape se ka nna 5 km go ela kwa bophirima jwa Seteišene sa Motlakase sa Kendal.

Thulaganyo e e latelwang: Pego ya Ditshekatsheko tsa Tekeletso

Go ntshiwa kitsiso fano go ya ka Molao wa Bosetšhaba wa Botsamaisi jwa Tikologo (Molao wa bo 107 wa ka 1998) (National Environmental Management Act [NEMA]): Melawana ya Tshkatshoko ya Diphelelo tsa mo Tikologong, Kitsiso ya Puso ya 2014 (Government Notice [GN] R982 (2014 Melawana ya EIA), e e tlhabolotsweng ka 2017 ka fa tlase ga GN R326, Karolo 41 (2) (a) (b) (c) (d) (e) le (3) e e gatisitweng mo teng ga GN R982, ka fa tlase ga Dikarolo 24 (5) le 44 tsa NEMA, ya boikaelelo jwa Gijima jwa go dira ditiro tse dingwe go ya pele kwa Bodirelong jo ditimela di thotang malatla kwa Arbor.

Tshedimosetso ka Kopo le Mofuta wa Yone Ditiro tse go tshithintsweng gore di dirwe di tla akaretsa go tlhabololwa ga ditirelo le madirelo a a leng teng gore go tokafadiwe tiro ya bodirelo ditimela di thotang malatla kwa Arbor, seno se akaretsa go bulwa ga ditšhono tse di ntšha tsa go bona ditiro ga baagi ba kwa Arbor go tshetsa leano la Ditsela le Diporo. Kitsiso eno gape ke karolo ya thulaganyo ya go nna le seabe ga baagi go thomamisa gore maikutlo le matshwenyego a Batho ba ba Nang le Kgatlhego mo Porojekeng eno E bile ba Angwa ke Yone (Interested and Affected Parties [ba IAP]) a a kwala le eleng pele kopo ya go nwa tetla ya go dira ditiro mo tikologong e romelwa kwa balaodding ba ba tshwanelegang, e leng Lefapha la Temothuo le Tlhabololo ya Metseselegae, la Ditshe la la Merero ya Tikologo (Department of Agriculture Rural Development, Land and Environmental Affairs [DARDLEA]).

Ditiro tse di tlileng go dirwa ka tumelelo ya kopo eno e go rulaganyeditsweng gore e dirwe tse di tla dirwang go ya ka melawana ya NEMA di akaretsa Ditiro tsa Lenaane 9 (i) (ii), 19 (i), 34 (i), 48 [(i) (ii) (iv)] (i) (ii) – (a) (c), 64 (iii), 67 (ii) (ka fa tlase ga Lenaane la Kitsiso 1

– GN R983, le le tlhabolotsweng ka 2017 ka fa tlase ga GN R 327) le Tiro ya Lenaane 14 [(i) (ii) (iv) (xi)] (i) – (a) (c) (ka fa tlase ga Lenaane la Kitsiso 3 – GN R985, le le tlhabolotsweng ka 2017 ka fa tlase ga GN R324) mme ka ntsha ya moo, go tla latelwa mekgwatsamaiso ya go dira tshkatshoko ya tekeletso.

Bodirelo jo ditimela di thotang malatla kwa Arbor bo na le laesense ya go dirisa metsi (water use licence [WUL]) mme ditiro tse dingwe tse go tshithintsweng gore di dirwe di tla akaretsa letamo le lengwe gape la go laola kgotelo, go oketsa bogolo jwa letamo le le leng teng gore le fitlhe go 32 m ya mosele wa metsi (manwaane), mme ka ntsha ya moo, go tla thokega gore go romelwe kopo ya WUL ya go dirisa metsi e e mo Karolong ya 21 (c), (i) le (g) go ya ka Molao wa Bosetšhaba wa Metsi (Molao wa bo 36 wa ka 1998).

Kitsiso eno ke ya go laletsa ba IAP botlhe gore ba nne le seabe mo thulaganyong ya go nna le seabe ga baagi, e e tla simololang ka Labone, 15 November 2018 go fitlha ka Mosupologo, 7 January 2019. Thulaganyo eno ke ya go thomamisa gore lo ikwaditsitse jaaka IAP, gore lo kgone go romela matshwenyego ape, lo tshithinye ditharabololo, lo kope go tlhalosediwa dilo dingwe semmuso ka porojeke e go tshithintsweng gore e dirwe le/kgotsa lo kope ditokomane tse di amanang le porojeke. Go bona tshedimosetso go ya pele ka porojeke e go tshithintsweng gore e dirwe, khopi ya kitsiso mmogo le Tokomane ya Tshedimosetso ka Porojeke (Background Information Document [BID]) e tla nwa ba IAP botlhe ba ba leng teng. Mathata le matshwenyego otlhe a ka romelwa semmuso (ka lekwalo) ka imele kgotsa ka fekese go dirisiwa dintlhakgokaganano tse di fa tlase. Ditshwaelo tsothle le/kgotsa mathata a tshwanetse go romelwa malatsi a le 30 morago ga go ntshiwa ga kitsiso eno (ka Mosupologo, 7 January 2019) kwa EAP go thomamisa gore dikarabo tsothle di tsenngwa mo teng ga Pego ya Ditshwaelo le Dikarabo, tse di tla tsenngwang mo teng ga Pego ya Ditshekatsheko tsa Tekeletso (Basic Assessment Report [BAR]) e e tla romelwang balaodi ba ba tshwanelegang, DARDLEA

LETLHA LA KITSISO ENO: LABONE, 15 NOVEMBER 2018



Dintlha tsa Mogakolodi yo go Ikgolagannwang le Ene:
Myezo Environmental Management Services (Pty) Ltd
Motho yo go ka Ikgolagannwang nae: Babalwa Fatyi
Fekese: 086 543 1698
Sele: 082 772 2418



ISAZISO NGENDAWO YOKUSEBENZA

ISAZISO ESIYA KUBO BONKE ABANESITHAKAZELO NAKUBO BONKE ABATHINTEKAYO MAYELANA NOKUFAKWA KWESICELO SOKUGUNYAZWA KWEZEMVELO EMSEBENZINI OHLELELWE UKWENZIWA ESAKHIWENI ESESIKHONA KAKADE E-ARBOR RAILWAY SIDING E-DELMAS, ESIFUNDAZWENI SASEMPUMALANGA

Usuku: 15 Novemba 2018

Ofake isicelo: Yi-Gijima Supply Chain Management Services (Pty) Ltd (Gijima)

Indawo Yomsebenzi: Ushintsho oluhlongozwayo ukuze kuguqulwe i-Arbor Railway Siding (26 02'19.78"S kuye ku-28 52'51.23" E) itholakala engxenyeni 1 yepulazi i-Vandykspuit 214 IR, maphakathi nomkhandlu iVictor Khanye Municipality (VKLM), ongaphansi kwesifunda saseMalahleni, i-Emalahleni Magisterial District, esifundazweni saseMpumalanga. Le ndawo isentshonalanga yomgwaqo u-N12, ongaqhamukela kuwo uma udlula emgwaqeni u-R555 eduzane nase-Ogies, uqhele ngamakhilomitha angaba ngu-5 entshonalanga nesiteshi sikagesi saseKendal.

Imibandela Elandelwayo: Lo mbiko Wemibandela Yokuhlola Eyisisekelo ukhishwa ngokuvumelana Nomthetho Onakekela Imvelo (Act 107 ka-1998) (NEMA): Ukuhlolwa koMthetho wezeMvelo, 2014 Isaziso sikaHulumeni (GN) R982 (2014 EIA Regulations) olungiswe kabusha ngo-2017 ngaphansi kwe-GN R326, ingxenye 41(2) (a) (b) (c) (d) (e) kanye no-(3) eyashicilelwa ku-GN R982, ngaphansi kwezingxenye 24 (5) kanye no-44 we-NEMA, izinhloso zenkampani i-Gijima ukunakekela lo msebenzi wokulungisa endaweni i-Arbor Railway Siding.

UKWAZISWA KANYE NESIZATHU SOKWENZA LESI SICELO: Lo msebenzi ohlongozwayo uzohlenganisa ukwenziwa kabusha kwezakhiwo ezikhona njengamanje kanye nokusebenzisa ujangantshi wesitimela ngokugcwele, lokhu kusho ukudalela amathuba omsebenzi umphakathi wase-Arbor ukuze usekele leli su le-Road-to-Rail. Lesi saziso siyingxenye ehlanganisa nokubandakanywa komphakathi eqikelela ukuthi imibono kanye nezikhalo zalabo abanesithakazelo ngalo msebenzi kanye nabathintekayo ngokuqondile ngawo iyanakekelwa ngisho nangaphambi kokuba isicelo sokugunyazwa kwezemvelo sihanjise kwabezomthetho, eMnyangweni Wezolimo eMpumalanga Kwezokuthuthukiswa kwaseMaphandleni, Umhlaba kanye Nemvelo (DARDELEA).

Umsebenzi ozokwenziwa uzoba ngaphansi kwalesi sicelo esihleliwe esenziwe savumelana nemibandela ye-NEMA ehlanganisa umsebenzi 9 (i) (ii), 19 (i), 34 (i), 48 [(i) (ii) (iv)] (i) (ii) – (a)(c), 64 (iii), 67 (ii) (ngaphansi kwesaziso 1 – GN R983, olungiswe kabusha ngo-2017 ngaphansi kuka-GN R 327) ngakho, imibandela yokuhlola eyisisekelo izolandelelwa. Njengamanje lojangantshi wesitimela unelayisense yokusebenzisa amanzi (WUL) kanti lomsebenzi wokulungisa ohlongozwayo uzodinga kwakhiwe idamu elizolawula ukuncola, lokhu kusho ukunwetshwa kwedamu elikhona njengamanje libe ngamamitha angu-32 ukufika odongeni lwalo, ngakho kuzodingeka ukuhanjiswa kwesicelo se-WUL sokusetshenziswa kwamanzi sifakwe ngaphansi kwezingxenye 21 (c), (i) no (g) ngokwemigomo woMthetho Wamanzi Wezwe Lonke (Act 36 of 1998).

Lesi sicelo siyisimemo esiya kuwo wonke ama-IAP ukuba abambe iqhaza njengoba kuvulekele umphakathi wonke ukuba uzibandakanye kulo msebenzi, ozoqala kusukela ngoLwesine, mhlaka-15 Novemba kuya kuMsombuluko, mhlaka-7 Januwari 2019. Lolu hlelo olokuqinisekisa ukuthi ubhalisiwe njenge-IAP, ukuqiniseka ukuthi uyazwakalisa ukukhathazeka onakho, izisombululo, ukucaciselwa kahle ngomsebenzi okukhulunywa ngawo kanye nokucela amaphepha angokomthetho ahambelana nomsebenzi. Ukuthola imininingwane eyengeziwe mayelana nalo msebenzi, noma ikhophi yalesi saziso kanye neminye imininingwane ngalokhu iyonikezwa bonke asebhahliswe njengama-IAP. Zonke izikhalo mazaziswe (ngokubhalwa) kule mininingwane ebhalwe ngezansi kungaba nge-meyili noma i-feksi. Zonke izikhazazo kufanele zenziwe kungakapheli izinsuku ezingu-30 kuphume lesi saziso (kungakashayi uMsombuluko, mhlaka-7 Januwari 2019) kuyi-EAP, ukuze kuqinisekiswa ukuthi zonke izimpendulo zifakiwe embikweni wezikhazazo kanye nemibono oyobe wakha ingxenye yombiko wemibandela yokuhlola eyisisekelo (BAR) oyohanjiswa kuziphathimandla zomthetho, i-DARDLEA.

USUKU LWESAZISO: ULWESINE, 15 NOVEMBA 2018



Imininingwane Yokuxhumana Yenkampani:
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Annexure 11.3-1: Background Information Document



MYEZO ENVIRONMENTAL MANAGEMENT SERVICES

Environmental Stewardship

**GIJIMA SUPPLY CHAIN MANAGEMENT SERVICES – ARBOR RAILWAY
SIDING – BASIC ASSESSMENT**

**BACKGROUND INFORMATION DOCUMENT REGARDING THE PLANNED
ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE
PROPOSED ACTIVITIES AT THE EXISTING OPERATING ARBOR
RAILWAY SIDING, IN DELMAS, MPUMALANGA PROVINCE**

DOCUMENT NAME: GAB-R-BACKGROUND INFORMATION DOCUMENT

VERSION: 1

Myezo Ref: GAB 2018/11

BACKGROUND INFORMATION DOCUMENT (BID)
BASIC ASSESSMENT PROCESS – AS PER NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998) (NEMA) FOR THE PROPOSED UPGRADE AND INCREASE IN THE SCOPE OF ACTIVITIES AT THE EXISTING ARBOR RAILWAY SIDING IN DELMAS, MPUMALANGA PROVINCE.

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Gijima Supply Chain Management Services (Pty) Ltd intends to increase the scope of their current activities at the Arbor Railway Siding, which is located on Portion 1 of Farm Van Dyksput No. 214 - IR within the Victor Khanye Local Municipality (VKLM), under the Emalahleni Magisterial District, Mpumalanga Province.

1 Purpose of the Background Information Document (BID)

This document has been compiled as an information sharing tool to facilitate gathering of issues for the Basic Assessment process which is being undertaken in terms of the National Environmental Management Act (Act 107 of 1998) as amended (NEMA). The purpose of the document is to provide:

- Background information and an overview of the proposed upgrading of the Arbor Railway Siding, to Interested and Affected Parties (IAPs);
- An overview of the Basic Assessment Process;
- Details on how you, as an IAP can become involved in the Basic Assessment Process and raise issues, concerns and/or suggestions regarding this proposed project.

Your comment is important and will ensure that all relevant issues are evaluated in the Basic Assessment Process.

The competent authority for the Basic Assessment Process is the Mpumalanga Department of Agriculture, Rural Development, Land and Environment Affairs (DARDLEA).

The Water Use License for water uses listed under Sections 21 (c), and Section 21 (g) in terms of the National Water Act (Act 36 of 1998) will be applied for, from Department of Water and Sanitation (DWS).

Please complete the provided Registration Form to register as an IAP; and send through your

comments, concerns and/or suggestions about the project.

Note: Registration is open between 16 November 2018 and 14 January 2019 (Just above the regulated 30 days with the consideration of festive season and public holidays).

1.1 Introduction and Background

Arbor Railway Siding is used for loading domestic coal, as well as exporting coal onto rail wagons. The market for this service has been identified as Eskom, as well as neighbouring mines. Arbor is used as a point of entry into the rail network.

Gijima currently owns a lease agreement from Transnet for the operation of this siding (Figure 1.1-1). The increase for the scope of activities is intended to maximise the operational capacity of the business and a safer operation.

Myezo Environmental Management Services (Pty) Ltd (Myezo) has been commissioned by Gijima Supply Chain Management Services (Pty) Ltd (Gijima) to act an environmental assessment practitioner (EAP) and apply for environmental authorisation on behalf of Gijima, for the proposed new activities at which will trigger listed activities in terms of NEMA. The details of listed activities are provided under Section 6.

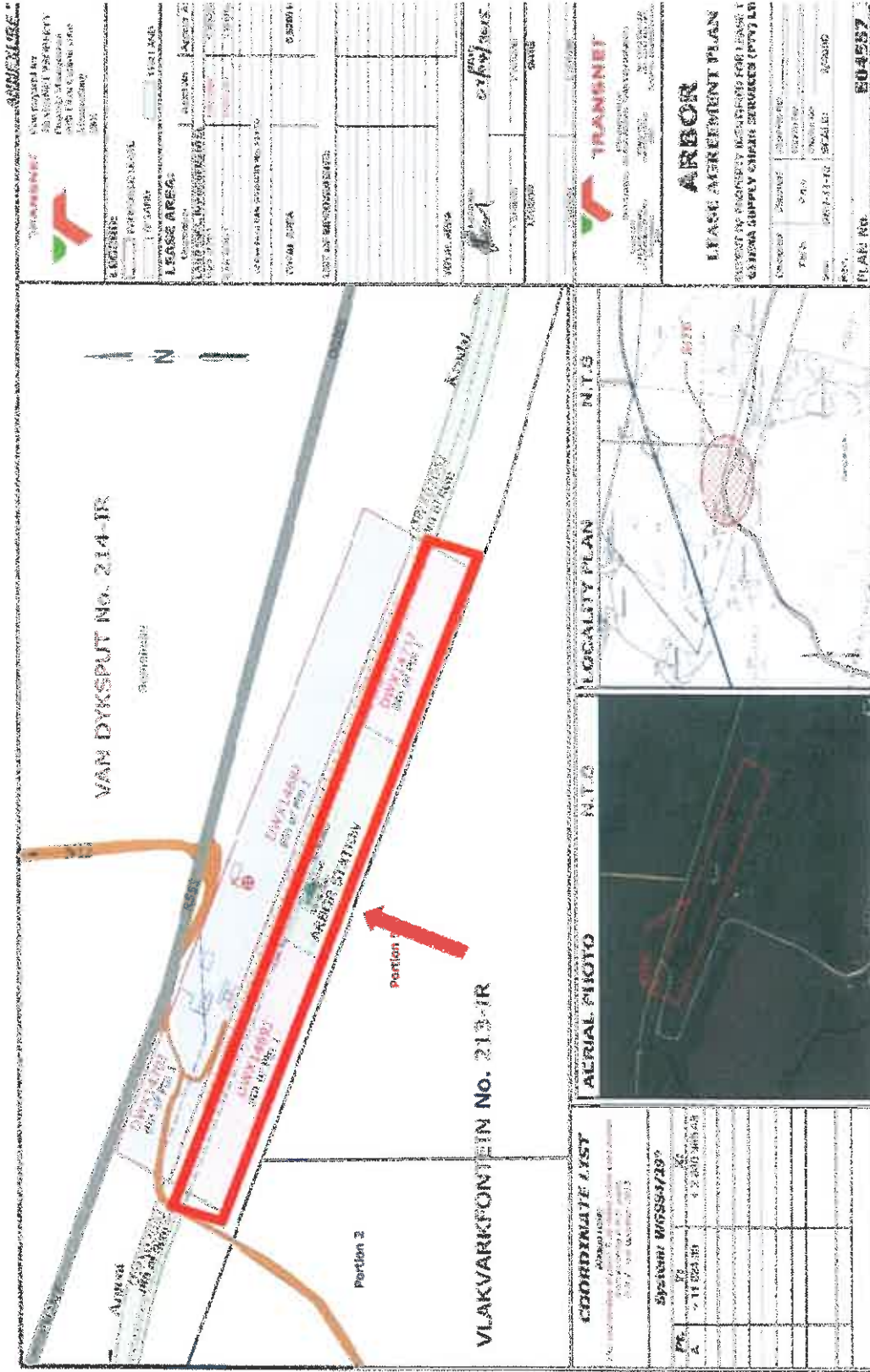


Figure 1.1-1: Proposed Infrastructure

2 Project Description

2.1 Site Access

The siding is located west of N12 and can be accessed through R555 to Ogies.

2.2 Project Location

The site is located about 5 km west of the Kendal Power Station, along the R555. It falls within the Olifants Water Management Area (WMA 4), in the Quaternary Catchment B20F.

Regional and local setting of the site is indicated in Figure 2.2-1 and Figure 2.2-2.

The total storage capacity of the existing site is 21 204 tons. The current active operational side herewith, referred to the Northern Side of the Arbor Railway Siding, has been servicing Eskom with 3,8 million tons of coal, over the three-year period, which ended in September 2016.

Subsequently, Gijima targets the export market and Eskom renewed the contract and increased the tonnage to 9 5 000 000 tons over a 4-year period ending in 30 September 2020. This translates to 198 000 tons per month. There will be challenges in achieving this current contractual demand, since the current active operational area has reached its maximum operational capacity in terms of stockpiling, receiving trucks and loading the trains. Currently, only two trains are operational to service the extended Eskom contract and the current infrastructure is not enough to fulfil Gijima's contractual obligations. The operational capacity will need to be increased and as such there will be additional activities that will be undertaken such as increased stockpiling areas, and to increase the loading capacity with two trains daily. Increase in the capacity of the pollution control dam and/or have a new additional pollution control dam with a silt trap. Infrastructural changes are indicated in the infrastructure layout plan (Figure 5.1-1).



Photograph 2.2-1: Site Entrance



Photograph 2.2-2: View of Site Activities

The Arbor Railway Siding operations form part of a broader vision established by Transnet and Eskom to reduce the number of trucks on the road network. In summary this Road to Rail Strategy aims to achieve the following:

Box 1: The Transnet and Eskom Road to Rail Strategy

- The Transnet Freight Rail (TFR) Strategy is a seven (7) year strategy that developed in 2012 where R300 billion was allocated in infrastructure development to rejuvenate the economy (State of the Nation Address, 2012). The allocation was meant to also create jobs and address poverty including inequalities. Of the R300 billion, R200 billion, would be channelled to TFR to expand the rail infrastructure to create capacity and increase cargo volumes.
- TFR has developed and is currently implementing a new strategy called the 'Market Demand Strategy (MDS), which focussed mainly on a shift of traffic from road to rail.
- In their June 2015 progress report TFR reported to have six pillars for its MDS – market development, operational efficiency, capital investment, regional integration, safety and people. Its goals were to be among the top five railways of the world, to be financially sustainable, to be the employer of choice and to reach a "goal standard" in its operations and capital executions.
- It was reported that in the following years, from June 2015, TFR would be piloting a road-rail solution, which meant it could go on both rail and road. TFR had purchased new locomotives to the value of R250 billion, as part of the strategy was to improve the rail networks. TFR was also committed to improving cross-border traffic, focussing on the north-south corridor which would reduce the asset cycle time from 20 days to six (6) days. It was in negotiations to move copper from Zambia to Richards Bay and Durban by rail and was also working very closely with Eskom on customer collaboration and capacity creation for the road to rail shift.

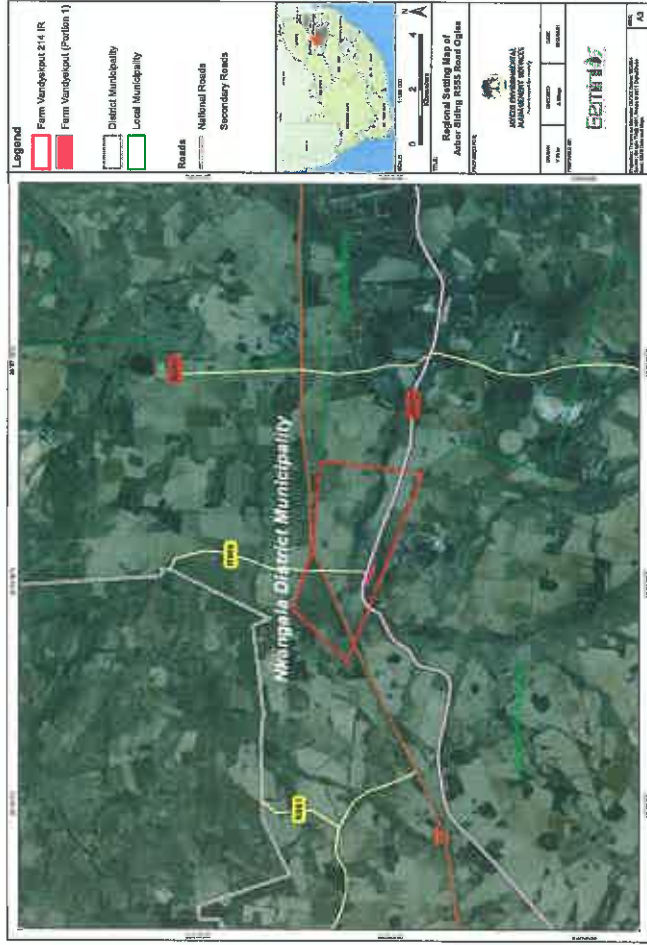


Figure 2.2-1: Regional Setting

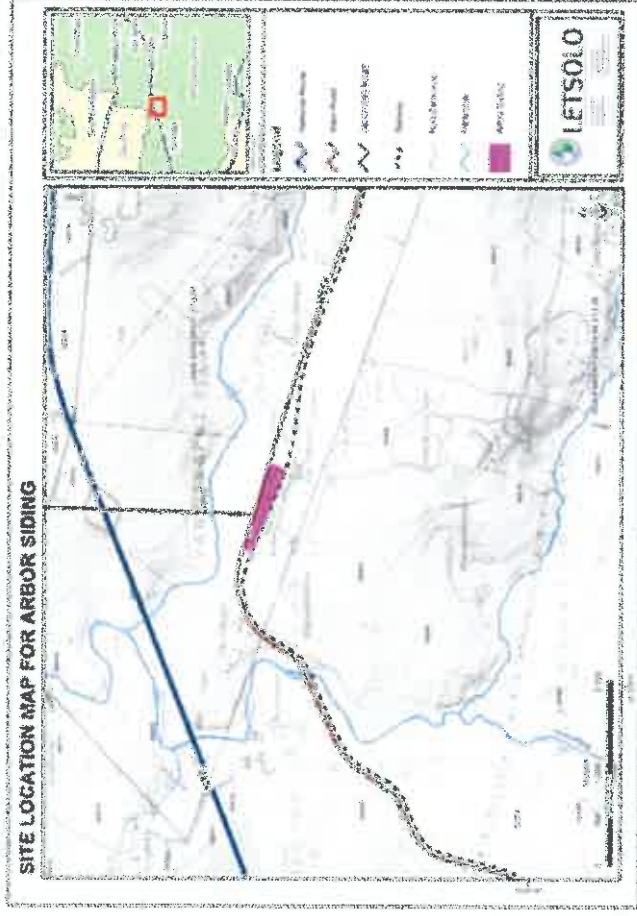


Figure 2.2-2: Local Setting

3 Environmental Setting

3.1 Other Land Use in the Area

There are various operations on the way towards the site on the R960. The land adjacent to the site (North, North East, East, North West and West) is currently being used for variety of purposes. The activities observed range from farming i.e. maize crop production (as shown in Photograph 3.1-1 below), cattle breeding and farming on the north east of the site as shown in Photograph 3.1-2) i.e. JC Prinsloo Boerdery and TRUTER on the north western side of the site (as shown as Photograph 3.1-3). There is also Arbor residential area which is a neighbouring community.

The other land uses that occur within 2 km radius northwards from the site include the Kusile Power Station, north east of site (as shown in Photograph 3.1-6), new coal mine operations (i.e. Iyanga Mining – Klipfontein Mine, as shown in Photograph 3.1-7 to 3.1-8) and there is also an established network and infrastructure in terms of power lines and telephone lines within the area. Figure 3.1-3 shows environmental features around the site.



Photograph 3.1-1: WP Farming (maize crop production)



Photograph 3.1-2: Cattle breeding & farming on the north east of the site (JC Prinsloo Boerdery)



Photograph 3.1-3: TRUTER Boerdery on the north western side of the site



Photograph 3.1-4: Natural Water Body along the road on the north east side of the site



Photograph 3.1-5: Farm house



Photograph 3.1-8: View of the Operations of a Coal Mine (Iyanga Mining - Klipfontein Mine)



Photograph 3.1-6: Eskom Kusile Power Station north east of the Arbor Siding



Photograph 3.1-9: New Coal Mine Operations i.e. Iyanga Mining - Klipfontein Mine



Photograph 3.1-7: The view of the Arbor Railway Siding. The beginning of the gravel road stretch towards the site

4 Current Site

The current infrastructure on site include the following:

4.1 Weighbridge Area

A weighbridge is installed next to the office block in the northern side and trucks go through it before off-loading and after off-loading at the stockpile area. Records of tonnage brought in daily are kept in the office for monitoring and reporting purposes.

4.2 Pollution Control Dam (PCD)

The PCD is set as dirty water catchment area at the siding, to collect and contain dirty storm-water runoff.

Poor water quality is expected from the monitoring point as this is a dirty water management facility.

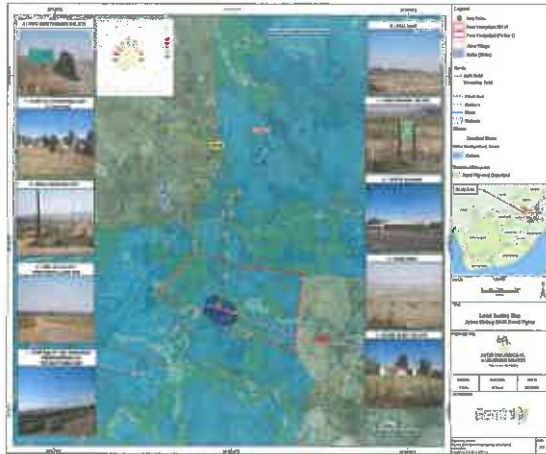


Figure 3.1-1: Environmental features around the site.

4.3 Office Block and Ablution Facility

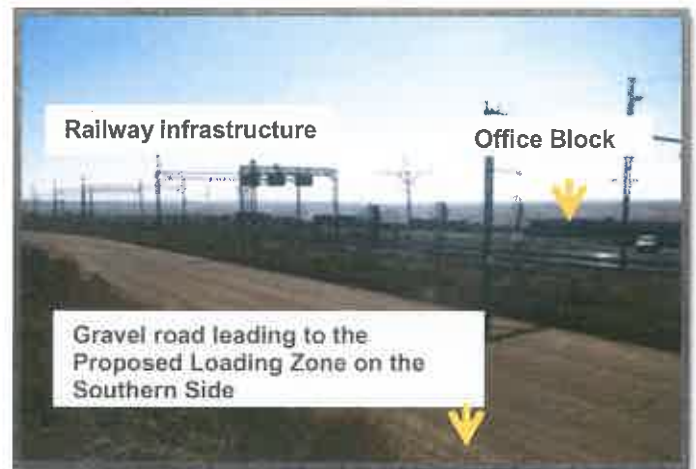
There is an office block close to weighbridge area. The office block has ablution facilities as well.

Additional infrastructure and operational activities include:

- a) Approximately 80 – 100 trucks a day
- b) Railway infrastructure
- c) Approximately two (2) trains of 50 wagons with a capacity of 2 x 27 tons containers per day
- d) Coal stockpile area
- e) Waste storage area
- f) Stockpile areas
- g) Loading areas
- h) Pipelines and culverts
- i) Material storage container

4.4 Existing Equipment

- j) Heavy front-end loading machinery
 - 3 x front-end loaders
 - 1 x water horse truck
 - 1 x 2-ton bakkies
 - 1 x water bowser
 - Grader (hired when necessary)



5 Planned Activities to Increase Scope of Operations

The planned activities to increase the scope of operations on site include the following (Please refer to Figure 6.1-1 and 6.1-2):

- a) Upgrade to the existing railway infrastructure.
- b) Extend line 5.
- c) Divert and extend Line 6.
- d) Remove OHTE and platform.
- e) Upgrade to the existing canals as part of the storm water management system for the site. This will include diverting and extending the storm water drainage channel. A berm wall will be constructed on the station side of the channel with the excavated material.
- f) Extend the existing storm water culvert for the full width of the loading area and connect it to the new storm water cut-off drain.
- g) Backfill and compact the old channel where required.
- h) Construct new PCD with an estimated capacity of 2 300 m³ and a silt trap. Alternatively, upgrade to the existing canals as part of the storm water management system for the site and divert dirty water from the proposed new site, the Southern side, to existing pollution control dam on the Northern side. In this option polluted water will be guided to the existing culvert underneath the rail way line. The PCD will be sealed with HDPE liner and such the target is to comply with "class C" specification

for landfills. The silt trap will also be sealed with a 200 mm thick concrete slab.

- i) the new storm water cut-off drain. Subsurface and drains will be lined with 1.5 mm HDPE liner

6 Environmental Legal Framework

6.1 The Activities to be Undertaken under this Application

Basic Assessment Process

The activities to be undertaken under this planned application which are triggered under NEMA Regulations include Listed Activities 9(i)(ii), 19(i) 34 (i), 48 (i) (ii) (iv) (i) (ii) – (a) (c), 64 (iii), 67 (ii) (Under Listing Notice - GN R983, as amended in 2017 under GN R327) and Listed Activity 14 [(i) (ii) (iv) (xii)] (i) – (a) (c) (under Listing Notice 3 – GN R985,

as amended in 2017 under GN R324 and therefore, basic assessment procedures will be followed.

EMPr Authorisation

The Railway Siding currently has an EMPr environmental authorisation from the Mpumalanga Department of Agriculture and Land Administration granted on 08 December 2010.

Water Use Licence Existing Authorisations and Licences

Gijima has a Water Use Licence (WUL) on 08 December 2015 (Licence No. 04/B20F/G/4009).

Table 6.1-1: List of Activities (Yellow shaded sections, refer to the listed activities which are being applied for under that specific activity number)

Act	Number and date of relevant Notice (Regulations)	Activity No	Listed activity and described in the regulations	Implications for site or motivation/reason for interpretation
National Environmental Management Act, Act 107 of 1998	GN R 327 (GN R983) as amended in April 2017 (Listing Notice 1)	Activity 9:	The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water— (i) with an internal diameter of 0.36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where— (a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.	Development of infrastructure. The length of the storm water drain and the canals to be connected might exceed 1 000 metres in length.
National Environmental Management Act, Act 107 of 1998	GN R 327 (GN R983) as amended in April 2017 (Listing Notice 1)	Activity 19:	The infilling or depositing of any material of more than [5] 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock	The proximity of the watercourse to the PCD located on the Northern side triggers the activity 19 (i)

Act	Number and date of relevant Notice (Regulations)	Activity No.	Listed activity and described in the regulations	Implications for site or motivation/reason for interpretation
			<p>of more than [5] 10 cubic metres from [(i)] a watercourse; [(ii) the seashore; or (iii) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or estuary, whichever distance is the greater—] but excluding where such infilling, depositing, dredging, excavation, removal or moving— (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; [or] (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.</p>	
National Environmental Management Act, Act 107 of 1998	GN R 327 (GN R983) as amended in April 2017 (Listing Notice 1)	Activity 34	<p>The expansion [or changes to] of existing facilities or infrastructure for any process or activity where such expansion [or changes] will result in the need for a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the release of emissions, effluent or pollution, excluding— (i) where the facility, infrastructure, process or activity is included in the list of</p>	A water use licence will be required for release of pollution.

Act	Number and date of relevant Notice (Regulations)	Activity No.	Listed activity and described in the regulations	Implications for site or motivation/reason for interpretation
			waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies	
National Environmental Management Act, Act 107 of 1998	GN R 327 (GN R983) as amended in April 2017 (Listing Notice 1)	Activity 48:	<p>The expansion of—</p> <p>[(i) canals where the canal is expanded by 100 square metres or more in size;</p> <p>(ii) channels where the channel is expanded by 100 square metres or more in size;</p> <p>(iii) bridges where the bridge is expanded by 100 square metres or more in size;</p> <p>(iv) dams, where the dam, including infrastructure and water surface area, is expanded by 100 square metres or more in size;</p> <p>(v) weirs, where the weir, including infrastructure and water surface area, is expanded by 100 square metres or more in size;</p> <p>(vi) bulk storm water outlet structures where the bulk storm water outlet structure is expanded by 100 square metres or more in size; or</p> <p>(vii) marinas where the marina is expanded by 100 square metres or more in size;]</p> <p>(i) infrastructure or structures where the physical footprint is expanded by 100 square metres or more; or</p> <p>(ii) dams or weirs, where the dam or weir, including infrastructure and water surface area, is expanded by 100 square metres or more;</p> <p>where such expansion [or expansion and related operation] occurs—</p>	<p>The expansion of the canals for connecting the Northern and Southern side might or might not exceed the threshold of 100 m² or more in size.</p> <p>Activity 48 (iv) is triggered due to the planned expansion of the existing pollution control dam from 90 m² to 450 m² in size.</p> <p>The activity is also triggered due to the existence of the watercourse on the Northern side of the site adjacent to the PCD.</p>

Act	Number and date of relevant Notice (Regulations)	Activity No.	Listed activity and described in the regulations	Implications for site or motivation/reason for interpretation
			<p>(a) within a watercourse;</p> <p>(b) in front of a development setback; or</p> <p>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding—</p> <p>(aa) the expansion of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;</p> <p>This gazette is also</p> <p>(bb) where such expansion activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;</p> <p>(cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;</p> <p>(dd) where such expansion occurs within an urban area; or</p> <p>(ee) where such expansion occurs within existing roads, road reserves or railway line reserves.</p>	
National Environmental Management Act, Act 107 of 1998	GN R 327 (GN R983) as amended in April 2017 (Listing Notice 1)	Activity 64:	<p>The expansion of railway lines, stations or shunting yards where there will be an increased development footprint, excluding—</p> <p>(i) railway lines, shunting yards and railway stations in industrial complexes or zones;</p> <p>(ii) underground railway lines in mines; or</p> <p>(iii) additional railway lines within the railway line reserve.</p>	Upgrade of existing railway line infrastructure: Addition of Line 6 and extension of Line 5 and others.
National Environmental Management	GN R 327 (GN R983) as amended	Activity 67:	Phased activities for all activities—	The existing operations on the Northern side will be implemented as Phase 2

Act	Number and date of relevant Notice (Regulations)	Activity No.	Listed activity and described in the regulations	Implications for site or motivation/reason for interpretation
Act, Act 107 of 1998	in April 2017 (Listing Notice 1)		<p>(i) listed in this Notice, which commenced on or after the effective date of this Notice [.] or [(ii)] similarly listed in any of the previous NEMA notices, which commenced on or after the effective date of such previous NEMA Notices; [where any phase of the activity may be below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold;]</p> <p>excluding the following activities listed in this Notice-</p> <p>17(i)(a-d); 17(ii)(a-d); 17(iii)(a-d); 17(iv)(a-d); 17(v)(a-d); 20; 21; 22; 24(i); 29; 30; 31; 32; 34; 54(i)(a-d); 54(ii)(a-d); 54(iii)(a-d); 54(iv)(a-d); 54(v)(a-d); 55; 61; [62;] 64; and 65; or</p> <p>(ii) listed as activities 5, 7, 8(ii), 11, 13, 16, 27(i) or 27(ii) in Listing Notice 2 of 2014</p> <p>or similarly listed in any of the previous NEMA notices, which commenced on or after the effective date of such previous NEMA Notices; where any phase of the activity was below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.</p>	<p>on the Southern side as part of the planned upgrade activities. The upgrade to the existing pollution control dam and the connection of canals are some of the activities that make this a phased development.</p> <p>The existing PCD is currently 90 m² and is planned to be upgraded to 450 m² which exceeds the threshold of 100 m² for Activity 12.</p>

Act	Number and date of relevant Notice (Regulations)	Activity No	Listed activity and described in the regulations	Implications for site or motivation/reason for interpretation
National Environmental Management Act, Act 107 of 1998	GN R 324 (GN R985) as amended in April 2017 (Listing Notice 3)	Activity 14:	<p>Activity 14: The development of-</p> <ul style="list-style-type: none"> (i) canals exceeding 10 square metres in size; (ii) channels exceeding 10 square metres in size; (iii) bridges exceeding 10 square metres in size; (iv) dams, where the dam, including infrastructure and water surface area exceeds 10 square metres in size; (v) weirs, where the weir, including infrastructure and water surface area exceeds 10 square metres in size; (vi) bulk storm water outlet structures exceeding 10 square metres in size; (vii) marinas exceeding 10 square metres in size; (viii) jetties exceeding 10 square metres in size; (ix) slipways exceeding 10 square metres in size; (x) buildings exceeding 10 square metres in size; (xi) boardwalks exceeding 10 square metres in size; or (xii) infrastructure or structures with a physical footprint of 10 square metres or more:] <ul style="list-style-type: none"> (i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or (ii) infrastructure or structures with a physical 	<p>The planned activities are within an area delineated as artificial wetlands which is a watercourse.</p> <p>For Mpumalanga, in areas outside urban areas, dd) Sensitive areas as identified in an environmental management framework.</p> <p>and (ee) applicable as wetlands are sites /areas listed in terms of Ramsar Convention 1971.</p>

Act	Number and date of relevant Notice (Regulations)	Activity No.	Listed activity and described in the regulations	Implications for site or motivation/reason for interpretation
			<p>footprint of 10 square metres or more; where such development occurs—</p> <p>(a) within a watercourse;</p> <p>(b) in front of a development setback; or</p> <p>(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.</p> <p>f. Mpumalanga</p> <p>i. Outside urban areas:</p> <p>(aa) A protected area identified in terms of NEMPAA, excluding conservancies;</p> <p>(bb) National Protected Area Expansion Strategy Focus areas;</p> <p>(cc) World Heritage Sites;</p> <p>(dd) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</p> <p>(ee) Sites or areas identified in terms of an international convention;</p> <p>(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p> <p>(gg) Core areas in biosphere reserves; or</p> <p>(hh) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve, where such areas comprise</p>	

Act	Number and date of relevant Notice (Regulations)	Activity No.	Listed activity and described in the regulations	Implications for site or motivation/reason for interpretation
			indigenous vegetation; or ii. Inside urban areas: (aa) Areas zoned for use as public open space; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, zoned for a conservation purpose.	



Figure 6.1-1: Proposed new activities which will be undertaken as Phase 2 of the Arbor Railway Siding operations (This environmental authorisation application)



Figure 6.1-2: Proposed new infrastructure to be undertaken as part of this environmental authorisation application (Phase 3)

7 Potential Environmental Impacts

The potential impacts have been preliminarily identified for each stage of the project, from construction, operational and decommissioning. The identified impacts are divided into Direct Impacts and Cumulative Impacts.

The proposed increased scope to the operations, also presents positive impacts, in the form of social and economic benefits for the communities surrounding the site. The site currently employs 30 locals and the proposed phased development introduces social benefits, which include job opportunities for about 25 extra local people. The economic benefits are also realised through the implementation of Transnet Road to Rail Strategy in transporting more coal directly to the power station, whilst reducing both costs and number of human fatalities on the road. The increased scope to the operation will transport an increased volume of coal material, which may lead to more stable electricity supply.

7.1 Construction Phase

7.1.1 Direct impacts

- Soil disturbance during site establishment for construction of new listed activities.
- Soil pollution due to leakages and spills of oil and diesel.
- Soil erosion due to the loss of soil during clearing, ripping, grading and from storm water runoff etc.
- Noise pollution due to vehicular movement and site workers on site during construction.
- Air quality due to dust generated by all movement of vehicles and personnel on site.
- Water quality due to reduced water quality from soil erosion and sedimentation.
- Potential road accidents.
- Mistrust due to the lack of communication channels.

7.1.2 Cumulative impacts

The potential cumulative indirect impacts include:

- Air Quality and deterioration of road infrastructure due to – Vehicular movement of other trucks outside the boundary of the site generate a lot of dust on the gravel road leading to the site. The increased truck traffic on R555 for haulage of coal has potential to increase dust in the air and impact on the air quality of the area.

7.2 Operational Phase

7.2.1 Direct Impacts

- Deterioration of air quality due to the generation of dust fall out during the loading and off-loading of coal.
- Surface water resources: Contamination of water due to coal spillage from haul trucks; Contamination of water of hydraulic fluid from machinery and trucks.
- Groundwater resources: Contamination of water due to coal stockpile seepage; Contamination of water from pollution control dam seepage.
- Impacts on health and safety personnel and potential road accidents.

7.2.2 Cumulative Impacts

The cumulative impacts include:

- Generation of dust from vehicular movement and air pollution from vehicular emissions.
- Dust emissions are likely to occur due to vehicular movement. The severity of this impact is anticipated to be medium, if mitigation measures such as dust suppression and adherence to speed limits are observed.

7.3 Decommissioning Phase

The direct impacts identified during the decommissioning due to the dismantling of operational structures and associated infrastructure are:

- Impacts on soil resources include loss of land capability, disturbance to soil structure from the ripping of the surface.
- Potential contamination of soil due to hydrocarbon spillages.
- Air pollution – generation of dust.

- Dust will be generated during the dismantling of structure and infrastructure.

7.4 Rehabilitation Phase

The direct impacts include:

- After the dismantling of infrastructure, re-vegetation of the site will be undertaken.

This impact is considered positive and its significance is medium, as it will result in the restoration of the site.

- Socio-economic – loss of income will impact on the social and economic status of the community especially Abor village.

7.4.1 Cumulative Impacts

The cumulative impacts include:

- Job losses that add to the current high rate of unemployment in the country and produces non-productivity in the area resulting to Social Instability

Existing Specialists Studies

The following studies were already undertaken:

- Biodiversity Study
- Water Quality Study
- Stockpile Bulk Handling Capacity Study

Table 7.5-1: Key Aspects on Site and Existing Mitigation Measures

Key Aspect	Mitigation Measure
Potential diesel spillage during refuelling	Drip trays used during refuelling.
Potential spillage during storage	Care taken when packing the materials in storage. Materials Data Sheet kept on site.
Rainwater contaminated on the stockpile area with coal/oil/diesel flows into the river/spruit	Pollution control dam design structure and the Storm Water Management Plan are done. An experienced engineer produced the sketches of the designs for the pollution control dam.
Oil spillages on soil	Designate an area for vehicle maintenance and place a drip tray under the vehicles during maintenance.
Incorrect disposal of hazardous waste at landfill site	Use of a certified hazardous waste collector engaged to dispose of waste at a registered landfill site. Promote, reduce, reuse and recycle principles. Reuse and recycle material that is still in good condition to be used.
Incorrect disposal of general waste on illegal premises	Use of a certified general waste collector engaged to dispose of waste at a registered landfill site. Promote reduce, reuse and recycle principles. Reuse and recycle material that is still in good condition to be used.
Inadequate design/capacity of French drains resulting in high levels of bacterial/solid matter entering the environment (groundwater/streams/rivers)	Use of experienced civil engineer to create the design of drains (i.e. storm water control pollution dam).
Noise generation	Service trucks/vehicles regularly to ensure that they do not make unbearable noise and emit high levels of harmful gases.
Vehicular emissions	Service trucks/vehicles regularly to ensure that they do not make unbearable noise and emit high levels of harmful gases.
Coal spillage next to the road	Ensure that the trains are well enclosed during transportation of coal.
Dust generation when tarpaulins are not closed properly	Ensure that the trains are well enclosed during transportation of coal.
Dust generation during the stockpiling of coal	Stockpile the coal in various small piles. Minimise the dust emission by spraying water on the surrounding ground (dust suppression).

- Ambient Air Quality

Existing Monitoring

Air quality monitoring and water quality monitoring

For monitoring dust, the Siding has buckets around the site to measure gravimetric dust fall out. To reduce the amount of dust on site dust suppression is done daily at regular times.

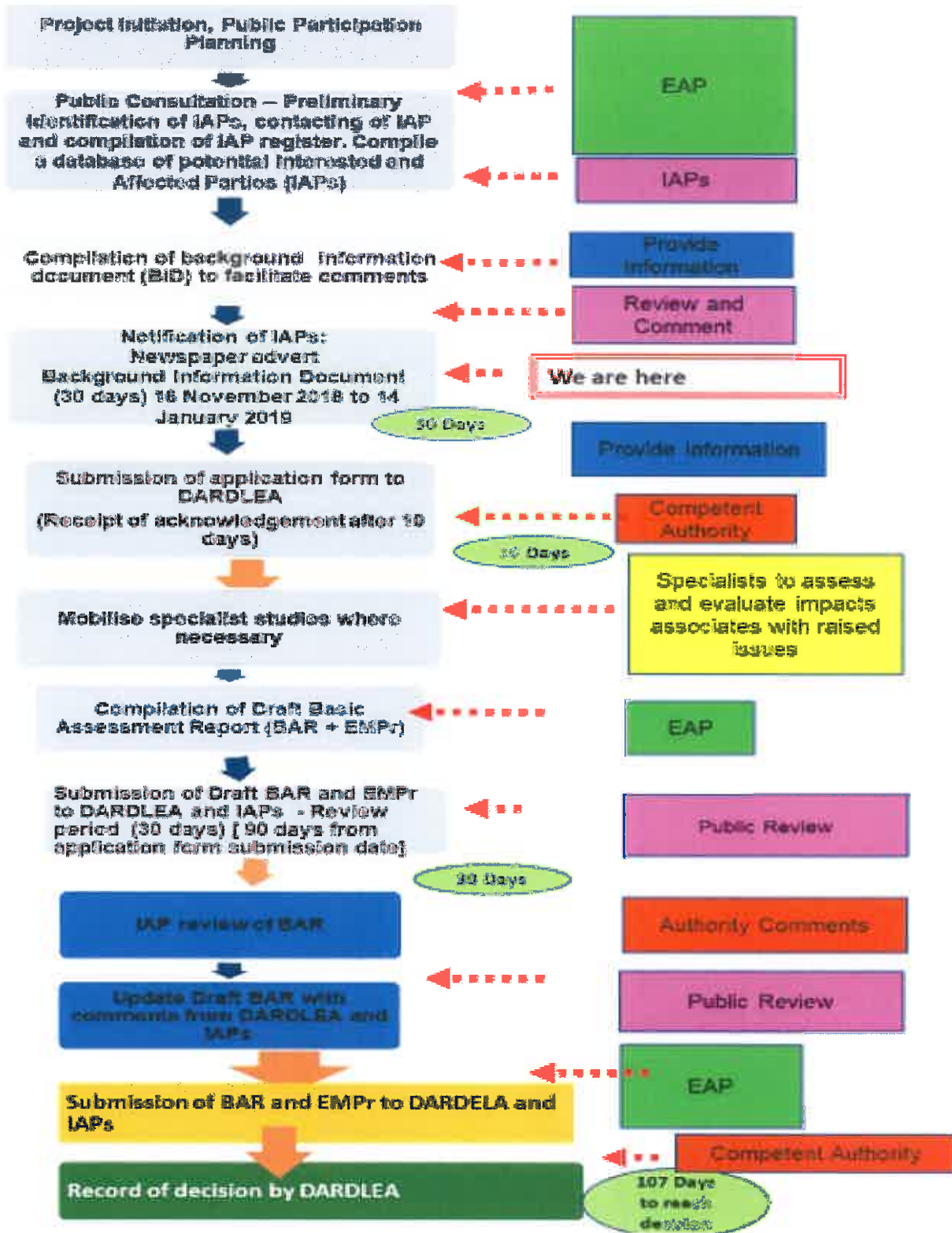
Water Quality Monitoring

Water quality monitoring is also undertaken. ater samples are taken every month from the water monitoring sampling points and analysed at an accredited laboratory. The water monitoring reports are submitted quarterly to the DWS.

7.5 Key Aspects on Site and Existing Management Measures

Some examples of aspects identified on site and how they are managed is provided in the table below. The mitigation measures for identified impacts will be designed and management plan/programme be designed to ensure that here is compliance with the conditions of authorisation.

7.6 Basic Assessment Process to be followed



Key:

- Blue (DARDLEA)
- Green (EAP)
- Pink (IAPs)
- Red (Competent Authority)
- Yellow (Specialists)

7.7 Public Participation Process

IAPs are invited to participate in the public participation process which commences from Friday, 16 November 2018 to Monday, 14 January 2018.

A notice and an advert were issued in terms of Section 41 (2) (a) (b) (c) (d) (e) and (3) published in Government Notices No. R982, UNDER Sections 24 (5) and 44 of NEMA, of Gijima's intention to undertake these additional activities at the Arbor Railway Line Siding. The advert was published on Witbank News on Friday, 16 November 2018 when and the site notice was erected on site on Friday, 16 November 2018.

The notification is part of the public participation process to ensure that the views and concerns of IAPs are captured even before an application for environmental authorisation is submitted to the competent authority, the Mpumalanga Department of Agriculture Rural Development, Land and Environment Affairs (DARDLEA).

The process is to ensure that you are registered as an IAP or to lodge any concern, formally object or seek clarity on the proposed project related documentation. All issues and concerns may be lodged formally (in writing) by either email or fax using the contact details outlined below. All comments and/or issues should be submitted within

30 days (by Monday, 14 January 2019) to the EAP to ensure that all responses are incorporated into the Comments and Response Report. .

7.8 The Environmental Assessment Practitioner

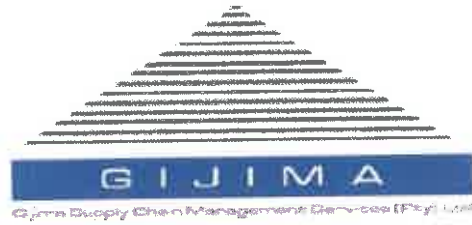
Babalwa Fatyi, the Environmental Assessment Practitioner (EAP), who is the founder of Myezo, is a Registered Professional Natural Scientist (400123/01). She is also registered with Institute of Environmental Management and Assessment, Lincoln, UK (0025153). She has consulting experience, having worked for an engineering consulting company, after which she also worked for a mining company, responsible for overseeing the company's compliance with its environmental obligations.

She has academic qualifications to back-up her experience, having obtained Master of Science (*cum laude*) and receiving 'SA Association for Advancement of Science Award for an outstanding MSc Degree in the Faculty of Science. Babalwa has undertaken several Environmental Management and Public Consultation Projects in terms of National Environmental Management Act (No. 107 of 1998), as well environmental authorisations, in terms of Mineral and Petroleum Resources Development Act (No. 28 of 2002).



Consultant Contact Details:

Myezo Environmental Management Services (Pty) Ltd
Contact Person: Babalwa Fatyi
Fax: 086 543 1698
Cell: 082 772 2418
Email: babalwa@myezo.co.za



IAP Comments and Responses Registration Form

REGISTRATION FORM FOR THE INVITATION TO PARTICIPATE IN THE BASIC ASSESSMENT REPORT PROCESS FOR THE PROPOSED UPGRADE ACTIVITIES ARBOR RAILWAY SIDING, SITUATED ON PORTION 1 OF FARM VAN DYKSPUT NO. 214 - IR, WITHIN VICTOR KHANYE LOCAL MUNICIPALITY, DELMAS, MPUMALANGA PROVINCE

Public Review Period: 16 November 2018 to 14 January 2019

Myezo Environmental Management Services (Pty) Ltd
 Postnet Suite B 165, Private Bag X18, Lynnwood Ridge, 0040, Pretoria
 Fax Number: 012 998 7642
 Email: babalwa@myezo.co.za
 Contact Person and Number: Babalwa Fatyi 082 772 5418

Name	Surname	Organisation and address (include postal and street address)	
Telephone	Fax	Email	Cell
<p>Record your concern, comment or suggestion about the Basic Assessment Process and proposed development increased scope of the operations at Arbor Railway Siding here (<i>you are welcome to add as many lines as you wish according to your points of submission</i>):</p>			

Interest in the project (disclose any direct business, financial, personal or other interest which they have in the approval or refusal of the application).

Details of another person who you think should be consulted

Name and Surname

Address

Telephone and Fax

Annexure11.5-1: Proof of newspaper advert

Annexure 11.5-2: Proof of site notice



SITE NOTICE

NOTIFICATION TO ALL INTERESTED AND AFFECTED PARTIES REGARDING THE PLANNED ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE PROPOSED ACTIVITIES AT THE EXISTING OPERATING ARBOR RAILWAY SIDING IN DELMAS, MPUMALANGA PROVINCE

Date: 15 November 2018

Applicant: Gijima Supply Chain Management (Pty) Ltd (Gijima)

Project locality: The proposed upgrade to the existing Arbor Railway Siding (26° 02' 19.78" S and 28° 52' 51.23" E) is located on Portion 1 of Farm Vandykspuit 214 IR, within the Victor Khanye Local Municipality (VKLM), under the Emalahleni Magisterial District, Mpumalanga Province. The site is located west of the N12, which may be accessed through R555 towards Ogies and is approximately 5 km west of the Kendal Power Station.

Process followed: Basic Assessment Report Process

Notice is hereby given in terms of National Environmental Management Act (Act 107 of 1998) (NEMA): Environmental Impact Assessment Regulations, 2014 Government Notice (GN) R982 (2014 EIA Regulations), as amended in 2017 under GN R326, Section 41 (2) (a) (b) (c) (d) (e) and (3) published in GN R982, under Sections 24 (5) and 44 of NEMA, of Gijima's intention to undertake additional activities at the Arbor Railway Siding.

Background and Nature of Application: The proposed activities will entail an upgrade to the existing infrastructure and operations in order to maximise the operational capacity of the siding, this entails creating new job opportunities for the Arbor community to support the Road-to-Rail strategy. This notice forms part of the public participation process to ensure that the views and concerns of the Interested and Affected Parties (IAPs) are captured even before an application for environmental authorisation is submitted to the competent authority, the Mpumalanga Department of Agriculture Rural Development, Land and Environmental Affairs (DARDLEA).

The activities to be undertaken under this planned application which are triggered under NEMA regulations include Listed Activities 9 (i) (ii), 19 (i), 34 (i), 48 [(i) (ii) (iv)] (i) (ii) – (a) (c), 64 (iii), 67 (ii) (under Listing Notice 1 – GN R983, as amended in 2017 under GN R 327) and Listed Activity 14 [(i) (ii) (iv) (xii)] (i) – (a) (c) (under Listing Notice 3 – GN R985, as amended in 2017 under GN R324) and therefore, basic assessment procedures will be followed.

The siding currently has a water use licence (WUL) and the additional proposed activities will entail construction of an additional pollution control dam, extending the capacity of the existing dam to be within 32 m of a watercourse (wetland), as such the submission of a WUL application for water uses listed under Sections 21 (c), (i) and (g) in terms of the National Water Act (Act 36 of 1998) will be required.

This notice serves to invite all IAPs to participate in the public participation process, which commences from Thursday, 15 November 2018 to Monday, 7 January 2019. The process is to ensure that you are registered as an IAP, to lodge any concerns, suggest solutions, formally seek clarity on the proposed project and/or request project related documentation. For further information on the proposed project, a copy of this notice and Background Information Document (BID) will be made available to all registered IAPs. All issues and concerns may be lodged formally (in writing) by either email or fax using contact details provided below. All comments and/or issues should be submitted within 30 days of this notice (by Monday, 7 January 2019) to the EAP, to ensure that all responses are incorporated into the Comments and Response Report, which will form part of the Basic Assessment Report (BAR) that will be submitted to the competent authority, DARDLEA.

DATE OF THIS NOTICE: THURSDAY, 15 NOVEMBER 2018



Consultant Contact details:

Myezo Environmental Management Services (Pty) Ltd

Contact person: Babalwa Fatyi

Fax: 086 543 1698

Cell: 082 772 2418

E-mail: babalwa@myezo.co.za

Annexure 11.5-3: Reply Slip (English)



MYEZO ENVIRONMENTAL MANAGEMENT SERVICES

Environmental Stewardship

012 998 7642, 012 998 7641, 082 772 2418
babalwa@myezo.co.za | www.myezo.co.za

Postnet Suite B165, Private Bag X18, Lynnwood Ridge, 0040, Pretoria, South Africa

645 Jacqueline Street, Unit 17 Garsfontein Office Park Garsfontein, Pretoria, 0081

GIJIMA SUPPLY CHAIN MANAGEMENT - ARBOR RAILWAY SIDING - BASIC ASSESSMENT

REGISTRATION FORM FOR THE INVITATION TO PARTICIPATE IN THE PUBLIC PARTICIPATION PROCESS FOR GIJIMA SUPPLY CHAIN MANAGEMENT'S APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION, IN RESPECT OF THE PROPOSED ACTIVITIES AT THE EXISTING OPERATING ARBOR RAILWAY SIDING IN DELMAS, MPUMALANGA PROVINCE

Document Name: GAB-PI-C-Registration Form

Document Status: Ver. 1

Public Review Period: 16 November 2018 to 14 January 2019

MYEZO REF: GAB 2018/11

ATTENTION: Mrs Babalwa Fatyi

Myezo Environmental Management Services (Pty) Ltd

Postnet Suite B 165, Private Bag X18, Lynnwood Ridge, 0040, Pretoria

CEL: 082 772 2418

FAX: 086 543 1698

Email: babalwa@myezo.co.za

Table 1: IAP Comments and Responses Registration Form

Name	Surname	Organisation and address (include postal and street address)	
Telephone	Fax	E-Mail	Cell
<p>Record your concern, comment or suggestion about the Basic Assessment Process and proposed development increased scope of the operations at Arbor Railway Siding here (<i>you are welcome to add as many lines as you wish according to your points of submission</i>):</p>			

Interest in the project (disclose any direct business, financial, personal or other interest which they have in the approval or refusal of the application).

Signature:



Details of another person whom you think should be consulted

Name and surname

Address

Tel and Fax

Annexure 11.5-4: Site Notice distribution

FIRST NAME	LAST NAME	ORGANISATION	TEL	FAX	MOBILE	E-MAIL	ADDRESS	CITY	CODE	SIGNATURE
Cynthia	Vilakazi	-	07999751733	-	0799851733	-	A33	ARBOR	-	C. Vilakazi
Thulane	SHABANE	-			0784458400	thulanevidice@gmail.com	A18B	ARBOR	-	
Thami	Sikhosana	-				Gumelenjabulo046@gmail.com	-	ARBOR	-	
Njabulo	Gumede	-	0826411137	-	-	↓	↓	↓		↓
Nelly	Zwane	-	0764076515	-		malwunelly59@gmail.com	A15A	ARBOR	-	
Lizzy	Sikhosana	-			0723755578	-		ARBOR	-	
Poppy	Makathu	LWP	-	-	0608580002	-	AB12	ARBOR	-	Poppy
-	Mahlogu	-	-	-	0832286369	-	-	-	-	Didn't agree to sign and requested to have a person to call (alderade).

T. Sikhosana didn't agree to sign

Didn't agree to sign and requested to have a person to call (alderade).

Annexure 11.5-5: Notification email to IAPs

Lehlogonolo Mashego

From: Lehlogonolo Mashego
Sent: 21 November 2018 04:50 PM
To: Babaiwa Fatyi
Subject: GAB - PI - IAP Notification
Attachments: Notification Letter (21 Nov 2018).zip

Dear Interested and affected party (IAP)

***NOTIFICATION TO INTERESTED AND AFFECTED PARTIES REGARDING THE PLANNED ENVIRONMENTAL
AUTHORISATION APPLICATION FOR THE PROPOSED ACTIVITIES AT THE EXISTING OPERATING ARBOR RAILWAY
SIDING IN DELMAS, MPUMALANGA PROVINCE***

Document Name: GAB-PI-IAP Notification Letter

Public Review Period: 16 November 2018 – 14 January 2019

MYEZO REF: GAB 2018/11

This communication hereby serves to notify you in terms of National Environmental Management Act (Act 107 of 1998) (NEMA); Environmental Impact Assessment Regulations, 2014 GN R982 (2014 EIA Regulations), as amended in 2017 under GN R326, Section 41 (2) (a) (b) (c) (d) (e) and (3) published in GN R982, under Sections 24 (5) and 44 of NEMA, of Gijima Supply Chain Management Services' intention to undertake additional activities at the Arbor Railway Siding.

The Arbor Railway Siding is located at 26° 02' 19.78" S and 28° 52' 51.23" E on Portion 1 of Farm Van Dyksput No. 214 - IR, within the Victor Khanye Local Municipality (VKLM), under the Emalahleni Magisterial District, Mpumalanga Province. The site is located west of the N12, which may be accessed through R555 towards Ogies and is approximately 5 km west of the Kendal Power Station.

The project is now at Public Participation Process (PPP) phase and a notice for the proposed environmental authorisation application has been advertised on the Witbank News on the 16th of November 2018.

In addition, a site notice has been placed on site and also at strategic areas for public convenience namely, the mobile clinic site office, next to the Arbor Primary School and notice board next to Zola Mini Market. In addition the site notices were translated in Setswana and IsiZulu.

This notice serves to invite interested and affected parties (IAPs) to participate in the PPP which commenced on Friday, 16 November 2018 to Monday, 14 January 2019. The process is to ensure that you are registered as an IAP, to lodge any concerns, suggest solutions, formally seek clarity on the proposed project and/or request project related documentation. For further information on the proposed project, a copy of the advert and Background Information Document (BID) are attached as part of this notification email to all registered IAPs. All issues and concerns may be lodged formally (in writing) by either email, fax or using the registration form attached as Appendix 5 of the notification letter using contact details provided below. All comments and/or issues should be submitted within 30 days of this notice (by Monday, 14 January 2019) to the EAP, to ensure that all responses are incorporated into the Comments and Response Report, which will form part of the Basic Assessment Report (BAR) that will be submitted to the competent authority, Department of Agriculture, Rural Development, Land and Environmental Affairs (DARDLEA).

As part of the Public Participation Process (PPP), the Notification Letter is presented below for your comments and input on the proposed project.

Kindly find attached the zipped folder to access documents as follows:

- i. IAP notification letter, informing you more about the process.
- ii. Copy of the Locality map, showing the location of the project (attached as Appendix 1 of the letter)
- iii. Newspaper advert (attached as Appendix 2 of the letter)
- iv. Setswana and IsiZulu Advert (attached as Appendix 3 of the letter)

- v. Background Information Document (BID), providing more information about the proposed project (attached as Appendix 4 of the letter)
- vi. Registration Form - to be used to provide comments regarding the proposed project and BAR process (attached as Appendix 5 of the letter)

Please note the end date of the PPP commenting period, is Monday, 14 January 2019. Should you have any comments, queries or input with regards to the project, kindly complete the registration form, also attached as Appendix 3 of the letter and return to us at the following details:

- o Attention: Mrs Babalwa Fatyi
Address: Postnet Suite B165, Private Bag X18, Lynnwood Ridge, 0040, Pretoria
- o Fax to email: 086 543 1698
- o Cellphone No: 082 772 2418
- o Email: babalwa@myezo.co.za

Kind regards:

Lehlogonolo Mashego

Project Manager

M +27 768 075240 | T +27 12 098 7642 | F +27 12 098 7644

E lehlogonolo@myezo.co.za | www.myezo.co.za | Facebook page: Myezo Environmental



Annexure 11.5-6: Notification letter to authorities



Attention: Interested and Affected Parties (IAPs)

GIJIMA- ARBOR RAILWAY SIDING- BASIC ASSESSMENT

**NOTIFICATION TO INTERESTED AND AFFECTED PARTIES REGARDING THE PLANNED
ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE PROPOSED ACTIVITIES AT THE
EXISTING OPERATING ARBOR RAILWAY SIDING IN DELMAS, MPUMALANGA PROVINCE**

Document Name: GAB-PI-C-IAP Notification Letter

Public Review Period: 16 November 2018 – 14 January 2019

MYEZO REF: GAB 2018/11

Introduction

This communication serves to notify you of the proposed development at the Arbor Railway Siding. The notification is given to you in terms of National Environmental Management Act (Act 107 of 1998) (NEMA): Environmental Impact Assessment Regulations, 2014 GN R982 (2014 EIA Regulations), as amended in 2017 under GN R326, Section 41 (2) (a) (b) (c) (d) (e) and (3) published in GN R982, under Sections 24 (5) and 44 of NEMA. You have been identified as an interested and affected party (IAP) who might have suggestions and comments on this proposed development.

Background

The proposed activities will entail an upgrade to the existing infrastructure and operations in order to maximise the operational capacity of the siding, this entails creating new job opportunities for the Arbor community to support the Road-to-Rail strategy. This notification forms part of public participation process (PPP) to ensure that the views and concerns of the Interested and Affected parties (IAPs) are captured even before an application for environmental authorisation is submitted to the competent authority, the Mpumalanga Department of Agriculture Rural Development, Land and Environment Affairs (DARDLEA).

Application for environmental authorisation

A map showing the locality of the site is included as Appendix 1 of this letter and Basic Assessment procedures are being applied to this application and the actual activities to be undertaken will trigger the activities listed under the notices outlined below.

- GN R983 (Listing Notice 1) 04 December 2014 (As amended in 2017 under GN R327) Activity 9 (i) (ii) – upgrades to the existing canals will be connected to channel dirty water from the planned site to the existing pollution control dam (PCD) of the operating site on the Northern Side;
- GN R983 (Listing Notice 1) 04 December 2014 (As amended in 2017 under GN R327) Activity 19 (i) – the proximity of a water body adjacent to the pollution control dam;
- GN R983 (Listing Notice 1) 04 December 2014 (As amended in 2017 under GN R327) Activity 34 (i) – planned activities include to either upgrade the existing pollution control dam to cater for increased volume requirement or construct a new pollution control dam, application for a water use licence (WUL) or amendment of existing WUL needed;
- GN R983 (Listing Notice 1) 04 December 2014 (As amended in 2017 under GN R327) Activity 48 [(i) (ii) (iv)] (i) (ii) – (a) (c) - the upgrade of the canals might or might not exceed the threshold of 100 m² or more in size, planned upgrade to increase surface area of the existing PCD exceeds threshold and existence of the waterbody on site adjacent to the pollution

control dam.

- GN R983 (Listing Notice 1) 04 December 2014 (As amended in 2017 under GN R327) Activity 64 (iii) – planned upgrade of the existing railway line infrastructure might be on not be within the railway reserve.
- GN R983 (Listing Notice 1) 04 December 2014 (As amended in 2017 under GN R327) Activity 67 (ii) – planned activities will be implemented as Phase 2 of the existing operations at the Siding. The upgrade to the existing pollution control dam and the connection of the existing canals are activities that make this a phased development.
- GN R985 (Listing Notice 3) 04 December 2014 (As amended in 2017 under GN R324) Activity 14 (i) (ii) (iv) (xii)] (i) – (a) (c) - The planned activities include the infrastructure, canals and channels including the extension of the surface area of the existing dam exceed the threshold and extending the capacity of the existing dam to be within 32 m of a watercourse (wetland).
- National Water Act, 2008 (Act 36 of 1998) (NWA) as amended in 2014. The siding currently has a water use licence (WUL) and the additional activities entail the construction of an additional pollution control dam (PCD), extending the capacity of the existing dam to be within 32 m of a watercourse (wetland), as such the submission of WUL application for water uses listed under Sections 21 (c), (i) and (g) in terms of NWA will be required.

Public Participation Process

Gijima Supply Chain Management Services (Pty) Ltd has appointed a team comprising of environmental experts to undertake and compile supporting documentation for the environmental authorisation application. Myezo Environmental Management Services (Pty) Ltd (Myezo) is the project's Environmental Assessment Practitioners (EAP), that will as such be leading the technical and public participation aspects of the environmental authorisation for the proposed activities. The project is now at the public consultation phase and a notice for the proposed environmental authorisation application has been advertised on the Witbank News on the 16th of November 2018 attached as Appendix 2

Moreso, site notices have been placed at strategies areas for public convenience namely; Arbor Primary School, Local Clinic as well as on the proposed site; also see translated site notices (Setswana and IsiZulu) attached as Appendix 3.

Please be advised that this notice serves to invite you as an IAP to participate in the PPP, which commenced from Friday, 16 November 2018 and will end on Monday, 14 January 2019. The process is to ensure that you are registered as an IAP, to lodge any concerns, suggest solutions, formally seek clarity on the proposed project and/or request project related documentation. For further information on the proposed project, Background Information Document (BID) is being made available to all registered IAPs attached as Appendix 4. All issues and concerns may be lodged formally (in writing) by either email, fax or using the Registration Form attached as Appendix 5. All comments and/or issues should be submitted (by Monday, 14 January 2019) to the EAP, to ensure that all responses are incorporated into the Comments and Response Report, which will form part of the Basic Assessment Report (BAR) that will be submitted to the competent authority, DARDLEA.

Contact details of the EAP

Myezo Environmental Management Services (Pty) Ltd

Email (Preferred): Babalwa@myezo.co.za

Mobile: 082 772 2418

Fax: 086 543 1698

Address: Postnet Suite B165, Private Bag X 18, Lynwood Ridge, 0040, Pretoria.

Yours faithfully


Babalwa Fatyi *Pr.Sci.Nat*
Director

Appendix 1: Locality Map

Appendix 2: Newspaper Advert

(Pty) Ltd Reg. No. 2014 / 031793 / 07
converted from CC Reg.No. 2004 / 040230 / 23

Director Balabwa Fatyi Pr.Sci.Nat (MSc)

Appendix 3: Setswana and IsiZulu Advert

(Pty) Ltd Reg. No. 2014 / 031793 / 07
converted from CC Reg.No. 2004 / 060230 / 23

Director Babalwa Falyi P. J. N. (MSc)

Appendix 4: Background Information Document (BID)

Appendix 5: Registration Form

Annexure 11.5-7: IAP Site Notice Distribution

Annexure 11.5.7 Site Notice distribution record



Figure 3.3-1a. Site office for mobile clinic. Next to the Arbor Primary School and the Arbor Forum office (red container). (-26.0479700, 28.8904300).



Figure 3.3-1b. Community notice board 1 next to the first Zola mini market. (-26.046991, 28.888580).



Figure 3.3-1c. On the wall by the entrance of the second Zola mini market (-26.0469510, 28.8885440).



Figure 3.3-1d. The main Site Notice (610 mm x 420 mm) placed close to the Station Building and along the main access road leading to Arbor village community. (-26.0404490, 28.8826050).



Figure 3.3-1e. An A3 sized English site notice close to the road at the stop on R960 before the T-junction of R960 and R555 (-26.0389610, 28.8833790).

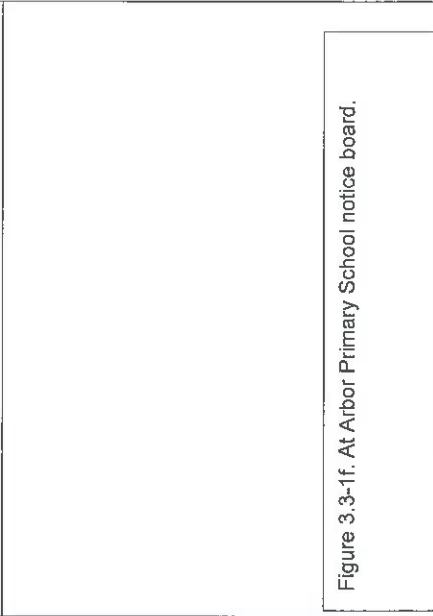


Figure 3.3-1f. At Arbor Primary School notice board.



Figure 3.3-1g. Site notice at Arbor Primary School perimeter fence. (-26.047438, 28.889772).



Figure 3.3-1r. Replacement site notice at the second Zola Mini market wall by the entrance. (-26.0469510, 28.8885440).



Figure 3.3-1i. Replacement main Site Notice placed on the 29 Nov 2018.



Figure 3.3-1j. On the steel fence at the Arbor office. (-26.0387780, 28.8806360).

Annexure 11.5-8: Comments received (email etc)

Lehlogonolo Mashego

From: Lehlogonolo Mashego
Sent: 01 April 2019 03:51 PM
To: 'simonmsiwa.mahlangu@avengrail.com'
Cc: Babalwa Fatyi; Dineo Kotane
Subject: Gijima - Heritage Report
Attachments: GAB-S-R-Heritage Report (01 Apr 2019).pdf

Good day Chief Mahlangu,

Following the Focus Group Meeting held on Wednesday, 23 Jan 2019; the comments received have deemed it necessary to conduct a Heritage Study. A Heritage Specialist has been appointed to conduct the study, and as such, the draft report has been finalised, and ask that you provide comments and input before the finalisation of the report by *Thurs, 04 Apr 2019*.

Kind Regards,

Lehlogonolo Mashego

Project Assistant

M +27 768375240 | **T** +27 12 998 7642 | **F** + 27 12 998 7641

E lehlogonolo@myezo.co.za | www.myezo.co.za | **Facebook page: Myezo Environmental**



Lehlogonolo Mashego

From: Riana J. van Rensburg <riana@adienvironmental.co.za>
Sent: 25 January 2019 02:40 PM
To: Babalwa Fatyi
Cc: 'Peet Cronje'; 'Velile Ramphele'; Caspa. Myezo.; 'Adie Erasmus'; Lehlogonolo Mashego
Subject: Draft Scoping Report - Vlakvarkfontein (Arbor) Rural Village, Delmas - comments
Attachments: DEL107_Rev06_Submission.dwg

Good afternoon Babalwa

Your letter (dated: 21 January 2019) with regards to the Draft Scoping Report has reference.

Please find attached an electronic copy (DWG file) of the layout plan (Figure 3.2 in Draft and Final Scoping Report) as requested. This DWG file was obtained directly from the townplanner.

Regards
Riana J. van Rensburg

AdiEnvironmental cc
Tel/fax: 013-697 5021
P.O. Box 647
Witbank
1035

The logo for AdiEnvironmental, featuring the word 'Adi' in a stylized font with a red square containing a white 'E' to its right, and the word 'Environmental' in a cursive script below it.

Think before you print. Please consider the environment before printing this email.

Disclaimer:

This e-mail and any accompanying attachments may contain confidential information and is intended only for the individual/s named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail. You are requested to notify the sender immediately and delete this entire communication. E-mail transmissions cannot be guaranteed to be secure or free of errors or viruses. The sender does not accept any liability or responsibility for any interception, corruption, destruction, loss, late arrival or incompleteness of or tampering or interference with any of the information contained in this e-mail or for its incorrect delivery or non-delivery for whatsoever reason or for its effect on any electronic device of the recipient. If verification of this e-mail or any attachment is required, please request a hard-copy version.

From: Riana J. van Rensburg [mailto:riana@adienvironmental.co.za]
Sent: 23 January 2019 08:51 AM
To: 'Lehlogonolo Mashego'
Subject: RE: Draft Scoping Report - Vlakvarkfontein (Arbor) Rural Village, Delmas - comments

Good day

Thank you for the comment. We shall include it in the Final Scoping Report.

Please note that Adie's email address is incorrect. It should be adie@adienvironmental.co.za.

Regards
Riana J. van Rensburg

AdiEnvironmental cc
Tel/fax: 013-697 5021
P.O. Box 647
Witbank
1035

Ad Environmental

Think before you print. Please consider the environment before printing this email.

Disclaimer:

This e-mail and any accompanying attachments may contain confidential information and is intended only for the individual/s named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail. You are requested to notify the sender immediately and delete this entire communication. E-mail transmissions cannot be guaranteed to be secure or free of errors or viruses. The sender does not accept any liability or responsibility for any interception, corruption, destruction, loss, late arrival or incompleteness of or tampering or interference with any of the information contained in this e-mail or for its incorrect delivery or non-delivery for whatsoever reason or for its effect on any electronic device of the recipient. If verification of this e-mail or any attachment is required, please request a hard-copy version.

From: Lehlogonolo Mashago [mailto:Lehlogonolo@myezo.co.za]
Sent: 21 January 2019 05:34 PM
To: riana@adienvironmental.co.za
Cc: Velile Ramphele; Peet Cronje; Babalwa Fatyi; Caspa. Myezo.; adie@environmental.co.za
Subject: Draft Scoping Report - Vlakvarkfontein (Arbor) Rural Village, Delmas - comments

Dear Riana,

On behalf of Gijima Supply Chain Management Services (Pty) Ltd, may you kindly find the attached document to find the comments.

Kind Regards,

Lehlogonolo Mashago

Project Assistant

M +27 78472340 | T +27 12 999 7641

E lehlogonolo@myezo.co.za | www.myezo.co.za | Facebook page: [Myezo Environmental](#)



Lehlogonolo Mashego

From: Peet Cronje <peetc@gijimasupplychains.co.za>
Sent: 21 January 2019 09:28 AM
To: Lehlogonolo Mashego; simonmsiwa.mahlangu@avengrail.com; Velile Ramphele; benny@gijima-arbor.co.za; Babalwa Fatyi; Dineo Kotane; Caspa. Myezo.
Subject: RE: Focus Group Meeting

Dear Lehlo

Kindly confirm if meeting is taking place as scheduled as we need to prepare refreshments for meeting. Thank you

Best regards
PEET CRONJE

Gijima Supply Chain Management Services (Pty) Ltd
Reg. No.: 2001/015676/07
Director
Arbor Siding, Portion 1 of farm Vandyksput, Delmas.
GPS: 26° 2 ' 19.78 " S
28° 52 ' 51.23 " E
Mobile : +27 82 561 7700
Fax2Email : 0866 11 8181
Email : peet@gijima-arbor.co.za
peetc@gijimasupplychains.co.za



-----Original Appointment-----

From: Lehlogonolo Mashego <Lehlogonolo@myezo.co.za>
Sent: 17 January 2019 02:24 PM
To: simonmsiwa.mahlangu@avengrail.com; Velile Ramphele; Peet Cronje; benny@gijima-arbor.co.za; Babalwa Fatyi; Dineo Kotane; Caspa. Myezo.
Subject: Focus Group Meeting
When: 23 January 2019 12:00 PM-01:00 PM (UTC+02:00) Harare, Pretoria.
Where: Arbor Railway Siding - Boardroom

Good day Chief Mahlangu,

Following our telephonic conversation regarding the Focus Group Meeting, please note that this acts as a reminder for the scheduled meeting.

Details: 23 January 2019 from 12h00 to 13h00.

Kind Regards,

Lehlogonolo Mashego

Project Assistant

M +27 768375240 | T +27 12 998 7642 | F +27 12 998 7641

E lehlogonolo@myezo.co.za | www.myezo.co.za | Facebook page: Myezo Environmental



Lehlogonolo Mashego

From: Simon Mahlangu <SimonMsiwa.Mahlangu@avengrail.com>
Sent: 17 January 2019 01:18 PM
To: Lehlogonolo Mashego
Subject: Re: GAB - PI - IAP Notification

Hi
082 452 1324

Warm Regards
Simon Mahlangu

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From: Lehlogonolo Mashego <Lehlogonolo@myezo.co.za>
Sent: Thursday, January 17, 2019 10:03:07 AM
To: Simon Mahlangu
Cc: masilelaoupa@webmail.co.za; Velile Ramphele; Peet Cronje; benny@gijima-arbor.co.za; Babalwa Fatyi; Dineo Kotane; Caspa. Myezo.
Subject: RE: GAB - PI - IAP Notification

Good day, Chief Simon Mahlangu

In support of the email below, we as Myezo Environmental Management Services (Pty) Ltd (Myezo) along with project developers, Gijima Supply Chain Management Services (Pty) Ltd (Gijima) would kindly like to schedule a focus group meeting with you, as you have been identified as a key stakeholder in relation to the proposed extension to the Arbor Railway Siding. As such, may you kindly detail your availability based on the proposed dates; 23 January 2019 and 30 January 2019.

Additionally, may you kindly provide your telephone so that we can engage with you regarding the best process to organise such a meeting.

Please feel free to contact me for any logistical preparations and information pertaining to the proposed extension of the project.

Kind Regards

Lehlogonolo Mashego

Project Assistant

M +27 786375249 | T +27 12 444 7642 | F +27 15 998 764

E lehlogonolo@myezo.co.za | www.myezo.co.za | Facebook page: [Myezo Environmental](#)



From: Lehlogonolo Mashego
Sent: 21 November 2018 05:33 PM

To: Babalwa Fatyi <Babalwa@myezo.co.za>

Subject: GAB - PI - IAP Notification

Dear Interested and affected party (IAP)

**NOTIFICATION TO INTERESTED AND AFFECTED PARTIES REGARDING THE PLANNED ENVIRONMENTAL
AUTHORISATION APPLICATION FOR THE PROPOSED ACTIVITIES AT THE EXISTING OPERATING ARBOR RAILWAY
SIDING IN DELMAS, MPUMALANGA PROVINCE**

Document Name: GAB-PI-IAP Notification Letter

Public Review Period: 16 November 2018 – 14 January 2019

MYEZO REF: GAB 2018/11

This communication hereby serves to notify you in terms of National Environmental Management Act (Act 107 of 1998) (NEMA): Environmental Impact Assessment Regulations, 2014 GN R982 (2014 EIA Regulations), as amended in 2017 under GN R326, Section 41 (2) (a) (b) (c) (d) (e) and (3) published in GN R982, under Sections 24 (5) and 44 of NEMA, of Gijima Supply Chain Management Services' intention to undertake additional activities at the Arbor Railway Siding. The Arbor Railway Siding is located at 26° 02' 19.78" S and 28° 52' 51.23" E on Portion 1 of Farm Van Dyksput No. 214 - IR, within the Victor Khanye Local Municipality (VKLM), under the Emalahleni Magisterial District, Mpumalanga Province. The site is located west of the N12, which may be accessed through R555 towards Ogies and is approximately 5 km west of the Kendal Power Station.

The project is now at Public Participation Process (PPP) phase and a notice for the proposed environmental authorisation application has been advertised on the Witbank News on the 16th of November 2018.

In addition, a site notice has been placed on site and also at strategic areas for public convenience namely, the mobile clinic site office, next to the Arbor Primary School and notice board next to Zola Mini Market. In addition, the site notices were translated in Setswana and IsiZulu.

This notice serves to invite interested and affected parties (IAPs) to participate in the PPP which commenced on Friday, 16 November 2018 to Monday, 14 January 2019. The process is to ensure that you are registered as an IAP, to lodge any concerns, suggest solutions, formally seek clarity on the proposed project and/or request project related documentation. For further information on the proposed project, a copy of the advert and Background Information Document (BID) are attached as part of this notification email to all registered IAPs. All issues and concerns may be lodged formally (in writing) by either email, fax or using the registration form attached as Appendix 5 of the notification letter using contact details provided below. All comments and/or issues should be submitted within 30 days of this notice (by Monday, 14 January 2019) to the EAP, to ensure that all responses are incorporated into the Comments and Response Report, which will form part of the Basic Assessment Report (BAR) that will be submitted to the competent authority, Department of Agriculture, Rural Development, Land and Environmental Affairs (DARDLEA).

As part of the Public Participation Process (PPP), the Notification Letter is presented below for your comments and input on the proposed project.

Kindly find attached the zipped folder to access documents as follows:

- i. IAP notification letter, informing you more about the process.
- ii. Copy of the Locality map, showing the location of the project (attached as Appendix 1 of the letter)
- iii. Newspaper advert (attached as Appendix 2 of the letter)
- iv. Setswana and IsiZulu Advert (attached as Appendix 3 of the letter)
- v. Background Information Document (BID), providing more information about the proposed project (attached as Appendix 4 of the letter)
- vi. Registration Form - to be used to provide comments regarding the proposed project and BAR process (attached as Appendix 5 of the letter)

Please note the end date of the PPP commenting period, is Monday, 14 January 2019. Should you have any comments, queries or input with regards to the project, kindly complete the registration form, also attached as Appendix 3 of the letter and return to us at the following details:

- Attention: Mrs Babalwa Fatyi
Address: Postnet Suite B165, Private Bag X18, Lynnwood Ridge, 0040, Pretoria
- Fax to email: 086 543 1698
- Cellphone No: 082 772 2418
- Email: babalwa@myezo.co.za

Kind Regards,

Lehlogonolo Mashego

Project Assistant

M +27 768375240 | T +27 12 998 7642 | F +27 12 998 7641

E lehlogonolo@myezo.co.za | www.myezo.co.za | Facebook page: Myezo Environmental



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Lehlogonolo Mashego

From: Babalwa Fatyi
Sent: 19 November 2018 07:18 PM
To: Lehlogonolo Mashego; Dineo Kotane; Lyn Madziwanzira
Subject: FW: EIA - Vlakvarkfontein (Arbor) Rural Village, Delmas - Arbor Siding - Documents requested -IAP registration

Dear Lelo

Please add all these stakeholders in the IAP register for Gijima and then send them the notification information formally like other stakeholders.

Make sure Adi environmental is in your IAP register

Kind Regards

Babalwa Fatyi Pr.Sci.Nat

Director

Winner - Woman Entrepreneur of the Year (Tshwane Business Awards 2016)

M +27 82 772 2418 | T +27 12 998 7642 | F +27 012 998 7641 | Fax to email +27 86 543 1690

E babalwa@myezo.co.za | www.myezo.co.za |

From: Riana J. van Rensburg <riana@adienvironmental.co.za>

Sent: Monday, November 19, 2018 1:50 PM

To: Dineo Kotane <dineo@myezo.co.za>

Cc: Babalwa Fatyi <Babalwa@myezo.co.za>; veliler@gijimasupplychains.co.za; peetc@gijimasupplychains.co.za;

'Adie Erasmus' <adie@adienvironmental.co.za>

Subject: RE: EIA - Vlakvarkfontein (Arbor) Rural Village, Delmas - Arbor Siding - Documents requested

Good afternoon Dineo

Thank you very much for the information provided.

Please could you forward a copy of the existing EMP as requested in the email below and during the meeting of 7 November 2018.

Herewith contact details of relevant parties as requested:

- Ntshovelo Mining Resources (Pty) Ltd - Humphrey Mahlahlo (Mine Manager) humphrey@mbuyelocal.com
- Victor Khanye Local Municipality - Jeffrey Kgare jefreyk@victorkhanyelm.gov.za
- Truter Boerdery Trust - Tienie Oosthuizen admin@truterboerdery.co.za
- Councilor Oupa Masilela - masilelaoupa@webmail.co.za
- Chief Simon Mahlangu - simonmsiwa.mahlangu@avengrail.com

If you have any queries, please don't hesitate to contact me.

Regards
Riana J. van Rensburg

AdiEnvironmental cc
Tel/fax: 013-697 5021
P.O. Box 647
Witbank
1035

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From: Dineo Kotane [<mailto:dineo@myezo.co.za>]
Sent: 17 November 2018 08:14 AM
To: riana@adienvironmental.co.za
Cc: Babalwa Fatyi; veliler@gjimasupplychains.co.za; peetc@gjimasupplychains.co.za
Subject: Re: EIA - Vlakvarkfontein (Arbor) Rural Village, Delmas - Arbor Siding - Documents requested

Dear Riana,

On behalf of Babalwa, kindly find attached the letter of environmental authorisation as requested.

In addition to the letter, the Site layout plans of the current infrastructure and the planned activities are attached as follows:

- (a) The existing infrastructure layout indicates the current existing infrastructure and the area earmarked for the proposed infrastructure boundary.
- (b) The proposed activities layout plans shows the infrastructure of the planned activities and their position.
- (c) The Arbor Stockpile layout plan from a study conducted in March 2018, indicating the calculated Arbor Siding coal bulk handling and storage capacity for the overall siding

May you kindly share with Myezo the project management team representatives, who will be interested and affected parties for the proposed environmental authorisation process for the triggered listed activities for Arbor Railway Siding, so that we can also engage with them.

Warm Regards.

Dineo Kotane

Project Coordinator



From: Adie Erasmus <adie@adienvironmental.co.za>
Sent: Monday, November 12, 2018 2:04 PM
To: Dineo Kotane <dineo@myezo.co.za>; 'Riana J. van Rensburg' <riana@adienvironmental.co.za>
Cc: veliler@gijimasupplychains.co.za; peetc@gijimasupplychains.co.za; Babalwa Fatyi <Babalwa@myezo.co.za>; Adivhaho Rambuda <rambudaa@dwa.gov.za>
Subject: RE: EIA - Vlakvarkfontein (Arbor) Rural Village, Delmas - Arbor Siding Comment Sheet
Importance: High

Thank you Dineo.

Please note that the minutes of the said meeting are being compiled and will be forwarded during the course of this week.

It would be appreciated if you could forward us a copy of the Environmental Management Programme Report approved by the Mpumalanga Department as well as a copy of the issued Environmental Authorisation as requested during the said meeting.

Kind Regards

Adie Erasmus M.Sc, Pr. Sci. Nat.

Ad 
Environmental

AdiEnvironmental cc
PO Box 647
Witbank (eMalahleni Central)
1035
Tel/fax: 013 - 6975021
Cell: 083 271 8260
Email: adie@adienvironmental.co.za
Website: www.adienvironmental.co.za

From: Dineo Kotane [<mailto:dineo@myezo.co.za>]
Sent: 12 November 2018 01:47 PM
To: Riana J. van Rensburg <riana@adienvironmental.co.za>
Cc: veliler@gijimasupplychains.co.za; peetc@gijimasupplychains.co.za; Babalwa Fatyi <Babalwa@myezo.co.za>
Subject: Re: EIA - Vlakvarkfontein (Arbor) Rural Village, Delmas - Arbor Siding Comment Sheet

Dear Riana,

On behalf of Mr Velile Ramphele from Arbor Siding, kindly find attached the completed Comment Sheet following the meeting held on Wednesday, 7 November 2018.

Thank you.

Kind Regards

Dineo Kotane

Project Coordinator

M +27 83 200 5557 | T +27 12 998 7642 | F +27 12 998 7641

E dineo@myezo.co.za | www.myezo.co.za | Facebook page: Myezo Environmental



From: Riana J. van Rensburg <riana@adienvironmental.co.za>

Sent: Wednesday, October 31, 2018 10:06 AM

To: Dineo Kotane

Cc: veliler@gijimasupplychains.co.za; peetc@gijimasupplychains.co.za; 'Benny'; Babalwa Fatyi; 'Adie Erasmus'

Subject: RE: EIA - Vlakvarkfontein (Arbor) Rural Village, Delmas - Meeting confirmation

Good morning Dineo

Thank you for the meeting confirmation.

Regards

Riana J. van Rensburg

AdiEnvironmental cc
Tel/fax: 013-697 5021
P.O. Box 647
Witbank
1035

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delivery or non-delivery for whatsoever reason or for its effect on any electronic device of the recipient. If verification of this e-mail or any attachment is required, please request a hard-copy version.

From: Dineo Kotane [<mailto:dineo@myezo.co.za>]
Sent: 31 October 2018 09:01 AM
To: riana@adienvironmental.co.za
Cc: veliler@gijimasupplychains.co.za; peetc@gijimasupplychains.co.za; Benny; Babalwa Fatyi
Subject: Re: EIA - Vlakvarkfontein (Arbor) Rural Village, Delmas - Meeting confirmation

Dear Riana,

As per our telephonic communication, the proposed meeting is scheduled as follows:

Date: Wednesday, 7 November 2018

Time: 12:00pm

Venue: Arbor Railway Siding

Thank you,

Respectfully,

Dineo Kotane

Project Coordinator

☎ +27 81 300 8541 | 📠 27 11 400 7642 | 📠 27 11 400 7641

✉ dineo@myezo.co.za | www.myezo.co.za | Facebook page: Myezo Environmental



From: Babalwa Fatyi
Sent: Tuesday, October 30, 2018 12:44:54 PM
To: Benny; Dineo Kotane; riana@adienvironmental.co.za; Peet; Velile Ramphela
Subject: Re: EIA - Vlakvarkfontein (Arbor) Rural Village, Delmas

Dear Riana

Thank you for our communication about the proposed development on the phone.

Your proposal for a meeting on 01 November 2018 at 9 am will be discussed with the Arbor team and I think it is very crucial.

Benny, may you please share with me all the documents you had received from Riana such as the background information document that was attached on the email you forwarded to me.

Warm regards

Babalwa
0827722418

Sent from my Samsung Galaxy smartphone.

----- Original message -----

From: Benny <benny@gijima-arbor.co.za>

Date: 2018/10/30 12:17 (GMT+02:00)

To: Babalwa Fatyi <Babalwa@myezo.co.za>, Dineo Kotane <dineo@myezo.co.za>

Subject: FW: EIA - Vlakvarkfontein (Arbor) Rural Village, Delmas

Good day Babalwa

Please see the email below and it will be appreciated that if you could comment and respond to it as a matter of agency and you can even discuss it with either Peet or Velile.

From: Benny

Sent: Tuesday, October 30, 2018 11:55 AM

To: Riana J. van Rensburg <riana@adienvironmental.co.za>; Mavulwana, Tshilidzi-Transnet <Tshilidzi.Mavulwana@transnet.net>; Mongwe, Given-Transnet <Given.Mongwe@transnet.net>; Peet Cronje <peetc@gijimasupplychains.co.za>; Velile Ramphele <veliler@gijimasupplychains.co.za>

Cc: 'Adie Erasmus' <adie@adienvironmental.co.za>

Subject: RE: EIA - Vlakvarkfontein (Arbor) Rural Village, Delmas

Good day Riana

Please take note that I have forwarded the email to my superiors and they will respond to it.

From: Riana J. van Rensburg [<mailto:riana@adienvironmental.co.za>]

Sent: Tuesday, October 16, 2018 1:43 PM

To: Benny <benny@gijima-arbor.co.za>; Mavulwana, Tshilidzi-Transnet <Tshilidzi.Mavulwana@transnet.net>; Mongwe, Given-Transnet <Given.Mongwe@transnet.net>

Cc: 'Adie Erasmus' <adie@adienvironmental.co.za>

Subject: EIA - Vlakvarkfontein (Arbor) Rural Village, Delmas

Dear Sir/Madam

RE: DEVELOPMENT OF A RURAL VILLAGE ON A PORTION OF PORTION 5 OF THE FARM VLAKVARKFONTEIN 213 IR AND A PORTION OF THE REMAINING EXTENT OF VAN DYKSPUT 214 IR, DELMAS (REF: EIA2018/01)

Victor Khanye Local Municipality intends to formalize the existing informal settlement located on a portion of Portion 5 of the farm Vlakvarkfontein 213 IR, known as Arbor Village. As part of this project, additional residential stands and a cemetery will be provided on a portion of the Remaining Extent of the farm Van Dykspuit 214 IR. The rural village will comprise of: residential stands, business stands, municipal stands, a cemetery, a school, community facilities and public open spaces. Access to the site will be obtained from the R555 provincial road at Arbor Siding. The proposed rural village will be ±138ha in extent. The site is located south of the N12 national road and Arbor Siding (±20km north east of Delmas and 7km north west of Kendal Power Station), and adjacent to Vlakvarkfontein Colliery.

AdiEnvironmental cc. has been appointed as independent environmental consultant to compile the necessary Scoping and Environmental Impact Reports as required in terms of the Environmental Impact Assessment Regulations, 2014 (as amended). Part of the process is to inform interested and affected parties/stakeholders/government departments of the proposed development and to obtain any issues of concern.

Having been identified as an Interested and Affected Party (I&AP), please find attached a Background Information Document and comment sheet with regards to the proposed project.

A copy of this documentation is also available on our website- www.adienvironmental.co.za. Once you have entered the website, please go to:

- Document Downloads/Vlakvarkfontein (Arbor) Rural Village, Delmas (Ref. No: EIA 2018/01).

It would be appreciated if you could indicate whether you have any comments w.r.t. the proposed project. Comments/issues of concern are to reach us by 12 November 2018.

If you have any queries, please don't hesitate to contact me.

Regards

Riana J. van Rensburg

AdiEnvironmental cc
Tel/fax: 013-697 5021
P.O. Box 547
Witbank
1035

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