EDTEA Reference number: DC28/SECTION 24G/0001/2022

Grindrod Terminals Richards Bay, a division of Grindrod South Africa (Pty) Ltd

SECTION 24G PROCESS FOR THE SEAMUNYE TERMINAL ON PORTION 001, ERF 1854, RICHARDS BAY, KING CETSHWAYO DISTRICT MUNICIPALITY, KWAZULU-NATAL PROVINCE

Draft Environmental Impact Assessment Report

DC28/S24G/0001/2022
SEPTEMBER 2024

CONFIDENTIAL

TYPE OF DOCUMENT (VERSION) CONFIDENTIAL

PROJECT NO. 41106655

OUR REF. NO. DC28/S24G/0001/2022

DATE: SEPTEMBER 2024

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QUALITY CONTROL

Issue/revision	First issue		Revision 1	Revision 2
Remarks	Draft Report			
Date	September 2024			
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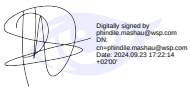
Signature				
Project number	41106655			
Report number	41106655_358529-1			
File reference	\\corp.pbwan.net\za\Central_Data\Projects\41100xxx\41106655 - Grindrod Seamunye Specialist Studies\41 PA\01-Reports\01-Draft\01-EIR			

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LIST OF ACRONYMS

Acronym	Description
AEL	Atmospheric Emission License

Acronym	Description
AIR	Atmospheric Impact Report
APPA	Atmospheric Pollution Prevention Act
BID	Background Information Document
BGIS	Biodiversity Geographic Information System
CA	Competent Authority
CBO	Community-Based Organization
DFFE	Department of Forestry, Fisheries and the Environment
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EC	Electrical Conductivity
ECA	Environmental Conservation Act
EDTEA	Department of Economic Development, Environment and Tourism
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EMPr	Environmental Management Programme
GIS	Geographic Information System
GN R	Government Notice Regulation
I&APs	Interested and Affected Parties
IDP	Integrated Development Plans
IDZ	Industrial Development Zone
KCDM	King Cetshwayo District Municipality
KZN	Kwa-Zulu Natal
MEC	Member of the Executive Council
MSDS	Material Safety Data Sheets
NEMA	National Environment Management Act
NEM:AQA	National Environment Management: Air Quality Act
NEMWA	National Environment Management Waste Act

Acronym	Description
NFEPA	National Freshwater Ecosystem Priority Areas
NGO	Non-Governmental Organisation
NPI	National Pollutant Inventory
PPE	Personal Protective Equipment
PPP	Public Participation Process
SAWS	South African Weather Service
SDF	Skills Development Facilitator
SIA	Social Impact Assessment
TSS	Total Suspended Solids
ULM	Umzimvubu Local Municipality
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compound
WMP	Waste Management Plan
WRF	Weather Research and Forecasting Model

1 INTRODUCTION

Grindrod Terminals Richards Bay, a division of Grindrod SA Operations (Pty) Ltd, hereinafter referred to as Grindrod owns and operates the Sea Munye Terminal, an ad hoc bulk materials storage and handling operation/facility. The materials stored on-site include sulphur, fertilizer (all types), iron skulls/pig iron (all grades), iron ore (hematite), iron ore (magnetite), metcoke, petcoke, clinker, chromium (all grades), manganese ore, rutile, zircon, chloride slag, blast furnace slag, copper concentrate, granite, ilmenite, vermiculite and salt. The facility has been used for this purpose since 2001.

Since the Sea Munye Terminal can store over 100 000 tons of ore, the facility requires an atmospheric emission licence (AEL), in terms of the National Environmental Management Air Quality Act (Act 39 of 2004) (NEM:AQA), and environmental authorisation (EA) in terms of the Environmental Impact Assessment (EIA) Regulations, 2014, published under the National Environmental Management Act (Act 107 of 1998), as amended (NEMA).

WSP Group Africa (Pty) Ltd (WSP) has been appointed as the independent environmental assessment practitioner (EAP) to undertake the AEL application and Section 24G regularisation processes.

1.1 BACKGROUND

The Sea Munye Terminal is located within the industrial area of Richards Bay on 32 Alugang, Alton South, Richards Bay, 3900, Kwa-Zulu Natal (KZN), approximately 6 km from the Port of Richards Bay (Figure 3-1). The property on which the Sea Munye Terminal is located on is Portion 001, ERF 1854, which is approximately 12.4 hectare (ha) in extent; this is inclusive of all the associated storage areas and railway lines for the transfer of commodities.

The current volume of materials stored on site is less than 100 000 tons, however, the facility's design capacity is intended to handle up to 250 000 tons. The materials stored on-site, at an ad hoc basis, include sulphur, fertilizer (all types), iron skulls/pig iron (all grades), iron ore (hematite), iron ore (magnetite), metcoke, petcoke, clinker, chromium (all grades), manganese ore, rutile, zircon, chloride slag, blast furnace slag, copper concentrate, granite, ilmenite, vermiculite and salt.

Grindrod must submit an application for an AEL in terms of NEM:AQA for the storage and handling of ore not situated on the premises of a mine or works as defined in the Mines Health and Safety Act (Act No. 29 of 1996).

The AEL application is being made in respect of the following listed activity:

- Category 5: Mineral Processing, Storage and Handling
  - Subcategory 5.1: Storage and Handling of sulphur, fertilizer (all types), iron skulls/pig iron (all grades), iron ore (hematite), iron ore (magnetite), metcoke, petcoke, clinker, chromium (all grades), manganese ore, rutile, zircon, chloride slag, blast furnace slag, copper concentrate, granite, ilmenite, vermiculite and salt.

Grindrod has submitted an application for the regularisation of a listed activity which commenced without an EA in terms of Section 24G of the NEMA. The application was made in respect of the following listed activity:

- Government Notice Regulation (GN R) 1182 (1998), promulgated in terms of the Environmental Conservation Act (Act No. 73 of 1989) (ECA), Activity 9: Scheduled processes listed in the Second Schedule to the Atmospheric Pollution Prevention Act.

The Section 24G application was submitted to the KZN Department of Economic Development, Environment and Tourism (EDTEA) on 30 May 2022.

1.2 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The purpose of the impact assessment report is outlined as follows:

- Determine the policy and legislative context within which the activity is located and how the activity complies with and responds to the relevant policy and legislation.
- State the need and desirability of the activity.
- Describe the receiving environment that is affected by the proposed activity.
- Determine the significance, duration and probability of the impacts that have/will occur as a result of the activity.
- Identify, assess and rank the significant impacts and risks that the activity will impose on the site throughout the lifetime of the activity.
- Identify suitable measures to avoid, reverse, mitigate or manage identified impacts.
- Identify residual risks that need to be managed and monitored.
- Outline the public participation process (PPP) that was undertaken.

Provide relevant information and recommendations for the competent authority (CA) to make an informed decision.

1.3 DIRECTIVE REQUIREMENTS AND STRUCTURE OF THE REPORT

This section provides actions undertaken by the Applicant to comply with EDTEAs requirements, and as outlined in Annexure A of the Section 24G application form. Annexure A outlines the procedure to be followed and criteria to be considered when determining an appropriate fine in terms of the Section 24G Fine Regulations (GN R.698, July 2017) when issuing a directive.

Table 1-1 - Annexure A Requirements (Section 24G application form)

NO.	SECTION A: Directive	Response/ Relevant Document Part
i.	Immediately cease with the activity pending a decision on the application submitted in terms of this subsection.	Requirement noted.
ii.	investigate, evaluate and assess the impact of the activity on the environment.	Refer to Section 8.4 of this report.
iii.	remedy any adverse effects of the activity on the environment.	Refer to Sections 10.1 and 10.2 of this report.
iv.	cease, modify or control any act, activity, process or omission causing pollution or environmental degradation.	Refer to Section 8.5 - Impact Assessment and – Stormwater Management Plan.
v.	contain or prevent the movement of pollution or degradation of the environment.	The site has a waste management plan in place, which assists Grindrod in preventing

NO.	SECTION A: Directive	Response/ Relevant Document Part
		the movement of pollution and minimising degradation to the environment.
vi.	eliminate any source of pollution or degradation	Requirement noted.
vii.	compile a report containing-	-
a)	a description of the need and desirability of the activity	Please refer to Section 5 of this report.
b)	an assessment of the nature, extent, duration and significance of the consequences for or impacts on the environment of the activity, including the cumulative effects and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity	Please refer to Section 8.5 of this report.
c)	a description of mitigation measures undertaken or to be undertaken in respect of the consequences for or impacts on the environment of the activity	Please refer to Section 10.1 of this report.
d)	a description of the public participation process followed during the course of compiling the report, including all comments received from interested and affected parties and an indication of how the issues raised have been addressed	Please refer to Section 6 of this report.
e)	an environmental management programme	Section 10 of this report.
	If yes provide details of the offence being investigated and authority conducting the investigation. provide such other information or undertake such further studies as the Minister, Minister responsible for mineral resources or MEC, as the case may be, may deem necessary.	A Groundwater and Surface Water Study (Appendix H) was undertaken as requested by EDTEA. Further to this, the applicant also undertook the following studies were undertaken: ▪ An SIA in support of the facility's rezoning application. ▪ An AIR is in support of the facility's imminent AEL application.

Section B: Deferral	Response/ Relevant Document Part		
Are you, the applicant, being investigated for a contravention of section 24F(1) of the NEMA in respect of a matter that is not subject to this application and in any province in the Republic?	~~YES~~	NO	~~UNCERTAIN~~

NO.	SECTION A: Directive	Response/ Relevant Document Part		
If uncertain provide details of the activity or activities in relation to which you suspect, you may be under investigation		Not applicable.		
Are you, the applicant, being investigated for the contravention of section 20(b) of the NEMWA in respect of a matter that is not subject to this application and in any province in the Republic?		~~YES~~	NO	~~UNCERTAIN~~
If yes provide details of the offence being investigated and authority conducting the investigation. If uncertain provide details of the activity or activities in relation to which you suspect, you may be under investigation.		Not applicable.		
Are you, the applicant, being investigated for an offence in terms of section 24F(1) of the NEMA or section 20(b) of the NEMWA in terms of which this application directly relates?		~~YES~~	NO	~~UNCERTAIN~~
If yes provide details of the offence being investigated and authority conducting the investigation. If uncertain provide details of the activity or activities in relation to which you suspect, you may be under investigation.		Not Applicable		
Section D: Preliminary Advertisements		**Response/ Relevant Document Part**		
Proof of Public Participation Process (PPP)		Please refer to Section 6 of this report.		

2 CONTACT DETAILS

2.1 APPLICANT'S DETAILS

The applicant's details are provided in Table 2-1 below.

Table 2-1 - Applicant's details

Applicant	Details
Name of Applicant	Grindrod SA Operations (Pty) Ltd
Trading name (if any)	Grindrod Terminals (Sea Munye)
Company/Close Corporation/Trust Registration Number (Registration Numbers if Joint Venture)	2021/149675/07
Registered Address	32 Alugang, Alton South, Richards Bay, 3900
Postal Address	PO Box 10744, Meerensee, Richards Bay 3901
Contact Person	Valentine Ndlovu
Position in Company	Line Manager- SHERQ
Telephone No.	(035) 761 3536/063 691 4144
Email Address	Valentine.Ndlovu@grindrod.com
Fax:	(035) 797 9144

2.2 DETAILS AND EXPERTISE OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

WSP is recognised globally as a leading environmental and social services and engineering consultancy. WSP comprises of a 14,000-person strong earth and environment practice, providing environmental services, engineering, regulatory and compliance, remediation and design on projects across all seven (7) continents.

The details of the Environmental Assessment Practitioner (EAP) are indicated in Table 2-2.

Table 2-2 - Details of the Environmental Assessment Practitioner

Name	WSP Group Africa (Pty) Ltd
Postal Address	P.O. Box 6001, Halfway House, 1685
Physical Address	Building 1, Maxwell Office Park, Magwa Crescent West, Waterfall City, Midrand, 1685
Telephone	011 254 4800
Fax	086 82 1561
Contact person	Phindile Mashau
Telephone	011 254 4826
Email	phindile.mashau@wsp.com
Academic Qualifications	BSc (Hons) Environmental Science
Professional Registrations	Pr.Sci.Nat.; Registered EAP (2019/1731)

2.3 DECLARATION OF INDEPENDENCE

WSP has no vested interest in the proposed project and hereby declares its independence as required by the EIA Regulations.

3 DEVELOPMENT DESCRIPTION

3.1 DEVELOPMENT LOCALITY AND LAYOUT PLAN

The Grindrod Sea Munye Terminal is located on Portion 001, Erf 1854, Richards Bay, Umhlathuze Local Municipality, King Cetshwayo District Municipality, Kwazulu-Natal Province. The study area is accessed through Geleiergang, a minor arterial road. There are existing driveways within the facility that provide for transportation/travel within the site. The Surveyor General (SG) 21 Digit code is indicated in Table 3-1. The centre coordinates are 28°45' 34.63" S; 32° 0' 37.51" E. The locality is indicated in Figure 3-1.

Table 3-1 - SG21 digit code of the associated property

SG Office	Major Region			Minor Region				Erf / Farm Number								Portion Number				
N	0	G	V	0	4	2	1	0	0	0	0	1	8	5	4	0	0	0	0	1

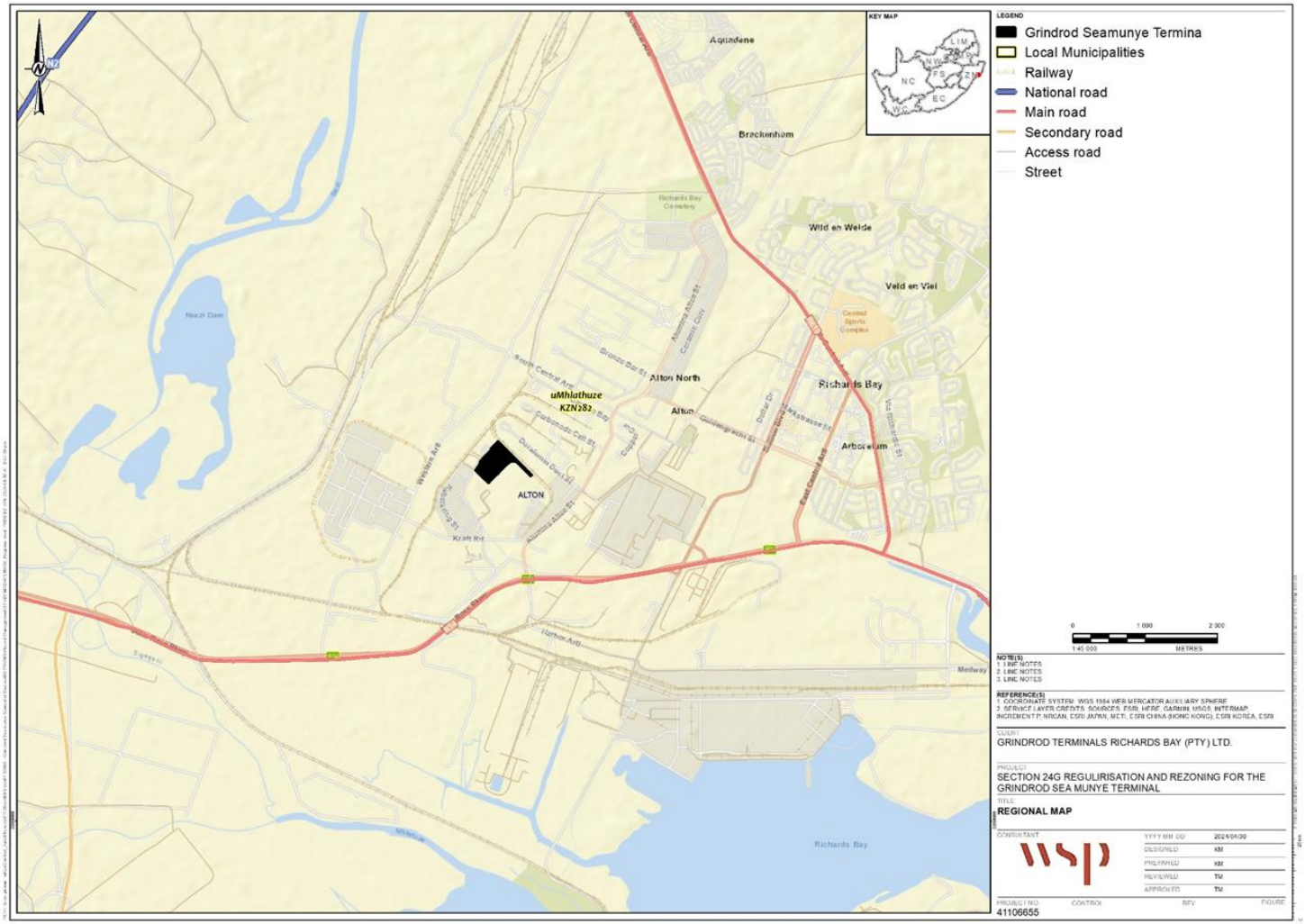

Figure 3-1 – Locality of the project site

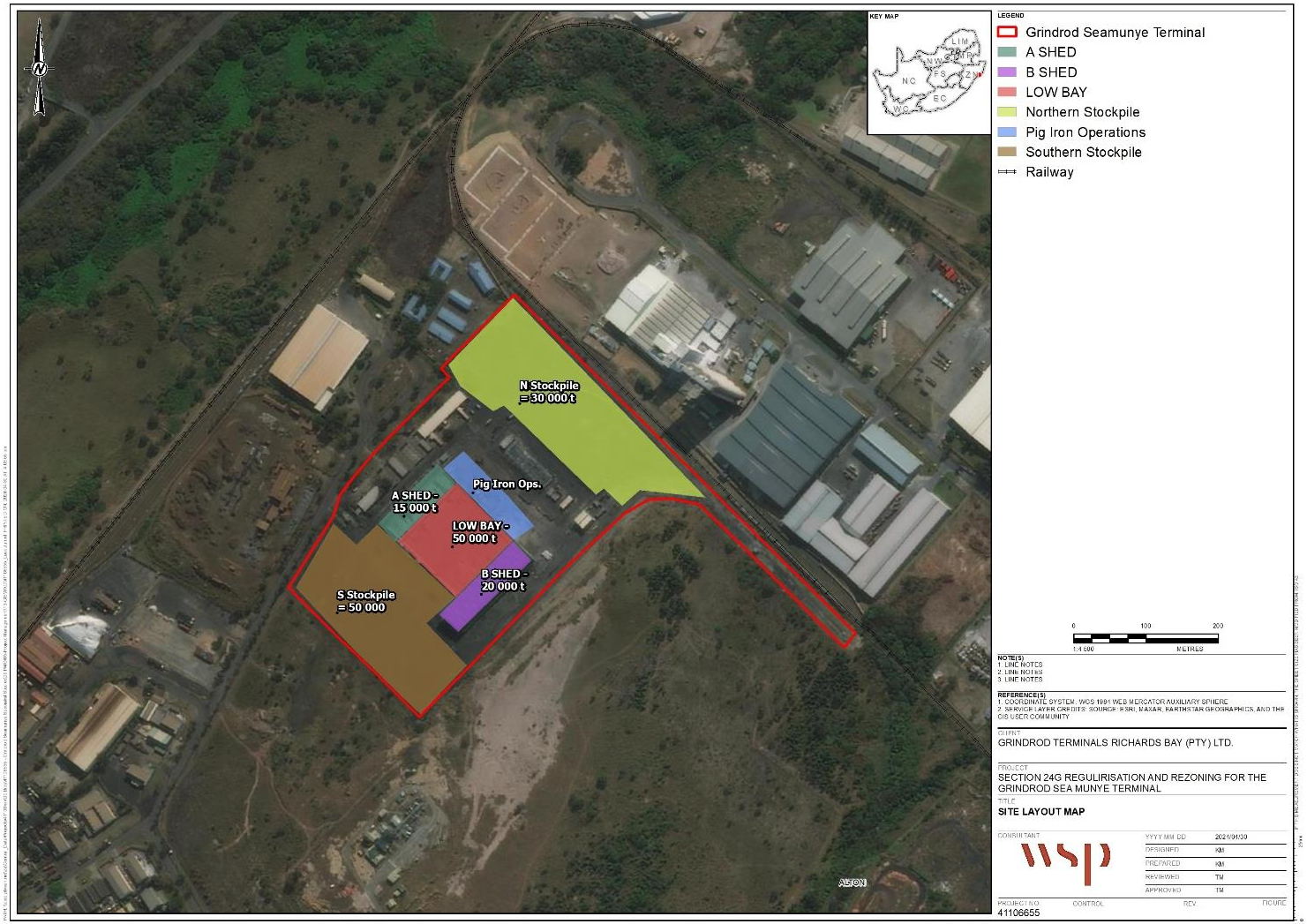

Figure 3-2 – High-level layout of the project site

3.2 DEVELOPMENT ACTIVITIES

According to Grindrod, the facility was originally built as a training and storage facility for Alusuf Aluminium in the late 70's (1976 - 1978). In early 2000 the facility was sold, and the new owners started using it as a bulk storage facility, the facility was then named Sea Munye Port Holdings. The first signs of coal stockpiles on the site were evident in 2004 based on Google Earth historical imagery. This facility was acquired by the Applicant, Grindrod, in 2005. At the time of purchase, the facility was already being used as a bulk storage and transfer terminal.

The Sea Munye Terminal is an ad hoc bulk materials storage and handling operation/facility. The materials stored on-site could include sulphur, fertilizer (all types), iron skulls/pig iron (all grades), iron ore (hematite), iron ore (magnetite), metcoke, petcoke, clinker, chromium (all grades), manganese ore, rutile, zircon, chloride slag, blast furnace slag, copper concentrate, granite, ilmenite, vermiculite and salt. The facility has been used for this purpose since 2001.

The facility currently includes the following storage and handling areas:

- Northern stockpile.
- Southern stockpile.
- Open area between the warehouse, also known as the "low bay".
- A-shed.
- B-shed.

The current volume of materials stored on site is less than 100 000 tons (approximately 50 000 tons at present); however, the site has the potential to store up to 250 000 tons.

3.3 EXISTING SUPPORT SERVICES OR FACILITIES

The total building area at the Sea Munye Terminal is 20 314.52 m^2 and includes the following existing supporting infrastructure:

- Administration offices.
- Eating area
- Security office.
- Workshop.
- Ablution areas.
- Weighbridge office

The following Infrastructure (e.g. roads, power and water supply/ storage) is associated with the project site:

- The study area is accessed through Geleiergang, a minor arterial road. There are existing driveways within the facility that provide for transportation/travel within the site.
- Potable water is provided by uMhlathuze Local Municipality (ULM).
- Electricity is supplied by the ULM.
- The site is connected to the ULM's sewer mains and the stormwater drains through underground stormwater pipes that are managed by the municipality.

4 LEGISLATIVE FRAMEWORK

4.1 LEGISLATIVE REQUIREMENT FOR ENVIRONMENTAL AUTHORISATION

In terms of Section 24G of the NEMA, it is possible to obtain authorisation for activities listed in terms of the EIA Regulations, 2014 as amended, and the list of waste management activities and facilities requiring waste management licencing in terms GN R. 921 (2013) that were undertaken without obtaining such authorisation via the legislated Basic Assessment process. The provisions of Section 24G Fine Regulations are applicable to activities and facilities undertaken since the promulgation of the EIA Regulations published under the Environment Conservation Act, Act No. 73 of 1989 (ECA), including (Figure 4-1):

- EIA Regulations R1182 and R1183 in terms of the Environment Conservation Act, 1989 (Act 73 of 1989) (ECA), as implemented in September 1997.
- Regulations GN R 385, R 386, and R 387 in terms of NEMA on 3 July 2006 (and subsequently 13 February 2009) that replaced Regulations R1182 and R1183.
- EIA Regulations GN R.544, 545 and 546 in terms of NEMA on 18 June 2010.
- EIA Regulations GN R.983, 984 and 985 in terms of NEMA on 04 December 2014.
- GN R. 327, 324 and 325 (in 07 April 2017) and corrected on 13 July 2018.
- The waste management activities listed in GN R.718, published in terms of the National Environmental Management Waste Act, 2008 (Act 59 of 2008) (NEMWA) (and subsequently updated by GN R. 921 of 29 November 2013 and GN R.633 of 24 July of 2015).

Figure 4-1 - Timelines of legislation applicable to SECTION 24G Regularisation processes

Normally, the relevant environmental authority will stipulate, in writing, what is required of the transgressor to apply for environmental authorisation in terms of Section 24G and provide a timeframe within which these requirements are to be met. In WSP's experience, a typical SECTION 24G Regularisation Process is undertaken as per Figure 4-2.

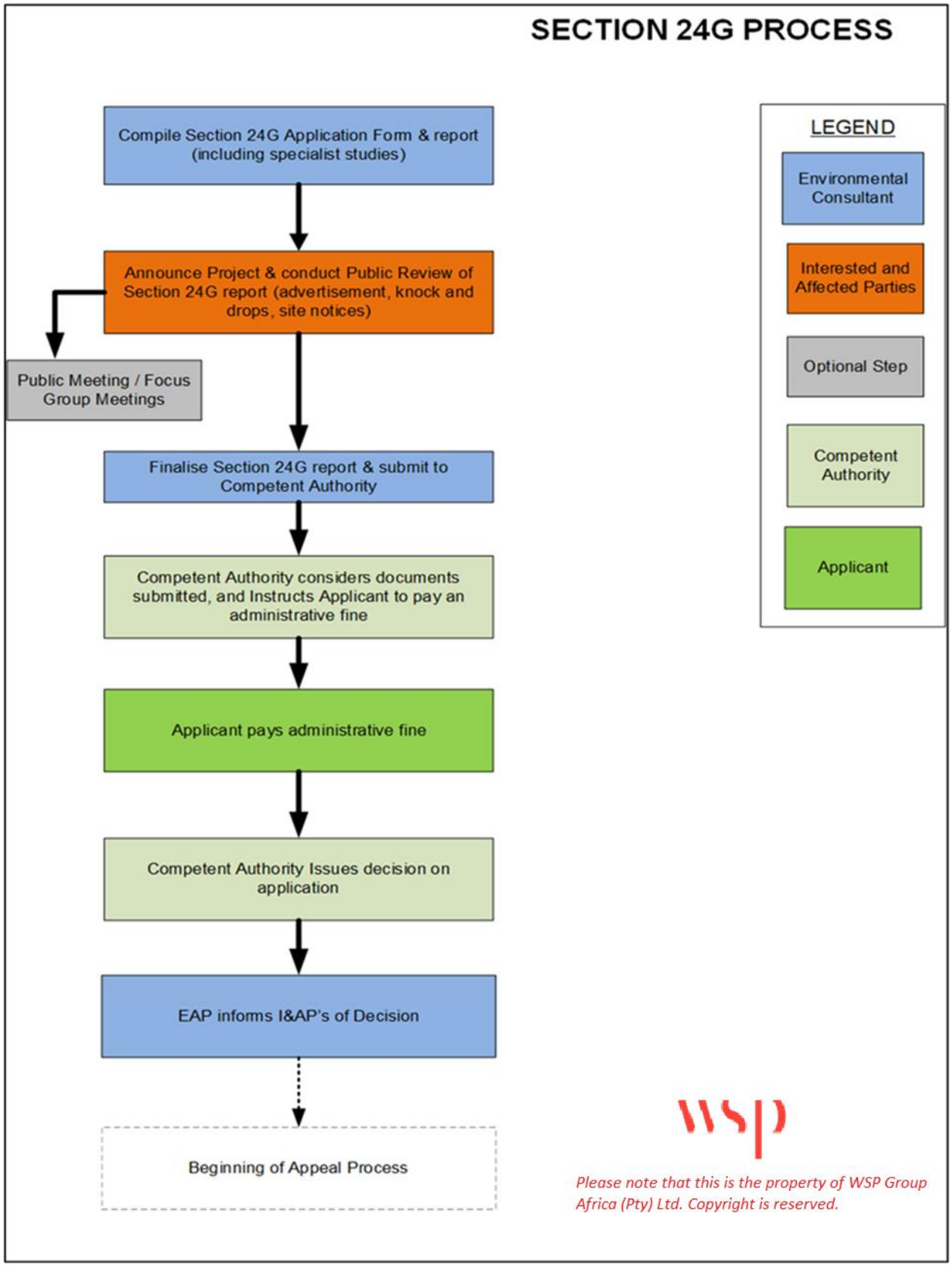

Figure 4-2 - Simplified Section 24G Process

Section 24G(5) states that the applicant must pay an administrative fine, not exceeding R 5 million, and the fine will be determined in accordance with the requirements stipulated in GN R. 698 - Regulations Relating to the Procedure to be Followed and Criteria to be Considered when Determining an Appropriate Fine in terms of Section 24 G (2017).

4.2 LISTED ACTIVITIES TRIGGERED BY THE DEVELOPMENT

Table 4-1 - Historical listed activities triggered by development

ECA EIA Contraventions: Between 08 September 1997 end of day 09 May 2002	
Activities unlawfully commenced with on or after 08 September 1997 and before end 09 May 2002: EIA Regulations promulgated in terms of the ECA, Act No 73 of 1989, as amended	
Listed Activity(ies)	Details of Activity(ies)
GN R 1182 (1998), promulgated in terms of terms of ECA. Activity 9: Scheduled processes listed in the Second Schedule to the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965).	The bulk handling and storage of include sulphur, fertilizer (all types), iron skulls/pig iron (all grades), iron ore (hematite), iron ore (magnetite), metcoke, petcoke, clinker, chromium (all grades), manganese ore, rutile, zircon, chloride slag, blast furnace slag, copper concentrate, granite, ilmenite, vermiculite and salt at dumps designed to hold 100 000 tonnes or more and not situated on the premises of a mine or works as defined in the Mines and Works Act No 27 of 1956. Triggers are as follows: ▪ The storage of material likely commenced between 1998 and 2004. ▪ There is currently no AEL or EA in place for this site. ▪ The facility currently stores a total of less than 100 000 tons. ▪ The facility's design capacity is intended to handle up to 250 000 tons.

The regularisation application will therefore trigger the following current listed activities which are in line with Listing Notice 1 which are published under the GN R 983 of the EIA Regulations of 2014 (as amended) detailed in Table 4-2 below.

Table 4-2 - Current listed activities triggered by the development

Listed Activity(ies)	Details of Activity(ies)
Activity 28: Commencing of an activity, which requires an atmospheric emission licence in terms of section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) excluding - i. activities which are identified and included in Listing Notice 1 of 2014;	The facility has the capacity to store more than 100 000 tonnes of material, include sulphur, fertilizer (all types), iron skulls/pig iron (all grades), iron ore (hematite), iron ore (magnetite), metcoke, petcoke, clinker, chromium (all grades), manganese ore, rutile, zircon, chloride slag, blast furnace slag, copper concentrate, granite, ilmenite, vermiculite and salt but is not licenced with an atmospheric emission licence, as such this activity is triggered and therefore requires regularisation.

Listed Activity(ies)	Details of Activity(ies)
ii. activities which are 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; or iii. the development of facilities or infrastructure for the treatment of effluent, wastewater or sewage where such facilities have a daily throughput capacity of 2000 cubic metres or less.	

4.3 OTHER APPLICABLE LEGISLATIONS

Table 4-3 all legislations, policies and/or guidelines of any sphere of government that are applicable to the operations as contemplated in the EIA regulations.

Table 4-3 - List of Applicable Legislation

TITLE OF LEGISLATION, POLICY OR GUIDELINE	APPLICABILITY TO THE PROJECT	ADMINISTERING AUTHORITY	PROMULGATION DATE
National Environmental Management: Air Quality Act (No. 39 of 2004)	Section 21 listed activity (Subcategory 5.1): Storage and handling of ore of GN R 893 (2013), promulgated in line with Section 21 of the National Environmental Management: Air Quality Act 39 of 2004 (NEM:AQA): The facility is storing more than 100,000 tonnes of ore and therefore triggers listed activity Subcategory 5.1.	King Cetshwayo District Municipality	Pending: Obtaining the EA is a prerequisite to the AEL being granted.

Table 4-4 - By-laws and other policy guidelines

POLICY/GUIDELINES	ADMINISTERING AUTHORITY
Public Participation Guideline in Terms of the National Environmental Management Act, 1998 and Environmental Impact Assessment Regulations.	EDTEA
Wastewater Reuse Policy	ULM
Environmental Health Bylaws	ULM
Solid Waste By-Laws	ULM
By-Laws relating to Stormwater Management	ULM
Water Services By-Laws	ULM
Air Quality Management By-Law	KCDM

4.4 OTHER PERMITS OBTAINED FOR THE FACILITY

The Grindrod Sea Munye Terminal has the following other permits:

- Scheduled Trade Permit (permit no. 2014/005/17/1/1/7/4/R) issued on 15 September 2021 in terms of Chapter 9 of the ULM's Environmental Health By-Laws to operate scheduled trade activities.
- The property currently holds a Zoning Certificate for 'General Industry', however an application to rezone to 'Harbor- bound industry with consent uses of "Industry-Noxious"' is underway.

5 NEED AND DESIRABILITY OF THE ACTIVITY

The Sea Munye Terminal provides storage capacity for the bulk movement of products in and out of the Port of Richards Bay. The operation is in alignment with the ULM's IDP (2021). The ULM is known to be one of the highly industrialized areas in the country, consisting of various types of industries including smelters, pulp and paper mills, chemicals, harbour, iron steel, fertiliser, coal exporters, mineral mining, forests, cement, blasting, sugar cane and the expanding industrial development zone (IDZ). The harbour, also known as Port of Richards Bay, is considered to be the largest in South Africa. It is known to be one of the growing powerhouses for exporting and importing activities of different commodities (uMhlathuze Local Municipality, 2020).

The site contributes positively to the local economy and currently employs 160 people, 36.25% of which are permanent and 64.75% are contract workers of the Richards Bay community. The current staff receives ongoing training to improve their skills. Training of staff ensures that all staff is well equipped to perform and fulfil their roles and responsibilities.

The full usage of the site to its capacity (i.e., 250 000 tons) could accommodate smaller mineral companies that are looking for access to the ore and mineral market and would contribute positively to the local economy. The current state of iron ore in South Africa is as follows:

- The total amount of iron ore reserves in South Africa equates to 696.48Mt (PwC, 2023).
- Mining production increased by 6,8% in November 2023, with iron ore being one of the largest contributors in the mining industries at 20.1% (Stats SA, 2023). There is a sustained growth in the South African mining industry, positively influencing to the country's GDP via iron ore and mineral exports.

Furthermore, the facility is currently partially closed while pending the re-zoning application. This has resulted in 59 job losses; the EA of the facility will secure these jobs.

The Sea Munye Terminal includes the following storage and handling areas (Figure 6-1):

- Northern stockpile.
- Southern stockpile.
- Open area between the warehouse, also known as the "low bay".
- A-shed.
- B-shed.

However, at present, only the sheds are operational as the King Cetshwayo District Municipality (KCDM) requested Grindrod to cease operation at the open stockpile area pending the council's consideration of a re-zoning application for the property. Due to the partial closure of the facility, there has been a significant decrease in the revenue generated at Grindrod. Furthermore, as a direct consequence, Grindrod has had to initiate an unfortunate retrenchment process. This further motivates the need for this project.

6 PUBLIC PARTICIPATION

This section describes the PPP followed during compiling this EIR for the Section 24G Regularisation of the site and was undertaken using a staged approach, in reference to Section 39-42 of the EIA Regulations (2014) GN R.982.

In essence, the PPP is one of the general objectives of integrated environmental management laid down in Section 23(2)(d) of NEMA and is set out to “ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment”. This also ensures transparency throughout the process and promotes informed decision-making. The engagement process involved the following key phases.

6.1 CONSULTATION WITH COMPETENT AUTHORITIES

Consultations and correspondences made with and/or received from the CA, i.e., EDTEA regarding this Regularisation application to date are as follows:

- Pre-application meeting held with EDTEA on 22 March 2022.
- Site inspection with the EDTEA on the 21 July 2022.
- An administrative fine of R 1 750 000 was issued on 22 August 2023.
- Grindrod appealed the fine on 19 September 2023.
- The administrative fine was reduced to R 400 000 by EDTEA.
- Grindrod has paid the fine.

6.2 STAKEHOLDER REGISTER/ DATABASE

The existing stakeholder database in place for the site has been updated (Appendix C). Stakeholders on the database were notified of the Section 24G application through bulk SMS and emails on 03 May 2022 regarding the application submission intention and on 27 September 2024 to notify of the draft EIR availability for public review, requesting stakeholders to register as interested and affected parties (I&APs) and providing more information regarding the project (in the form of a background information document (BID)).

6.3 WRITTEN NOTIFICATIONS

Key stakeholders and commenting authorities were identified and informed of the Section 24G Regularisation application process through email distribution of the following:

- Announcement letter.
- BID including the locality map.
- Registration and Comment Sheet.

The above-mentioned documents provided the essential information regarding the Section 24G Regularisation application process to the following key stakeholders and commenting authorities:

- Government departments:
  - National and Provincial governmental departments (e.g., Department of Water Affairs (DWS)).
  - Local government (e.g., EDTEA, town councils, etc.).
- Non-governmental organisations (NGOs).
- Civil society:

- Community-based organizations (CBOs).
- General public and other interested or affected parties
- Potential indirectly affected stakeholders.

The BID provided background to the application, a clear description of the activities applied for, the Regularisation application process to be followed, how and when stakeholders can participate in the process, contact details should stakeholders like to comment or seek further information, and the commenting period.

Refer to Appendix C for the BID, Registration and Comment Sheet and proof of written notifications. The emails were distributed to stakeholders on 03 May 2022 and 27 September 2024.

6.4 ADVERTISEMENTS

Newspaper advertisements were placed in the Zululand Observer and Baywatch in English on 07 April 2022 and 13 April 2022, respectively. Potential I&APs were invited to register, and lodge written comments regarding the project. At least 20 days were provided for I&APs to provide comments on the application in terms of the Section 24 G Regulations (GNR.698 of 2017).

The availability of the draft EIR for public review was published on 27 September 2024.

Refer to Appendix C for the proof of the advertisements.

6.5 SUBMISSION AND AVAILABILITY OF DRAFT EIA REPORT FOR PUBLIC REVIEW

All registered I&APs and stakeholders on the database were notified of the availability of the draft EIR for their review and comment. The draft EIR was made available for public review from **30 September 2024** until **30 October 2024**. The report was available at the public places listed below and posted to the WSP website.

Table 6-1 - Draft EIR public review venues.

Name	Address	Contact Details	Operating Hours
Richards Bay Public Library	Richards Bay Central, Richards Bay, 3900 (located in the Boardwalk Inkwazi Shopping Centre)	035 907 5843/40/46	Mon to Fri 9 am to 5pm | Sat 8 am to 11:45 pm Sun – Closed
Online Link	https://www.wsp.com/en-za/services/public-documents		
QR Code			

7 RECEIVING ENVIRONMENT

This section outlines the receiving environment within which the site exists.

7.1 LANDSCAPE AND LAND USE

The study area (Figure 7-1) is located within the town of Richards Bay and is surrounded by:

- Navitrade, a Grindrod facility, is located southeast of Sea Munye.
- Sea Munye is surrounded by various small and large industries that range from bulk storage facilities, car dealerships and fuel stations.
- Large paper manufacturer located east.
- Port of Richards Bay is located southeast of Sea Munye (approximately 4 km).
- Various residential communities located within a 5 km radius.

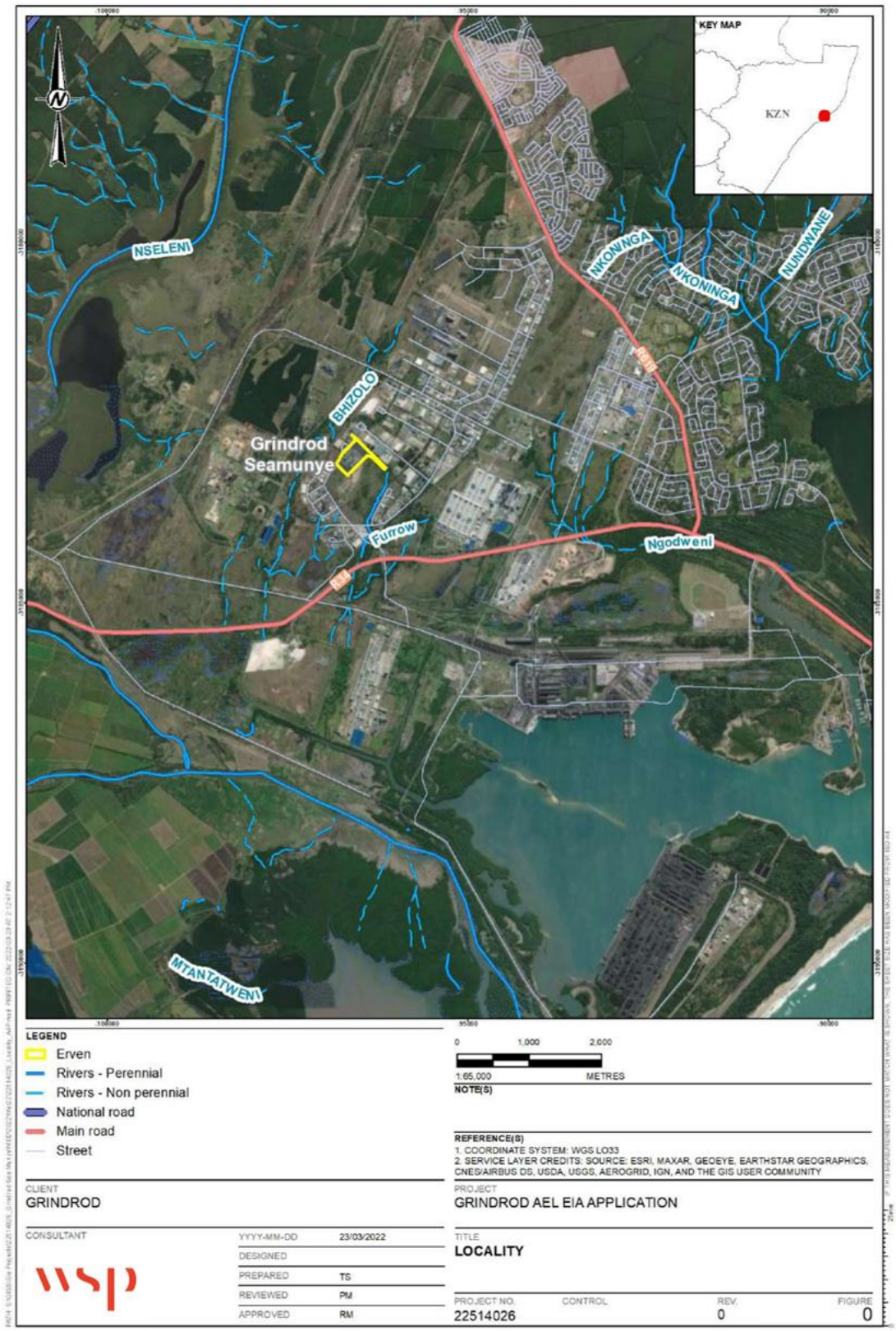

Figure 7-1 – General overview of the areas surrounding the Grindrod Sea Munye site

7.2 REGIONAL CLIMATE, TEMPERATURE AND RAINFALL

The Sea Munye Terminal is situated within Richards Bay which has a tropical climate (Climate Data, 2023). Figure 7-2 and Figure 7-3 illustrates the average monthly temperature, temperature range (maximum and minimum) and total rainfall from the SAWS and Grindrod off-site stations, respectively. The region typically receives the highest levels of rainfall during the summer months (December to February) and low levels of rainfall during the winter months (June to August). The SAWS station recorded average summer temperatures ranging from 23.7 to 25.0°C, whilst the Grindrod station recorded average temperatures for summer ranging from 25.0 to 26.0°C. Average winter temperatures at both stations ranged from 17.5 to 19.0°C (WSP Group Africa (Pty) Ltd, 2022).

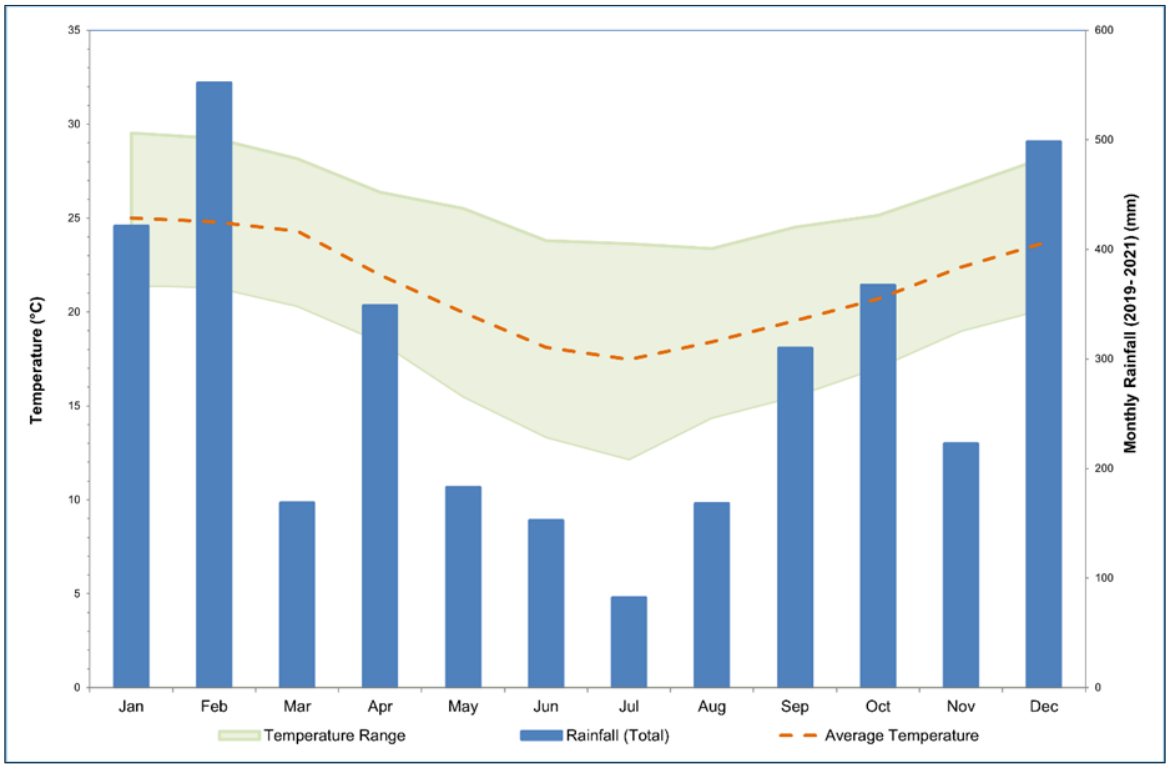

Figure 7-2 - Total monthly rainfall, temperature range and average monthly temperature from the SAWS meteorological station for the January 2019 to December 2021 period

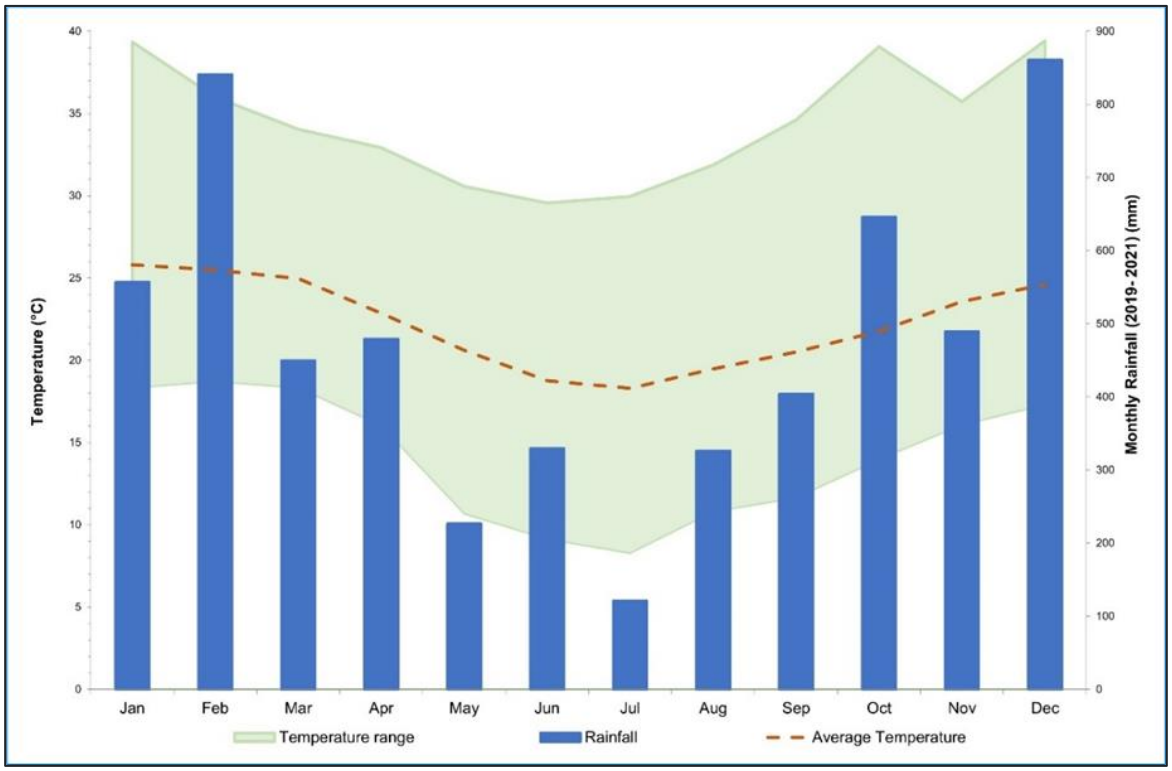

Figure 7-3 - Total monthly rainfall, temperature range and average monthly temperature from the Grindrod off-site meteorological station for the January 2019 to December 2021 period

7.3 GEOLOGY AND SOILS

The site is characterised by greyish and sandy soil types, and the site is underlain by imperfectly drained sandy soils with favourable water-holding properties (South African National Biodiversity Institute, BGIS Biodiversity GIS, 2022). In addition, the geological formation underlying the site includes sandstone, limestone and gravel (WSP Group Africa (Pty) Ltd, 2022).

7.4 GROUND AND SURFACE WATER

7.4.1 GROUNDWATER QUALITY

Groundwater samples were collected in April 2024 by Indaloenhle. The facility has five (5) groundwater monitoring wells as indicated in Figure 7-4, however, sampling was undertaken at SEA5 monitoring well only. SEA1, SEA2 and SEA3 were dry during the sampling round.

The groundwater sample at SEA5 displayed pH levels in the acidic range (< 5), rendering them non-compliant with the standard1 used. The magnesium (Mg) concentrations were elevated as well. All the other parameters were within the standard (Table 7-1). Refer to Appendix H for the assessment report.

[1] DWAF (1996) South African Water Quality Guidelines

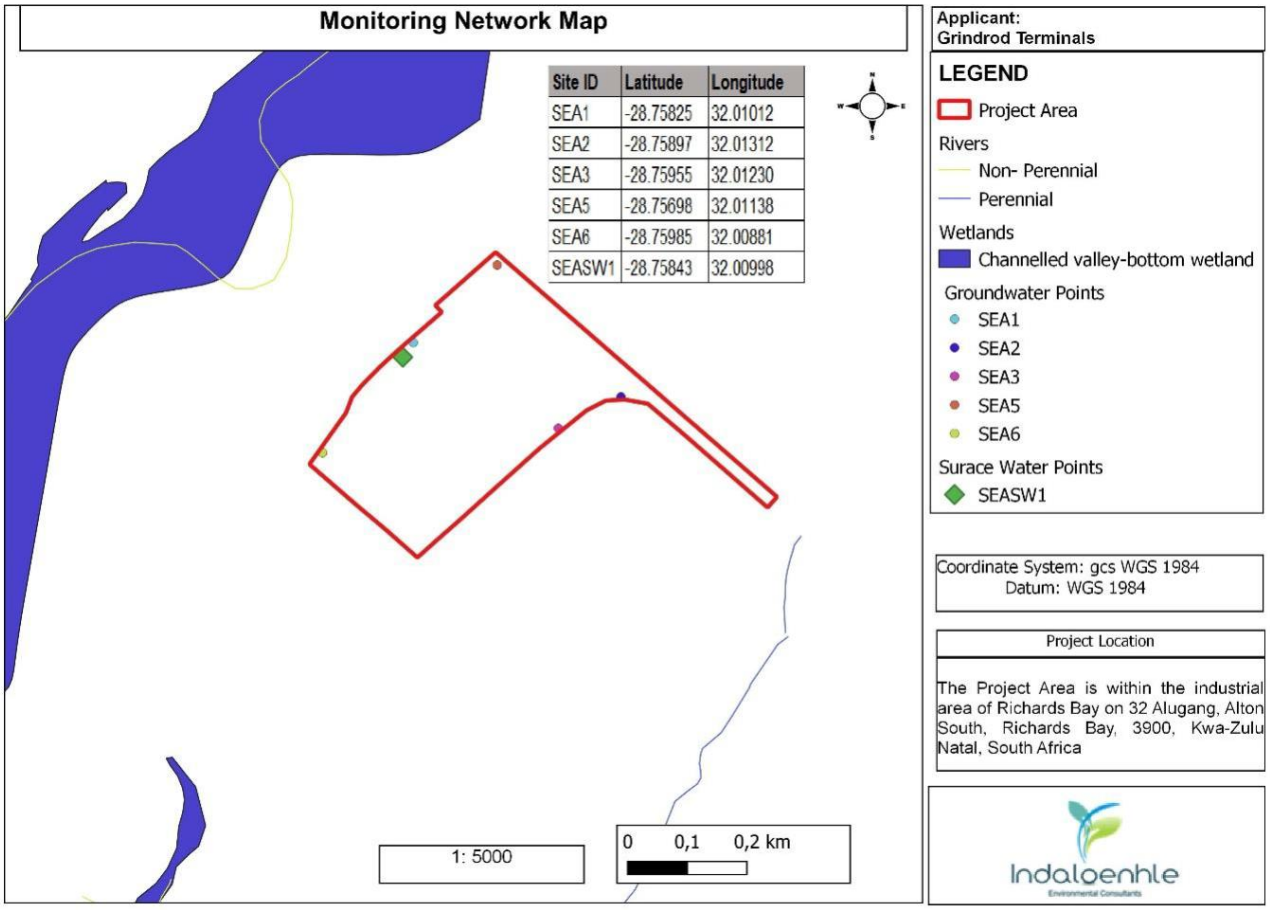

Figure 7-4 - Groundwater and surface water monitoring points

Source: **(Indaloenhle Environmental Consultants (Pty) Ltd, 2024)**

7.4.2 SURFACE WATER QUALITY

The Seamunye Terminal is located within the W12F quaternary catchment. The catchment covers an area of 399 km^2. The closest natural surface water body is an unnamed tributary that is located approximately 480 m southwest of the project area. The main activity in the catchment is the industrial and urban development. In terms of the National Freshwater Ecosystem Priority Areas (NFEPA) for South Africa, the Sea Munye Terminal falls is located approximately 400 m south-east of a channelled valley bottom wetland (permanent wetland) (South African National Biodiversity Institute, 2021)

Surface water samples were collected from the study site in April 2024 by Indaloenhle and issued to a laboratory for chemical assessment. The results of the assessment indicated that the water sample had identified some exceedances with reference to the standard[2] used.

The parameters that were sampled are provided in Table 7-1. Refer to Appendix H for the assessment report and further details on the parameters that were measured.

[2] DWAF (1996) South African Water Quality Guidelines

Table 7-1 – Groundwater and surface water quality sampling results

Parameter	Units	Sample Results (SEA5)	Sample Results (SEA6)	DWAF Standard[3]
pH	pH units	5.57	3.27	6-9
Electrical Conductivity (EC)	mS/m	30.2	297	0-70
Total Suspended Solids (TSS)	mg/L	4 604	11 092	<20 NS
Ammonia (NH_3)	mg/L	<0.2	2.7	<1
Calcium (Ca)	mg/L	25.4	407	<32
Magnesium (Mg)	mg/L	6.7	166	<30
Sodium (Na)	mg/L	18.8	69.1	<100
Potassium (K)	mg/L	<2.00	19	<50
Chlorine (Cl)	mg/L	24.3	27.9	<100
Fluoride (F)	mg/L	<0.5	15.4	<1
Sulphate (SO_4)	mg/L	93.9	1 939	<200
Nitrate Nitrogen (NO_3-N)	mg/L	0.97	3.58	<6
Phosphorus (P)	mg/L	<1.00	<1.00	NS
Aluminium (Al)	mg/L	<0.1	>1.2	<0.05
Cadmium (Cd)	mg/L	<0.001	<0.001	<0.05
Iron (Fe)	mg/L	<0.05	1.11	<0.1
Lead (Pb)	mg/L	<0.003	<0.003	<0.001
Manganese (Mn)	mg/L	0.146	>2	<0.05
Silicon (Si)	mg/L	8.48	16.9	NS
Titanium (Ti)	mg/L	<0.005	<0.005	NS
**NS = No Standard*				

Source: Indaloenhle Environmental Consultants (Pty) Ltd (2024)

[3] DWAF (1996) South African Water Quality Guidelines

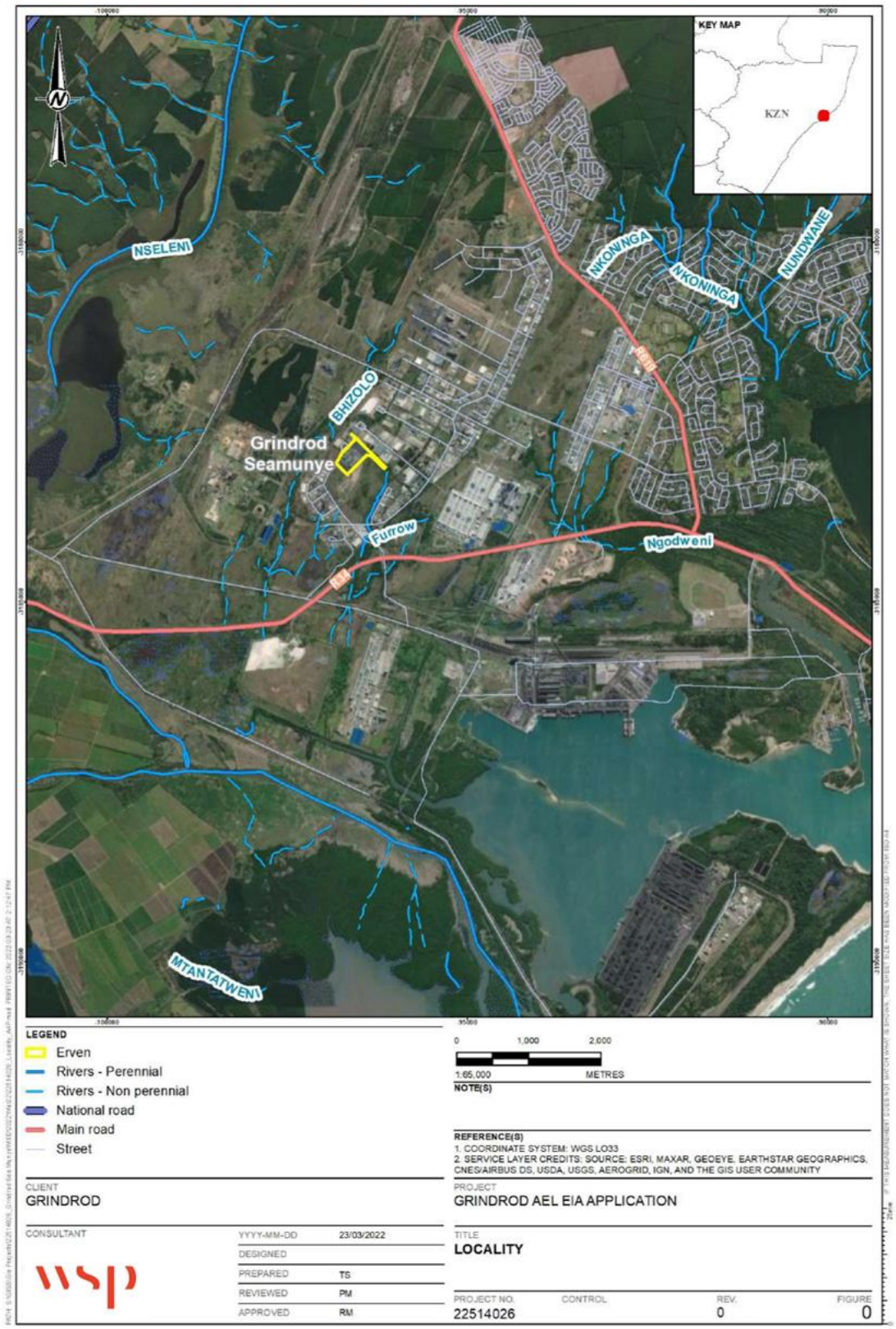

Figure 7-5 – Locality map with tributaries

7.5 AGRICULTURE

The site has no agricultural potential, and the site is zoned as 'General Industry'.

7.6 TERRESTRIAL ECOLOGY

In terms of vegetation, the site's vegetation type is listed as Maputaland Wooden Grassland within the Indian Ocean Coastal Belt. The site falls within the Kwambonambi Hygrophilous Grasslands Ecosystem which is rated as critical (CR) in terms of the National List of Threatened Terrestrial Ecosystems (South African National Biodiversity Institute, 2022) The site has previously been cleared as it is currently used as a terminal.

7.7 AMBIENT AIR QUALITY

An air quality assessment was undertaken by WSP in June 2022. The following section outlines the key findings from the Atmospheric Impact Report for the project (WSP Group Africa (Pty) Ltd, 2022).

7.7.1 EXISTING SOURCES OF EMISSIONS

The key sources of emissions in the area contribute towards the air quality status quo within the region, with dust fallout and particulates being of particular concern in this regard (this is discussed in Section 8.4.2.2). The potential sources of air pollution within the vicinity of Sea Munye were identified to be the result of the following activities:

- Industrial activities operations.
- Vehicle tailpipe emissions.
- Agricultural activities.
- Miscellaneous fugitive emissions. and is discussed further below
- Pig iron ops.

These sources of emission are briefly discussed below.

7.7.1.1 Industrial Emissions

The heavy industries contributing to the pollutant emissions in the Richards Bay area include paper manufacturing, smelting operations, cement manufacturing, sugar mills and mining. These industrial activities release pollutants into the atmosphere such as sulphur dioxide (SO_2), carbon monoxide (CO), carbon dioxide (CO_2), volatile organic compounds (VOCs), nitrogen oxides (NO_x) and particulates.

7.7.1.2 Vehicle Tailpipe Emissions

The Sea Munye Terminal is surrounded by various small and large industries therefore emissions from vehicle tailpipes within the area will have less of an impact on the overall ambient air quality. The atmospheric pollutants emitted include hydrocarbons, CO, CO_2, NO_x, SO_2 and particulates.

7.7.1.3 Agricultural Activities

Emissions from agricultural activities typically include particulates associated with wind erosion, ploughing and burning of crop residue, chemicals associated with crop spraying and odiferous emissions resulting from manure, fertilizer and crop residue. Agricultural emissions in the surrounding environment are anticipated to be low.

7.7.1.4 Miscellaneous Emissions

Miscellaneous emissions refer to fugitive dust emissions which includes, but are not limited to, wind erosion over exposed areas/stockpiles.

7.7.1.5 Pig iron ops.

A portion of the Sea Munye facility is currently being rented out for storage of commodities such as pig iron skulls. Pig iron skulls are non-ferrous metals that occur when iron-containing slag solidifies. Emission sources identified from pig iron skulls are wind erosion of the exposed stockpile area.

7.7.2 SENSITIVE RECEPTORS

The site is surrounded by educational, recreational and residential communities as depicted in Table 7-2 and Figure 7-6. These areas are known as sensitive receptors and have been identified within a 10 km radius of the site.

Table 7-2 - Sensitive receptors within a 10 km radius of the Sea Munye facility

ID.	Description	Latitude (°S)	Longitude (°E)	Distance from Site Boundary (km)	Direction from Site
SR1	Brackenham Town	28.734082	32.040477	3.82	Northeast
SR2	Wild en Wilde Town	28.737137	32.044904	3.93	Northeast
SR3	Badgers Bend Village	28.740494	32.047382	3.90	Northeast
SR4	Veld n Vlei Town	28.740191	32.053110	4.46	Northeast
SR5	Richards Bay Hospital	28.750139	32.053235	4.10	East
SR6	University of Zulu Land	28.758271	32.049485	3.66	East
SR7	Arboretum Town	28.763327	32.049613	3.69	South-east
SR8	Birdswood Town	28.738372	32.071907	6.25	Northeast
SR9	Richards Bay Sports Club	28.769555	31.964935	4.90	Southwest
SR10	Richards Bay Central	28.756424	32.042260	2.92	East

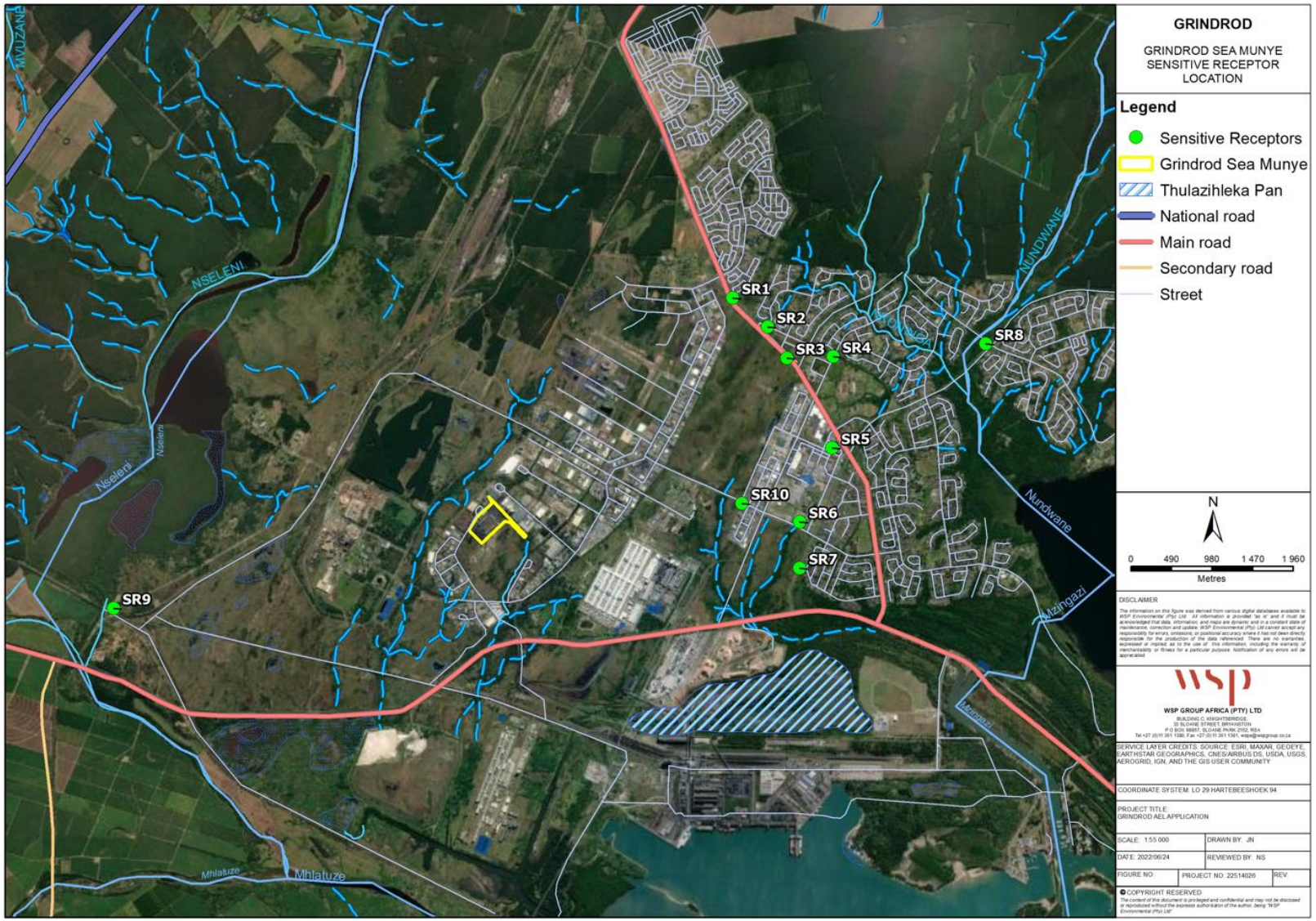

Figure 7-6 - Sensitive receptors within a 10 km radius of the Sea Munye facility

7.7.3 AMBIENT AIR QUALITY MONITORING

7.7.3.1 Local Air Quality

Dust fallout and Particulate matter less than 10 µm in aerodynamic diameter (PM_{10}) is also monitored. The Richards Bay Clean Air Association (RBCAA) operates and manages five ambient monitoring stations within the Richards Bay area, two of which measure PM_{10}: namely Brackenham and CBD monitoring stations. PM_{10} monitoring dates back to 2004, but the more recent years from January 2019 to December 2023, as required in the Modelling Regulations, are discussed further.

7.7.3.2 Dust fallout monitoring

Dust fallout monitoring at Sea Munye is currently conducted at five monitoring locations (Table 7-3 and Figure 7-8). All monitoring locations are characterised as non-residential.

The most recent monitoring results for a rolling twelve-month period, i.e., January – December 2023 indicate that the site remained compliant with the National Dust Control Regulations for non-residential sites. Furthermore, the dust monitoring results for 2019 and 2023 also indicate that the site was in compliance with the remained compliant with the National Dust Control Regulations for non-residential sites.

Table 7-3 - Sea Munye facility dust fallout monitoring locations

Locality	Description	Latitude (°S)	Longitude (°N)	Classification
1	SD1	28.758285	32.010211	Non-residential
2	SD2	28.760138	32.008795	Non-residential
3	SD3	28.757072	32.01138	Non-residential
4	SD4	28.759111	32.013621	Non-residential
5	SD5	28.761445	32.010214	Non-residential

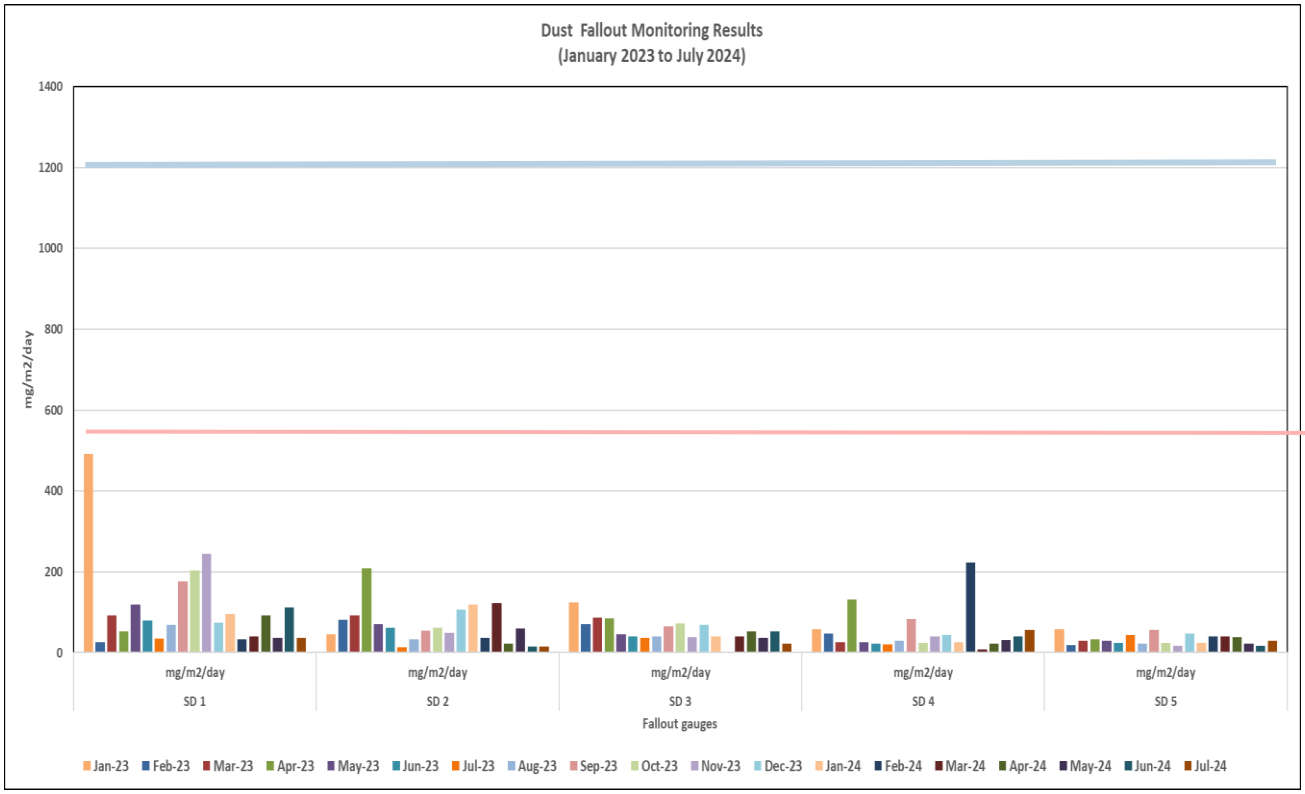

Figure 7-7 - Sea Munye dust fallout results for the January 2023 – July 2024 period

Figure 7-8 - Sea Munye dust fallout monitoring sites

7.7.3.3 PM_{10} Particulate Monitoring

The Richards Bay Clean Air Association (RBCAA) operates and manages five ambient monitoring stations within the Richards Bay area, two of which measure PM_{10}; namely the Brackenham and CBD monitoring stations. Ambient monitoring data for PM_{10} was obtained from January 2019 to December 2023. Coordinates and data recovery for each monitoring station are indicated in Table 7-4 below. However, Brackenham monitoring station had poor data recovery during the 2021 monitoring period with a recovery of 22% and was excluded from the atmospheric impact report.

Table 7-4 - Coordinates and data recovery of RBCAA monitoring stations

Monitoring location	Latitude (°S)	Longitude (°N)	Distance from Sea Munye (km)	Data Recovery (%)				
				2019	2020	2021	2022	2023
Brackenham PM2.5	28.731359	32.039108	5.00	98	90	22	93.7	89.3
CBD PM10	28.744803	32.054844	4.26	98	93	10.5	91.9	95.6

No exceedances of the 24-hour PM_{10} standard (75 µg/m^3) were recorded during the 2019 to 2023 monitoring period. **All annual averages recorded at the Brackenham, and CBD stations were below the PM_{10} annual standard of 40 µg/m^3.**

7.8 SOCIO-ECONOMIC

The ULM had a population of 289 190 in 2001, and at the time 57.5% was tribal/traditional land, 39.4% was urban and the remaining 3.0% was farmland. The main economic activities in the area include aluminium smelters that are operated by BHP Billiton, a fertilizer plant operated by Foskor and mining activities (iron ore, rutile and zircon) within the municipality (Statistics South Africa, uMhlathuze Local Municipality, 2001).

7.8.1 OVERVIEW OF THE ECONOMY AND EMPLOYMENT

7.8.1.1 Governance and Administrative Context

The local municipality was augmented in 2016 after the disbandment of the Ntambanana Local Municipality, where uMhlathuze took over a portion of Ntambanana (Statistics South Africa, 2011). The ULM is a Category B Municipality, meaning that it shares municipal executive and legislative authority with a Category C municipality within whose area it falls, i.e., King Cetshwayo District Municipality (formerly uThungulu District Municipality). The proposed project site falls within Ward 2 with Councillor (Cllr.) Christo Botha who represents the ward also fulfils the role of Deputy Mayor of the ULM (WSP Group Africa (Pty) Ltd, 2024).

7.8.1.2 Demographic Characteristics

The ULM's population increased to 412,075 from 370 256 between 2011 and 2022 (Statistics South Africa, 2024), which represents an increase of 11.3% over the 11 years. By 2030, the municipality's population will be approximately 505,000 (uMhlathuze Local Municipality, 2022). The gender distribution of the municipality was almost equal, with females representing 51.5% and males 48.5%

of the population in 2022 (Figure 7-9). People between 15 and 64 years old represent 69.4% of the population, with 25.9% representing the young and 4.7% the elderly (Statistics South Africa, 2024).

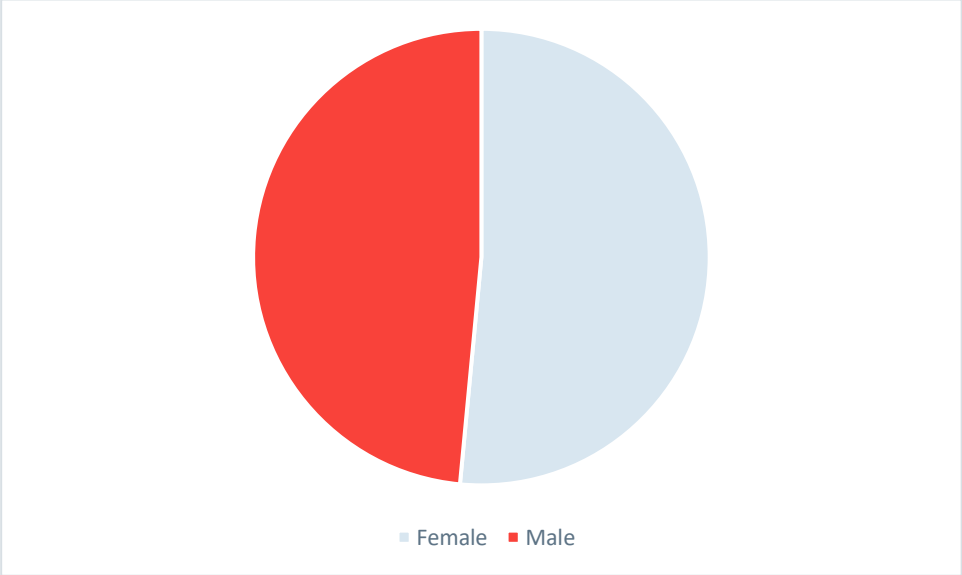

Figure 7-9 - ULM gender distribution

Source: Statistics South Africa (2024)

7.8.1.3 Overview of the economy and employment

The unemployment rate of ULM's was 24.6% and is among the lowest in the municipalities within the district. The unemployment rate for females was 27.7%, and for males was 4.6% (uMhlathuze Local Municipality, 2022). The formal sector employs 76,488 people, and 17,158 are employed informally in the ULM (uMhlathuze Local Municipality, 2022). Manufacturing is the main economic activity (45.9%) followed by mining and quarrying (11.6%), financial, real estate and business (10.7%), community, social and personal services (10.4%) and other sectors in smaller proportions (Municipalities of South Africa, 2024).

The Sea Munye Terminal employs 160 people, 36% of whom are permanently employed. The main economic drivers over time in the area have been the operations at Port of Richards Bay ≈ 3.4 m south of the site, Foskor ≈1.5 m south of the site and South32 operations ≈ 1.7 m south-east of the site.

7.8.2 SERVICE DELIVERY

7.8.2.1 Healthcare

The nearest hospitals to the Terminal are the Netcare, the Bay Hospital and the Medicross Richards Bay Hospital, four kilometres from Sea Munye. The nearest public health facility is the Richards Bay Municipal Clinic, four kilometres from the site.

7.8.2.2 Water and Sanitation

In the ULM, 58% of households have access to piped water inside dwellings, and 34.9% have access to piped water inside the yard. Community standpipes provide piped water to 2.8% of households, while the remainder relies on tankers, boreholes, dams and other water sources

(Statistics South Africa, 2024). The Sea Munye Terminal uses water supplied by uMngeni - uThukela Water.

7.8.2.3 Electricity

The ULM is a licensed electricity provider. It provides electricity to most of the municipality. Eskom provides electricity to the outlying rural areas in the municipality (uMhlathuze Local Municipality, 2022). Households in the ULM have good access to electricity, with 99.2% having access to electricity. The Sea Munye Terminal uses electricity supplied by the ULM.

7.8.2.4 Access to Sanitation

Nearly two-thirds (62.5%) of ULM households have access to flush toilet facilities and 28.5% use pit latrines. 9% of households rely on other sanitation facilities, namely bucket and chemical toilets (Statistics South Africa, 2024**).**

7.8.3 HOUSING AND TENURE

Most households within the regional study area reside in formal dwellings (71.6%), the remaining households mostly reside in traditional dwellings, apartments or backyard flats, this is an indicator of reasonable population influx and a minor shortage of affordable housing. In terms of ownership, it is estimated that 74.9% have full ownership of their dwellings and property regionally (Statistics South Africa, 2016).

The number of households in the ULM increased by 6,431 from 94,010 in 2011 to 100,441 in 2022. The ULM provides these households with water, electricity and waste services. The average size of a household has increased from 3.9 to 4.1 people per household in the same period (Statistics South Africa, 2024).

7.8.4 CULTURAL/HISTORICAL FEATURES

The heritage cases available for the site are unknown. However, the site is associated with an overall low palaeontological sensitivity (SAHRA, 2022).

8 IMPACT ASSESSMENT

The Grindrod Sea Munye Terminal is anticipated to have a medium/high impact on the biophysical aspects and a LOW impact on the social aspect. The sub-section below outlines the impact assessment process.

8.1 DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED SITE

The site is currently existing and therefore alternatives could not be considered. Had an EIA process been undertaken prior to construction activities, the following potential alternatives would have been assessed:

- Project location, based on:
  - Distance of ore sources, including alternative transportation methods.
  - The availability of ore reserves.
  - Market viability (exports/imports).
  - Proximity of watercourses and other natural resources.
- The no-go alternative to not develop the site could have been assessed as well. The implication of this alternative would have been that the terminal would not have been developed and therefore no commodities would be stored at the site. The employment opportunities that would have been provided during the construction phase and the existing employment opportunities would be lost in the operational phase. Additional benefits that would have not been realised is the provision of market access to emerging small businesses. However, the possible cumulative impacts associated with the terminal would not occur with this alternative.

8.2 DFFE WEB-BASED ENVIRONMENTAL SCREENING TOOL

DFFE has developed the National Web-based Environmental Screening Tool in order to flag areas of potential environmental sensitivity related to a site as well as a development footprint and produces the screening report required in terms of regulation 16 (1)(v) of the EIA Regulations (2014, as amended). *The Notice of the requirement to submit a report generated by the national web-based environmental screening tool in terms of section 24(5)(h) of the NEMA, 1998 (Act No 107 of 1998) and regulation 16(1)(b)(v) of the EIA regulations, 2014, as amended (GN 960 of July 2019)* states that the submission of a report generated from the national web-based environmental screening tool, as contemplated in Regulation 16(1)(b)(v) of the EIA Regulations, 2014, published under Government Notice No. R982 in Government Gazette No. 38282 of 4 December 2014, as amended, is compulsory when submitting an application for environmental authorisation in terms of Regulation 19 and Regulation 21 of the EIA Regulations, 2014 (as amended) as of 04 October 2019.

The Screening Report generated by the National Web-based Environmental Screening Tool contains a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development footprint as well as the most environmentally sensitive features on the footprint based on the footprint sensitivity screening results for the application classification that was selected.

The screening report for the proposed Project is attached as Appendix D. The Screening Report for the project identified various sensitivities for the site. The report also generated a list of specialist

assessments that should form part of the EIA Process based on the development type and the environmental sensitivity of the site. The assessment Protocols in the report provide the minimum information to be included in a specialist report to facilitate decision-making.

Table 8-1 below is a summary of the sensitivities identified for the development footprint.

Table 8-1 – Sensitivities identified in the DFFE Screening Report

Theme	Very High Sensitivity	High Sensitivity	Medium Sensitivity	Low Sensitivity
Agriculture Theme	X			
Animal Species Theme		X		
Aquatic Biodiversity Theme	X			
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme		X		
Defence Theme				X
Palaeontology Theme				X
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments has been identified for inclusion in the EIR:

- Landscape/Visual Impact Assessment
- Archaeological and Cultural Heritage Impact Assessment
- Palaeontology Impact Assessment
- Terrestrial Biodiversity Impact Assessment
- Aquatic Biodiversity Impact Assessment
- Marine Impact Assessment
- Hydrology Impact Assessment
- Socio-Economic Assessment
- Plant Species Assessment
- Animal Species Assessment

8.2.1 MOTIVATION FOR SPECIALIST STUDIES

The report recognises that “it is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the footprint situation.”

The following specialist assessments have been commissioned for the project:

- Groundwater and Surface Water Assessment.
- Social Impact Assessment.

The following specialist assessments have been commissioned for the project despite not being identified by the Screening Report but because of the nature of the Project

- Air Quality Impact Assessment.

The following specialist assessments have not been commissioned for the project based on the environmental sensitivities identified by the Screening Report:

- **Landscape/Visual Impact Assessment**: The current land use of the proposed project is zoned as Industrial. The facility is situated in a highly disturbed and hard-standing area, surrounded by other industrial companies and activities. The area has been transformed with minimal green areas, which only include grass patches in the open veld adjacent to the driveway southwest of the facility. Therefore, this assessment was deemed not applicable.
- **Archaeological and Cultural Heritage Impact Assessment**: This project is located within a low archaeological and cultural heritage-sensitive area. The site is in a transformed area, and it is established and operational. Furthermore, no modifications are proposed to the site. Therefore, this assessment was deemed not applicable.
- **Palaeontology Impact Assessment**: This project is located within a low paleoethological sensitive area, and it should be noted that the site is in a transformed area. The site is established and operational. Therefore, this assessment was deemed not applicable.
- **Terrestrial Biodiversity Impact Assessment:** The facility is situated in a highly disturbed and hard-standing area, surrounded by other industrial companies with limited to no potential of sustaining any healthy indigenous terrestrial ecology. Therefore, this assessment was deemed not applicable.
- **Aquatic Biodiversity Impact Assessment**: The facility is located more than 100 m from the nearest water resource. Therefore, this assessment was deemed not applicable.
- **Agricultural Impact Assessment**: The current land use of the proposed project is zoned as “Industrial”. There is no potential for agricultural activities within the facility or surrounding areas due to the disturbed nature of the area and current activities. Therefore, this assessment was deemed not applicable.
- **Marine Impact Assessment**: The facility is located more than 3 000 m from the coast and more than 100 m from the nearest water resource. Therefore, this assessment was deemed not applicable. Therefore, this assessment was deemed not applicable.
- **Traffic Impact Assessment:** The proposed project is only anticipated to generate very minimal traffic during the construction phase. Therefore, this assessment was deemed not applicable. However, it should be noted that a Traffic Impact Assessment has been undertaken for the parallel re-zoning application process by the Applicant, this study has been moderately incorporated into the SIA.
- **Plant Species Assessment:** The facility is situated in a highly disturbed and hard-standing area, surrounded by other industrial companies with limited to no potential of sustaining any healthy plant species. Therefore, this assessment was deemed not applicable.
- **Animal Species Assessment:** The facility is situated in a highly disturbed and hard-standing area, surrounded by other industrial companies with limited to no potential of sustaining any healthy plant species. Therefore, this assessment was deemed not applicable.

8.3 METHODOLOGY FOR IMPACT ASSESSMENT

This section provides an assessment of the nature, extent, duration, impact and significance of the consequences for or impacts on the environment of each of the activities unlawfully commenced with, and the cumulative impacts on the environment. The methodology used in determining the significance of actual and/or potential environmental impacts is also outlined below. In addition, the effects of the activity on the affected community have been described.

Potential impacts are scored according to the description provided in Table 8-2.

Table 8-2 - Scoring of potential impacts

SEVERITY			OCCURRENCE
Magnitude of severity of impact	Duration of impact	Extent of impact	Probability of occurrence
Magnitude (M)	Duration (D)	Scale (S)	Probability (P)
10 Very high/ don't know	5 Permanent	5 International	5 Definite/don't know
8 High	4 Long-term (impact ceases after closure of activity)	4 National	4 High probability
6 Moderate	3 Medium-term (5 to 15 years)	3 Regional	3 Medium probability
4 Low	2 Short-term (0 to 5 years)	2 Local	2 Low probability
2 Minor	1 Transient	1 Site only	1 Improbable
1 None/insignificant			

After ranking these criteria for each impact, a significance rating was calculated using the following formula:

Significance Points= (Magnitude + Duration + Scale) x Probability

The potential environmental impacts were then rated both with and without mitigation measures in accordance with Table 8-3Table 8-3 - Significance of impact based on point allocation.

Value	Significance	Comment
SP>60	High environmental significance	An impact which could influence the decision about whether or not to proceed with the project regardless of any possible mitigation.
SP>30-60	Moderate environmental significance	An impact or benefit which is sufficiently important to require management, and which could have an influence on the decision unless it is mitigated.

Value	Significance	Comment
SP <30	Low environmental significance	Impacts with little real effect and which will not have an influence on or require modification of the project design.
+	Positive impact	Impacts with little real effect and which will not have an influence on or require modification of the project design.

8.4 ASSESSMENT OF IMPACTS

8.4.1 CONSTRUCTION PHASE

The impacts associated with the construction phase was not assessed as the site is currently operational.

8.4.2 OPERATIONAL PHASE

The following impacts were identified to be associated with the operational phase.

A summary of the assessment of potential environmental and social impacts along with the risk scores is provided in Table 8-5.

8.4.2.1 Soils

Spillages (hazardous and non-hazardous) from the operation of conveyor belts, trains, machinery or vehicles. Potential leaks could contaminate the underlying soil. The overall impact significance is “moderate” when appropriate mitigation measures are implemented.

8.4.2.2 Air Quality and Visual

The air quality and visual-related impacts could include the following (WSP Group Africa (Pty) Ltd, 2022):

- Dust generation due to vehicular movement.
- Dust blown from the conveyor belts or train wagon/carriage.
- Dust generated from materials handling and stockpiling:
    - Dust emissions from stockpiles can occur during the loading of the piles, when wind disturbs the stockpile surface, and during reclamation. Smaller stockpiles can be covered using hessian sheets or alternatively protected by a shade cloth windbreak (porous wall). Both of these techniques aim to reduce wind speed at the surface of the stockpile, in turn reducing the potential for dust scour and entrainment. An important characteristic about wind erosion is that each time a surface is disturbed, its erosion potential is restored.
- Visual intrusion from light pollution and glare.

The overall impact significance is “low to moderate” when appropriate mitigation measures are implemented.

8.4.2.3 Results of the Atmospheric Dispersion Modelling

8.4.2.3.1 PM10 Concentrations

Ambient 24-hour (P99) PM_{10} concentrations are predicted to be compliant at all sensitive receptors. The highest concentration of 4.10 µg/m^3 (still below the 24-hour PM_{10} standard of 75 µg/m^3) was

recorded at the closest receptor SR10 (Richards Bay Central). The highest predicted off-site concentration of 90.00 µg/m^3 is non-compliant with the 24-hour PM_{10} standard, and the area is approximately 151 meters to the south of the site boundary where material handling operations occur at the stockpiles (see Table 8-4).

Ambient annual PM_{10} concentrations are predicted to be compliant at all sensitive receptors. The highest concentration of 0.36 µg/m^3 was recorded at receptor SR10 (Richards Bay Central). The highest predicted off-site **annual average PM_{10} concentration** (28.45 µg/m^3) is predicted to be compliant with the annual PM_{10} standard of 40 µg/m^3. The results reflect a worst-case scenario of 250 t/h of material handled at each source and material handling and transfer point at the facility. **However, the overall concentrations predicted at the neighbouring sensitive receptors remain compliant with their relevant standards.**

Table 8-4 - Highest predicted off-site PM_{10} concentration

X (m) (UTM 36S)	Y (m) (UTM 36S)	Predicted Concentration (µg/m^3)	Elevation (m)	Grid Resolution (m)	Averaging Period	Date	Hour
403905	6818752	90.00	125	100	24-hour (P99)	2020/12/31	24:00
403905	6818752	28.45	125	100	Annual	N/A	N/A

*Concentrations highlighted in red indicate non-compliance.

The overall impact significance is “Low” when appropriate mitigation measures are implemented. Refer to Table 8-5 for the detailed impact assessment.

8.4.2.3.2 $PM_{2.5}$ Concentrations

Ambient 24-hour (P99) $PM_{2.5}$ concentrations are predicted to be compliant at all sensitive receptors. The highest concentration of 0.43 µg/m^3 (still below the 24-hour $PM_{2.5}$ standard) was recorded at the closest receptor SR10 (Richards Bay Central). The highest predicted off-site concentration of 13.20 µg/m^3 remains compliant with the 24-hour $PM_{2.5}$ standard of 40 µg/m^3.

Ambient annual $PM_{2.5}$ concentrations are predicted to be compliant at all sensitive receptors. The highest concentration of 0.04 µg/m^3 was recorded at receptor SR10 (Richards Bay Central). The highest predicted off-site annual average $PM_{2.5}$ concentration (9.00 µg/m^3) remains compliant with the annual $PM_{2.5}$ standard of 20 µg/m^3.

The results display a worst-case scenario of 250 t/h of material handled at each source and material handling and transfer point at the facility. **However, all concentrations predicted at the neighbouring sensitive receptors remain compliant with their relevant standards.**

The overall impact significance is “Low” when appropriate mitigation measures are implemented. Refer to Table 8-5 for the detailed impact assessment.

8.4.2.3.3 Dust Fallout

The **maximum daily dust deposition rates** resulting from activities taking place at the facility are well within the dust fallout residential and non-residential standards at all sensitive receptors. Further, the **predicted daily average off-site dust fallout rate** is compliant with the residential and non-residential standard. The dust fallout results indicate that the highest predicted rates are within the site boundary and localised to the material handling at stockpiles.

The overall impact significance is “Low” when appropriate mitigation measures are implemented. Refer to Table 8-5 for the detailed impact assessment.

8.4.2.3.4 Pig Iron Ops

A dispersion modelling scenario was also undertaken for pig iron skulls at the Sea Munye Facility and the resulting impacts were assessed. **The results indicated that all concentrations were predicted to be compliant at all sensitive receptors, and there was a 1% increase to the overall emission rates at the Sea Munye Facility resulting from the pig iron skulls.**

The overall impact significance is “Low” when appropriate mitigation measures are implemented. Refer to Table 8-5 for the detailed impact assessment.

8.4.2.4 Surface Water

The sources of surface water contamination include the following:

- Contaminated stormwater runoff from areas affected by hydrocarbon spillages and contaminated stormwater runoff from stockpiles.
- Alteration of pH levels due to chemical runoff, affecting water quality and aquatic life.
- Leaching of pollutants from stored materials or runoff, leading to contamination of surface water resources.
- Truck oils and fuel leakages that can contaminate water resources.
- Alteration of water flow and direction, impacting aquatic ecosystems and sediment transport.

The overall impact significance is “low” and “high” respectively when appropriate mitigation measures are implemented. Refer to Table 8-5 for the detailed impact assessment.

8.4.2.5 Groundwater

The sources of surface water contamination include the following:

- Seepage from the stockpiles which could contaminate groundwater resources.
- Potential impact on groundwater due to on-site accidental fuel spills and leaks/leachate and infiltration of dirty water.
- Leaching of chemicals from stored materials into groundwater, contaminating drinking water sources.
- Decreased groundwater recharge of water into aquifers due to impermeable surfaces, leading to lowered water tables.
- Discharge of untreated sewage or wastewater containing pathogens into groundwater, posing health risks.
- Leaching of heavy metals from stored materials into groundwater, posing risks to human health and ecosystems.
- Changes in groundwater quality due to leaching of chemicals or natural processes, impacting water usability.

Overall, the groundwater impact could have a “moderate” change to the baseline condition (detectible change) but could have a local impact on nearby water resources in the long term, if left unremedied.

8.4.2.6 Noise

Noise impacts could result from the front-end loading and heavy machinery operations. Additional noise sources due to the vehicular movements in associated with the terminal’s operations. The overall impact significance is “low” when appropriate mitigation measures are implemented.

8.4.2.7 Vegetation

Spillages (hazardous and non-hazardous materials or hydrocarbons) onto natural vegetation. The overall impact significance is “moderate” when appropriate mitigation measures are implemented.

8.4.2.8 Socio-economic

The socio-economic impacts could include the following:

- Skills development and training.
- Employment opportunities.
- Contribution to local economy.

The overall impact significance is “moderate to high” when appropriate mitigation measures are implemented.

8.5 IMPACT ASSESSMENT

Table 8-5 - Impact Assessment Table

Aspect	Impact	Direction	Magnitude	Extent	Duration	Probability	Pre-mitigation Significance	Overall Impact Risk Score	Magnitude	Extent	Duration	Probability	Post- mitigation Significance	Overall Impact Risk Score
Soils	Spillages (hazardous and non-hazardous) from the operation of conveyor belts, trains, machinery or vehicles. Potential leaks from vehicles and machinery could contaminate the underlying soil.	Negative	3	3	2	2	16	Low	3	2	2	2	14	Low
Air quality and visual	Operational impacts of air emissions on sensitive receptors	Negative	4	1	2	4	28	Low	4	1	2	3	21	Low
Air quality and visual	Wind erosion from stockpile/s.	Negative	4	1	2	4	28	Low	4	1	2	3	21	Low
Air quality and visual	Material handling	Negative	4	1	2	4	28	Low	4	1	2	3	21	Low
Air quality and visual	Vehicle entrainment on unpaved roads.	Negative	4	1	2	4	28	Low	4	1	2	3	21	Low
Surface water	Contaminated stormwater runoff from areas affected by hydrocarbon spillages.	Negative	4	3	3	4	40	Moderate	3	2	2	3	21	Low
Surface water	Alteration of pH levels	Negative	4	3	2	4	36	Moderate	2	3	2	4	28	Low
Surface water	Decrease in water quality due to increased sediment load caused by the haul road/service road	Negative	2	2	2	4	24	Low	2	2	2	4	24	Low
Surface water	Contaminated stormwater runoff from stockpiles.	Negative	3	3	2	3	24	Moderate	3	3	2	3	24	Low
Surface water	Fuel and hydrocarbon spillages from transporting vehicles	Negative	4	3	2	4	36	Moderate	2	3	2	4	28	Low
Surface water	Discharge of untreated sewage or wastewater	Negative	2	2	2	4	24	Low	2	2	2	4	24	Low
Groundwater	Seepage from the stockpiles could contaminate groundwater resources.	Negative	5	3	4	4	48	Moderate	4	3	3	3	30	Low

Aspect	Impact	Direction	Magnitude	Extent	Duration	Probability	Pre-mitigation Significance	Overall Impact Risk Score	Magnitude	Extent	Duration	Probability	Post- mitigation Significance	Overall Impact Risk Score
Groundwater	Oil spillages from Storage Drums	Negative	2	2	2	4	24	Low	2	2	2	4	24	Low
Groundwater	Leaching of stockpiled Chemicals and Metals	Negative	4	2	2	4	32	Moderate	2	2	2	4	24	Low
Groundwater	Fuel and hydrocarbon spillages from transporting vehicles	Negative	4	3	2	4	36	Moderate	2	3	2	4	28	Low
Groundwater	Discharge of untreated Sewage or Wastewater	Negative	2	2	2	4	24	Low	2	2	2	4	24	Low
Noise	Noise generated from FEL and heavy machinery operations during movement (loading/offloading/moving) of product around the site.	Negative	3	2	2	2	14	Low	2	1	2	2	10	Low
Vegetation	Spillages (hazardous and non-hazardous) onto natural vegetation.	Negative	5	3	4	4	48	Moderate	4	3	3	3	30	Low
Socio-economic	Contribution to local economy	Positive	3	3	2	3	24	Low	4	4	3	4	44	Moderate (+)
Socio-economic	Employment opportunities	Positive	3	3	2	4	32	Moderate (+)	3	4	3	4	40	Moderate (+)
Socio-economic	Skills development and training	Positive	3	1	2	2	12	Low	5	3	3	4	44	Moderate (+)

9 ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

The assumptions, uncertainties and knowledge gaps identified in this study are summarised as follows:

9.1 ENVIRONMENTAL IMPACT REPORT

The assumptions, limitations and constraints associated with the Section 24G EIR process for the project are listed below

- It is necessary to assume that the information provided by the Applicant is accurate and true at the time of writing the report.
- No significant changes to the project are anticipated with regard to the narrative of the receiving environment for the period between the completion of the report and the decision to be issued by the CA.
- Information regarding the project infrastructure was provided by the Applicant.

9.2 AIR QUALITY REPORT

The following assumptions have been made for this assessment:

- Data input for the emissions inventory and dispersion model is based on the information provided by the client. It is assumed that this information provided is accurate and complete at the time of modelling.
- Site-specific modelled WRF meteorological data was used in the modelling assessment, which is assumed to be representative of conditions at the site.
- Normal operating hours of 24 hours per day, seven days a week, was assumed and confirmed by Grindrod.
- The highest average hourly tonnage of 250 t/h was used in the emission calculations to represent a worst-case scenario. It was assumed that 250 t/h of material was transferred at each handling point, as provided by Grindrod.
- In the absence of data regarding the moisture content, a 2% moisture content was assumed based on the NPI Emission Estimation Technique Manual for Mining (Section 1.1.18).
- Average wind speed of 2.67m/s was extrapolated from the Grindrod Scorpio station for use in the calculations.
- The average length and width of the haul road were extrapolated from Google Earth Imagery and verified by Grindrod.
- In the absence of data regarding silt content, use was made of USEPA AP42 Chapter 13.2.2 Generic Values for Haul Roads.
- Vehicle kilometre travelled per day and mean vehicle weight for trucks were provided by Grindrod.
- The height of the Stockpiles was provided by Grindrod as 15-18m. A conservative approach was undertaken and thus a height of 18 m was utilised in the dispersion model;
- The height of the Sheds was extrapolated through the use of Google Earth imagery at 18 m;
- Particulate matter emission factor ratios were applied based on the US EPA AP-42 Appendix B.2: Generalised Particle Size Distribution for the following activities:
    - PM10 is 50% of TSP, while PM2.5 is 7.5% of TSP for wind erosion.

- As per NPI Emission Estimation Technique Manual for Mining recommendations, the following control efficiencies were applied:
  - 50% control efficiency in the utilising water sprays via water trucks during offloading of materials;
  - 50% control efficiency utilising water sprays via water trucks on haul roads;
  - 50% control efficiency utilising water sprays via water trucks over exposed stockpiles; and
  - 70% for buildings was applied (No functional extraction system was identified in the Sheds).

9.3 SOCIAL IMPACT ASSESSMENT

The following assumptions have been made for this assessment:

- The conclusions and findings of the SIA are limited by the information available for the desktop assessment (StatsSA, municipal reports, etc.).
- Information was gathered from the IDPs and these are updated every five years thus the information can be outdated.
- The impact of the SIA is based upon the project description as provided, should there be changes, there may be changes in the impacts.
- Information was gathered from the SDFs and these are updated every five years thus the information may be outdated.
- The stakeholder engagement process that underpins this SIA is drawn from the AIR which was finalised in July 2022.
- It is assumed that the information provided by Grindrod is current and correct.

9.4 GROUNDWATER AND SURFACE WATER

The following assumptions have been made for this assessment[4]:

- The assessment is based on the information furnished by Grindrod to Indaloenhle Environmental Consultants (Indaloenhle) and is specific to the agreed scope of work with Grindrod Terminal.
- Indaloenhle serves as an advisor to Grindrod and exercises reasonable skill and care in delivering its professional services consistent with the standards of the environmental profession.
- Unless explicitly indicated, Indaloenhle has not independently confirmed the validity, accuracy, or comprehensiveness of any information provided for its reports and cannot be held responsible for any inaccuracies or omissions in the information provided.
- In instances where site inspections, testing, or fieldwork have occurred, the report relies on information made available by Grindrod or its representatives during visits, visual observations, and subsequent discussions with regulatory bodies.
- The validity and comprehensiveness of provided information are presumed for the report's purposes.
- It is also assumed that routine activities were ongoing at the site during the visit(s) unless explicitly stated otherwise. These perspectives generally exclude circumstances and

[4] It should be noted that the groundwater and surface water study was commissioned by the Applicant.

developments that may arise after the study's date, which were not previously known to Indaloenhle

10 ENVIRONMENTAL MANAGEMENT PROGRAMME

10.1 MITIGATION MEASURES ASSOCIATED WITH THE OPERATIONAL PHASE

The following mitigation measures are proposed to eliminate or reduce environmental impacts to the surrounding environment.

Table 10-1 - Recommended mitigation measures for the operational phase

Aspect	Impact	Detailed Mitigation Measures	Mitigation Type (Modify, remedy, control or stop) *e.g. Modify through alternative method; Control through noise control; Control through management and monitoring; Remedy through rehabilitation*	Time period for implementation *(time period when the measures in the environmental management programme must be implemented Measures must be implemented when required)*	Compliance Indicator *(Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives etc.)*	Compliance with Standards *(A description of how each of the recommendations made, will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)*	Responsible person
Soils	Spillages (hazardous and non-hazardous) from operation of conveyor belts, trains, machinery or vehicles. Potential leaks from vehicles and machinery could contaminate underlying soil.	▪ Hydrocarbon spillage must be cleaned out immediately. ▪ Spill kits are available at all sites. ▪ Contaminated soil must be remediated or disposed of in inappropriate and licensed hazardous areas. ▪ Adherence to the Handlings and Spills Procedure and Emergency Response Procedure included in the Sea Munye EMP, Document Number: SP-SHEQ-031. ▪ Training on hazardous substances and chemicals handling must be conducted periodically. ▪ Drip trays placed underneath stationary vehicles with the potential of spilling. ▪ Regular housekeeping and maintenance procedures outlined in the SWMP must be followed. ▪ Hazardous substances must be handled according to the relevant legislation relating to the transport, storage and use of the substance and all storage facilities must be equipped with large, clearly readable material safety data sheets (MSDS).	Control through management and monitoring; Compliance with the Grindrod Waste Management Plan.	Ongoing	Impact avoided, noise levels, dust levels, rehabilitation standards, end-use objectives etc	National Environmental Management: Waste Act 2008, OHS Hazardous Substances Regulations Act	Environmental Manager/Officer
Air quality	Operational impacts of air emissions on sensitive receptors; material handling.	▪ Loading and unloading: • Modifying or ceasing loading activities during dry and windy conditions. • Avoid double handling of material where possible. • Minimising the drop height of the material from truck loads. • Using bund walls to shelter the tipping process and protect particulates from resultant stockpiles being further entrained by wind erosion. • Using water carts with boom sprayers or wet suppression systems when loading and unloading activities occur.	Control through management and monitoring	Ongoing	Inspections and audits of the sites	National Environmental Management: Air Quality Act 39 of 2004 (NEM:AQA)	Environmental Manager/Officer
Air quality	Wind erosion from stockpile/s.	▪ Decrease erosion potential on stockpiles: • Limiting unnecessary disturbances to stockpiles. • Permanent stockpiles be enclosed with concrete berms.	Control through management and monitoring	Ongoing	Inspections and audits of the sites		Environmental Manager/Officer

Aspect	Impact	Detailed Mitigation Measures	Mitigation Type (Modify, remedy, control or stop) *e.g. Modify through alternative method; Control through noise control; Control through management and monitoring; Remedy through rehabilitation*	Time period for implementation *(time period when the measures in the environmental management programme must be implemented Measures must be implemented when required)*	Compliance Indicator *(Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives etc.)*	Compliance with Standards *(A description of how each of the recommendations made, will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)*	Responsible person
		• The height of existing berms at stockpiles be increased, reducing the impact of winds on the stockpile. • Temporary stockpiles be enclosed by porous walls. • Small, temporary stockpiles can be covered with a porous sheet (preferably hessian).					
Air quality	Vehicle entrainment on unpaved roads.	▪ Vehicle entrainment on roads: • Reducing vehicle speed. • Limitation of the amount of traffic using the back road. • Use of chemical suppressant such as dust-a-side (Reduces dust emissions by approximately 99%). • Frequent wetting of roads. • Vehicles carrying loose aggregate should be always covered with tarpaulins or sheets.	Control through management and monitoring	Ongoing	Inspections and audits of the sites		Environmental Manager/Officer
Surface water	Alteration of pH Levels	▪ Conduct regular monitoring of water pH levels. ▪ Implement measures to neutralize acidic or alkaline runoff. Use environmentally friendly chemicals.	Control monitoring	Implemented at the planning and operation stage. Audit report on management systems and annual review of monitoring data and model updates	Impact avoided	Compliance with EMPr	Environmental Manager/Officer
Surface water	Contaminated stormwater runoff from areas affected by hydrocarbon spillages.	▪ Spill kits must be available at all sites. ▪ Contaminated areas must be cleaned immediately and treated where possible per the Spills Response Plan & Emergency Procedure included in the Sea Munye EMP, Document Number: SP-SHEQ-031. ▪ Stormwater and any runoff generated by the hard surfaces should be discharged into energy dissipation structures, where required (indigenous vegetation). ▪ A stormwater management plan must be compiled, implemented and maintained.	Control through management and monitoring	Ongoing	Inspections and audits of the sites	National Water Act, 1998 (Act 36 of 1998) S19, National Environmental Management Act, 1998 (Act 107 of 1998) S28	Environmental Manager/Officer
Surface water	Contaminated stormwater runoff from stockpiles.		Control through management and monitoring	Ongoing	Inspections and audits of the sites		Environmental Manager/Officer

Aspect	Impact	Detailed Mitigation Measures	Mitigation Type (Modify, remedy, control or stop) *e.g. Modify through alternative method; Control through noise control; Control through management and monitoring; Remedy through rehabilitation*	Time period for implementation *(time period when the measures in the environmental management programme must be implemented Measures must be implemented when required)*	Compliance Indicator *(Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives etc.)*	Compliance with Standards *(A description of how each of the recommendations made, will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)*	Responsible person
Surface water	Decrease in water quality due to increased sediment load caused by the haul road/service road	To avoid and control sediment transport, a maintenance plan must be drawn up for road maintenance. a soil erosion evaluation must be performed	Control through management and maintenance	Ongoing	Annual review of monitoring data and model updates	Compliance with EMPr	Environmental Manager/Officer
Surface water	Fuel and hydrocarbon spillages from transporting vehicles	▪ Implement spill containment systems for re-fuelling areas. ▪ Conduct regular inspections for leaks. ▪ Train personnel on proper handling and containment procedures.	Control through management and monitoring	Ongoing	Inspections and audits of the sites	Compliance with EMPr	Environmental Manager/Officer
Groundwater	Seepage from the stockpiles which could contaminate groundwater resources.	▪ Spill kits must be available at all sites. ▪ Contaminated areas must be cleaned immediately and treated where possible per the Spills Response Plan & Emergency Procedure. ▪ Regular housekeeping practices to ensure that sumps are always clean and open (Weekly site inspections). ▪ Ensure that clean run-off water is diverted away from potentially contaminated areas of the operational site. ▪ Drip trays or oil catchment trays to be used to contain any potential spillage.	Control through management and monitoring	Ongoing	Inspections and audits of the sites	National Water Act, 1998 (Act 36 of 1998), National Environmental Management Act, 1998 (Act 107 of 1998)	Environmental Manager/Officer
Groundwater	Oil spillages from storage drums	The oil storage facility is bunded and groundwater monitoring is conducted bi-annually.	Control through management and monitoring	Ongoing	Audit report on management systems and annual review of monitoring data and model updates	Compliance with EMPr	Environmental Manager/Officer
Groundwater	Fuel and hydrocarbon spillages from transporting vehicles	▪ Implement spill containment systems for re-fuelling areas. ▪ Conduct regular inspections for leaks. ▪ Train personnel on proper handling and containment procedures.	Control through management and monitoring	Ongoing	Inspections and audits of the sites	Compliance with EMPr	Environmental Manager/Officer
Noise	Noise generated from front-end loading and heavy machinery operations during movement (loading/offloading/moving) of product around site.	▪ PPE (dust masks, safety glasses and ear plugs). ▪ Monthly dust monitoring and reporting to monitor dust fallout. ▪ Dust suppression.	Control through management and monitoring	▪ Monthly dust monitoring and reporting to monitor dust fallout. ▪ Weekly site inspections.	Noise Regulations GNR 154/1992; compliance with SANS 10103:2008; complaints register in file and should any noise complaints should	Noise control regulations in terms of section 25 of the Environment Conservation Act,1989	Environmental Manager/Officer

Aspect	Impact	Detailed Mitigation Measures	Mitigation Type (Modify, remedy, control or stop) *e.g. Modify through alternative method; Control through noise control; Control through management and monitoring; Remedy through rehabilitation*	Time period for implementation *(time period when the measures in the environmental management programme must be implemented Measures must be implemented when required)*	Compliance Indicator *(Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives etc.)*	Compliance with Standards *(A description of how each of the recommendations made, will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)*	Responsible person
					be recorded and a description of the resolution		
Vegetation	Spillages (hazardous and non-hazardous) onto natural vegetation.	▪ Promote revegetation reinstatement.	Control through management and monitoring	Ongoing	Inspections and audits of the sites	Environment Conservation Act, 1989 (Act 73 of 1989) (ECA), National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004) (NEM:BA)	Environmental Manager/Officer
Socio-economic	Contribution to local economy	▪ All unskilled employment shall be from local project-affected residential areas. ▪ Recruitment of labour shall be in accordance with the agreed procedures and based on a fair and transparent selection process. ▪ Maximise local content in procurement i.e., from local people and towns, whenever possible, and whenever project requirements are met.	Control through management and monitoring	At all times during the project	Compliance with the service labour plan	Labour Relations, Amendment Act 2002; Basic Conditions of Employment Amendment Act 2002; Employment Equity Act 55 of 1998, Skills Development Act 97 of 1998, Occupational Health and Safety Act 85 of 1993; Compensation for Occupational Injuries and Diseases Act	Environmental Manager/Officer
Socio-economic	Employment opportunities		Control through management and monitoring	At all times during the project			Environmental Manager/Officer
Socio-economic	Skills development and training		Control through management and monitoring	At all times during the project			Environmental Manager/Officer

10.2 PROPOSED MONITORING PLAN

The proposed monitoring plan for the site is detailed in Table 10-2 below.

Table 10-2 - Monitoring plan for the Grindrod Sea Munye Terminal

Impacts Requiring Monitoring Programmes	Functional Requirements for Monitoring	Roles and Responsibilities (For the execution of the monitoring programmes)	Monitoring Measures and Frequency
Noise	Monitoring equipment and protocols	Environmental Officer	During the operational phase and whenever complaints are received
Air quality and visual impacts	Monitoring equipment and protocols	Environmental Officer	Continuation of dust monitoring, submit report to the to be submitted to the Air Quality Officer every 3 months
Surface water and groundwater	Monitoring equipment and protocols	Environmental Officer	Continuation of annual monitoring of surface water and groundwater; submit the report to the Regional Head, Water Quality

11 ENVIRONMENTAL IMPACT STATEMENT

The Grindrod Sea Munye Terminal is currently operational. According to Grindrod's records, the facility was originally built as a training and storage facility for Alusuf Aluminium in the late 70's (1976 - 1978). Based on Google Earth historical imagery, the first signs of coal stockpiles on the site are evident in 2004, as therefore, the site is largely transformed due to development.

The need for the SECTION 24G regularisation process is triggered by the legislated requirement for the facility to apply for an AEL in terms of Section 21 of the in terms of the National Environment Management: Air Quality Act (Act No. 39 of 2004) (NEM:AQA), for the storage and handling of sulphur, fertilizer (all types), iron skulls/pig iron (all grades), iron ore (hematite), iron ore (magnetite), metcoke, petcoke, clinker, chromium (all grades), manganese ore, rutile, zircon, chloride slag, blast furnace slag, copper concentrate, granite, ilmenite, vermiculite and salt not situated on the premises of a mine or works as defined in the Mines Health and Safety Act (Act No. 29 of 1996). Therefore, Grindrod is undertaking this process to regularise the non-compliance (activity) and practice compliance.

Elements of cultural significance were not identified or observed within the boundary of the existing site. In addition, no historic, Iron Age or Stone Age heritage sites were noted during the site visit and using the SAHRIS palaeontological mapping tool.

According the SANBI BGIS tool and the DFFE screening tool, the site shows a very high sensitivity in terms of the terrestrial biodiversity theme, however, a terrestrial biodiversity impact assessment was not undertaken as the application area is in a highly transformed state, furthermore, the application process only required the need for an atmospheric impact report.

The impacts associated with the construction phase was not assessed as the site is currently in operation. The impacts with the operational phase were undertaken in terms of the existing facility. The results of the impact assessment indicated an overall "moderate" to "high" negative impact on the receiving environment.

The potential environmental features to be affected will likely be:

- Soils, through the spillages (hazardous and non-hazardous) from the operation of conveyor belts, trains, machinery or vehicles. Potential leaks could contaminate the underlying soil.
- Air quality and visual impacts resulting from dust generation due to vehicular movement, dust blown from the conveyor belts or train wagon/carriage, dust generated from materials handling and stockpiling.
- Visual intrusion from light pollution and glare.
- Surface water impacts as a result of contaminated stormwater runoff from areas affected by hydrocarbon spillages and contaminated stormwater runoff from stockpiles.
- Groundwater impacts resulting from seepage from the stockpiles which could contaminate groundwater resources.
- Noise resulting from the front-end loading and heavy machinery operations.

- Vegetation could be potentially impacted through spillages (hazardous and non-hazardous materials or hydrocarbons) onto natural vegetation.
- Positive socio-economic impacts through skills development and training, employment opportunities, and the contribution to local economy.

As part of the mitigation measures, monitoring and all measures are recommended in the EMPr.

12 MOTIVATION OF THE EAP

Based on the above assessment of the facility, the EAPs make the following appraisal:

The identified significant adverse impacts associated with the existing development can be reduced to have an overall “moderate” significance through the implementation of the recommended mitigation measures. The impacts are expected to occur at a site at a local level and are considered acceptable provided that the mitigation measures as outlined in this EIAR and EMPr are implemented.

The Section 24G regularisation application (DC28/SECTION 24G/0001/2022) was voluntary as the Department had not issued the facility with a Compliance Notice. Therefore, Grindrod acted in good faith and demonstrated their commitment to complying with legal prescripts associated with the activities undertaken.

The site has shown its commitment to contributing to the local and national economy and has positively impacted the community by providing employment opportunities.

In conclusion, based on the appraisal above, the EAP recommends that the Department favourably considers this application for regularisation of the unlawful development of a facility for the storage of sulphur, fertilizer (all types), iron skulls/pig iron (all grades), iron ore (hematite), iron ore (magnetite), metcoke, petcoke, clinker, chromium (all grades), manganese ore, rutile, zircon, chloride slag, blast furnace slag, copper concentrate, granite, ilmenite, vermiculite and salt in terms of Section 24G of NEMA at Grindrod Sea Munye Terminal, located on Portion 001, Erf 1854, Richards Bay, King Cetshwayo District Municipality, Kwazulu-Natal Province (Centre coordinates are 28°45' 34.63” S; 32° 0' 37.51” E).

The following recommendations are provided:

- The mitigation measures proposed in this EIA report and the EMPr must be implemented at all times.
- All waste-related activities on site shall be managed and operated in accordance with a waste management plan (WMP).
- The stormwater management plan must be implemented to control and manage stormwater runoff at the facility.

13 EAP CONDITIONS TO BE CONSIDERED FOR INCLUSION IN THE ENVIRONMENTAL AUTHORISATION

The EMPr aims to outline measures to minimise any negative impacts incurred by the development of the facility and its associated operational activities. The EMPr has been developed for the operational phase and is included in this EIR.

The recommended mitigation measures outlined in the EMPr, and monitoring programmes provided in this report should be implemented, to further reduce any negative environmental and social impacts related to the facility. The results of the implementation of mitigation measures should reduce the negative impacts to an acceptable level of significance. The positive impacts will be maximized, enhancing their impact on the surrounding communities.

Additional conditions that should be considered during the operation of the facility include:

- Annual compliance verifications/audits to ensure compliance with the EMPr, and monitoring plan and to correct the non-compliances.

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Appendix A

DOCUMENT LIMITATIONS

Appendix B

EAP DETAILS

Appendix C

PUBLIC PARTICIPATION DOCUMENTS

Appendix C.1

APPLICATION PHASE

Appendix C.2

DRAFT EIR PHASE

Appendix D

DFFE SCREENING REPORT

Appendix E

SITE LAYOUT MAPS

Appendix F

ATMOSPHERIC IMPACT REPORT

Appendix G

SOCIAL IMPACT ASSESSMENT

Appendix H

SURFACE WATER AND GROUNDWATER REPORT

Appendix I

STORMWATER MANAGEMENT PLAN

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