FORM NO. BAR10/2019

Western Cape Government
Environmental Affairs and Development Planning

BASIC ASSESSMENT REPORT

THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.

NOVEMBER 2019

(For official use only)	
Pre-application Reference Number (if applicable):	
EIA Application Reference Number:	
NEAS Reference Number:	
Exemption Reference Number (if applicable):	
Date BAR received by Department:	
Date BAR received by Directorate:	
Date BAR received by Case Officer:	

GENERAL PROJECT DESCRIPTION

(This must Include an overview of the project including the Farm name/Portion/Erf number)

ArcelorMittal South Africa (Pty) Ltd (hereafter referred to as AMSA) working with Bidfreight Port Operations (Pty) Ltd (hereafter referred to as BPO), is planning to develop a Logistics Hub at the AMSA Saldanha Works facility currently under 'Care and Maintenance'. The Saldanha Works facility

is situated on the remainder of Farm 1132 on the border of the Port of Saldanha, within the Saldanha Bay Local Municipality, Western Cape Province.

AMSA is a steelwork focused on the export market, with the ironmaking operations ceasing 15 January 2020 and the remaining operations ceasing 26 March 2020 due to challenges in the global steel market. Given this, there are currently no active operations occurring on the steelworks site. While steel production remains unlikely due to continued global market challenges, AMSA have been investigating alternatives to enable Saldanha Steel to return a portion of the facility back to economic productivity along with job regeneration at the site.

The site's location and installed infrastructure lends itself to receiving bulk cargo for stockpiling and export, given its optimal proximity to the Port of Saldanha.

It is proposed to construct a new warehouse to house environmentally and weather sensitive cargos, which will be linked to the existing handling and conveyancing systems. The size of the warehouse will be 14,000 m^2 excluding associated infrastructure, i.e., tipplers, rail siding, conveyance systems and transfer stations. The proposed operation at the Logistic Hub entails the receiving, distributing, and handling of various bulk commodities for local and export purposes. The proposed Hub aims to handle a maximum of 5 million tonnes of various bulk commodities per annum. Commodities to be handled at the Logistics Hub includes Manganese Ore, Phosphate Concentrate, Garnet sand, Zircon sand, Lead Concentrate, Copper concentrate and Zinc Concentrate. The Hub will operate independently of Saldanha Works itself.

Given the fit-for-purpose rail and raw materials handling infrastructure already available on site, it is envisaged that the operation will serve to debottleneck the Port of Saldanha and increase the productivity and efficiency of export operations at the Transnet National Ports Authority (TNPA) Multi-Purpose Terminal in Saldanha.

The Hub shall operate independently of the operations of Saldanha Works itself, such that re-commissioning of Saldanha Works is not impeded.

IMPORTANT INFORMATION TO BE READ PRIOR TO COMPLETING THIS BASIC ASSESSMENT REPORT

1. **The purpose** of this template is to provide a format for the Basic Assessment report as set out in Appendix 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended) in order to ultimately obtain Environmental Authorisation.

2. The Environmental Impact Assessment ("EIA") Regulations is defined in terms of Chapter 5 of the National Environmental Management Act, 19998 (Act No. 107 of 1998) ("NEMA") hereinafter referred to as the "NEMA EIA Regulations".

3. The required information must be typed within the spaces provided in this Basic Assessment Report ("BAR"). The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided.

4. All applicable sections of this BAR must be completed.

5. Unless protected by law, all information contained in, and attached to this BAR, will become public information on receipt by the Competent Authority. If information is not submitted with this BAR due to such information being protected by law, the applicant and/or Environmental Assessment Practitioner

("EAP") must declare such non-disclosure and provide the reasons for believing that the information is protected.

6. This BAR is current as of **November 2019**. It is the responsibility of the Applicant/ EAP to ascertain whether subsequent versions of the BAR have been released by the Department. Visit this Department's website at http://www.westerncape.gov.za/eadp to check for the latest version of this BAR.

7. This BAR is the standard format, which must be used in all instances when preparing a BAR for Basic Assessment applications for an environmental authorisation in terms of the NEMA EIA Regulations when the Western Cape Government Department of Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority.

8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this BAR must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this Report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.

9. This BAR must be duly dated and originally signed by the Applicant, EAP (if applicable) and Specialist(s) and must be submitted to the Department at the details provided below.

10. The Department's latest Circulars pertaining to the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must be taken into account when completing this BAR.

11. Should a water use licence application be required in terms of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA"), the "One Environmental System" is applicable, specifically in terms of the synchronisation of the consideration of the application in terms of the NEMA and the NWA. Refer to this Department's Circular EADP 0028/2014: One Environmental Management System.

12. Where Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA") is triggered, a copy of Heritage Western Cape's final comment must be attached to the BAR.

13. The Screening Tool developed by the National Department of Environmental Affairs must be used to generate a screening report. Please use the Screening Tool link https://screening.environment.gov.za/screeningtool to generate the Screening Tool Report. The screening tool report must be attached to this BAR.

14. Where this Department is also identified as the Licencing Authority to decide on applications under the National Environmental Management: Air Quality Act (Act No. 29 of 2004) ('NEM:AQA"), the submission of the Report must also be made as follows, for-
Waste Management Licence Applications, this report must also (i.e., another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (Tel: 021-483-2728/2705 and Fax: 021-483-4425) at the same postal address as the Cape Town Office.

Atmospheric Emissions Licence Applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (Tel: 021 483 2888 and Fax: 021 483 4368) at the same postal address as the Cape Town Office.

DEPARTMENTAL DETAILS

CAPE TOWN OFFICE: REGION 1 and REGION 2 **(Region 1: City of Cape Town, West Coast District)** **(Region 2: Cape Winelands District & Overberg District)**	GEORGE OFFICE: REGION 3 **(Central Karoo District & Garden Route District)**
BAR must be sent to the following details:	BAR must be sent to the following details:
Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1 or 2) Private Bag X 9086 Cape Town, 8000	Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530
Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town	Registry Office 4th Floor, York Park Building 93 York Street George
Queries should be directed to the Directorate: Development Management (Region 1 and 2) at: Tel: (021) 483-5829 Fax (021) 483-4372	Queries should be directed to the Directorate: Development Management (Region 3) at: Tel: (044) 805-8600 Fax (044) 805 8650

MAPS

Provide a location map (see below) as Appendix A1 to this BAR that shows the location of the proposed development and associated structures and infrastructure on the property.	
Locality Map:	The scale of the locality map must be at least 1:50 000. For linear activities or development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map. The map must indicate the following: • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; and • a linear scale.

	For ocean based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken. Where comment from the Western Cape Government: Transport and Public Works is required, a map illustrating the properties (owned by the Western Cape Government: Transport and Public Works) that will be affected by the proposed development must be included in the Report.
Provide a detailed site development plan / site map (see below) as Appendix B1 to this BAR; and if applicable, all alternative properties and locations.	
Site Plan:	Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following: • The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be clearly indicated on the plan, preferably together with a linear scale. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • On land where the property has not been defined, the co-ordinates of the area in which the proposed activity or development is proposed must be provided. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be clearly indicated on the site plan. • The position of each component of the proposed activity or development as well as any other structures on the site must be indicated on the site plan. • Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the proposed development **must** be clearly indicated on the site plan. • Servitudes and an indication of the purpose of each servitude must be indicated on the site plan. • Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): o Watercourses / Rivers / Wetlands o Flood lines (*i.e.,* 1:100 year, 1:50 year and 1:10 year where applicable); o Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"): o Ridges; o Cultural and historical features/landscapes; o Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.
Site photographs	Colour photographs of the site that shows the overall condition of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached to this BAR as **Appendix C**. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.

Biodiversity Overlay Map:	A map of the relevant biodiversity information and conditions must be provided as an overlay map on the property/site plan. The Map must be attached to this BAR as **Appendix D**.
Linear activities or development and multiple properties	GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek 94 WGS84 co-ordinate system. Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm Name(s)/Portion(s)/Erf number(s) to this BAR as an Appendix. For linear activities that are longer than 500m, please provide a map with the co-ordinates taken every 100m along the route to this BAR as **Appendix A3**.

ACRONYMS

AEL	Atmospheric Emission Licence
BA	Basic Assessment
BAR	Basic Assessment Report
BBBEE	Broad Based Black Economic Empowerment
BSP	Biodiversity Spatial Plan
CA	Competent Authority
CBA	Critical Biodiversity Area
CIA	Cumulative Impact Assessment
CR	Critically Endangered
CRR	Comments and Responses Report
CV	Curriculum vitae
DEA:	Department of Environmental Affairs
DEA& DP:	Department of Environmental Affairs and Development Planning
DFFE:	Department of Forestry and Fisheries
DHS:	Department of Human Settlement
DoA:	Department of Agriculture
DoH:	Department of Health
DWS:	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EHS	Environmental, Health and Safety
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EMPr:	Environmental Management Programme
ESA	Ecological Support Area
GN	Government Notice
GNR	Government Notice Regulation
HWC:	Heritage Western Cape
IDP	Integrated Development Plan
NDP	National Development Plan
NEMA	National Environmental Management Act (Act 107 of 1998)
NEMAQA	National Environment Management Air Quality Act (No. 39 of 2004)
NEMBA	National Environmental Management Biodiversity Act (Act 10 of 2004)
NEMPAA	National Environmental Management Protected Areas Act (Act 57 of 2003)
NEMWA	National Environmental Management Waste Act (Act 59 of 2008)

NFEPA:	National Freshwater Ecosystem Protection Assessment
NHRA	National Heritage Resource Act (Act 25 of 1999)
NID	Notice of Intent to Develop
NSBA:	National Spatial Biodiversity Assessment
NWA	National Water Act (Act 36 of 1998)
OHSA	Occupational Health and Safety Act (Act 85 of 1993)
PPE	Personal Protective Equipment
PPP	Public Participation Process
PSDF	Provincial Spatial Development Framework
SAHRA	South African Heritage Resources Agency
SANBI	South African National Biodiversity Institute
SDF	Spatial Development Framework
SEA	Strategic Environmental Assessment
TOR:	Terms of Reference
WCBSP:	Western Cape Biodiversity Spatial Plan
WCG:	Western Cape Government
WUL	Water Use Licence

ATTACHMENTS

Note: The Appendices must be attached to the BAR as per the list below. Please use a ✓ **(**tick) or a **x** (cross) to indicate whether the Appendix is attached to the BAR.

The following checklist of attachments must be completed.

APPENDIX			**✓ (Tick) or x (cross)**
Appendix A:	**Maps**		
	Appendix A1:	**Locality Map**	**X**
	Appendix A2:	**Coastal Risk Zones as delineated in terms of ICMA for the Western Cape by the Department of Environmental Affairs and Development Planning**	
	Appendix A3:	**Map with the GPS co-ordinates for linear activities**	
Appendix B:	**Appendix B1:**	**Site development plan(s)**	**X**
	Appendix B2	**A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred**	**X**

		site, indicating any areas that should be avoided, including buffer areas;	
Appendix C:	**Photographs**		**X**
Appendix D:	**Biodiversity overlay map – *maps included in biodiversity specialist reports in Appendix G***		
Appendix E:	**Permit(s) / license(s) / exemption notice, agreements, comments from State Department/Organs of state and service letters from the municipality.**		
	Appendix E1:	**Final comment/ROD from HWC**	**X**
	Appendix E2:	**Copy of comment from Cape Nature**	
	Appendix E3:	**Final Comment from the DWS**	
	Appendix E4:	**Comment from the DEA: Oceans and Coast**	
	Appendix E5:	**Comment from the DAFF**	
	Appendix E6:	**Comment from WCG: Transport and Public Works**	
	Appendix E7:	**Comment from WCG: DoA**	
	Appendix E8:	**Comment from WCG: DHS**	
	Appendix E9:	**Comment from WCG: DoH**	
	Appendix E10:	**Comment from DEA&DP: Pollution Management**	
	Appendix E11:	**Comment from DEA&DP: Waste Management**	
	Appendix E12:	**Comment from DEA&DP: Biodiversity**	
	Appendix E13:	**Comment from DEA&DP: Air Quality**	
	Appendix E14:	**Comment from DEA&DP: Coastal Management**	
	Appendix E15:	**Comment from the local authority**	
	Appendix E16:	**Confirmation of all services (water, electricity, sewage, solid waste management)**	**X**

	Appendix E17:	**Comment from the District Municipality**	
	Appendix E18:	**Copy of an exemption notice**	
	Appendix E19	**Pre-approval for the reclamation of land**	
	Appendix E20:	**Proof of agreement/TOR of the specialist studies conducted – *ToR for Specialists included in Appendix G in Specialist Reports***	
	Appendix E21:	**Proof of land use rights**	**X**
	Appendix E22:	**Proof of public participation agreement for linear activities**	
Appendix F:	**Public participation information: including a copy of the register of I&APs, the comments and responses Report, proof of notices, advertisements and any other public participation information as is required – to be included in the final BAR**		
Appendix G:	**Specialist Report(s)**		**X**
Appendix H:	**EMPr**		**X**
Appendix I:	**Screening tool report**		**X**
Appendix J:	**The impact and risk assessment for each alternative**		**X**
Appendix K:	**Need and desirability for the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013)/DEA Integrated Environmental Management Guideline – *included in Section E, specifically Section E12, of the BAR***		

SECTION A: ADMINISTRATIVE DETAILS

	CAPE TOWN OFFICE:		GEORGE OFFICE:
Highlight the Departmental Region in which the intended application will fall	REGION 1 (City of Cape Town, West Coast District	REGION 2 (Cape Winelands District & Overberg District)	REGION 3 (Central Karoo District & Garden Route District)

Duplicate this section where there is more than one Proponent Name of Applicant/Proponent:	ArcelorMittal South Africa (Pty) Ltd	
Name of contact person for Applicant/Proponent (if other):	Aldrich Louis	
Company/ Trading name/State Department/Organ of State:	Saldanha Steel (Pty) Ltd	
Company Registration Number:	1995/000628/07	
Postal address:	Private bag X11, Saldanha, 7395	
	Saldanha	Postal code: 7395
Telephone:	(+27) 22 709 4001	Cell: (+27) 73 676 1631
E-mail:	aldrich.louis@arcelormittal.com	Fax: N/A
Company of EAP:	WSP Group Africa (Pty) Ltd	
EAP name:	Jacqui Fincham	
Postal address:	P.O. Box 2613	
		Postal code:
Telephone:	(+27) 21 481 8795	Cell: 082 541 5038
E-mail:	Jacqui.Fincham@wsp.com	Fax: N/A
Qualifications:	BSc Hons Biotechnology	
EAPASA registration no:	EAPASA (2019/362)	
Duplicate this section where there is more than one landowner Name of landowner:	Saldanha Steel (Pty) Ltd a subsidiary of ArcelorMittal South Africa Limited	
Name of contact person for landowner (if other):	Aldrich Louis	
Postal address:	Private bag X11	
	Saldanha	Postal code: 7395
Telephone:	(+27) 22 709 4001	Cell: (+27) 73 676 1631
E-mail:	aldrich.louis@arcelormittal.com	Fax: N/A
Name of Person in control of the land:	Saldanha Steel (Pty) Ltd a subsidiary of ArcelorMittal South Africa Limited	

Name of contact person for person in control of the land:	Aldrich Louis	
Postal address:	Private bag X11	
	Saldanha	Postal code: 7395
Telephone:	(+27) 22 709 4001	Cell: (+27) 73 676 1631
E-mail:	aldrich.louis@arcelormittal.com	Fax: N/A

Duplicate this section where there is more than one Municipal Jurisdiction Municipality in whose area of jurisdiction the proposed activity will fall:	West Coast District Municipality	
Contact person:	Cindy Ganten-Bein	
Postal address:	PO BOX 242	
	Moorreesburg	Postal code: 7310
Telephone	(022) 713 5950	Cell:
E-mail:	cgbein@wcdm.co,za	Fax: (086) 692 6113

Duplicate this section where there is more than one Municipal Jurisdiction Municipality in whose area of jurisdiction the proposed activity will fall:	Saldanha Bay Municipality	
Contact person:	Nazeema Duarte	
Postal address:	Private Bag X12, Vredenburg, 7380	
	Vredenburg	Postal code: 7380
Telephone	022 701 7000	Cell:
E-mail:	Nazeema.Duarte@sbm.gov.za	Fax: 022 715 1518

SECTION B: CONFIRMATION OF SPECIFIC PROJECT DETAILS AS INLCUDED IN THE APPLICATION FORM

1.	**Is the proposed development (please tick):**	**New**		**Expansion**	**X**
2.	**Is the proposed site(s) a brownfield of greenfield site? Please explain.**				
The application is for a brownfield site, there is existing infrastructure on the site and the area on which the proposed Logistics Hub is to be developed has been previously disturbed having been used to stockpile iron ore. The proposed Logistics Hub will be developed at the AMSA Saldanha Steel facility currently under " Care and Maintenance".					
3.	**For Linear activities or developments Not Applicable**				
3.1.	**Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes:**				
3.2.	Development footprint of the proposed development for all alternatives.				**m²**

3.3.	**Provide a description of the proposed development (e.g. for roads the length, width and width of the road reserve in the case of pipelines indicate the length and diameter) for all alternatives.**																								
3.4.	**Indicate how access to the proposed routes will be obtained for all alternatives.**																								
3.5.	SG Digit codes of the Farms/Farm Portions/Erf numbers for all alternatives																								

3.6.	**Starting point co-ordinates for all alternatives**			
	Latitude (S)			
	Longitude (E)			
	Middle point co-ordinates for all alternatives			
	Latitude (S)			
	Longitude (E)			
	End point co-ordinates for all alternatives			
	Latitude (S)			
	Longitude (E)			

Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3.		
4.	**Other developments**	
4.1.	Property size(s) of all proposed site(s): **Total property size of the remainder of Farm 1132 on which the Logistics Hub warehouse and associated infrastructure will be constructed.**	**431.39Ha**
4.2.	Developed footprint of the existing facility and associated infrastructure (if applicable): **Footprint of the AMSA site and current operations (including the steelwork manufacturing)**	**250Ha**
4.3.	Development footprint of the proposed development and associated infrastructure size(s) for all alternatives: **Footprint of new structures and associated infrastructure. The alternative has the same design and size of the preferred warehouse option. The alternative was considered to provide an alternative location for the same proposed structure within the same disturbed footprint on site.**	**15,000 m²**
4.4.	**Provide a detailed description of the proposed development and its associated infrastructure (This must include details of e.g. buildings, structures, infrastructure, storage facilities, sewage/effluent treatment and holding facilities).**	

The proposed Saldanha Logistics Hub ("Hub") is an entity to be established by the Parties involved (AMSA and Bidfreight Port Operations) with the purpose of handling bulk cargo. The Hub is located on the site of AMSA's Saldanha Works Facility, bordering on the Port of Saldanha.

The Port of Saldanha is the natural gateway for ore and mineral exports (including manganese and iron ore) from the Northern Cape. The goal of the Hub is to utilise its strategic position as a "back-of-port" operator to support increased volume flow of both export and import cargoes through the Port of Saldanha.

As per the existing Saldanha Steel AEL (Ref: WC/WC/020), the facility is permitted to handle 2,832,000 tonnes per annum (tpa) of iron ore for the purposes of steelmaking. Since Saldanha Steel is under Care and Maintenance, the Logistics Hub proposes to handle 5,000,000 tpa bulk material ore for the purposes of exporting via the port. Importantly, this will be in addition to the already permitted 2,832,000 tpa of iron ore, and not in replacement of this. Further, as shown below, the proposed bulk commodities do not include the handling of additional iron ore, with the Logistics Hub proposed to store and handle only the commodities indicated in the table below, separate from the iron ore.

As part of an envisaged Hub development at Saldanha, stockpiling and export of manganese and other minerals has been identified as a possible new operation at the AMSA Saldanha Works Facility. The actual total quantities of the manganese and other commodities stored in the warehouse at any one time may fluctuate, depending on the bulk commodity required for export, although importantly, the total quantity of cumulative material handled, when operations are underway, will not exceed the threshold stipulated of 5 million tonnes per annum (5,000,000 tpa). It is therefore proposed that a maximum of 5,000,000 tpa of commodities is handled through the warehouse facility for stockpiling and storage. A maximum tonnage of each of the separate proposed commodities that could be stored within the warehouse is provided in the table below.

Commodity	**Maximum Annual Tonnage not to be exceeded**
Manganese Ore (Mn)	4 million tons
Phosphate concentrate (PO_4)	1.2 million tons
Garnet Sands	0.5 million tons
Zircon Sands ($ZrSiO_4$)	0.5 million tons
Lead concentrate (Pb)	0.25 million tons
Copper concentrate (Cu)	0.25 million tons
Zinc concentrate (Zn)	0.25 million tons
Total Maximum Bulk Commodities Handled	**5 million tons**

The existing Rail and Rotary Tippler infrastructure will be used for the receipt of cargo via rail; however, road receipts will also be provided for. The Rotary Tippler connects to the different stockpiling areas through conveyor networks and stacker / reclaimers. This existing infrastructure will be used in conjunction with the proposed bulk commodity receiving, handling, stockpiling and storage facilities of the Hub.

A new warehouse is proposed to house environmentally and weather sensitive commodities, which will be linked to existing handling and conveyancing systems. The size of the warehouse will be approximately 14,000 m^2 excluding associated infrastructure, i.e. tipplers, rail siding, conveyance systems and transfer stations.

Commodities will be received via rail and road to the Logistics Hub. Transnet Freight Rail (TFR) shunts rail wagons from the Northern Cape to the Saldanha Logistics Hub rail siding. Wagons loaded with commodities will be tipped at the Rotary Tippler, transported via the existing infrastructure, new conveyancing systems (Transfer station, Conveyor belts, tripper car, etc.) and stockpiled at the newly proposed enclosed warehouse (to be lined with concrete floors, roof structure, side walls sheeting, lighting and access doors for yellow equipment/trucks used during the dispatching). Road deliveries direct from mine to warehouse offloading will be conducted as well. Road deliveries will use existing access roads to the proposed warehouse.

It is proposed that 50% of the manganese commodity (2,000,000 tpa) will be delivered via rail to the Logistics Hub and the remainder via truck and roads (2,000,000 tpa). To note the proposed volume of manganese (2,000,000 tpa) to be delivered by road represents a worst-case scenario allowing for current challenges regarding rail infrastructure and its impact on transport of commodities via rail. Following planned rail infrastructure upgrades in 2026, it is anticipated that the volume of manganese delivered by road will decrease and the majority to be delivered by rail via the shunt wagons and the tipplers. This will reduce the truck volume on the roads. It is anticipated that only a total volume of 1,000,000 tpa of manganese commodity will be delivered via road after the rail upgrades are complete.

Bulk material received via the haul road into the warehouse will be wetted by water sprayers to reduce emissions, whereas material received via rail will be chemically sprayed at the tippler and wetted along the conveyor belts prior to being deposited within the warehouse. Within the warehouse and before exporting, the material stockpiles will be wetted by water sprayers to reduce emissions. Before exporting, commodities will be loaded (within the warehouse) with the use of yellow equipment onto skip trucks, then dispatched to the Port of Saldanha via the haul road. A detailed description on bulk commodity receipts is provided below.

The 50% of Mn ore delivered via rail will comprise:

- Delivery from rail to the existing rotary tippler, contained within a building with dust extraction and sprayers delivering chemical suppressant to the Mn ore while being tipped from the rail wagons.
- Mn ore will move from the rotary tippler along conveyor CV111 (underground conveyor) to Transfer Station 1 (TS1), contained within a building enclosure.
- From TS1 the ore will be transferred to a new conveyor, which is an above-ground conveyor, semi-enclosed equipped with longitudinal water sprayers.
- From the new conveyor, ore will be loaded onto the main Mn ore stockpile, within the warehouse. Notably, this ore will still be wet from the chemical suppressant applied at the rotary tippler and water applied by the longitudinal sprayers on the new conveyor. Further, the main Mn ore stockpile will be wetted via water sprayers and within an enclosed warehouse to reduce dust emissions.

The bulk material commodities, 50% Mn ore and other commodities, delivered by truck to the warehouse will comprise:

- Trucks will enter the Saldanha Steel site via the existing truck entrance road from the OP 538 Road located east of the Logistics Hub site. Approximately 1 km of this entrance road is unpaved, this section of the road receives chemical dust suppressant. All trucks will drive towards the existing weighbridge and then towards the Logistics Hub warehouse. From the weighbridge to the Saldanha site and Logistics Hub, this section of entrance road is unpaved and will also receive chemical suppressant.
- Trucks will carry approximately 34 t of commodities per load, covered by the standard strapped tarpaulins required for road tipper trucks.
- Trucks will unload in the southern end of the warehouse to a truck stockpile, with water being applied to the truck stockpile to reduce dust emissions. The onsite operations will ensure that truck offloading does not result in mixing of commodities. The warehouse has been designed to handle the different commodities to be stored on site.
- Yellow equipment (front-end loaders) will be used to transfer material from the truck stockpile to the main commodity stockpiles for reclaiming.
- Trucks delivering commodities from the warehouse to the TPT terminal will carry approximately 69 t of commodities per load, comprising three skips covered by heavy duty, fixed tarpaulins.
- Trucks will exit the warehouse and the Saldanha Steel site via existing paved haul roads that were established for terminal access. Trucks transporting commodities to the terminal for export will not make use of public roads.
- The bulk of the trucks for commodities export to the terminal will remain at the Saldanha Steel site between deliveries, located at the designated truck staging area, avoiding unnecessary use of public roads. Note, this will be dependent on the trucking requirements of the cargo handling company, so the number of trucks onsite may vary from time to time.

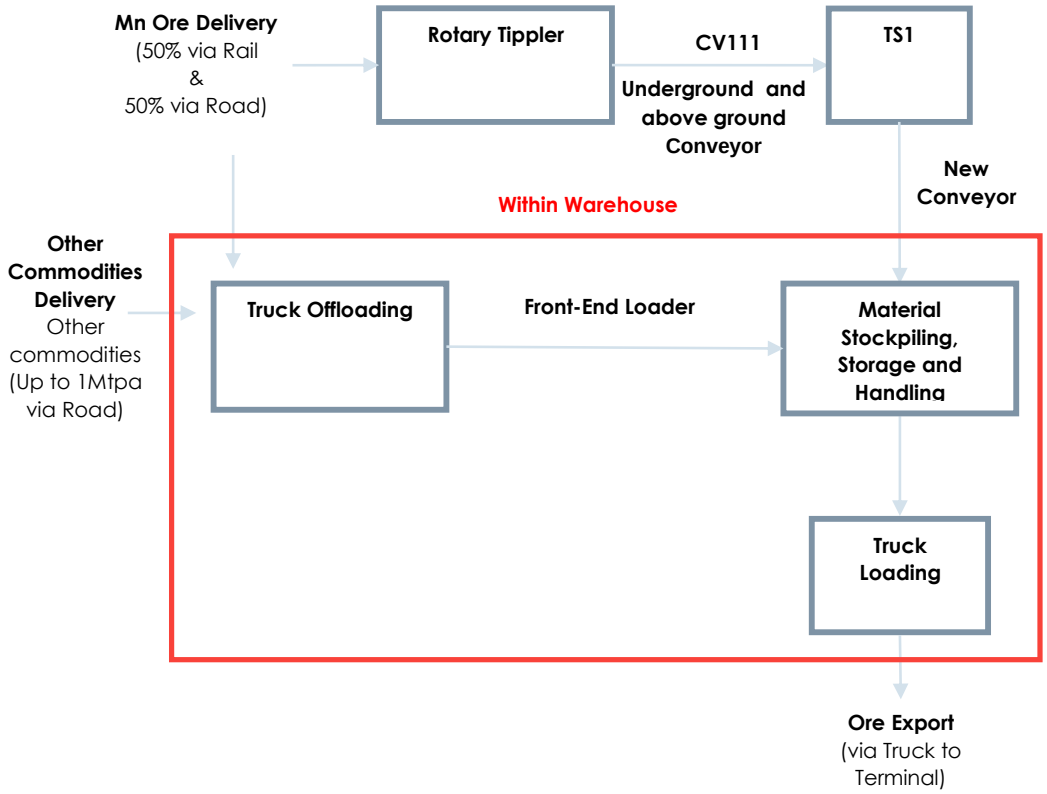

Figure 1: Process flow for the Logistics Hub (Saldanha Steel AEL AIR, WSP, 2023)

The design requirements of the warehouse complex are listed below:

- Accommodate a maximum of 1250 tonnes per hour (tph) of manganese ore to be delivered to the warehouse from the existing tippler reclaim tunnel,
- Store material as per customers quality,
- Allow for export shipments via 3 or 4 skip haul trucks, at up to 15,000 tons per 24-hour day,

- Contain all dust within the warehouse, and during all operations to mitigate environmental impacts,
- Supress any dust generated so that the working environment within the warehouse remains suitable for personnel,
- Allow for future expansion storage capacity without disrupting on-going activities,
- To be separate from the existing Steel Plant stockyard operations as far as possible to allow for a potential re-start of the steel plant in the future, and this warehouse operation must not inhibit this,
- Design of facility considers the significant and predominant coastal wind direction arriving from the west,
- Provision of adequate space to enable the use of yellow mobile plant to reclaim, manipulate, and move the stockpiled materials,
- Prevent seepage of contaminated water through the floor of the building and potentially entering the groundwater system,
- Provide dust suppression at all transfer points including on the tripper discharge,
- Include energy efficient lighting that meets the minimum illumination requirements as per the OHS Act and regulations,
- Allow for traffic movements to / through / from the warehouse at the envisaged tempo,
- Provide a safe facility for all equipment and personnel during operations and maintenance.

The design engineers of the warehouse complex considered various options for the abovementioned requirements, and proposed one concept (same warehouse design and size) for either the north western location or along the south western perimeter on the existing iron ore stockyard. An overview description of the warehouse is provided below.

The warehouse would be designed to store stockpiles of various commodity materials as per customer requirements. All stockpiles will be loaded by the overhead tripper located on Conveyor CV-B. A 2-lane 9m wide roadway is proposed on the western boundary of the warehouse, inside the sheeted structure. On the opposite eastern side, the warehouse terminates in a concrete wall with doors for vehicular access. Access into and out of the warehouse would only be on the eastern side of the building i.e. in the lee of the warehouse, to prevent ingress of wind and egress of dust. The northern, southern and western sides of the warehouse would be permanently sheeted. The design includes at least two access doors and at most five doorways along the eastern wall. These doorways would enable vehicles to enter and exit the warehouse in a controlled manner and without adversely affecting operations inside the warehouse. Stockpiles with roadways separating each pile are envisaged. These roadways would be approximately 10m wide and would enable loaded vehicles to exit the warehouse and/or wheel loaders to operate between stockpile and truck to load the skips. In so doing the stockpiles would be emptied from each end and across the entire width of each pile to avoid dead spaces in the stockpiles. The warehouse would measure approximately 54 m wide and 254m long. The concept design drawings of the warehouse provided in **Appendix O** provides an example how commodities will be stockpiled within the warehouse and how plant and vehicles will enter and exit the warehouse and move in between the stockpiles.

The layout of the proposed Logistics Hub development and operations are presented in the figure below.

Figure 1: Locality Map of the preferred alternative of the Logistics Hub at the **AMSA Saldanha Steel Works Site**

Furthermore, existing administrative and office buildings, infrastructure and services such as water, electrical supply, sewage/effluent treatment facilities will be utilised by the logistics hub and staff that will be appointed during the construction and operation phase of the logistics hub.

4.5.	**Indicate how access to the proposed site(s) will be obtained for all alternatives.**

Access to the logistics hub for both site alternatives via road will be from the southeast boundary of the existing AMSA Saldanha Steel facility off the tarred OP538 Road and on a dedicated access road for vehicles and trucks (indicated in the figure above). Staff working on site will utilise the AMSA main entrance off the OP538 Road to the Logistics Hub site. This road is tarred. Access control and security are based at both proposed entrances to the site.

4.6.	SG Digit code(s) of the proposed site(s) for all alternatives:	**C**	**0**	**4**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**3**	**2**	**0**	**0**	**0**	**0**	**0**

4.7.	**Coordinates of the proposed site(s) for all alternatives:**			
	Latitude (S)	°	‘	“
	Longitude (E)	°	‘	“
1	Latitude (S)	**32°**	**58‘**	**709“**
1	Longitude (E)	**18°**	**0‘**	**959“**
2	Latitude (S)	**32°**	**58‘**	**931“**
2	**Longitude (E)**	**18°**	**1‘**	**086“**

SECTION C: LEGISLATION/POLICIES AND/OR GUIDELINES/PROTOCOLS

1. Exemption applied for in terms of the NEMA and the NEMA EIA Regulations

Has exemption been applied for in terms of the NEMA and the NEMA EIA Regulations. If yes, include a copy of the exemption notice in Appendix E18.	~~YES~~	**NO**

2. Is the following legislation applicable to the proposed activity or development.

The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("ICMA"). If yes, attach a copy of the comment from the relevant competent authority as Appendix E4 and the pre-approval for the reclamation of land as Appendix E19.	~~YES~~	**NO**
The National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA"). If yes, attach a copy of the comment from Heritage Western Cape as **Appendix E1**.	**YES**	~~NO~~
The National Water Act, 1998 (Act No. 36 of 1998) ("NWA"). If yes, attach a copy of the comment from the DWS as Appendix E3.	~~YES~~	**NO**
The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA"). If yes, attach a copy of the comment from the relevant authorities as **Appendix E13.**	**YES**	~~NO~~
The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")	~~YES~~	**NO**
The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004 ("NEMBA").	~~YES~~	**NO**
The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA").	~~YES~~	**NO**
The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). If yes, attach comment from the relevant competent authority as Appendix E5.	~~YES~~	**NO**

3. Other legislation

List any other legislation that is applicable to the proposed activity or development.

The South African regulatory framework establishes well-defined requirements and standards for environmental and social management of industrial and civil infrastructure developments. Different authorities at both national and regional levels carry out environmental protection functions. Additional legislation applicable to the logistics hub are provided below.

The Constitution of South Africa (No. 108 of 1996)	Section 24(b) of the Constitution provides that "*everyone has the right to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation [and] promote conservation.*" The Constitution cannot manage environmental resources as a stand-alone law, hence additional legislation has been promulgated in order to manage the various spheres of both the social and natural environment. Each promulgated Act and associated Regulations are designed to focus on various industries or components of the environment to ensure that the objectives of the Constitution are effectively implemented and upheld in an on-going basis throughout the country. In terms of Section 7, a positive obligation is placed on the State to give effect to the environmental rights.
Occupational Health and Safety Act (No. 85 of 1993)	The National Occupational Health and Safety Act (No. 85 of 1993) (OHSA) and the relevant regulations under the Act are applicable to the proposed project. This includes the Construction Regulations promulgated in 2014 under Section 43 of the Act. Adherence to South Africa's OHSA and its relevant Regulations is essential.

4. Policies

Explain which policies were considered and how the proposed activity or development complies and responds to these policies.
Policies applicable to the Logistics Hub and that were considered are provided below. Where information of local and provincial policies were required in this Basic Assessment Report (BAR) template, these are not repeated in this Section but addressed in report sections below.

National Development Plan	The National Development Plan (NDP) aims to eliminate poverty and reduce inequality by 2030. The main objectives to achieve this aim are categorised as follows: • Economy and Employment • Economic infrastructure • Environmental sustainability and resilience • Inclusive rural economy • South Africa in the region and the world • Transforming Human Settlements • Improving education, training and innovation • Health care for all • Social protection • Building Safer Communities • Building a capable and developmental state • Fighting corruption • Nation building and social cohesion Under "Economic Infrastructure", the NDP identifies "improving infrastructure" as an imperative for South Africa in the coming decade. It recognises that "i*nfrastructure is not just essential for faster economic growth and higher employment. It also promotes inclusive growth, providing citizens with the means to improve their own lives and boost their incomes. Infrastructure is essential to development.*" The development of the proposed logistics hub will contribute, directly and indirectly, towards the National Development Goal of: • Improving local and provincial GDP, • Improving household income for employed staff and thereby improving livelihoods and standards of living for people in the Saldanha Bay area, • Improving education and skills of staff, • On site training and improving staff employability for future construction- and industrial-related projects and operations.
New Economic Growth Path	Government released the New Economic Growth Path Framework on 23 November 2010. The aim of the framework was to enhance growth, employment creation and equity. The policy's principal target was to create five million jobs over the next 10 years and reflects government's commitment to prioritising employment creation in all economic policies. The framework identifies strategies that will enable South Africa to grow in a more equitable and inclusive manner while attaining South Africa's developmental agenda. Central to the New Growth Path is a massive investment in infrastructure as a critical driver of jobs across the economy. In this regard the framework identifies investments in five key areas namely: energy, transport, communication, water and housing. The logistics hub provide a limited number of temporary jobs during construction and permanent jobs during the operation phase. This will reduce unemployment within the municipality and the region. The logistics hub itself will enhance economic growth in the local and national context due to the import of commodities to Saldanha Bay from the Northern Cape, and the export of these commodities. The will extent the economic benefit to a national and international scale and promote the GDP of the Saldanha Bay region and South Africa. The hub will also stimulate production in the mines from the Northern Cape that will provide the commodities for export.

National Infrastructure Plan	The South African Government adopted a National Infrastructure Plan (NIP) in 2012. The NIP aims to transform the South African economic landscape while simultaneously creating significant numbers of new jobs and strengthening the delivery of basic services. It outlines the challenges and enablers which needs to be addressed in the building and developing of infrastructure. The Presidential Infrastructure Coordinating Commission (PICC) was established by the Cabinet to integrate and coordinate the long-term infrastructure build. The 2012 National Infrastructure Plan identified the development of the Saldanha Bay-Northern Cape corridor through rail and port expansion, increasing back of port industrial capacity through the development of an industrial development zone (IDZ) for minerals beneficiation as a Strategic Integrated Project (SIP) in the Western Cape. The development of the Logistics Hub is aligned with this SIP to promote the Western Cape in the global and national space-economy through export of commodities. The logistics hub will also provide a limited number of jobs during construction and operation phases and will improve the livelihood and wellbeing of staff employed. Furthermore, through increased economic activity in the Saldanha Bay area, an increases in revenue will be created in the municipality which will in turn improve delivery of basic services. With increased economic activity and trade, increased tax and revenue through value added tax (VAT) will be realised which will improve the government's ability to provide basic services.

5. Guidelines

List the guidelines which have been considered relevant to the proposed activity or development and explain how they have influenced the development proposal.
The guidelines that were considered were proposed by the Western Cape Government Department of Environmental Affairs, Development and Planning. A summary of these guidelines are provided below: 1. The Screening Tool developed by the National Department of Environmental Affairs must be used to generate a screening report. This report was used to inform the Site Sensitivity Verification Report (WSP, May 2024) to inform the specialist studies required for the Impact Assessment for the Environmental Authorisation process. This was submitted with the **Notice of Intent** (NOI) to submit an application for environmental authorisation form to allow for informed guidance by the DEADP. 2. A Notification of Intent to Develop (NID) form was submitted in terms of Section 38(1) and 38(8) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) to the Heritage Western Cape (HWC) as the proposed development of the Logistics Hub required an application under NEMA for an Environmental Authorisation by a Basic Assessment process. Feedback provided by HWC indicated in an acknowledgement letter received on 10 May 2023 that, as there was reason to believe the proposed Logistics Hub could impact on heritage resources, a Heritage Impact Assessment (HIA) which includes an Archaeological Impact Assessment and engagement with the First Nations Group (Aikonese Cochoqua Khoi Tribal Council) should be conducted for the proposed activity. The HIA was prescribed to satisfy the provisions of Section 38(3) of the NHRA.

6. Protocols

Explain how the proposed activity or development complies with the requirements of the protocols referred to in the NOI and/or application form
The protocols for the identified specialist studies are informed by Government Notice No. 320 as published in Government Gazette No. 43110 on 20 March 2020 for the Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and (h) and Section 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation. The protocols were specific to conducting the Terrestrial Biodiversity and Aquatic Biodiversity Specialist studies which were confirmed by the Screening Tool report, Site Sensitivity Verification and confirmed by the DEADP Acknowledgment Letter in response to the NOI of Environmental Authorisation submitted for the proposed development. The protocol where a specialist assessment is required but no specific assessment protocol has been prescribed was implemented for the Archaeological and Heritage, Palaeontology, Atmospheric, Social and Economic Impact Assessment Specialist Studies.

The compliance of protocols referred to in the NOI and application form is detailed below. An explanation of the tasks conducted to comply with the protocols for Terrestrial Biodiversity and Aquatic Biodiversity specialist studies are provided below:

Applicable to Biodiversity and Aquatic Biodiversity:

1. Current land use and environmental sensitivity of the proposed site was identified by the national web based environmental screening tool
2. Site Sensitivity verification which included a desktop analysis and onsite inspection was conducted to confirm or refute the environmental sensitivity provided in the screening tool report. The objective of the site sensitivity verification was to determine the specialist studies to be conducted as part of the environmental authorisation application process.
3. The specialist studies suggested and refuted by the EAP in the site sensitivity verification report was submitted to the DEADP with the NOI for EA. The proposed specialist studies was reviewed and confirmed by the DEADP. The terrestrial biodiversity and aquatic biodiversity studies confirmed were required to be conducted according to the Biodiversity protocol.

1. Terrestrial biodiversity:

Specialist Assessment and Minimum Report Content Requirements

a. Section 3(1) of The Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity indicates that a Terrestrial Biodiversity Compliance Statement is required where the information gathered from the site verification differs from the designation of "very high" terrestrial biodiversity sensitivity on the screening tool and it is found to be of "low" sensitivity.
b. As per the requirements for the Terrestrial Biodiversity Compliance Statement, the compliance statement was:
    i. Prepared by a specialist registered with the South African Council of Natural Scientific Profession (SACNASP)
    ii. Applicable to the preferred site and proposed development (site-specific)
    iii. Confirm the site of "low" sensitivity for terrestrial biodiversity; and
    iv. Indicate whether the proposed development will have any impact on the biodiversity feature.
c. The Terrestrial Biodiversity Compliance Statement was developed to meet the minimum requirements as detailed in Section 4 of Table 1 under Section (3) of The Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity.

2. Aquatic biodiversity:

Specialist Assessment and Minimum Report Content Requirements

a. Section 3, Table 1, Point (1.2) of The Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Aquatic Biodiversity indicates that an Aquatic Biodiversity Compliance Statement is required where the information gathered from the site sensitivity verification differs from the screening tool designation of "very high" aquatic biodiversity sensitivity on the screening tool and it is found to be of "low" sensitivity.
b. As per the requirements for the Aquatic Biodiversity Compliance Statement, the compliance statement was:
    i. Prepared by a specialist registered with the South African Council of Natural Scientific Profession (SACNASP)
    ii. Applicable to the preferred site and proposed development (site-specific)
    iii. Confirm the site of "low" sensitivity for terrestrial biodiversity; and
    iv. Indicate whether the proposed development will have any impact on the biodiversity feature.
c. The Aquatic Biodiversity Compliance Statement was developed to meet the minimum requirements as detailed in Section 3.3 of Table 1 under Section (3) of The Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Aquatic Biodiversity.

3. Site Sensitivity verification requirements where a specialist assessment is required but no specific assessment protocol has been prescribed

a. Current land use and environmental sensitivity of the proposed site was identified by the national web based environmental screening tool
b. Site Sensitivity verification which included a desktop analysis and onsite inspection was conducted to confirm or refute the environmental sensitivity provided in the screening tool report. The objective of the site sensitivity verification was to determine the specialist studies to be conducted as part of the environmental authorisation application process.
c. The specialist studies suggested and refuted by the EAP in the site sensitivity verification report was submitted to the DEADP with NOI for EA. The proposed specialist studies was reviewed and confirmed by the DEADP. The terrestrial biodiversity and aquatic biodiversity studies confirmed were required to be conducted according to the Biodiversity protocol.

d. Specialist Assessment and Minimum Report Content Requirements. The required level of assessment must be based on the finding of the site sensitivity verification and must comply with Appendix 6 of the EIA Regulations.

SECTION D: APPLICABLE LISTED ACTIVITIES

List the applicable activities in terms of the NEMA EIA Regulations

Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 1**	Describe the portion of the proposed development to which the applicable listed activity relates.
Activity 34	The expansion of existing facilities or infrastructure for any process or activity where such expansion will result in the need for a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the release of emissions, effluent, or pollution.	The Saldanha Steel Works incorporates an existing bulk commodity storage facility on the site. There is existing bulk commodity storage occurring on the site. The proposed logistics hub facility therefore represents an expansion of the existing facility as it will involve the modification, and alteration of the facility where the capacity of the facility and the footprint of the activity is increased. Furthermore, the expansion of the existing facility and handling and storage of new commodities requires an amendment to the existing AEL for the facility and operations on site
Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 3**	Describe the portion of the proposed development to which the applicable listed activity relates.
	N/A	**N/A**
Note: • The listed activities specified above must reconcile with activities applied for in the application form. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted. • Where additional listed activities have been identified, that have not been included in the application form, and amended application form must be submitted to the competent authority.		

List the applicable waste management listed activities in terms of the NEM:WA

Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Category A**	Describe the portion of the proposed development to which the applicable listed activity relates.
N/A		

List the applicable listed activities in terms of the NEM:AQA

Activity No(s):	Provide the relevant **Listed Activity(ies)**	Describe the portion of the proposed development to which the applicable listed activity relates.
Amendment to the existing AEL (Ref. No.: 12/3/1/11) to reflect the additional commodities, throughput values and potential new point sources associated with the warehouse facility. No new activity will be triggered since Category 5.1 (storage and handling of ore and coal) is already included in the AEL.		

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1.	Provide a description of the preferred alternative.

The description of the preferred alternative is provided with the use of figures and the flow diagram provided below. This section should be read in conjunction with point 4.4 above that provides a detailed description of the proposed development.

The only alternatives considered related to the location and design of the warehouse. The site and volumes for export and the existing infrastructure to be used for the logistics hub remain unchanged between alternatives. Aspects specific to the preferred alternative is provided below.

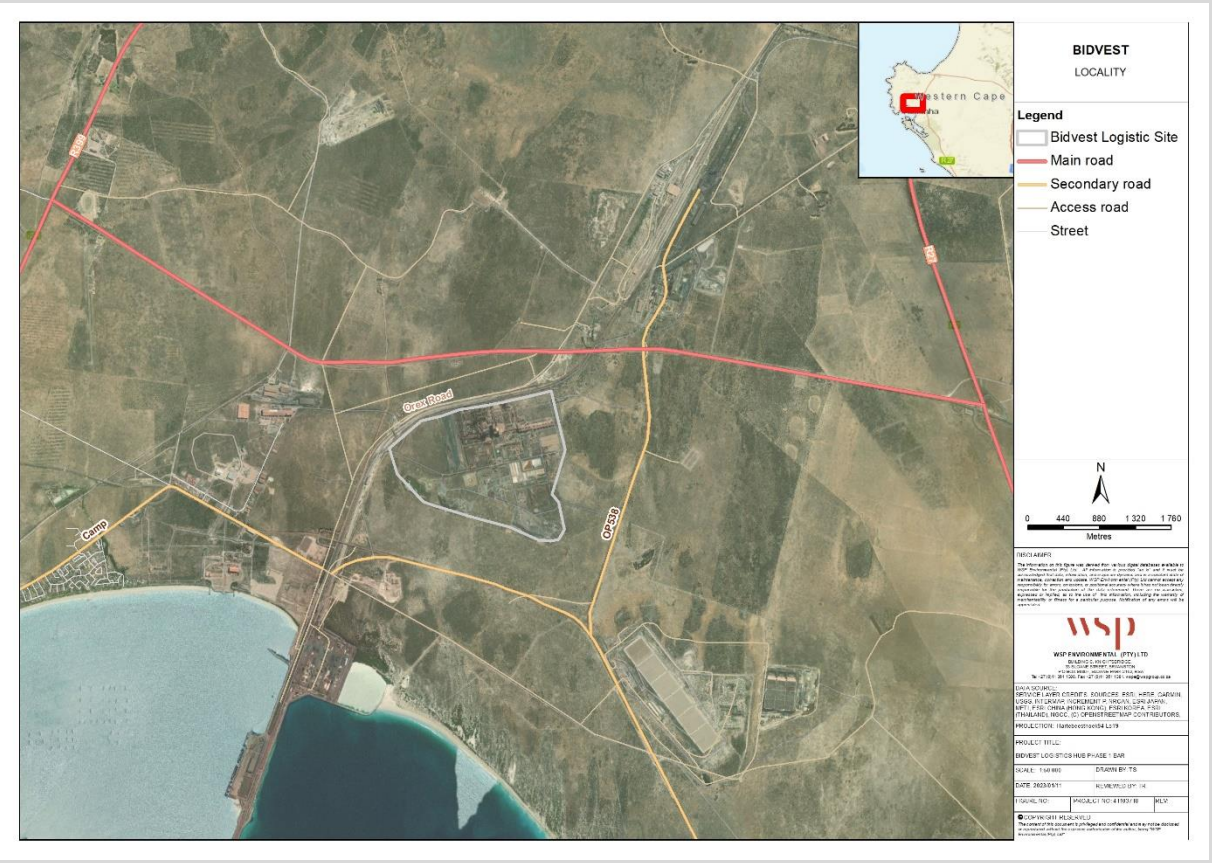

Figure 2: Locality Map of the AMSA Saldanha Steel Works Site

Figure 3: Google Earth image of the proposed development and Layout of the Logistics Hub

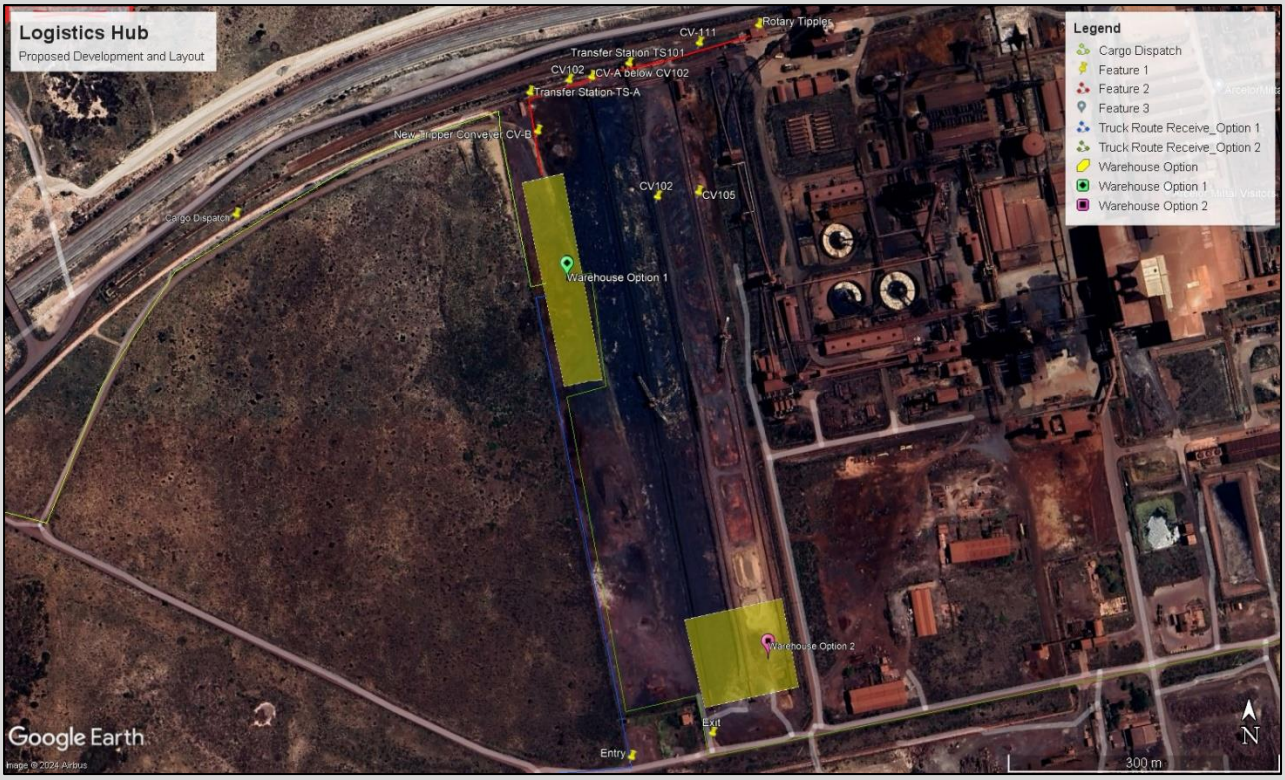

Figure 4: Google Earth image of the proposed development and Layout of the Logistics Hub

Both alternatives largely utilises existing Rail and Rotary Tippler infrastructure for the receipt of cargo via rail. Road receipts will also be provided for via existing roads. The Rotary Tippler connects to the different stockpiling areas through conveyor networks and stacker / reclaimers. This existing infrastructure will be used

in conjunction with the proposed bulk commodity receiving, handling, stockpiling and storage facilities of the Hub.

A new warehouse will be constructed to house environmentally and weather sensitive commodities, which will be linked to existing handling and conveyancing systems. The size of the warehouse will be approximately 14,000 m^2 excluding associated infrastructure, i.e. tipplers, rail siding, conveyance systems and transfer stations.

Indicated are the two alternative locations of the warehouse. Both warehouse alternative's locations will use the same rail routes, truck access routes, commodities transfer station and tipplers. In both options, a large portion of existing infrastructure and facilities will be used. However, different conveyers from the existing transfer station (TS 101) and an additional new transfer station will be required for each option. The difference in alternatives is the location of the warehouse and how these impact the operations of the hub. The preferred option was selected on the basis of achieving operational efficiencies.

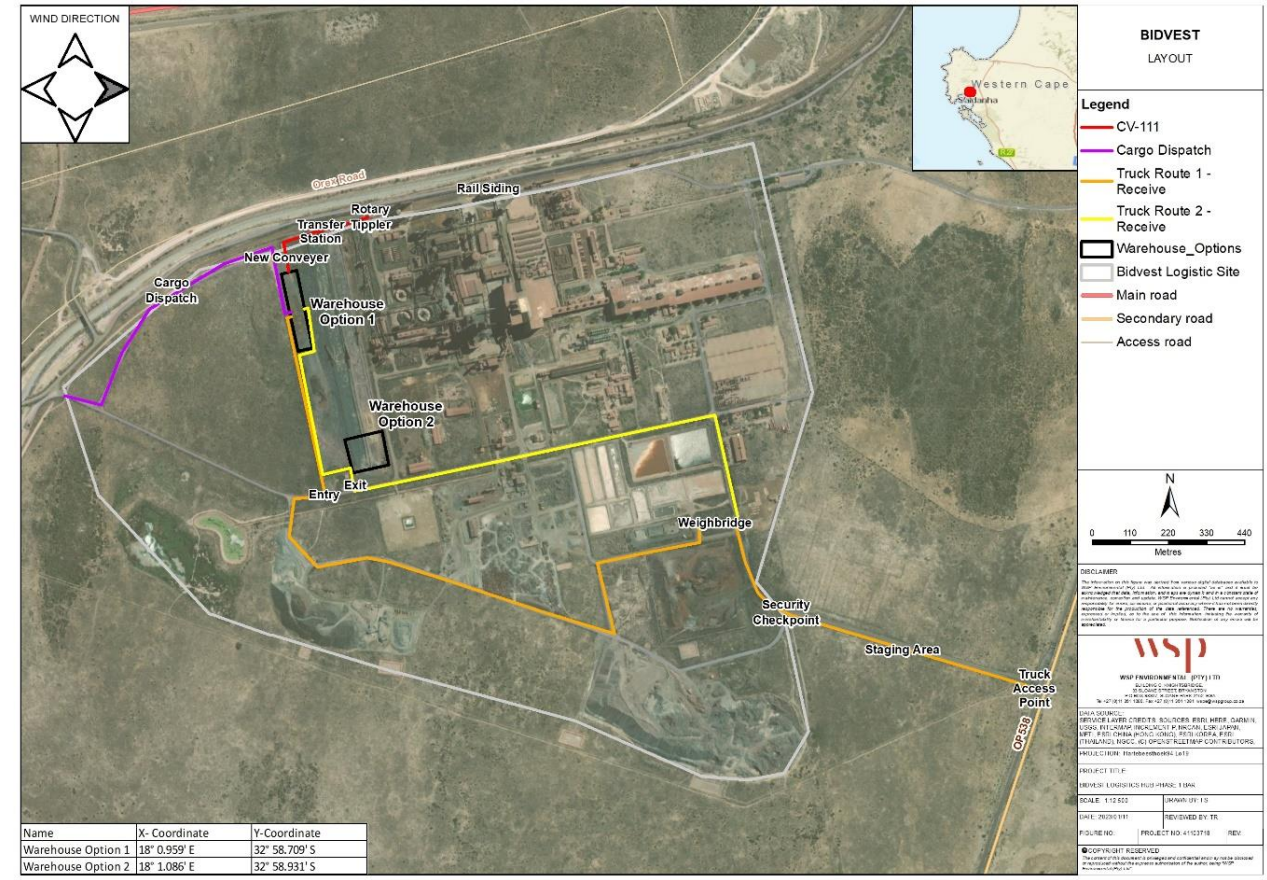

Figure 5: Locality Map of the AMSA Saldanha Steel Works Site

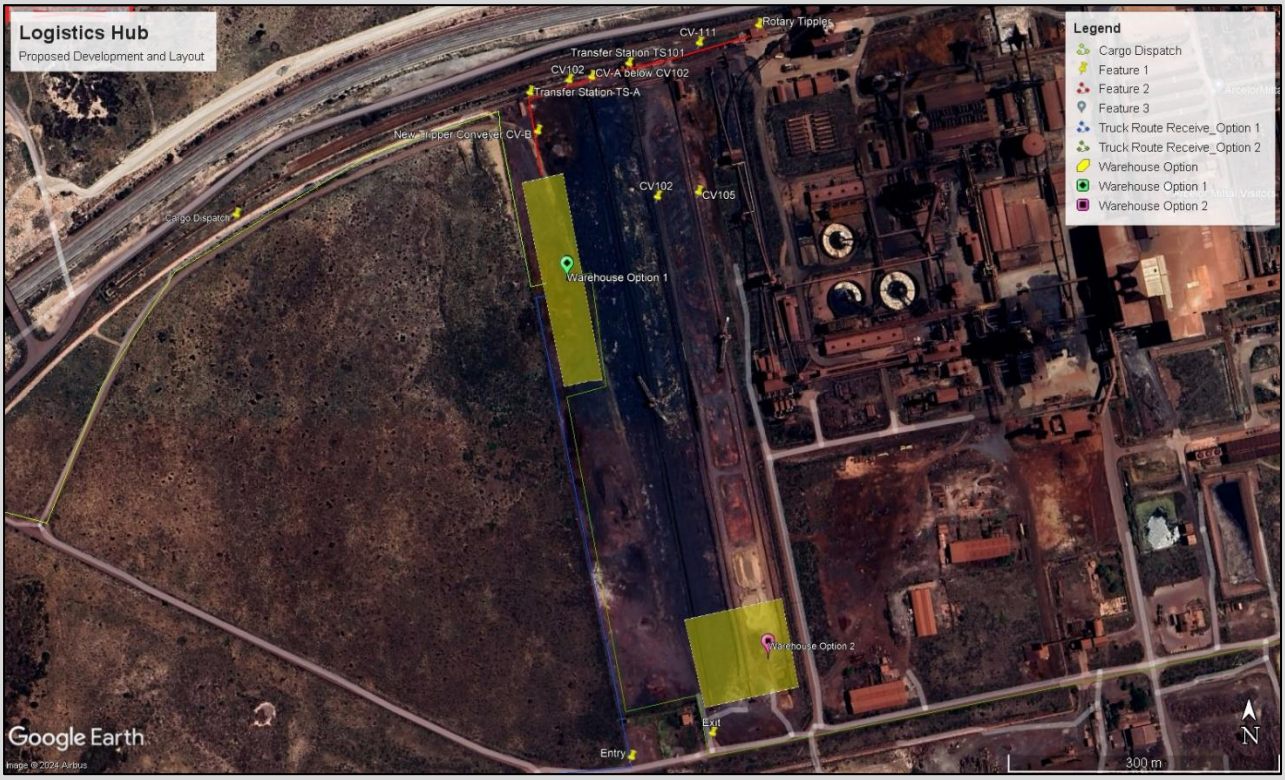

Figure 6: Google Earth image of the proposed development and Layout of the Logistics Hub

The layout of the preferred alternative of the warehouse is provided in figure 7 below.

Figure 7: Google Erath image of the preferred alternative layout of the Logistics Hub

For the preferred alternative, 50% of the manganese commodity (2,000,000 tpa) will be delivered via the existing rail to the Logistics Hub and the remainder via truck and existing roads (2,000,000 tpa). To note the proposed volume of manganese (2,000,000 tpa) to be delivered by road represents a worst-case scenario

allowing for current challenges regarding rail infrastructure and its impact on the transport of commodities via rail. Following planned rail infrastructure upgrades in 2026, it is anticipated that the volume of manganese delivered by road will decrease and the majority to be delivered by rail via the shunt wagons and the tipplers. This will reduce the truck volume on the roads. It is anticipated that after the rail upgrades are complete 4,000,000 tpa of manganese commodity will be transported via rail, and only 1,000,000 tpa of manganese commodity will be delivered via road.

Bulk material received via the haul road into the warehouse will be wetted by water sprayers to reduce emissions, whereas material received via rail will be chemically sprayed at the tippler and wetted along the conveyor belts prior to being deposited within the warehouse. Within the warehouse and before exporting, the material stockpiles will be wetted by water sprayers to reduce emissions. Before exporting, commodities will be loaded (within the warehouse) with the use of yellow equipment onto skip trucks, then dispatched to the Port of Saldanha via the haul road. A detailed description on bulk commodity receipts is provided below.

The 50% of Mn ore delivered via rail will comprise:

- Delivery from rail to the existing rotary tippler, contained within a building with dust extraction and sprayers delivering chemical suppressant to the Mn ore while being tipped from the rail wagons.
- Mn ore will move from the rotary tippler along conveyor CV111 (underground conveyor) to Transfer Station 1 (TS101), contained within a building enclosure.
- From TS101 the ore will be transferred to a new conveyor CV102, which is an above-ground conveyor, semi-enclosed equipped with longitudinal water sprayers, to a new Transfer Station 1 (TS-A), contained within a building enclosure.
- From the new Transfer Station 1 (TS-A), Mn ore will move along a new conveyor CV-B, and ore will be loaded onto the main Mn ore stockpile, within the warehouse. Notably, this ore will still be wet from the chemical suppressant applied at the rotary tippler and water applied by the longitudinal sprayers on the new conveyor. Further, the main Mn ore stockpile will be wetted via water sprayers and within an enclosed warehouse to reduce dust emissions.

The bulk material commodities, 50% Mn ore and other commodities, delivered by truck to the warehouse will comprise:

- Trucks will enter the Saldanha Steel site via the existing truck entrance road from the OP 538 Road located east of the Logistics Hub site. Approximately 1 km of this entrance road is unpaved, this section of the road receives chemical dust suppressant. All trucks will drive towards the existing weighbridge and then towards the Logistics Hub warehouse. From the weighbridge to the Saldanha site and Logistics Hub, this section of entrance road is unpaved and will also receive chemical suppressant.
- Trucks will carry approximately 34 t of commodities per load, covered by the standard strapped tarpaulins required for road tipper trucks.
- Trucks will unload in the southern end of the warehouse to a truck stockpile, with water being applied to the truck stockpile to reduce dust emissions. The onsite operations will ensure that truck offloading does not result in mixing of commodities. The warehouse has been designed to handle the different commodities to be stored on site.
- Yellow equipment (front-end loaders) will be used to transfer material from the truck stockpile to the main commodity stockpiles for reclaiming.

The bulk material commodities stored within the warehouse and delivered by truck to Saldanha Transnet Port Terminal will comprise:

- Trucks delivering commodities from the warehouse to the TPT terminal will carry approximately 69 t of commodities per load, comprising three skips covered by heavy duty, fixed tarpaulins.
- Trucks will exit the warehouse and the Saldanha Steel site via existing paved haul roads that were established for terminal access. Trucks transporting commodities to the terminal for export will not make use of public roads.
- The bulk of the trucks for commodities export to the terminal will remain at the Saldanha Steel site between deliveries, located at the designated truck staging area, avoiding unnecessary use of public roads. Note, this will be dependent on the trucking requirements of the cargo handling company, so the number of trucks onsite may vary from time to time.

The process flow diagram in figure 1 provides an explanation of the flow of commodities from receipt on site, storage and handling within the warehouse and dispatch to the Saldanha TPT.

The layout of the warehouse for the preferred alternative is provided in figure 7 above and figure 8 below. A motivation for the layout of the preferred alternative is provided below.

Figure 8: Preferred alternative layout of the warehouse of the Logistics Hub

The warehouse would be designed to store stockpiles of various commodity materials as per customer requirements. The warehouse is positioned along the northwestern perimeter of the site and is near to existing rail, conveyers, and access roads and more accessible to mobile plant and trucks both coming in and leaving the logistics hub. All stockpiles will be loaded by the overhead tripper located on Conveyor CV-B which allows for easier design of the overhead tripper conveyor that would convey tippler product southwards inside the warehouse, discharging into the stockpile by gravity. The gantry-in-roof concept would eliminate the need for any trestles in the warehouse, thereby improving traffic operations and wheel loader activities at ground level.

A 2-lane 9m wide roadway is proposed on the western boundary of the warehouse, inside the sheeted structure. On the opposite eastern side, the warehouse terminates in a concrete wall with doors for vehicular access. Access into and out of the warehouse would only be on the eastern side of the building i.e. in the lee of the warehouse, to prevent ingress of wind and egress of dust.

The northern, southern and western sides of the warehouse would be permanently sheeted. The concept design includes at least two access doors and at most five doorways along the eastern wall. These doorways would enable vehicles to enter and exit the warehouse in a controlled manner and without adversely affecting operations inside the warehouse. The extended rectangular shape of the warehouse provides a longer eastern façade which is the leeward side of the warehouse facilitating more entrances along this façade. This allows for more efficient movement of vehicles into and exiting the building without loss of internal surface area for equipment movement. Furthermore, this allows the warehouse for easier expansion or logistics hub expansion or additional facilities as it is positioned parallel/longitudinal to the disturbed footprint on site. Should the warehouse be extended in future, the gantry-in-roof conveyer drive and head pulley could be moved forward and the conveyor with gallery extended accordingly.

Stockpiles with roadways separating each pile are envisaged. These roadways would be approximately 10m wide and would enable loaded vehicles to exit the warehouse and/or wheel loaders to operate between stockpile and truck to load the skips. In so doing the stockpiles would be emptied from each end and across the entire width of each pile to avoid dead spaces in the stockpiles.

The warehouse would measure approximately 54 m wide and 254m long. The concept design drawings of the warehouse provided in **Appendix O** provides an example how commodities will be stockpiled within the warehouse and how plant and vehicles will enter and exit the warehouse and move in between the stockpiles.	
2.	Explain how the proposed development is in line with the existing land use rights of the property as you have indicated in the NOI and application form? Include the proof of the existing land use rights granted in Appendix E21.
The proposed Logistics Hub and warehouse is located on a property zoned as Industrial and falls within a broader industrial area within the Saldanha Bay municipality. The proposed Logistics Hub is an industrial activity where commodities will be brought onto site via rail and road, stored within the warehouse and exported from the Saldanha Bay Port. The proposed activity is therefore in line with the existing land use right of the property.	
3.	Explain how potential conflict with respect to existing approvals for the proposed site (as indicated in the NOI/and or application form) and the proposed development have been resolved.

The existing approvals for the site are listed below:

- Atmospheric Emissions Licence (Ref. No.: A2080/5)
- Renewed Atmospheric Emissions Licence valid until 04 December 2028 (Ref. No.: WCWD001) (04 December 2023)
- Waste Management Licence (Ref. No.: 12/9/11/L974/9)(21 June 2013)
- RoD for Proposed Extension of Brine Evaporation Ponds at Saldanha Steel (Ref. No.: E12/2/1-229-Farm 129/2 Farm 127/8, Portion of Farm 195)(01 September 2003)
- RoD for Proposed Extension of Existing Raw Materials Stockyard at Saldanha Steel, Saldanha (Ref. No.: E12/2/1-229-Farm 129/2 Farm 127/8, Saldanha)(01 September 2003)
- EA for the Proposed Construction of a Briquetting Plant on Portion 13 of Farm Yzervarkensrug No. 127, Saldanha Bay (Ref. No.: 16/3/1/1/F4/17/3051/12)(04 February 2014)
- Non-substantive Amendment of RoD for Proposed Extension of Existing Raw Materials Stockyard at Saldanha Steel, Saldanha (Ref. No.: E12/2/3/6-F4/16-0409/08)(04 February 2009)
- Amended RoD for Proposed Extension of Existing Raw Materials Stockyard at Saldanha Steel, Saldanha (Ref. No.: 16/3/1/5/F4/17/3009/13)(04 September 2014)

The above approvals are not in conflict with the proposed Logistics Hub and operations. However, the Logistics Hub will be constructed on the area previously authorised and constructed for the storage of approximately 347 000 tons of raw commodities to be used for the Steel manufacturing operations on site. This stockyard was authorised for the Proposed Extension of Existing Raw Materials Stockyard at Saldanha Steel (Ref. No.: E12/2/1-229-Farm 129/2 Farm 127/8, Portion of Farm 195)(01 September 2003). The purpose of this Stockyard was for storing raw iron ore for steel making but is no longer in use as the steel making facility is under 'care and maintenance'. The Steel making and production processes will not be hindered or negatively impacted should this area be used for the development and construction of the Logistics Hub. Adjacent to this stockyard is an existing stockyard that will be used for iron ore storage should the steel making and production process restart at the Saldanha Steel manufacturing plant and facility.

The Logistics Hub will utilise existing infrastructure at the authorised Saldanha Steel Facility and no further new development or expansion beyond the disturbed footprint, as defined by the EIA Regulations, will be required for the Logistics Hub.

There is no potential conflict or contravention with existing approvals for the proposed activity. As part of the EA process, an AEL amendment will be conducted.

4.	Explain how the proposed development will be in line with the following?
4.1	The Provincial Spatial Development Framework.

The Western Cape Provincial Spatial Development Framework, 2014 (PSDF) is an approved structure plan in terms of the Spatial Planning and Land Use Management Act (Act 16 of 2013) (SPLUMA) and the Land Use Planning Act (Act 3 of 2014) (LUPA) and aims to give spatial expression to the NDP and One Cape 2040 initiatives. It provides guidelines for district, metropolitan and local municipal spatial initiatives such as Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDFs).

The PSDF is a broad-based document and does not control development or land use proposals at a micro-scale (e.g. individual properties). It is, however, relevant in setting out overarching planning policy guidelines adopted by the Provincial Government, and major development applications need to take guidance from and be evaluated in terms of these policy guidelines.

The PSDF is underpinned by three interrelated themes, namely:

- Sustainable use of the Western Cape's spatial assets (resources);
- Opening up opportunities in the Provincial space-economy (space economy) through investing in new regional economic infrastructure to unlock potential of emerging Saldanha Bay/Vredenburg regional economic nodes ; and
- Developing integrated and sustainable settlements (settlement).

The PSDF furthermore seeks to improve the effectiveness of public investment in the Province by:

- Incorporating credible spatial planning principles to support all capital investment programmes;
- Spatially targeting and aligning the different investment programmes; and
- Creating and facilitating opportunities for community and business development in targeted areas.

The WC PSDF also includes the following spatial agenda:

- Grow the Province's economy in partnership with the private sector, non-government and community-based organisations;
- Use infrastructure investment as the primary lever to ensure urban and rural spatial transitions; and
- Improve the sustainable use of the Province's spatial assets and resources.

The following primary objectives commit the Province to safeguarding these assets:

- Protect biodiversity and agricultural resources.
- Minimise the consumption of scarce environmental resources, particularly water, fuel, and land – in the latter case especially pristine and other rural land, which is the Western Cape's 'gold-mine-above-the-ground' (i.e. a non-renewable resource).
- Conserve and strengthen the sense of place of important natural, cultural and productive landscapes, artefacts and buildings.

The PSDF notes the importance of targeting public investment in the emerging Saldanha Bay/Vredenburg regional industrial centres as a main driver of the Provincial economy in partnership with the private sector and non-governmental and community-based organisations (DEADP, 2014). The PSDF further highlights the Saldanha Bay region as a regional growth node to capitalise on provincial assets and connect the regional transport and freight logistics to promote and achieve the targets within the PSDF.

The development of the Logistics Hub will grow the Provincial economy in the Saldanha Bay/Vredenburg regional industrial area that was ear-marked to promote the provincial economy and use existing local and regional infrastructure (rail, road and Saldanha Steel facility). These are aligned with the goals of the PSDF.

From a spatial perspective, the Logistics Hub is in line with the PSDF as it does not operate in an area earmarked for future urban or residential development. It utilises space within a broader industrial area and its operations are in line with surrounding land uses.

The Saldanha Steel facility was placed into 'Care and Maintenance' in April 2020 and as a result there has not been steel manufacturing occurring on the site. Utilising the site as a Logistics Hub will ensure that the existing infrastructure is used more effectively and sustainably, and will promote the export of manganese ore

and other listed commodities. This will create more economic opportunity for the local municipality and the Province. Furthermore, since the Saldanha Steel facility was placed into 'Care and Maintenance' approximately 550 direct employment opportunities with AMSA and a further 1 000 indirect employment opportunities through contractors and service providers were lost. The Logistics Hub will therefore also create direct and indirect employment opportunities in the local and reginal area.

The PSDF also notes the expansion of the port and industrial infrastructural requirements at Saldanha Bay as part of the 2013 Western Cape Infrastructure Framework (WCIF) to maintain existing infrastructure and plan accordingly for desired future outcomes leading to resilient and inclusive growth. The Logistics Hub will utilise the port at Saldanha Bay for the export of commodities which will be expanded to accommodate additional export requirements through the port. The Logistics Hub is therefore aligned with the port expansion and proposed future operational requirements at the port. This additionally promotes operational and economic use of a prioritised provincial asset and will promote the provincial economy.

4.2	The Integrated Development Plan of the local municipality.

Regional GDP and Employment Opportunities

The latest IDP for the Saldanha Bay Municipality was developed in 2022 and provides the development plan from 2022 to 2027. The IDP indicates that the largest contribution to the regional GDP is the manufacturing industry (22.9% contribution) but notes the loss in economic activity, considerable loss in employment opportunities and loss in contribution to the regional GDP in the municipality due to the loss in steel manufacturing and production activity at the Saldanha Steel facility since 2020 when the Plant was placed under Care and Maintenance. The IDP indicates that the reduction in people employed in the municipality from 52 000 jobs in 2019 to 46 800 jobs in 2021 was mainly due to the consequence of covid and the closure of the AMSA Saldanha Steel facility.

The impact of the job losses since Saldanha Steel was placed under "Care and Maintenance" in 2020 introduced several challenges for the municipality, as average household income was directly affected. This resulted in revenue losses within the municipality and placed pressure on the municipality with the increased demand from the local population for basic services.

The Saldanha Steel facility placed under Care and Maintenance furthermore created major impacts on the local and national economy, but also on the value chain and on well-established partners such as Duferco Steel Processing which is located 3km from Saldanha Steel facility that relies on the facility's quality products, with minimal transport costs involved. Apart from the job losses and the impact on other downstream operations, the lack of manufacturing of steel at Saldanha Steel could greatly affect the trade balance of the municipal area in the future. Saldanha Bay Harbour plays an important role in both imports and exports, especially of iron products, as the Saldanha Bay iron ore terminal is the largest iron ore export facility in Africa and is also the only dedicated iron ore terminal in South Africa.

The IDP indicates that the most important exports from the SBM through the Saldanha bay port are fish, fish products and steel products. It further indicates that Transnet National Ports Authority (TNPA) has invested R5.5 billion for the upgrade of the Saldanha Bay harbour over a 7-year period to increase the efficiency of the harbour and create future capacity. Two planned developments for the Saldanha Bay harbour include leveraging private sector expertise for the operating lease of the Sishen-Saldanha rail and to issue a request for interest for a private sector operator to develop the back of port iron ore and manganese facility in Saldanha. The issuance of the request for interest to a private sector operator was placed on hold due to concerns of the environmental impact.

The development and operation of the Logistics Hub is aligned with the municipal IDP as it will create employment opportunities during the construction and operation phase of the Logistics Hub alleviating economic pressure to households in the area as a result of the covid-19 pandemic and the Saldanha Steel Facility being placed under care and maintenance. The Hub will also contribute to the regional GDP of the Saldanha Bay area and the SBM and utilise infrastructure (port and rail) that are proposed and prioritised to be upgraded by the Western Cape Government, West Coast District Municipality, Saldanha Bay Municipality and TNPA.

Air Quality Management

The IDP indicates the air quality monitoring undertaken by the SBM at six sites around the municipality that monitors sulphur dioxide (SO_2), nitrogen oxide (NO), nitrogen dioxide (NO_2) and other nitrous oxides (NO_x), ozone (O_3), and particulate matter (PM_{10}). These were indicated as priority pollutants as determined by the Air Quality Act (Act 39 of 2004) as they damage the human respiratory tract and increase vulnerability to

respiratory infections and asthma. Long term exposure of these pollutants cause chronic lung disease. The IDP also notes that road traffic (vehicle emissions) is the main outdoor source of these pollutants. Furthermore, the IDP indicates that manganese (Mn) and lead (Pb) are monitored at the six sites as manganese and iron ore are exported through the Port of Saldanha (Saldanha Bay Municipality, 2023).

As part of the development of the Logistics Hub, a warehouse will be constructed to house the weather sensitive commodities and to minimise dust generation and emissions caused by day-to-day operations of transporting, stockpiling and distributing the commodities to and off site. An EMPr will be developed to manage onsite activities during construction and operation that will include mitigation measures to minimise dust generation and emissions. Furthermore, and as part of the AEL amendment application for the development of the logistics hub, an Atmospheric Impact Report (AIR) for the proposed activity and a fugitive dust management plan (FDMP) was developed for the operation phase of the Logistics Hub to monitor and manage dust generation and emissions.

4.3.	The Spatial Development Framework of the local municipality.

The Saldanha Bay Municipal Spatial Development Framework (MSDF) (May 2019) recognises the need to "Promote the industrial area, including high-tech economic development, to take advantage of global demand opportunities and encourage local employment and capacity building." It also recognises that "the Saldanha Port is strategically positioned to contribute to the economic growth of the municipal area. The port creates opportunities for exporting of local products (i.e. steel, agricultural products etc.)."

The Saldanha Works site was placed into 'Care and Maintenance' in April 2020 and, as a result there has been no steel manufacturing occurring on the site.

The proposed site for the logistics Hub is within the existing Saldanha Steel facility footprint and in an area which is disturbed and previously used to stockpile iron ore for the steel making operations on site. It is also located in an area zoned for industrial activities and is thus aligned with the MSDF. The proposed Logistics Hub will utilise the Port of Saldanha to export of commodities and thus boost the local economy and create employment opportunities.

4.4.	The Environmental Management Framework applicable to the area.

The Saldanha Works facility falls within the Draft Environmental Management Framework for the Greater Saldanha Area (March 2021) study area. The EMF identifies a terrestrial CBA as well as an Ecological Support Area (ESA) on undeveloped portions of the Saldanha Works site. According to the EMF, CBAs and ESAs should be kept natural or near-natural state, with no further loss of habitat or species. The proposed Logistics Hub will utilise the existing infrastructure of the authorised Saldanha Works Facility and the warehouse and additional infrastructure will be developed on disturbed area on site previously used to stockpile iron ore for the steelmaking operations. No alterations of undisturbed areas and the facility boundary will be required.

The development of the proposed Logistics Hub warehouse facilities will not impact the CBA and ESA, and is earmarked to be located on disturbed area on site. This was assessed in the terrestrial and aquatic biodiversity assessments and further information is provided below.

5.	Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development.

Terrestrial Biodiversity

According to the Biodiversity Compliance Statement undertaken by the specialist botanical consultant, the botanical conservation value of a site (usually known as botanical sensitivity) is a product of plant species diversity, plant community composition, rarity of habitat, degree of habitat degradation, rarity of species, ecological viability and connectivity, vulnerability to impacts, restoration potential and reversibility of threats.

The proposed project area which includes the proposed site and adjacent area has a Very Low negative botanical sensitivity (Nick Helme Botanical Surveys, 2024). The area adjacent has been heavily disturbed in the past, has low to moderate levels of botanical diversity and structure, and supports only a single plant Species of Conservation Concern (SCC) (Nick Helme Botanical Surveys, 2023).

As the Logistics Hub will be developed on hardstanding previously used for the storage of iron ore for the steel making manufacturing process and supports no vegetation the project area has a very low botanical

sensitivity, the state of the onsite biodiversity did not influence the proposed development as it is heavily disturbed.

According to the Biodiversity Compliance Statement all development will be located in areas of Very Low botanical and faunal sensitivity, and the overall construction phase ecological impact of this component is likely to be of Very Low negative significance and no specific mitigation is required

Aquatic Biodiversity

According to the Aquatic Biodiversity Compliance Statement undertaken by the aquatic specialist, no natural aquatic ecosystems (rivers or wetlands) were observed within the study area during the field assessment conducted in early 2023. The area to the south of the proposed expansion area, that is indicated as a depression wetland by National Wetland Map 5 (NMW5), appears to be a previously excavated area which is now water-filled. Landsat 4-5 satellite imagery of the study area dated 1998 (https://apps.sentinel-hub.com/), shows extensive excavations in the area. No other wetland or watercourse features were identified in the proposed expansion area, nor within 500 m of the study area. As such, the system is not considered to support wetland or riparian habitat and a 'low sensitivity rating' for aquatic biodiversity in the study area is therefore motivated.

The Aquatic Biodiversity Compliance Statement further indicated that construction of the proposed new infrastructure is not anticipated to result in significant impacts to any aquatic biodiversity receptors.

The terrestrial biodiversity compliance statement indicated that the proposed site has low to medium sensitivity rating and the aquatic compliance statement indicated that the proposed site has a low sensitivity rating. Furthermore, the compliance statements indicated that the development of the Logistics Hub will not have a significant impact on the biodiversity of the proposed and surrounding area.

6.	Explain how the Western Cape Biodiversity Spatial Plan (including the guidelines in the handbook) has influenced the proposed development.

The location of the proposed Logistics Hub new warehouse facility will be upon already disturbed land within the existing AMSA facility. Based on Satellite imagery and site inspection the proposed site location does not support vegetation. A hardstand was developed on the proposed site that was used for the stockpiling of iron ore for the steel making manufacturing process.

According to the SA Vegetation Map (Mucina and Rutherford, 2018) and the Cape Farm Mapper website and GIS tool accessed on 08 March 2024, the original and natural vegetation in the study area is the Saldanha Flats Strandveld. The project area is within the Cape West Coast Biosphere reserve. The Saldanha Flats Strandveld is gazetted as an Endangered vegetation type on a national basis (DEA 2011), and the latest study supports this classification (Government of South Africa 2022). As of 2018 the unit had less than 36% of its original total extent remaining, only 10% was conserved (in West Coast National Park), and it had a conservation target of 24% of its original extent (Rouget et al 2004). This unit is typically found on deep, sandy soils with some underlying calcrete, and is restricted to the area from Vredenburg to Yzerfontein. The unit is species rich and is home to a high number of threatened and very localised plant species (Helme, 2023).

According to the Cape Farm Mapper website and GIS tool accessed on 08 March 2024 and using the Cape Nature resource layer which includes the details from the Western Cape Biodiversity Spatial Plan (2017), the proposed Logistics Hub project area (warehouse and associated infrastructure) is not located within a Critical Biodiversity Area or an Ecological Support Area. There are no Other Natural Areas located within the site.

The CapeNature Biodiversity Spatial Plan 2017 (Pence 2017) indicates that most of the study area is mapped as terrestrial Ecological Support Area 1 (ESA1; 60% of site), with about 30% being mapped as ESA1 (aquatic). A very small area (5% of site) is mapped as terrestrial Critical Biodiversity Area 1 (CBA1) (Helme, 2023).

The primary reasons for the mapping of CBAs in this area are 1) that the area supports a Threatened vegetation type, 2) that the area is part of an identified climate adaptation and coastal corridor, 3) that the area supports ecological processes and 4) that the area (although not necessarily this site) supports threatened plant species. The main reasons for the ESA are that it is part of a designated climate adaptation and ecological corridor, but it is recognised that it is a previously disturbed area (and hence not a CBA).

There is no evidence to suggest that the small area mapped as CBA1 in the east of the study area is in fact worthy of this status, being essentially just a patch of common *Lycium ferocissimum* shrubs, more easily evident (than the other, lower vegetation) in the imagery used to generate this mapping (see figure 6 below).

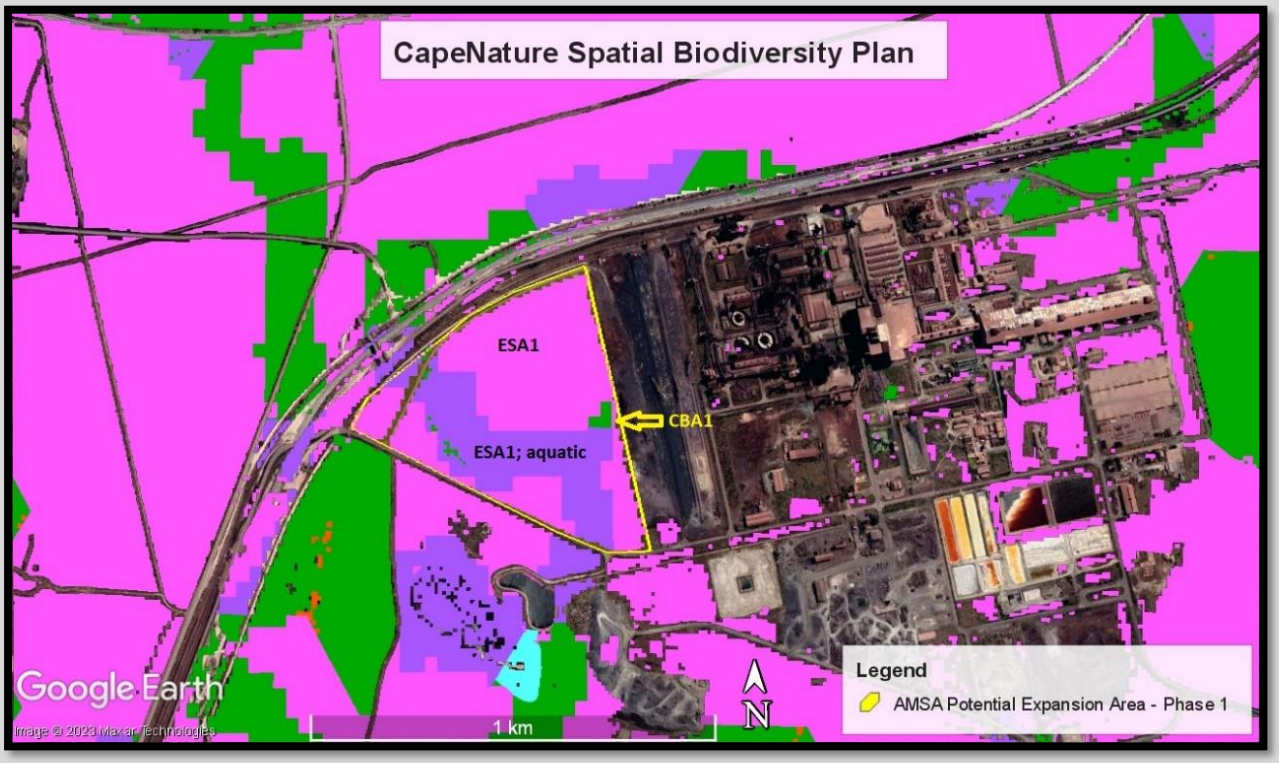

Figure 9: Extract of the CapeNature Biodiversity Spatial Plan 2017. Areas mapped as CBA1 (Critical Biodiversity Area) are of higher priority than the areas mapped as ESA1 (Ecological Support Area)(Nick Helme Botanical Surveys, 2023).

Due to the disturbed nature of the proposed location for the Logistic Hub warehouse and associated facilities, and its use of existing rail and road infrastructure and municipal services, terrestrial biodiversity onsite was heavily impacted and disturbed in the past. The proposed project area has a Low to Medium botanical sensitivity, has low to moderate levels of botanical diversity and structure, and supports only a single plant Species of Conservation Concern (SCC) on the open area adjacent to the proposed logistics hub.

Furthermore, the Logistics Hub warehouse will be constructed on hardstanding where the vegetation and earth has previously been cleared. Existing vegetation and biodiversity has not presented a project constraint.

7.	Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA.

Coastal set-back lines (or coastal management lines), as detailed in the ICM Act, are prescribed boundaries that indicate the limit of development along ecologically sensitive or vulnerable areas, or an area that poses a hazard or risk to humans. The coastal management line prohibits or restricts the construction, extension or repair of structures that are either wholly or partly seaward of the line and may even be situated outside the coastal zone. The ultimate intention of the coastal management line, as defined in the ICM Act, is to protect or preserve:

- coastal public property such as beach amenities and other infrastructure such as parking
- coastal private property such as private residences and business properties

- public safety in the face of extreme climate and other natural events
- the coastal protection zone
- the aesthetics or "sense-of-place" of the coastal zone.

The coastal set-back or management line is proposed to give specific direction in respect to locating the future development footprint and coastal planning schemes will zone the coastline in respect to proposed activities and land use (Royal Haskonong DHV, July 2014).

The Logistics Hub site is not located within the coastal public property, not within 100 meters inland of the high-water mark of the sea, not within the 1:100 year storm off-shore wave height, and is not located within the existing port or harbour. The hub is situated approximately 3.5km away from the Atlantic Ocean coastline and the boundary of the Saldanha Steel Works boundary is approximately 2.7km away from the Atlantic Ocean coastline.

8.	Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I.

The results from the Screening Tool Report as generated on 14 May 2024 has not changed from the screening tool report, as attached in Appendix I, dated May 2024 which was submitted with the NOI and application form.

9.	Explain how the proposed development will optimise vacant land available within an urban area.

The proposed Logistics Hub development is proposed to be located within the existing Saldanha Steel facility located within an industrial area. The proposed development therefore does not use vacant land available within an urban area.

10.	Explain how the proposed development will optimise the use of existing resources and infrastructure.

The Logistics Hub was proposed due to the existing Saldanha Steel facility and utilising existing infrastructure, resources and services for its development and operations. The Logistics Hub will be developed within the Saldanha Steel facility on an area previously developed as a hardstand and used to stockpile iron ore for the steel making process. The Logistics Hub will utilise the following existing facilities or services:

- Existing offices and staff facilities will be used for administrative and staff requirements onsite
- Access control due to existing fence, access points and security points and services on site
- Site access due to existing access roads for plant/haul trucks and personnel (there are separate access roads for haul trucks/plant and personnel). The vehicles and trucks for the transport of commodities will use a designated access road.
- Weighbridge operated on site will be used to weigh commodities coming onto site via road
- The rail line to transport commodities via rail to site
- Tipplers and conveyer belts will be used to offload and transport commodities on site when transported via rail
- The access road from the Saldanha Steel facility to the Port of Saldanha will be used to export commodities
- Proposed location of the warehouse will be on disturbed land converted to a hardstand and previously used for stockpiling iron ore. Stormwater channels were developed for this area on site and will be utilised by the logistics hub and warehouse.
- The warehouse will use electricity from existing electricity services and take-off points on site
- The Logistics Hub will utilise water from existing water services on site. Potable water for staff will be from existing services and water for spraying will be used from existing sprayer systems.
- The Logistics Hub will utilise existing sanitation, sewerage systems and wastewater services onsite.

11.	Explain whether the necessary services are available and whether the local authority has confirmed sufficient, spare, unallocated service capacity. (Confirmation of all services must be included in Appendix E16).

The necessary services required for the Logistics Hub are available and the supply thereof was confirmed by the Local Municipality. In the absence of the steel making processes, sufficient service capacity is available at the Saldanha Steel facility for the operation of the logistics hub. The confirmation of services is provided in Appendix E16.

12.	In addition to the above, explain the need and desirability of the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013) or the DEA's Integrated Environmental Management Guideline on Need and Desirability. This may be attached to this BAR as Appendix K.

The DEA&DP Guideline (2013) states that the essential aim of need and desirability is to determine the suitability (i.e. is the activity proposed in the right location for the suggested land-use/activity) and timing (i.e. is it the right time to develop a given activity) of the development. Therefore, need and desirability addresses whether the development is being proposed at the right time and in the right place. Similarly, the 'Best Practicable Environmental Option' (BPEO) as defined in NEMA is "*the option that provides the most benefit and causes the least damage to the environment as a whole, at a cost acceptable to society, in the long term as well as in the short term*."

According to the demographic profile of the municipality, it is evident the job opportunities are needed in the Saldanha Bay municipality. Furthermore, according to the IDP, revenue generating industries and businesses, and high levels of unemployment and low levels of economic activity in the municipality is limiting the revenue generated by and within the municipality. This limits the municipality's revenue and ability to provide services to the people in the municipality.

The level of education is low with only 23% of the population having passed Grade 12 and 6.9% achieved a higher qualification resulting in a population with limited skills and ability to acquire jobs. It is estimated that most workers within the Saldanha Bay Local Municipality are low-skilled (40.3 %), followed by semi-skilled (39.6 %) and high skilled (20.1 %) workers. It is estimated that 53.6 % of the working-age population in the Saldanha Local Municipality are employed, while 15.4 % are unemployed, and 31.0 % are not economically active or discouraged work-seekers.

The Saldanha Steel Facility placed under 'care and maintenance' resulted in a significant number of job losses which resulted in a negative impact on the local economy. The hardest hit by the closure was the unskilled to semi- skilled workers, who may find it difficult to get new employment opportunities and in turn would have a reduced standard of living through a lack of income. This would further have resulted in a loss of revenue for the local municipality with an increased demand for basic services. The proposed logistics hub would be able to offer job opportunities during both the construction and operation phases, and these opportunities would provide the means to improve the levels of low income and assist in improving the employees' standard of living. Although limited, skills development could occur in the construction phase through the transfer of construction-related skills. This would increase the employability of the local labour and their chances of finding employment opportunities on other construction-related projects once their contract with the proposed development has expired. Should the proposed Logistics Hub re-employ employees who were retrenched, this could result in an improved level of household income and standard of living for those affected.

As the Logistics Hub operations would source commodities from the Northern Cape, the potential creation of additional jobs in the Northern Cape would result in improved levels of income and their standard of living in this province as well. Through the capital and operational investment into the proposed Logistics Hub, the proposed development can contribute both on an individual and cumulative basis to alleviate unemployment and assist in providing an improved standard of living through income generation.

The proposed Logistics Hub will contribute to both local and national Gross Domestic Product (GDP) during the construction phase because of increased investment and the operation phase because of operational expenditure. This would result in an improved GDP contribution within the Saldanha Bay Local Municipality,

especially considering the loss of GDP that resulted in the closure of the Saldanha Bay Steel Works that occurred in 2020. Additionally, the increased exports through the Port of Saldanha would result in economic contribution within the Saldanha Bay Local Municipality. Furthermore, the potential expansion of mining operations which may result due to improved storage capacity of commodities at the Port of Saldanha, would in turn enable an improved level of GDP contribution and growth within the Northern Cape.

The proposed logistics hub through its operation would also enable the improved storage of commodities which would enable a positive economic contribution for the Saldanha Bay Local Municipality, as well as attract potential customers to the Port of Saldanha whom would directly and/ or indirectly make investments within the municipal area.

The proposed Logistics Hub through its operation could potentially result in mines in the Northern Cape potentially expanding upon their operations, in turn resulting in an improved level of economic growth through contribution to GDP, production, employment and household income in the Northern Cape province as well.

SECTION F: PUBLIC PARTICIPATION

The Public Participation Process ("PPP") must fulfil the requirements as outlined in the NEMA EIA Regulations and must be attached as Appendix F. Please note that If the NEM: WA and/or the NEM: AQA is applicable to the proposed development, an advertisement must be placed in at least two newspapers.

7. Exclusively for linear activities: Indicate what PPP was agreed to by the competent authority. Include proof of this agreement in Appendix E22.

N/A

8. Confirm that the PPP as indicated in the application form has been complied with. All the PPP must be included in Appendix F.

The PPP will be conducted as per the PPP plan that was submitted with the Application Form and reviewed and approved by DEADP. This PPP plan was reviewed and approved by the West Coast District Municipality as the PPP for the Basic Assessment process and the AEL Amendment application was conducted concurrently. A detailed review of the PPP and Stakeholder Engagement will be included in a Stakeholder Engagement Report and attached as Appendix F in the Final BAR to be submitted to the Department for review. (Draft version)

9. Confirm which of the State Departments and Organs of State indicated in the Notice of Intent/application form were consulted with.

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Western Cape Department of Infrastructure		service@westerncape.gov.za
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Department of Forestry, Fisheries and the Environment: Air Quality Authorisations	Edward Oupa Mahosi	EMahosi@environment.gov.za
Department of Forestry, Fisheries and the Environment: Atmosphere Policy, Regulation and Planning	Vumile Senene	vsenene@environment.gov.za
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DWS: Berg-Olifants Water Management Area (WMA)	Ziyanda Magodla	MagodlaZ@dws.gov.za
DWS: Berg River WMA (Water Quality)	Zanele Bila-Mupariwa	BilaM@dws.gov.za
DWS: Berg River Catchment Management Agency	Nelisa Ndobeni	NdobeniN2@dwa.gov.za
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CapeNature	Wayne Meyer	wmeyer@capenature.co.za
CapeNature	Natalie Baker	nbaker@capenature.co.za
CapeNature	Petro Van Rhyn	learning@capenature.co.za
CapeNature	Colin Fodham	cfordham@capenature.co.za
Saldanha Bay Local Municipality	Nazeema Duarte	nazeema.duarte@sbm.gov.za
West Coast District Municipality Manager: Air Quality	Cindy Ganten-Bein	cgbein@wcdm.co.za
West Coast District Municipality Environmental Officer	Charles Malherbe	cjmalherbe@wcdm.co.za
Transnet National Ports Authority	Adele Groenewald	Adele.Groenewald@transnet.net
Transnet National Ports Authority	Marlon Saayman	Marlon.Saayman@transnet.net
Transnet National Ports Authority	Nicole Abrahams	nicole.abrahams@transnet.net
Transnet National Ports Authority	Werner Labuschagne	Werner.labuschagne@transnet.net
Cape West Coast Biosphere Reserve	Cape West Coast Biosphere Reservere presenative	sharonfebs@gmail.com
Cape West Coast Biosphere Reserve	Cape West Coast Biosphere Reserve representative	info@cwcbr.co.za
Western Cape Government Department	Kamaseelan Chetty	kchetty@pgwc.gov.za
Western Cape Government Department	Leilani Swartbooi	leilani.swartbooi@pgwc.gov.za
Western Cape Government Department	Russel Mehl	rmehl@pgwc.gov.za

10. If any of the State Departments and Organs of State were not consulted, indicate which and why.

All relevant State Departments and Organs of State listed above were consulted and have been invited to participate in the Public Participation Process. A Stakeholder Engagement Report will be prepared and submitted with the Final BAR and included as **Appendix F**.

11. if any of the State Departments and Organs of State did not respond, indicate which.

To be updated subsequent to the PPP. Details will be provided in the Final BAR to be submitted.

12. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated into the development proposal.

This report is the Draft BAR, which will be released for public participation. Comments and responses on the Draft BAR will be collated and included within a Stakeholder Engagement Report which will be included as Appendix F in the Final BAR for submission to DEA&DP.

However, a summary of stakeholder engagement conducted to date for the proposed development is provided:

Advertisements were released in x and y newspapers;

Site Notices were placed at the site; and

Focus Group meetings were conducted with the First Nations Group, Environmental organisations, Businesses surrounding the project area, and the Ratepayers and homeowners' associations.

The focus group meeting and site visit with the Aikonese Cochoqua Khoi Tribal Council leadership was held on the Friday, 29 September 2023, from 09:30-12:30. The focus group meeting was conducted in the Saldanha Works boardroom and followed by a site walk of the proposed area on which the warehouse will be constructed. This stakeholder engagement with the Aikonese Cochoqua Khoi Tribal Council Paramount Chief and leadership focussed on the requirements of Heritage Western Cape, to inform, educate and to provide the leadership of the Tribal Council with the opportunity to understand the proposed project, engage in dialogue and to visit the proposed project site for better insight. This component of the stakeholder engagement was conducted outside the formal statutory Environmental Authorisation process and to provide the Tribal Council leadership with the opportunity to provide detailed comments on the proposed project and provide input into the heritage impact assessment process. The information and comments received during this engagement with the Aikonese Cochoqua Khoi Tribal Council were included in the Heritage Impact Assessment report to be issued to HWC. The Aikonese Cochoqua Khoi Tribal Council are also included as interested and affected parties for the Logistics Hub Environmental Authorisation process. All IAPs will be able to review the Basic Assessment Report (BAR), Environmental Management Programme (EMPr) and Specialist Reports and will be allowed the 30-days to review and provide comment on these reports and studies.

The issues raised from the engagements with the Aikonese Cochoqua Khoi Tribal Council were included in the HIA and Social Impact Assessment reports. A summary of these are provided below:

1. Health dangers of manganese and its potential health impact on the community were raised by the stakeholders that were invited to participate in the SIA meetings. Similarly, air quality concerns due to dust generation were raised by stakeholders engaged during SIA stakeholder engagement meetings.

   This concern was addressed by the engineering and administrative controls to be installed and implemented on site. The engineering controls include construction of the warehouse for stockpiling the commodities, installation of covered conveyors, use of the existing tippler with housing to contain dust generation during offload, and sprayers in the warehouse and conveyors for dust suppression. Administrative controls include use of tarpaulin to cover trucks during transport, use pf chemical suppressants and water for wetting stockpiles, daily cleaning of the warehouse and truck load areas during operation. At all times, curing construction and operation, staff are required to wear PPE and dust masks. Furthermore, monitoring, record keeping requirements and mitigation measures from the Atmospheric Impact Assessment Report and the Fugitive Emissions Management Plan will be included in the EMPr that must be regularly audited to ensure compliance.

2. The Aikonese Cochoqua Khoi Tribal Council indicated people of the local community should benefit from the employment opportunities during the construction and operation phase.

   It was confirmed by the applicant that where applicable; employment opportunities will be afforded to the local community during the construction and operation phases.

3. The Aikonese Cochoqua Khoi Tribal Council advocated for the protection and respectful handling of burial sites.

   The Archaeological Specialist Study indicated that there are no Archaeological or Heritage resources of any kind on site due to the complete transformation of the area through industrial developments.

   Should any archaeological resources be uncovered during excavation processes, however unlikely, work must cease in the vicinity of the find and the Environmental Control Officer must contact Heritage Western Cape to determine the best way forward.

As part of the Social Impact Assessment, focus group meetings were held on 12 November 2023 with identified stakeholders to inform, educate and provide the organisations, businesses and individuals the opportunity to understand the proposed project and engage in dialogue to understand their concerns to the proposed project. Three focus group meetings were held and organisations and businesses were split into three categories below:

- Environmental organisations

- Businesses surrounding the project area, and
- Ratepayers and homeowners' associations.

The issues raised during the three focus group meetings were included in the social impact assessment report. A summary of these are provided below:

1. Air quality concerns were raised in terms of the dust that the operations will generate.
2. The number of trucks using the West Coast road R27 to access the site is a concern.

   The proposed traffic generation from the proposed Logistics Hub is well below the threshold set to conduct a traffic impact assessment (i.e. when an application is made for a change in land use and when the highest total additional hourly vehicular trip generation as a result of the application exceeds 50 trips per hour). It is estimated that 10-16 trucks per hour will access the Logistics Hub during the operation phase of the proposed development. The access road to the Saldanha Steel facility was designed for trucks and large vehicles and no change or alteration is required to facilitate the proposed additional trucks trips to the site. No additional change is required for the OP538 road as this road was designed to manage truck loads, and to allow trucks from the Saldanha Steel facility to turn into the facility and out of the facility onto the OP538 road.
3. Similar to the HIA engagement, concerns was raised around the health impacts of manganese, particularly the long-term effect of manganese on people's health. It was stated that a manganese export project was stopped in Port Elizabeth due to health concerns.
4. Concerns regarding the wind from the East and its impact on stockpiling of the commodities and commodities during transport on conveyors. Was communicated that commodities will be stockpiled within a warehouse and access into the warehouse will only be from the west side of the warehouse. All conveyors will be moderately enclosed with dust sprayers.
5. Job opportunities during construction and operation phase will be beneficial to the local community and as far as possible local contractors should be used during the construction and operation phase.

The concerns raised by the stakeholders were considered and addressed though the engineering and administrative controls for the proposed design. These were discussed in relevant sections of the BAR and included in the impact assessment rating and mitigation measures will be included in the EMPr.

Note:

A register of all the I&AP's notified, including the Organs of State, and all the registered I&APs must be included in Appendix F. The register must be maintained and made available to any person requesting access to the register in writing.

The EAP must notify I&AP's that all information submitted by I&AP's becomes public information.

Your attention is drawn to Regulation 40 (3) of the NEMA EIA Regulations which states that "*Potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but* ***must*** *be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority.*"

All the comments received from I&APs on the pre -application BAR (if applicable and the draft BAR must be recorded, responded to and included in the Comments and Responses Report and must be included in Appendix F.

All information obtained during the PPP (the minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded) and must be included in Appendix F.

Please note that proof of the PPP conducted must be included in Appendix F. In terms of the required "proof" the following is required:

- a site map showing where the site notice was displayed, dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:

o if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);

o if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);

o if a facsimile was sent, a copy of the facsimile Report;

o if an electronic mail was sent, a copy of the electronic mail sent; and

o if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and

• a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

SECTION G: DESCRIPTION OF THE RECEIVING ENVIRONMENT

All specialist studies must be attached as Appendix G.

13. Groundwater

1.1.	Was a specialist study conducted?	~~YES~~	**NO**
1.2.	Provide the name and or company who conducted the specialist study.		
N/A			
1.3.	Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.		
According to the 1:500 000 scale groundwater map of Calvinia (3117) and the Cape Farm Mapper website, the area is upon the West Coast Aquifer, classified as poor, and is an intergranular and fractured aquifer with an average borehole yield of 0 to 0.1 L/s (WSP, 2021). The groundwater has a depth of 9.42 mbgl, a recharge of 18.24 mm/a and an electrical conductivity above 520 mS/m (Cape Farm Mapper, 2023). The location of the West Coast aquifer underneath the proposed development and the status of the aquifer has not influenced the proposed development of the Logistics Hub. The activities associated with the Logistics Hub should not impact on the groundwater as the development includes mitigation measures to ensure no impact to the groundwater. The logistics hub warehouse will be built on an area developed into a hardstand and previously used to stockpile iron ore for the steel making process. The existing stormwater infrastructure will be used to minimise surface water flowing into or reaching the groundwater.			
1.4.	Indicate the depth of groundwater and explain how the depth of groundwater and type of aquifer (if present) has influenced your proposed development.		
The groundwater has a depth of 9.42 mbgl. As stated above the West Coast Aquifer is classified as poor and is an intergranular and fractured aquifer. The depth of the groundwater and type of aquifer has not influenced the proposed development of the Logistics Hub and the warehouse. The area proposed for the logistics hub warehouse has been previously used to stockpile iron ore and as such the existing stormwater management system will be used onsite. The warehouse foundation and hardstand will be designed and constructed to house and stockpile the proposed commodities for the logistics hub.			

14. Surface water

2.1.	Was a specialist study conducted?	~~YES~~	**NO**
2.2.	Provide the name and/or company who conducted the specialist study.		
N/A			
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.		
A Surface Water/Hydrology assessment was not deemed necessary as there is very low accumulation of surface water flow in the proposed area, and there is no wetland or watercourse on the property or within 500 m from the proposed area of the development of the Logistics Hub warehouse. Mitigation measures to protect surface water and ground water will be included in the design and development of the Logistics Hub. Furthermore, there is existing surface water management measures on site as part of the AMSA Saldanha Works Facility which will be utilised. Watercourses and/or wetlands and surface water therefore have not influenced the proposed development. Environmental mitigation measures to protect surface water during the construction phase will be included in the EMPr. The construction and operation of the Logistics Hub warehouse will therefore not impact surface water flows in the AMSA Saldanha Steel Facility or onto surrounding land and environs. Surface water is already being managed across the AMSA facility.			

15. Coastal Environment

3.1.	Was a specialist study conducted?	~~YES~~	**NO**
3.2.	Provide the name and/or company who conducted the specialist study.		
N/A			
3.3.	Explain how the relevant considerations of Section 63 of the ICMA were taken into account and explain how this influenced your proposed development.		
Not applicable. The location of the proposed logistics hub development does not require an environmental authorisation for coastal activities. The proposed development is within an industrial area in Saldanha and is approximately 3 km from the coast.			
3.4.	Explain how estuary management plans (if applicable) has influenced the proposed development.		
Not applicable as there are no estuary management plans applicable for the site or surrounding environment.			
3.5.	Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development.		
Not applicable. The proposed development does not fall within a coastal risk zone, coastal protection zone, littoral active zone and estuarine functional zones.			

16. Biodiversity

4.1.	Were specialist studies conducted?	**YES**	~~NO~~
4.2.	Provide the name and/or company who conducted the specialist studies.		
Nick Helme Botanical Surveys			
4.3.	Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development.		
Saldanha Bay falls within the Fynbos Biome and the Cape Floristic Region (CFR). The CFR is one of only six floristic regions in the world, is the richest temperate flora in the world, and is the only one confined to a single country. It is also the smallest floristic region and supports about 9000 plant species - almost half of all the plant species in South Africa. At least 70% of all the species in the Cape region do not occur elsewhere, and many have very small home ranges (these are known as narrow endemics, and may be confined to a single farm) (Triplo4, 2022). The Botanical Specialist consulted and used the following:			

- GIS based South African National Biodiversity Institute (SANBI) vegetation map for South Africa (Mucina & Rutherford 2012 and online updates),
- National Spatial Biodiversity Assessment (NSBA; Rouget *et al* 2004, Government of South Africa 2022),
- National List of Threatened Ecosystems (DEA 2011),
- CapeNature Biodiversity Spatial Plan 2017 (Pence 2017), and.
- Google Earth aerial imagery dated May 2022 (and earlier) to verify vegetation patterns on site.

The site was screened using the national web-based Environmental Screening Tool. The output generated indicated that the site has a "high sensitivity" for the Animal Species theme, based on the potential presence of three threatened faunal species namely: African Marsh Harrier, Black Harrier and a Bladder Grasshopper. The Screening Tool showed a "medium sensitivity" for plant species, and "very high sensitivity" for terrestrial biodiversity, the latter being driven by the presence of threatened ecosystems (vegetation types), Critical Biodiversity Area 1, and Ecological Support Area 1.

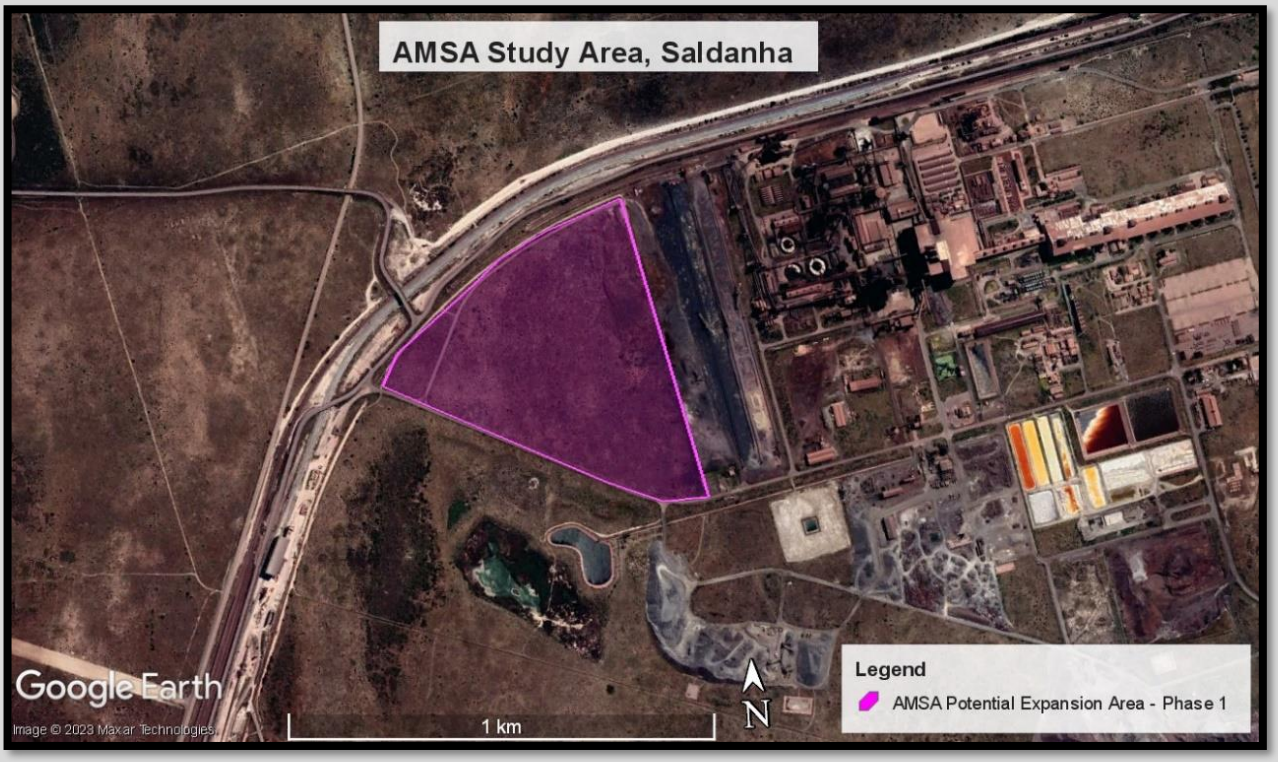


Figure 10: Satellite image showing the terrestrial biodiversity study area (Nick Helme Botanical Surveys, 2023).

According to the Cape Farm Mapper website and GIS tool accessed on 08 February 2024 and using the Cape Nature resource layer which includes the details from the Western Cape Biodiversity Spatial Plan (2017), the proposed Logistics Hub project area (warehouse and associated infrastructure) is not located within a Critical Biodiversity Area or an Ecological Support Area. There are no Other Natural Areas located within the site.

Furthermore, according to the Biodiversity Compliance Statement for the Logistic Hub (Nick Helme Botanical Surveys, 2023), the CapeNature Biodiversity Spatial Plan 2017 (Pence 2017) indicates that most of the study area adjacent to the proposed location of the Logistics Bub but within the boundary of Saldanha Steel facility is mapped as terrestrial Ecological Support Area 1 (ESA1; 60% of site), with about 30% being mapped as ESA1 (aquatic). A very small area (5% of site) is mapped as terrestrial Critical Biodiversity Area 1 (CBA1).

The primary reasons for the mapping of CBAs in this area are:

1) that the area supported a Threatened vegetation type,

2) that the area is part of an identified climate adaptation and coastal corridor,

3) that the area supports ecological processes and

4) that the area (although not necessarily this site) supports threatened plant species.

The main reasons for the ESA of the area adjacent to the location of the Logistics Hub warehouse is part of a designated climate adaptation and ecological corridor, but it is recognised that it is a previously disturbed area (and hence not a CBA).

The botanical specialist confirmed in the Biodiversity Compliance Statement for the Logistic Hub (Nick Helme Botanical Surveys, 2023) that there is no evidence to suggest that the small area mapped as CBA1 adjacent of the study area is in fact worthy of this status, being essentially just a patch of common Lycium ferocissimum shrubs, more easily evident, than the other, lower vegetation, in the imagery used to generate this mapping.

The area that was assessed in the Biodiversity Compliance Statement for the Logistic Hub was excluded from the proposed development of the Logistics Hub. The impact of this was indicated in an addendum to the Biodiversity Compliance Statement for the Logistic Hub (Nick Helme Botanical Surveys, 2024).

4.4.	Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development.

The Western Cape Biodiversity Spatial Plan Map (2017) covers both terrestrial and freshwater realms, and major coastal and estuarine habitats. A key objective in the Western Cape Biodiversity Spatial Plan Map (2017) is to delineate Critical Biodiversity Areas and Ecological Support Areas which require safeguarding to ensure continued existence and functioning of species and ecosystems, including the delivery of ecosystem services.

According to the Cape Farm Mapper website and GIS tool last accessed on 08 March 2024 and using the Cape Nature resource layer which includes the details from the Western Cape Biodiversity Spatial Plan (2017), the proposed Logistics Hub project area (warehouse and associated infrastructure) is not located within a Critical Biodiversity Area or an Ecological Support Area. There are no Other Natural Areas located within the site.

The location of the proposed Logistics Hub warehouse facility will be upon disturbed land within the existing AMSA facility. Based on Satellite imagery and site inspection the space supports minimal vegetation. A hardstand was developed on the proposed site that was used for the stockpiling of iron ore for the steel manufacturing process.

According to the SA Vegetation Map (Mucina and Rutherford, 2018) and the Cape Farm Mapper website, the original and natural vegetation in the study area is the Saldanha Flats Strandveld. The project area is within the Cape West Coast Biosphere reserve. The Saldanha Flats Strandveld is gazetted as an Endangered vegetation type on a national basis (DEA 2011), and the latest study supports this classification (Government of South Africa 2022).

Due to the disturbed nature of the proposed location for the Logistic Hub warehouse and associated facilities, and its use of existing rail and road infrastructure and municipal services, it is anticipated that minimal terrestrial biodiversity is to be impacted as part of the proposed construction and operation of the Logistics Hub.

4.5.	Explain what impact the proposed development will have on the site-specific features and/or function of the Biodiversity Spatial Plan category and how has this influenced the proposed development.

According to the Biodiversity Compliance Statement undertaken by the biodiversity specialist, the botanical conservation value of a site (usually known as botanical sensitivity) is a product of plant species diversity, plant community composition, rarity of habitat, degree of habitat degradation, rarity of species, ecological viability and connectivity, vulnerability to impacts, restoration potential and reversibility of threats.

The proposed project area which includes the proposed site and adjacent area has a Low to Medium botanical sensitivity. The whole area has been heavily disturbed in the past, has low to moderate levels of botanical diversity and structure, and supports only a single plant Species of Conservation Concern (SCC) (Nick Helme Botanical Surveys, 2023).

It has been determined that the designated project area for the warehouse lacks vegetation coverage, having been transformed into a hardstand for the storage of iron ore. It was verified that due to the significant disruption in the proposed location for the Logistic Hub warehouse and its related facilities, it is anticipated that any impact on terrestrial biodiversity will be minimal during the construction phase.

According to the Biodiversity Compliance Statement addendum, all development will be located in areas of Low botanical and faunal sensitivity, and the overall construction phase ecological impact of this component is likely to be of Very Low negative significance and no specific mitigation is required. .

4.6.	If your proposed development is located in a protected area, explain how the proposed development is in line with the protected area management plan.

Not applicable as the proposed development is not located within a protected area.

4.7.	Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development.

The Nick Helme Botanical Surveys indicates that the study area could probably support a fairly typical assemblage of west coast Sandveld fauna, with the largest mammals being Common duiker (Sylvicapra grimmia), Grysbok (Raphicerus melanotis), Cape grey mongoose (Galerella pulverulenta) and Lynx (Caracal). Cape gerbils (Gerbillurus afra) are common on the old lands, and various other rodents are likely to be common, notably Striped Fieldmouse (Rhabdomys pumilio). However, no threatened mammals are likely on site.

Bird diversity is moderate and typical of the area. Three bird SoCC could potentially occur occasionally in low numbers on the site, but are certainly not resident. These are Ludwig's Bustard (*Neotis ludwigii*), Southern Black Korhaan (*Eupodotis afra*) - both Redlisted as Vulnerable (Taylor *et al* 2015), and Black Harrier (*Circus maurus*), which is Redlisted as Endangered (Taylor *et al* 2015). The African Marsh Harrier (*Circus ranivorus*) is also listed on the Screening Tool as potentially in the area, but this is very unlikely as there is none of its favoured marshy habitat present on site.

Due to the absence of wetlands the only frogs on site are likely to be *Breviceps rosei* ssp. *roseii* (Rose's rain frog) and *Breviceps namaquensis* (Namaqua rain frog), which live independently of standing water, and have been heard calling nearby after rain (pers. obs.). No threatened frogs are likely on site (Measey *et al* 2014).

No threatened reptiles are likely on site (Bates *et al* 2014), although there is likely to be a fair diversity of common snakes (molesnakes, cobras, puffadders, grass snakes, etc.). A small population of Angulate tortoise (*Chersina angulata*) is probably resident in the area, and some individuals were observed on site.

Insect diversity is probably fairly high on site, with thousands of Cape honeybees (*Apis mellifera capensis*) visiting flowers in spring. No threatened butterflies are likely to occur in this area (Mecenero *et al* 2013). The screening tool list *Bullacris obliqua* (Bladder Grasshopper; Vulnerable) as potentially on site, and could well occur here, as there are three records on iNaturalist within about 10km of the site.

Overall, the proposed project area has a Low to Medium faunal sensitivity. The whole area has been heavily disturbed in the past, has low to moderate levels of faunal diversity, but may support at least one insect Species of Conservation Concern (SCC; *Bullacris obliqua*), and may occasionally support itinerant specimens of as many as three bird SCC.

The Logistics Hub warehouse will be constructed on a hardstand previously used for the stockpiling of iron ore for steel making operations on site. Therefore, it is anticipated that minimal vegetation will be disturbed during the construction and operation of the Logistics Hub. The vegetation adjacent to the area to be used for the Logistics Hub is of Low - Medium botanical and faunal sensitivity and this area was heavily disturbed in the past, with low to moderate levels of botanical and faunal diversity and structure, and supports only a single plant Species of Conservation Concern (SCC) and may support at least one insect Species of Conservation Concern (SCC; *Bullacris obliqua*), and may occasionally support itinerant specimens of as many as three bird SCC.

On the basis of the above, the site selected for the Logistics Hub represents the lowest likely impact on biodiversity.

17. Geographical Aspects

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.

Topography and Vegetation

The location of the proposed Logistics Hub new warehouse facility was selected on the basis that the site supports disturbed land within the existing AMSA Saldanha Steel facility. The space on which the warehouse will be constructed has no vegetation coverage as result of the area having been previously converted into a hardstand for the stockpiling of iron ore. It was confirmed by a botanical specialist that due to the disturbed nature of the proposed location for the Logistic Hub warehouse and associated facilities, it is anticipated that minimal to no terrestrial biodiversity is expected to be impacted as part of the proposed construction.

Surface Water

The West Coast is a water scarce area with the region receiving on average 300 mm of rain annually (EMF, 2015). The primary water resource to the Saldanha Bay area is the Berg River; however, groundwater still plays a significant role as a water supply source. The area falls within the winter rainfall region of South Africa and therefore receives most of its rainfall April and September. Mean annual evaporation (MAE) is relatively high with a total potential rate of some 1 300 mm.

Furthermore, no surface water features are within the site or in close proximity of the site therefore this did not present a constraint of the proposed development.

Geology

Heritage Impact Assessment conducted by CTS Heritage indicated that the earthworks associated with the construction of the proposed development will involve the thin, loose Springfontyn Formation Q1 coversands and the underlying calcrete of the uppermost part of the Langebaan Formation aeolianites. Beneath the low elevation parts of the Project Area less than ~12 m asl. Geology does not present a limitation to the project, the warehouse design take account of the underlying geology.

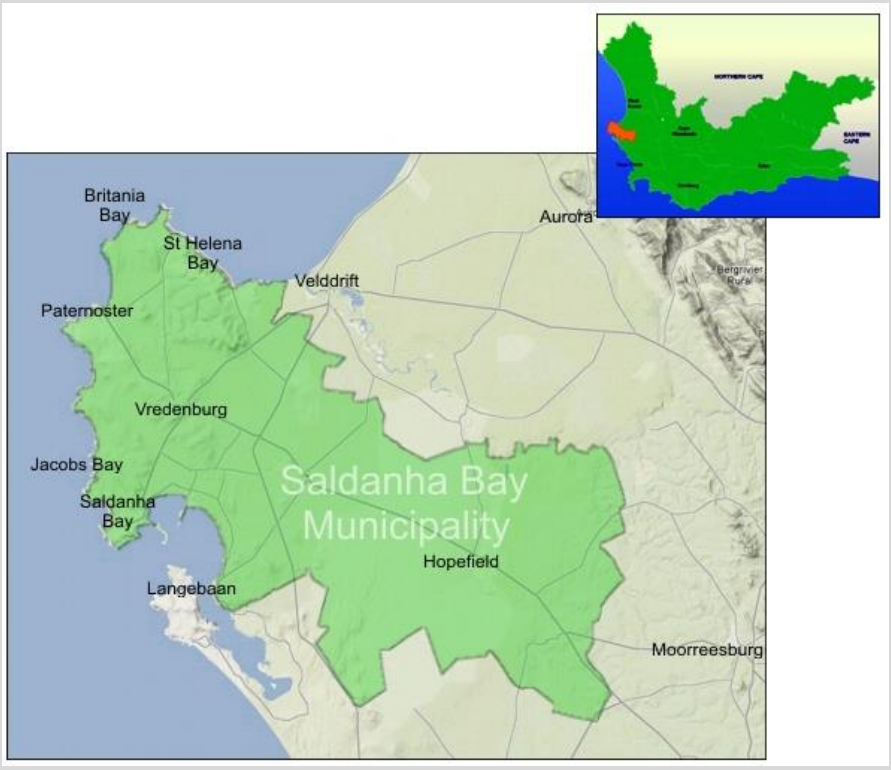


Figure 11: Saldanha Bay Local Municipality

18. Heritage Resources

6.1.	Was a specialist study conducted?	**YES**	NO
6.2.	Provide the name and/or company who conducted the specialist study.		
Jenna Lavin ; CTS Heritage			
6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.		

A Notification of Intent to Develop (NID) was submitted to Heritage Western Cape (HWC) on 20 March 2023 according to Section 38(1) and (8) of the National Heritage Resources Act (NHRA) as the proposed development of the Logistics Hub required an application under NEMA for an Environmental Authorisation by a Basic Assessment process. Feedback provided by HWC indicated in an acknowledgement letter received on 10 May 2023 that, as there was reason to believe the proposed Logistics Hub will impact on heritage resources, a Heritage Impact Assessment (HIA) which includes an Archaeological Impact Assessment and engagement with the First Nations Group (Aikonese Cochoqua Khoi Tribal Council) should be conducted for the proposed activity. The HIA was prescribed to satisfy the provisions of Section 38(3) of the NHRA. The case number provided by HWC is HWC23012007AM0320.

A summary of the Heritage Resources identified by the Archaeologist and Facilitator who conducted the engagement with the First Nations Group is provided below.

Archaeology

The area proposed for development was surveyed for archaeological resources. No significant archaeological heritage was identified within the area proposed for development. The proposed development site is largely flat and featureless, comprising old agricultural land that has not been worked for several years.

The survey further supported the hypothesis by Smith and Mutti (2013) that there is a pattern showing a lack of archaeological sites, particularly remains of coastal shell middens or material dropped en route from areas further inland to and from the coast. The areas surveyed for this proposed development lie outside the immediate coastal band and the lack of natural outcrops of granite, streams or deflation bays further add to the unlikelihood of finding extensive archaeological resources on these properties.

Palaeontology

The earthworks associated with the construction of the proposed development will involve the thin, loose Springfontyn Formation Q1 coversands and the underlying calcrete of the uppermost part of the Langebaan Formation aeolianites. Beneath the low elevation parts of the Project Area less than ~12 m asl. it is expected that shelly beds of the Velddrif Formation raised beaches are present and could possibly be intersected in places.

The HIA indicated that the site proposed for development is located within an area of low cultural landscape significance consisting predominantly of industrial development and agricultural fields intersected with roads. The results of the HIA study indicated that the proposed development site is not a sensitive archaeological landscape, and has been highly transformed by historical agriculture and industrial development. No places or features of cultural value were identified within or near to the proposed development area by the Aikonese Cochoqua Khoi Tribal Council as part of the extensive consultation process conducted. As such it was concluded that the proposed development will have no impact on any significant archaeological or cultural landscape heritage resources.

Furthermore, there are no indications of any structures of cultural significance located within the proposed area. While in the past, the area may have had some cultural landscape significance relating to agricultural use through time, at present, the cultural landscape is dominated by industrial infrastructure associated with the Saldanha Steelworks and the Saldanha Bay IDZ. As such, the proposed development conforms with the predominant land use of the area and is not likely to negatively impact the cultural landscape.

Although no fossil remains were identified on the surface within the proposed development area, it is possible that extensive excavations may uncover fossil remains associated with the Langebaanweg Formation. It is understood that the excavations anticipated for the proposed development will not exceed 3m. As such, although it is possible that fossil remains may be impacted by these excavations, this is unlikely. Pether indicates that "Without mitigation the significance of the impact of the earthworks on the fossil bone content of the Springfontyn Fm. Q1 coversands is LOW NEGATIVE and with mitigation is LOW POSITIVE" (CTS Heritage, 2023).

Without mitigation the significance of the impact of the earthworks on the fossil bone content of the Langebaan Fm. is MEDIUM NEGATIVE. Notwithstanding a similar medium, but positive significance with mitigation, depending on the scientific significance of the actual finds, the significance of the impact may range from MEDIUM POSITIVE to HIGH POSITIVE.

Without mitigation the significance of the impact of the earthworks on the fossil shell content of the Velddrif Fm. Is LOW NEGATIVE and with mitigation is LOW POSITIVE.

The overall palaeontology significance for the proposed development is rated as low negative without mitigation and low negative with mitigation (CTS Heritage, 2023).

19. Historical and Cultural Aspects

Explain whether there are any culturally or historically significant elements as defined in Section 2 of the NHRA that will be affected and how has this influenced the proposed development.

The NHRA defines ''cultural significance'' as "aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance" and defines "heritage resources" as "any place of object of cultural significance".

The results of the HIA study indicate that the proposed development site is not a sensitive archaeological landscape, and has been highly transformed by historical agriculture and industrial development. No places or features of cultural value were identified within or near to the proposed development area by the Aikonese Cochoqua Khoi Tribal Council as part of the extensive consultation process conducted. The HIA concluded that there are no heritage resources on the site proposed for the development of the Logistics Hub warehouse and that the proposed development will have no impact on any significant archaeological or cultural landscape heritage resources.

The HIA indicates that no mitigation is required prior to construction. However, the HIA recommends that the HWC Chance Fossil Finds Procedure is implemented during the construction phase of the proposed development and that these conditions are included in the EMPr. Included in the EMPr is that the onsite environmental officer appointed during the construction phase and the external environmental control officer are familiar with and understand the conditions and mitigation measures included in the HWC Chance Fossil Finds Procedure and that staff receive training on this. Should any archaeological resources or unmarked human remains be uncovered or exposed during construction operations these must immediately be reported to Heritage Western Cape (Att: Ms Stephanie Barnardt 021 483 9543).

20. Socio/Economic Aspects

8.1.	Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.

The proposed Logistics Hub is located on the existing Saldanha Steel Facility located in the Saldanha Bay Local Municipality and the commodities to be stockpiled at the Logistics Hub will be transported from the Northern Cape Province. The Socio/Economic Impacts of the Logistics Hub will influence the Northern Cape Province as well which was assessed in the Economic Impact Assessment Study. Demographic details of the Northern Cape are therefore provided below.

Population and Households

Saldanha Bay Local Municipality has approximately 127,888 residents and 36,505 households. The Northern Cape where the mines are located has approximately 1,313,214 residents and 342,695 households. In terms of the average household size, the Saldanha Bay Local Municipality has an average household size of 3.5 which is slightly lower than the West Coast District Municipality (3.7) and the Northern Cape an average household size of 3.8. The table below provides an overview of the population and households in the Saldanha Bay Local Municipality, West Coast District Municipality, and the Northern Cape.

Table 2: Population and Households (2022) (Urban Econ, 2024)

Aspects	West Coast District Municipality	Saldanha Bay Local Municipality	Northern Cape
Population	472,135	127,888	1,313,214
Households	126,744	36,505	342,695
Ave Household size	3.7	3.5	3.8
Annual population growth rate	1.9%	1.7%	1.2%

Implication: The proposed Saldanha Bay Logistics Hub (Phase 2) can cater to the growing population through the provision of employment opportunities within local communities and the broader West Coast District Municipality, as well as the Northern Cape.

Age

Of the population in the Saldanha Bay Local Municipality, the potentially economically active population is 72.1% which is slightly higher than the West Coast District Municipality (69.3%) and the Northern Cape (65.9%). This portion of the population consists of people between the ages of 15 and 64 years. The potentially economically active population indicates that an above-average labour force exists which could indicate a large demand for jobs. The remainder of the population within the Saldanha Bay Municipality, West Coast District Municipality, and the Northern Cape, comprises children (25.3%, 23.6%, and 29.5%, respectively) and people older than 65 (5.4%, 4.3%, and 4.6%, respectively); thus, there is a larger dependency ratio. The dependency ratio relates the number of children and people older than 65 to the working-age population and is expressed as per hundred persons aged 15 to 64.

The high percentage of the Potentially Economic Active Population provides an above-average labour force that could be employed during both the construction and operation phases of the proposed Logistics Hub. Additionally, the enabling of improved storage of commodities, could directly result in mines in the Northern Cape expanding on their operations, which in turn could utilise the local labour force within their respective municipal areas. Considering the importance of the utilisation of local labour, it is important to implement mitigation measures that would enable local procurement of labour and resources.

Education

In terms of the level of education, the majority of people in the Saldanha Bay Local Municipality only have some secondary education (31.0%) followed by Grade 12 (23.0%). The population with some secondary education in West Coast District Municipality and the Northern Cape is 27.5% and 27.6%, respectively, while the population with grade 12 is 18.4% and 16.5%, respectively. Importantly, a significant portion of the population in the West Coast District Municipality, Saldanha Bay Local Municipality and the Northern Cape have limited schooling ranging from no schooling to completed primary school, 38.6%, 30.1%, and 40.6%, respectively. An overview of the education profile for the West Coast District Municipality, Saldanha Bay Local Municipality, and the Northern Cape is indicated in Table 6.

Table 3: Education (2022) (Urban Econ, 2024)

Aspects	West Coast District Municipality	Saldanha Bay Local Municipality	Northern Cape
No Schooling	14,1%	9,7%	17,7%
Some Primary Education	18,4%	15,2%	18,5%
Completed Primary	6,1%	5,2%	4,4%
Some High School	27,5%	31,0%	27,6%
Grade 12	18,4%	23,0%	16,5%
Higher	5,7%	6,9%	5,7%
Other	9,8%	9,1%	9,6%

Employment

It is estimated that 53.6% of the working-age population in the Saldanha Local Municipality are employed, while 15.4% are unemployed, and 31.0% are not economically active or discouraged work-seekers. The Saldanha Local Municipality has a higher proportion of people within the working-age population who are unemployed, compared to the broader West Coast District Municipality (9.4%) and the Northern Cape (16.6%). Considering the unemployment rate, the Saldanha Local Municipality (22.3%) is higher than the West Coast District Municipality (15.4%) and lower than the Northern Cape (30.8%).

In terms of skills, it is estimated that most workers within the Saldanha Bay Local Municipality are low-skilled (40.3%) which is followed by semi-skilled (39.6%) and high skilled (20.1%). The level of skills in the Saldanha Local Municipality aligns with the West Coast District Municipality where the majority of the population are low-skilled (48.7%), semi-skilled (34.2%) and high skilled (17.1%). The Northern Cape, however, has a population where the majority are semi-skilled (42.2%), which is followed by low-skilled (35.8%) and high-skilled (22.0%).

Household Income

It is estimated that the majority of the population within the Saldanha Bay Local Municipality are low-income earners (48.6 percent) which is followed by middle-income earners (43.3 percent) and high-income earners (8.1 percent). When compared to the West Coast District Municipality and the Northern Cape, they are both predominantly low-income earners (51.4 percent and 62.4 percent respectively), followed by middle income earners (41.8 percent and 32.4 percent respectively) and high-income earners (6.8 percent and 5.2 percent respectively). An overview of the income profile for the West Coast District Municipality, the Saldanha Bay Local Municipality, and the Northern Cape is indicated in Error! Reference source not found..

Table 4: Income Profile (2022) (Urban Econ, 2024)

	Income Brackets	West Coast District Municipality	Saldanha Bay Local Municipality	Northern Cape
Low Income	**No income**	10,7%	14,1%	12,0%
	R1 - R8 997	1,8%	2,3%	3,6%
	R8 998 - R17 994	3,1%	3,9%	6,2%
	R17 995 - R35 989	14,0%	10,9%	19,4%
	R35 990 - R71 977	21,8%	17,4%	21,2%
Total Low Income	**(R0- R71 977)**	51,4%	48,6%	62,4%
Medium income	**R71 978 - R143 955**	19,2%	16,6%	14,6%
	R143 956 - R287 909	13,2%	15,2%	10,5%
	R287 910 - R575 819	9,4%	11,5%	7,3%
Total Medium Income	**(R71 978 – R575 819)**	41,8%	43,3%	32,4%
High income	**R575 820 - R1 151 638**	4,9%	5,7%	3,7%
	R1 151 639 - R2 303 275	1,3%	1,7%	1,0%
	R2 303 276 - R4 606 550	0,4%	0,5%	0,3%
	R4 606 551 or more	0,3%	0,3%	0,2%
Total High Income	**(R575 820 – R4 606 551 plus)**	6,8%	8,1%	5,2%

Economic Context: Gross Domestic Product per Region

Interpretation of economic impacts requires a sound understanding of the size of the economy and its dynamics in the past. Several indicators exist that can describe the economy of a region or an area. The most common variables that are used for the analysis include production and Gross Domestic Product per Region (GDP-R) or Gross Value Added (GVA). The former represents the total value of sales of goods and services, or the turnover of all economic agents in a region; while the latter, using the output approach, means the sum of value added created by all residents within a certain period, which is typically a year. The trend at which the GDP-R has been changing in the past is also referred to as an economic growth indicator. It is a measure of both the performance of an area and the well-being of the citizens of an area. The figure below provides a visual illustration of the GDP-R growth for the West Coast District Municipality, the Saldanha Bay Local Municipality, and the Northern Cape.

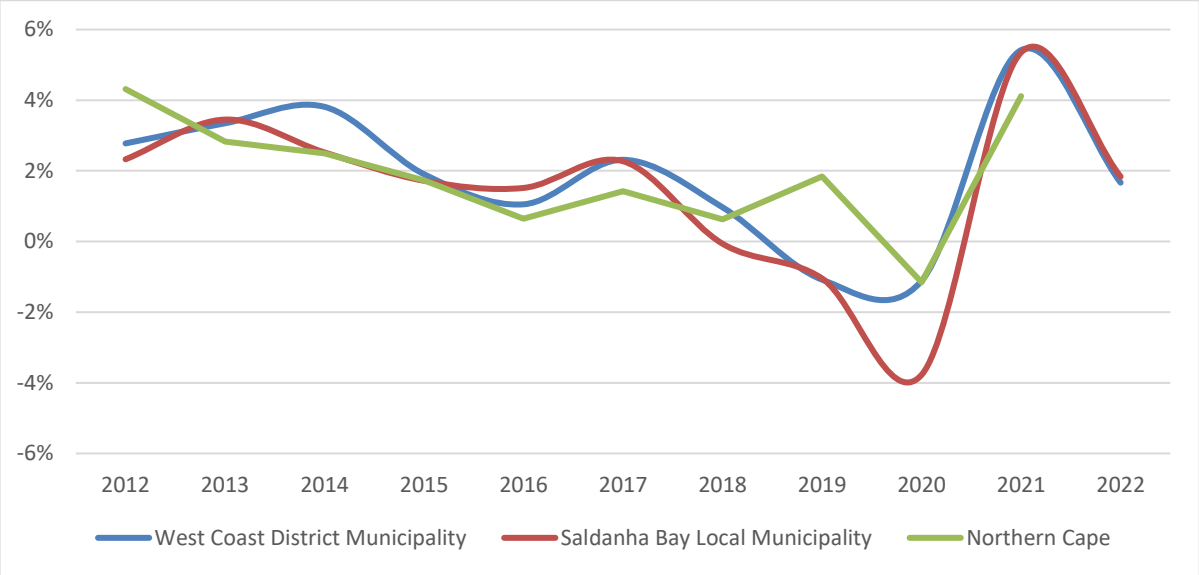


Figure 12: GDP-R Growth (2012 – 2022) (Urban Econ, 2024)

The figure above indicates that the Saldanha Bay Local Municipality has an average growth rate of 1.5 percent between 2012 and 2022. This is lower than the growth rate observed for the West Coast District Municipality and the Northern Cape which respectively had a growth rate of 1.9 percent. The historical trends indicate a positive economic growth between 2011 and 2016. However, a sharp decline in economic growth between 2017 and 2019 was experienced with factors that may have contributed to the decline in economic performance being attributed to load shedding and the drought within the Western Cape. In 2019, the overall economy experienced a shrink as a result of the COVID-19 pandemic which negatively impacted economic activity. In 2021, the economy continued to recover in response to the easing of COVID-19 lockdown and restrictions.

Economic Context: Gross Domestic Product per Economic Sector

The top contributing sectors in West Coast District Municipality and the Saldanha Bay Local Municipality is manufacturing (30.6 percent and 29.8 percent respectively), while in the Northern Cape it was mining and quarrying (28.3 percent). This was followed by agriculture, in all three areas, with contributions in the West Coast District Municipality being 26.1 percent, 23.4 percent in the Saldanha Bay Local Municipality, and 14.3 percent in the Northern Cape. The table below highlights the economic profile of the local and district municipalities and the province.

Economically, in 2022, the West Coast District Municipality, the Saldanha Bay Local Municipality, and the Northern Cape demonstrated a gross value-added output of R104,671 million, R31,366 million, and R298,650 million respectively.

Table 5: Economic Profile per Economic Sector (2022)(Urban Econ, 2024)

Sector	West Coast District Municipality	Saldanha Bay Local Municipality	Northern Cape
Agriculture, forestry, and fishing	26,1%	23,4%	14,3%
Mining and quarrying	2,5%	1,0%	28,3%
Manufacturing	29,8%	30,6%	5,0%
Electricity, gas, and water	1,4%	1,0%	3,5%
Construction	3,6%	3,6%	2,5%
Wholesale and retail trade, catering and accommodation	9,8%	9,6%	8,5%
Transport, storage, and communication	5,5%	5,9%	10,8%
Finance, insurance, real estate, and business services	10,0%	13,1%	12,2%
General government	6,1%	6,0%	5,4%
Community, social and personal services	5,3%	5,6%	9,5%
Total GVA (million)	**R104,671**	**R31,366**	**R298,650**

8.2. Explain the socio-economic value/contribution of the proposed development.

The economic benefits of the investment into the project will spread throughout the provincial economy which will positively impact all economic sectors. The effect is categorised according to direct, indirect, and induced impacts, together forming the multiplier effect. These various impacts spread throughout the economy, contributing to heightened production levels.

Due to the duration of the construction and operation phases, the construction phase economic impacts are temporary and therefore have a temporary effect, but those experienced during the operational phase are expected to last decades; hence the impacts during this stage would be of a sustainable nature. The economic impacts during construction and operational phases can be viewed in terms of a change in the following:

- Job creation – the number of additional jobs created by economic growth. This includes jobs in planning and constructing the facility and sustainable jobs at the facility once it is operational. Indirect and induced job creation will also occur because of direct job and income creation.
- GDP – the value of all final goods and products produced during a one-year period within the boundaries of a specific area, as a direct, indirect, and induced result of activities for/at the precinct during planning, construction, and operation.
- Business output (or sales volume) – the value of all inter- and intra-sectoral business sales generated in the economy because of the planning, construction, and operation of the development. The construction work on the infrastructure and warehouse will lead to the expansion of business sales for existing businesses located within the municipality. These changes are measured in terms of new business sales, i.e., new sales that will be generated in the economy as a direct result of the capital investment in the development project.

- Additional Household Income - Employment positions during construction will generate revenue for the affected households through direct, indirect, and induced effects. Households' earnings will be generated through indirect and induced effects resulting from project expenditure. Although temporary for the construction phase, this increase in household earnings will have a positive effect on the standard of living in these households. Household income for staff appointed during the operational phase will be sustainable as this phase will last for a longer time period (decades).

Any of these measures can be an indicator of improvement in the economic and socio-economic well-being of residents, which is generally the goal of any investment project.

The closure of Saldanha Steel resulted in a significant number of job losses which resulted in a negative impact on the local economy. The hardest hit by the closure would be the unskilled to semi-skilled workers, who in turn would have a reduced standard of living through a lack of income. This in turn would have resulted in a loss of revenue for the local municipality with an increased demand for basic services (Urban Econ, 2024)

It is proposed for the Saldanha Logistics Hub, that consideration will be given to employees previously employed who operated infrastructure and assets. This is due to previous employees having prior knowledge of assets and equipment.

The status quo of the education in the Saldanha Bay municipality is indicative of a need for education and training programmes (to obtain better skills for better job opportunities). The proposed Logistics Hub would be able to offer job opportunities during both the construction and operation phase, and these opportunities would provide the means to improve the levels of low income. The improved levels of income would assist in improving the employees' standard of living. Although limited, skills development could occur in the construction phase through the transfer of construction-related skills. This in turn would increase the employability of the local labour and their chances of finding employment opportunities on other construction-related projects once their contract with the proposed development has expired. The potential creation of additional jobs in the Northern Cape would also result in improved levels of income and in turn their standard of living.

During the construction phase, the proposed Logistics Hub will have the largest economic impact in the following sectors:

- Manufacturing
- Building and construction
- Electricity, gas, and water
- Real estate and business services
- General government and community services.

While in the operational phase the largest economic impacts will be in the following sectors:

- Manufacturing.
- Trade and accommodation.
- Transport and storage.
- Real estate and business services.

The results of the economic modelling conducted is presented as a visual illustration below indicating the CAPEX and OPEX summary for the proposed Logistics Hub. These results are based on the estimated capital and operational expenditure provided for the proposed development. Actual results may fluctuate if assumptions utilised in the calculations may increase or decrease.

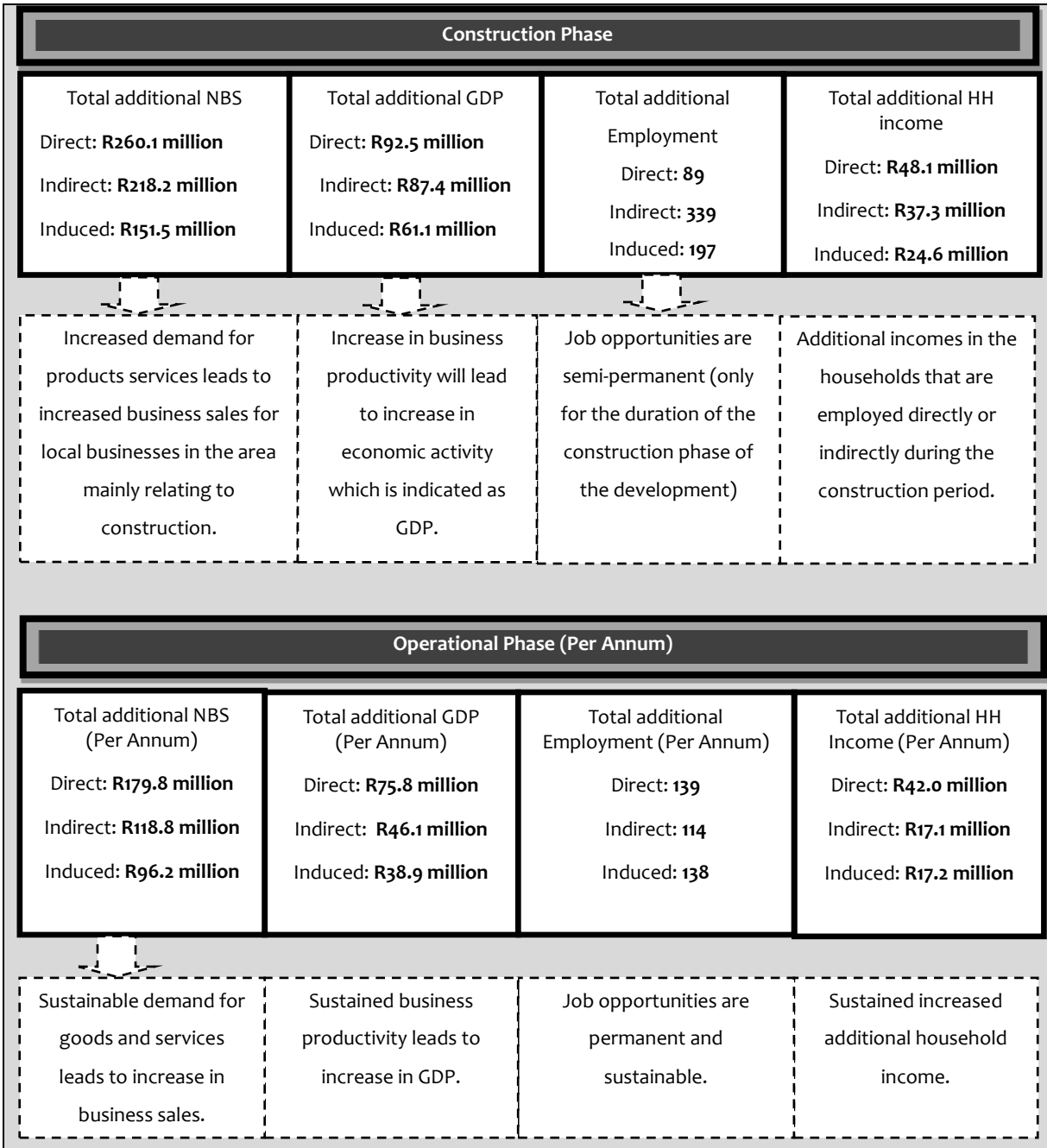


Figure 12: CAPEX and OPEX Summary from the economic model (Urban Econ, 2024)

Consideration must be given to the surrounding environment both biophysical and social. From a policy and planning perspective the proposed Logistics Hub meets several specific policy objectives, such as being strategically located within close proximity of the active harbour thus allowing for improved exports and imports of commodities, as well as expansion of industrial activities in an industrial hub and development node (Urban-Econ, 2024). Importantly, it must be noted that the Saldanha Bay Local Municipality as per their Spatial Development Framework highlights the promotion of industrial development as a priority. Furthermore, the natural deep-water harbour which provides comparative advantages around which globally competitive and job rich sectors can be built, i.e. proposed Logistics Hub regardless of alternative.

8.3.	Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.
Request from client.	

8.4.	Explain whether the proposed development will impact on people's health and well-being (e.g. in terms of noise, odours, visual character and sense of place etc) and how has this influenced the proposed development.

The potential impacts on peoples health and well-being relate to dust and emissions generated from transport and stockpiling on site. Mitigation measures proposed to minimise these impacts are presented below:

The commodities will be stockpiled in a warehouse and vehicles will only enter and exit the leeward side of the warehouse preventing impact of wind on the commodities. Stockpiled commodities will be sprayed to ensure they remain wet to minimise dust generation. Chemical suppressant may also be used for certain commodities depending on the commodity, supplier and purchaser requirements. An Atmospheric Impact Assessment was conducted to determine the possible emissions from the proposed development and operation, and to provide mitigation measures to manage the emissions and dust. These mitigation measures are included in the EMPr developed for the proposed development.

Before transport via rail or road, commodities will be sprayed with water or chemical suppressant and covered by tarpaulin to minimise dust generation of commodities. Staff will receive the required training to ensure no emissions occur during the transport and stockpile of commodities.

Noise generation during the construction phase will be due to loud machinery and trucks. Staff employed on site will be provided with PPE and AMSA, BPO and the appointed contractors will need to comply with the OHS Act which requires the management of staff in noisy environments. Prior and post construction activities on site, staff will conduct medical assessment that includes noise assessment to ensure loss of hearing did not occur during the construction period. During the operation phase, less noise will be generated. It is anticipated that only trucks will generate noise on site during operation. Staff will be provided with the necessary PPE for their required work tasks to ensure their health and safety. Furthermore, during the construction and operation phases, designated health and safety staff will be appointed to ensure the health and safety of staff and that activities on site comply with the OHS Act and the requirements of the EMPr for the proposed development.

SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

21. Details of the alternatives identified and considered

1.1.	Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred property and site alternative.

The site selected for the proposed Logistics Hub is on RE/1132 which is located within the existing Saldanha Steel Facility, within the Besaanskip Industrial Area adjacent to the Saldanha Industrial Development Zone. This is indicated in the figure below.

Figure 13: Locality Map of the AMSA Saldanha Steel Works Site

The proposed development, which measures approximately 14,000 m² in extent, comprises the establishment of a warehouse structure and associated facilities with a total footprint of approximately 15,000 m². AMSA have previously used the proposed site to stockpile iron ore that was used in the steel making process at their Saldanha Steel Works Facility. The logistics hub will be developed on an existing approved engineered lined area used for the storage of various raw materials. In addition to this engineered lined area, the hub warehouse will be built on a hard stand. No further alternative sites were considered given the optimal proximity of the already established site with bulk commodities handling equipment, near the Port of Saldanha. The alternatives considered related to the location of the warehouse within the selected site and how these impact the operations of the hub. The preferred option was selected on the basis of achieving operational efficiencies. This is described in Section E, Point 1.

It is believed that the Saldanha Works Facility is ideally situated to accommodate the stockpiling infrastructure and operations of the Logistics Hub given the fit-for-purpose rail and raw materials handling infrastructure already available on site.

The volumes of commodities to be stored and exported have been determined by market demand and Port capacity. Therefore, no alternative volumes or commodities were considered. Furthermore, the benefit of the existing infrastructure has been capitalised on as part of this project and as such all existing and proposed associated infrastructure have been specifically selected and designed to accommodate the proposed bulk commodities movements and as such no alternatives were considered. The primary alternative considered for this project related to the location of the warehouse, motivated mainly by external environmental impacts and internal operational movement requirements.

Provide a description of any other property and site alternatives investigated.

The project team underwent site screening of the identified target site for the Logistics Hub within the AMSA Saldanha Steel Works Site to determine the best possible location of one Logistics Hub infrastructure. Two potential locations for the required warehouse within the target area were investigated. Both alternatives for the location of the proposed warehouse to stockpile and store the commodities until export through the Saldanha Transnet Port Terminal is located in the Saldanha Steel Works facility and on a hardstand used to stockpile iron ore. This area is already disturbed and is in close proximity to rail and raw materials handling infrastructure available on site.

The existing Rail and Rotary Tippler infrastructure will be used for the receipt of cargo via rail. The Rotary Tippler connects to the different stockpiling areas through conveyor networks and stacker / reclaimers which will be extended towards the proposed logistics hub warehouse. This existing infrastructure will be used in conjunction with the proposed bulk commodity receiving,

handling, stockpiling and storage facilities of the Hub. Road receipts will use existing access roads into the Saldanha Steel Works facility and to the Saldanha Transnet Port Terminal.

In the figure below, the proposed Logistics Hub, with the two proposed warehouse locations, is overlayed on the existing Saldanha Steel Works Facility and Infrastructure. Indicated in the figure below are the two alternative locations of the warehouse considered. Both warehouse alternative's locations will use the same rail routes, truck access routes, commodities transfer station and tipplers. In both options, a large portion of existing infrastructure and facilities will be used. However, different conveyers from the existing transfer station (TS 101) and an additional new transfer station will be required for each option. The difference in alternatives is the location of the warehouse and how these impact the operations of the hub. The preferred option was selected on the basis of achieving operational efficiencies.

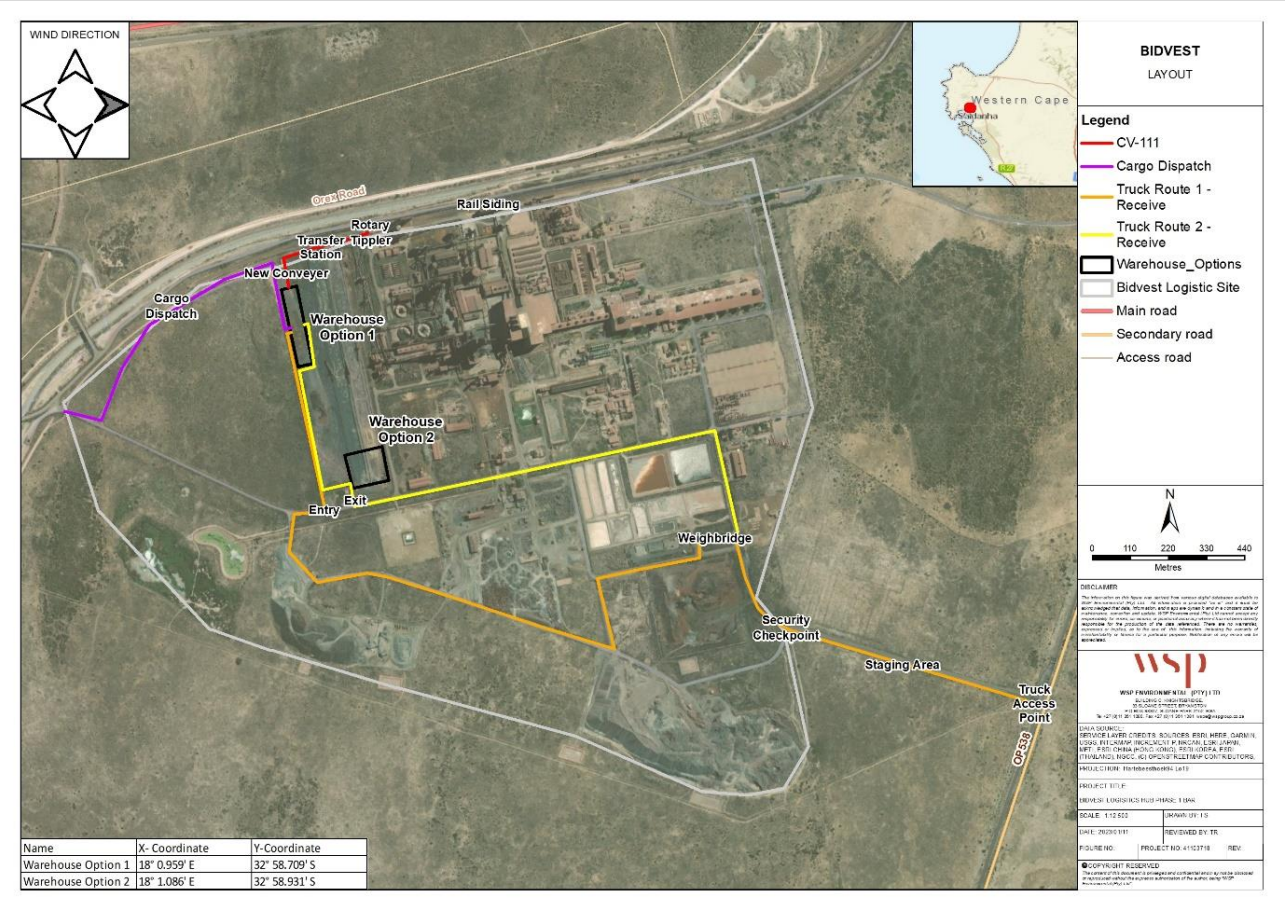


Figure 14: Locality Map of the AMSA Saldanha Steel Works Site

The details and benefits of each of the two locations of the warehouse are presented below.

Reasons for the preferred Option 1:

- The warehouse Option 1 is positioned along the northwestern perimeter of the site and is more accessible for rail, conveyers, mobile plant and trucks both coming in and leaving the logistics hub,
- The extended rectangular shape of the Option 1 warehouse provides a longer eastern façade which is the leeward side of the warehouse facilitating more entrances along this façade. This allows for more efficient movement of vehicles into and exiting the building without loss of internal surface area for equipment movement,
- The Option 1 warehouse allows for easier expansion of the warehouse or logistics hub as it is positioned parallel/longitudinal to the disturbed footprint on site. The horizontal expansion of Option 2 will result in disturbance to existing facilities eastwards of the proposed alternative site or disturbance to undisturbed areas west of the site,
- The Option 2 warehouse layout crosses an existing access route that would be used by the haul trucks as entry and exit points from the logistics hub,
- Option 1 warehouse allows for easier design of the overhead tripper conveyor that would convey tippler product southwards inside the warehouse, discharging into the stockpile by gravity. The gantry-in-roof concept would eliminate the need for any trestles in the warehouse, thereby improving traffic operations and wheel loader activities at ground level. Should the warehouse be extended in future, the conveyer drive and head pulley could be moved forward and the conveyor with gallery extended accordingly.

Option 2 was considered as an alternative for the logistics hub warehouse location to determine whether a cost-saving (cost-benefit) could be achieved by using an existing stacker/reclaimer at the site. However, on further analysis there was no cost-benefit to using the existing stacker/reclaimer for the Option 2 for following reasons:

- The existing stacker/reclaimer is used for the receipt, storage and dispatch of outside commodities (iron ore) and there may be conflict and significant delay in operations in using the same stacker/reclaimer inside the warehouse for the logistics hub complex and for the receipt, storage and dispatch of cargo outside the warehouse at the same time. This could be the case during the receipt, storage and dispatch of outside commodities at the same time as receipt, storage and dispatch of commodities inside the warehouse.
- This would interfere with future steel making operations as the steel making operations will utilise the existing stacker/reclaimer on site.
- Should any maintenance be required on the existing stacker/reclaimer this will influence both the operations at the logistics hub complex and steel making processes.
- From an operational viewpoint there is therefore no improvement in efficiency by selecting option 2.

Option 1 was therefore selected as the preferred option for the location of the logistics hub warehouse.

No other property alternatives were investigated due to the existing Saldanha Steel Facility and it's fit for purpose rail and raw materials handling infrastructure already available on site to be used for the logistics hub. The warehouse is proposed to be developed on a hardstand previously used to stockpile iron ore for the steel making process on site therefore utilising a disturbed area on site and minimising the environmental impact of the warehouse construction. Furthermore, as this area is disturbed and is in close proximity to rail and raw materials handling infrastructure already available on site, this alternative proposed to reuse of existing infrastructure and minimises negative impacts of undisturbed areas on site and promotes the sustainability of the proposed logistics hub project.

Provide a motivation for the preferred property and site alternative including the outcome of the site selection matrix.

It is believed that the Saldanha Works Facility is ideally situated to accommodate the stockpiling infrastructure and operations of the logistics hub given the fit-for-purpose rail and raw materials handling infrastructure already available on site. The preferred option was selected on the basis of achieving operational efficiencies utilising the already existing infrastructure and minimising air quality impacts as listed below:

- The warehouse is positioned along the northwestern perimeter of the site and is more accessible for rail, conveyers, mobile plant and trucks both coming in and leaving the logistics hub,
- The extended rectangular shape of the warehouse provides a longer eastern façade which is the leeward side of the warehouse facilitating more entrances along this façade reducing the potential for wind blown dust. Furthermore, this allows for more efficient movement of vehicles into and exiting the building without loss of internal surface area for equipment movement,
- The warehouse allows for easier expansion of the warehouse or logistics hub as it is positioned parallel/longitudinal to the disturbed footprint on site.
- The warehouse allows for easier design of the overhead tripper conveyor that would convey tippler product southwards inside the warehouse, discharging into the stockpile by gravity. The gantry-in-roof concept would eliminate the need for any trestles in the warehouse, thereby improving traffic operations and wheel loader activities at ground level. Should the warehouse be extended in future, the conveyer drive and head pulley could be moved forward and the conveyor with gallery extended accordingly.

Provide a full description of the process followed to reach the preferred alternative within the site.

The preferred location was selected mainly due to the already existing infrastructure. Saldanha Works Facility is ideally situated to accommodate the stockpiling infrastructure and operations. The existing fit-for-purpose rail and raw materials handling infrastructure already available on site, will serve to debottleneck the Port of Saldanha and increase the productivity and efficiency of export operations at the Multi-Purpose Terminal in Saldanha.

A new warehouse will be constructed to house environmentally and weather sensitive commodities, which will be linked to existing handling and conveyancing systems. The size of the warehouse will be approximately 14,000 m^2 excluding associated infrastructure, i.e. tipplers, rail siding, conveyance systems and transfer stations. The final location for the warehouse was selected based on the prevailing wind direction and operational efficiencies.

Commodities can be received via rail and road to the Logistics Hub. Transnet Freight Rail (TFR) shunts rail wagons from the Northern Cape to the Saldanha Logistics Hub rail siding and existing infrastructure at the site will enable easy and efficient handling of the commodities. Road deliveries direct from mine to warehouse offloading can also be accommodated at the site utilising existing road infrastructure.

Provide a detailed motivation if no property and site alternatives were considered.

No other property and site alternatives were investigated due to the existing Saldanha Steel Facility and it's fit for purpose rail and raw materials handling infrastructure already available on site to be used for the Logistics Hub. The warehouse is proposed to be developed on an existing approved engineered lined area previously used to stockpile iron ore and various materials for the steel making process on site therefore utilising a disturbed area on site and minimising the environmental impact of the warehouse construction. Furthermore, as this area is disturbed and is in close proximity to rail and raw materials handling infrastructure already available on site, this alternative proposes to reuse existing infrastructure and minimises negative impacts on undisturbed areas on site and promotes the sustainability of the proposed logistics hub project.

List the positive and negative impacts that the property and site alternatives will have on the environment.

The preferred option was selected on the basis of achieving operational efficiencies. A description of this is provided above.

Positive impact of the property and site alternatives on the environment:

- Utilising existing infrastructure minimises the need to construct or develop additional infrastructure. This minimises the construction related environmental impact and improves the sustainability of the project
- The extended rectangular shape of the warehouse provides a longer eastern façade which is the leeward side of the warehouse minimising the emissions and dust generation of commodities from the warehouse.
- The warehouse design allows for more efficient movement of vehicles into and exiting the building without loss of internal surface area for equipment movement. This minimises the need to create access roads on site and into the Logistics Hub and minimises the environmental disturbance to the area adjacent to the proposed areas for the logistics hub.
- The proposed warehouse location is in an area that supports minimal impact on the terrestrial and aquatic biodiversity as it will be developed on hardstanding and in an area that was disturbed due to the operations at the Saldanha Steel facility.
- The proposed warehouse location is in an area that will have minimal impact on archaeological and cultural heritage as the proposed location is hardstanding that was previously disturbed and where excavations were conducted previously.
- The location is within the existing Saldanha Steel Facility and in an area zoned as industrial therefore the proposed Logistics Hub will have minimal impact on the sense of place of the area and minimal visual impact.
- The facility is accessible directly from the OP538 road which connects to the TR8501 road and the existing road network. The OP538 is not a major road nor does it support major traffic movement. Considering the industrial nature of the area, the access road and entrance to the Saldanha Steel Facility was designed for large trucks and haul vehicles, no negative impacts to the traffic are expected because of the expansion.

Negative impacts of the property and site alternatives on the environment:

- As the proposed Logistics Hub will be within the existing Saldanha Steel facility, it will use existing infrastructure, facilities and equipment, and the warehouse will be constructed on a hardstand previously used to stockpile iron ore for the steelmaking operations, therefore after mitigation there are limited negative impacts for the property and site for the proposed logistics hub and preferred location of the warehouse. Negative impacts that can occur onsite during the construction and operation phase of the proposed development include dust generation. Measures to mitigate this impact were included in the engineering and administrative controls of the project design and operations, and mitigation measures will be included in the EMPr. Furthermore, the logistics hub warehouse and operations were designed to operate independently from the steelmaking operations.

1.2.	Activity alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred activity alternative.

The construction of a warehouse and the selection of the preferred warehouse location and shape has reduced negative impacts (windblown dust) and increase positive impacts (limited transformation and hence construction required).

Provide a description of any other activity alternatives investigated.

No other activity alternatives were proposed and investigated for the Logistics Hub. Alternatives investigated were the location of the warehouse on the hardstand previously developed on site and the modes and operations of the transport of commodities to site.

Provide a motivation for the preferred activity alternative.

A description of the motivation for the preferred activity is provided in Section B, point 4.4, Section E, Point 1 and Section H Points under 1.1. The warehouse in both options is identical and differs only in location on the site. The preferred option was selected on the basis of achieving operational efficiencies.

Provide a detailed motivation if no activity alternatives exist.

The Saldanha Steel facility was purpose built to manufacture steel from iron ore and therefore presents limited opportunities for alternative uses. The proposed activity, the development of a Logistics Hub, presents a compatible alternative use for the site that remains in keeping with the land use of the site by maximising the opportunities of the location of the site present by is close proximity to an active port. No suitable alternative activities were identified for the site.

List the positive and negative impacts that the activity alternatives will have on the environment.

N/A

1.3.	Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts

Provide a description of the preferred design or layout alternative.

Preferred Alternative Design Description: Stockpile Warehouse located on the North-West Corner of the property

Existing conveyor CV111 terminates in existing transfer tower TS101, discharging onto existing stacking conveyor CV102.

The preferred alternative envisages modifying this discharge point to either include a 2-way diverter chute or a moving head assembly, which would enable CV111 to discharge onto either CV102 as is presently the case, or onto a new inclined conveyor CV-A, located at ground level below the existing CV102 stacking conveyor.

The available space in TS101 lends itself to a new conveyor extension or a fixed tripper to facilitate this material transfer.

The preferred alternative requires none of the existing stockyard conveyors or equipment to operate in order to load the warehouse from the rail tippler. The layout of TS101 is ideal for installing a new inclined conveyor as proposed.

Conveyor CV-A would have its tail pulley and loading point in TS101 at ground level and would run collinear (parallel)to CV111 westwards, loading at approximately 8 degrees at the tail and inclining up to approximately 12 degrees to elevate material approximately 21m above ground level where it will be discharged at 1250tph onto new tripper conveyor CV-B in new transfer tower TS-A. Conveyor CV-A would measure approximately 105m in length and would use a 1050mm wide conveyor belt. This conveyor would comprise gantries with one 750mm wide walkway, doghouse sheeting, lighting, handrailing, trestles at 12m intervals, idlers, pulleys, scrapers, gravity take-up unit, drive unit, etc.

Transfer tower TS-A would be structurally tied to the new warehouse at the northern end of the warehouse. TS-A would have a footprint measuring approximately 6m long x 5m wide and approximately 25m tall, with an integrated stairwell.

TS-A would comprise roof sheeting and side sheeting down to the level of CV-B only. A monorail would be installed at the 25m level for maintenance of drives, pulleys etc. The tower would house the head-end of CV-A with its discharge chute, head pulley and drive unit. TS-A would also contain the tail pulley and loading skirts of tripper conveyor CV-B.

Tripper conveyor CV-B would be horizontal over its entire length and housed in a gallery framework which would be integral to the warehouse roof structure. This conveyor would convey tippler product southwards inside the warehouse, discharging into the stockpile by gravity, via a tripper. This gantry-in-roof concept would eliminate the need for any trestles in the warehouse, thereby improving traffic operations and wheel loader activities at ground level.

The tripper conveyor belt elevation would be approximately 18.5m above local ground level and the stringers would support a pair of tripper rails as well as the travelling tripper and conveyor. The gallery would be nominally 5,5m wide and 4.75m deep, integrated into the warehouse for stability, 'hanging' from the roof.

Tripper Conveyor CV-B would measure approximately 260m in length and would use a 1050mm wide conveyor belt. This conveyor would comprise stringers in gantries with two 750mm wide walkways, lighting, handrailing, idlers, pulleys, scrapers, gravity take-up unit, drive unit, etc.

Should the warehouse be extended in future, the conveyor drive and head pulley could be moved forward and the conveyor with gallery extended accordingly, during (typically) a 2- or 3-day shutdown.

A tripper would travel the length of CV-B, discharging material into the designated stockpile areas within the warehouse below. The tripper discharge chute is bifurcated and would gravity-feed through the gantry to build a stockpile of approximately 17.0m height. The bifurcated chute would guide the material through the gantry structure on both sides of Conveyor CV-B.

This tripper would be self-propelled and remotely controlled. Power and control supply would be via an energy chain or cable-reeler. An on-board MCC would be provided, together with all safety interlocks and field instruments for the tripper operation.

Provide a description of any other design or layout alternatives investigated.

Alternative design description: Stockpile Warehouse Located on the South-East Edge of The Property

This option avoids modifications in transfer house TS101 by routing the tippler product southwards along the existing stacker conveyor CV102 and over the stacker boom.

The stacker machine would be parked at the end of its rail travel in the south-end of the stockpile, and its boom would be slewed to the west at 90 degrees and lowered onto a saddle much like a maintenance trestle saddle.

In this location the stacker would discharge onto new conveyor CV-C which would convey material to the warehouse in a westerly direction.

A permanent tower numbered TS-B would be erected between the reclaim conveyor and the stacker conveyor at the southern end of the stockyard. This tower would measure approximately 15m tall with a 6m x5m footprint and would serve as a combination 'boom rest', transfer tower and CV-C tail-end support structure.

The stacker boom would rest on the tower to ensure that the transfer of material is predictable and equivalent to a conventional in-line transfer point design.

New conveyor CV-C would convey material from the discharge of the stacker boom to the warehouse, in a westerly direction, more-or-less parallel to the boom. Conveyor CV-C's tail-end would be elevated at approximately 10.0m above ground in the stockyard and would incline towards the head-end to an elevation of approximately 21m to transfer 1250tph onto tripper conveyor CV-B, in transfer tower TS-A.

Conveyor CV-C would be approximately 70m long and would employ a 1050mm wide conveyor belt. The elevated conveyor would comprise gantries with one 750mm wide walkway, doghouse sheeting, lighting, handrailing, trestles at 12m intervals, idlers, pulleys, scrapers, gravity take-up unit, drive unit, etc. Access to the conveyor would predominantly be from the warehouse-end where a stairwell is envisaged, and a cat ladder would be installed in TS-B for emergency escape purposes.

Transfer tower TS-A in this Option would be located on the southern end of the new stockpile warehouse and would transfer material from Conveyor CV-C to tripper conveyor CV-B.

Provide a motivation for the preferred design or layout alternative.

The preferred alternative was selected based on achieving operational efficiency on site and because of the existing infrastructure, facilities and equipment near the location of the proposed warehouse that can be used for the transport of the commodities. This includes:

- Rotary Tippler
- Conveyors CV-111, CV-102
- Transfer Station TS101

This existing infrastructure and facilities ensure minimal additional infrastructure and facilities being required for the development of the Logistics Hub as the new infrastructure and facilities will tie into the existing infrastructure and facilities. The logistics hub warehouse will be developed on an existing approved engineered lined area used for the storage of various raw materials. In addition to this engineered lined area the logistics hub warehouse will be built on a hard stand

Provide a detailed motivation if no design or layout alternatives exist.

N/A

List the positive and negative impacts that the design alternatives will have on the environment.

The preferred option was selected on the basis of achieving operational efficiencies and maximising the use of existing infrastructure.

1.4.	Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred technology alternative:

Preferred design: Stockpile Warehouse Located on The North-West Edge of The Property

This option avoids modifications in transfer house TS101 by routing the tippler product southwards along the existing stacker conveyor CV102 and over the stacker boom.

The stacker machine would be parked at the end of its rail travel in the south-end of the stockpile, and its boom would be slewed to the west at 90 degrees and lowered onto a saddle much like a maintenance trestle saddle.

In this location the stacker would discharge onto new conveyor CV-C which would convey material to the warehouse in a westerly direction.

A permanent tower numbered TS-B would be erected between the reclaim conveyor and the stacker conveyor at the southern end of the stockyard. This tower would measure approximately 15m tall with a 6m x5m footprint and would serve as a combination 'boom rest', transfer tower and CV-C tail-end support structure.

The stacker boom would rest on the tower to ensure that the transfer of material is predictable and equivalent to a conventional in-line transfer point design.

New conveyor CV-C would convey material from the discharge of the stacker boom to the warehouse, in a westerly direction, more-or-less parallel to the boom. Conveyor CV-C's tail-end would be elevated at approximately 10.0m above ground in the

stockyard and would incline towards the head-end to an elevation of approximately 21m to transfer 1250tph onto tripper conveyor CV-B, in transfer tower TS-A.

Conveyor CV-C would be approximately 70m long and would employ a 1050mm wide conveyor belt. The elevated conveyor would comprise gantries with one 750mm wide walkway, doghouse sheeting, lighting, handrailing, trestles at 12m intervals, idlers, pulleys, scrapers, gravity take-up unit, drive unit, etc. Access to the conveyor would predominantly be from the warehouse-end where a stairwell is envisaged, and a catladder would be installed in TS-B for emergency escape purposes.

Transfer tower TS-A in this Option would be located on the southern end of the new stockpile warehouse and would transfer material from Conveyor CV-C to tripper conveyor CV-B.

Provide a description of any other technology alternatives investigated.

Alternative 1: Stockpile Warehouse located on the South-East Corner of the property

Existing conveyor CV111 terminates in existing transfer tower TS101, discharging onto existing stacking conveyor CV102.

This Option envisages modifying this discharge point to either include a 2-way diverter chute or a moving head assembly, which would enable CV111 to discharge onto either CV102 as is presently the case, or onto a new inclined conveyor CV-A, located at ground level below the existing CV102 stacking conveyor.

The available space in TS101 lends itself to a new conveyor extension or a fixed tripper to facilitate this material transfer.

In so doing, this Option required none of the existing stockyard conveyors or equipment to operate in order to load the warehouse from the rail tippler. The layout of TS101 is ideal for installing a new inclined conveyor as proposed herein.

Conveyor CV-A would have its tail pulley and loading point in TS101 ta ground level and would run parallel to CV111 westwards, loading at approximately 8 degrees at the tail and inclining up to approximately 12 degrees to elevate material approximately 21m where it will be discharged at 1250tph onto new tripper conveyor CV-B in new transfer tower TS-A.

Conveyor CV-A would measure approximately 105m in length and would use a 1050mm wide conveyor belt. This conveyor would comprise gantries with one 750mm wide walkway, doghouse sheeting, lighting, handrailing, trestles at 12m intervals, idlers, pulleys, scrapers, gravity take-up unit, drive unit, etc.

Transfer tower TS-A would be structurally tied to the new warehouse at the northern end of the warehouse.

TS-A would have a footprint measuring approximately 6m long x 5m wide and approximately 25m tall, with integrated stairwell.

TS-A would comprise roof sheeting and side sheeting down to the level of CV-B only. A monorail would be installed at the 25m level for maintenance of drives, pulleys etc. The tower would house the head-end of CV-A with its discharge chute, head pulley and drive unit. TS-A would also contain the tail pulley and loading skirts of tripper conveyor CV-B.

Tripper conveyor CV-B would be horizontal over its entire length and housed in a gallery framework which would be integral to the warehouse roof structure as depicted in the graphic. This conveyor would convey tippler product southwards inside the warehouse, discharging into the stockpile by gravity, via a tripper. This gantry-in-roof concept would eliminate the need for any trestles in the warehouse, thereby improving traffic operations and wheel loader activities at ground level.

The tripper conveyor belt elevation would be approximately 18.5m above local ground level and the stringers would support a pair of tripper rails as well as the travelling tripper and conveyor. The gallery would be nominally 5,5m wide and 4.75m deep, integrated into the warehouse for stability, 'hanging' from the roof.

Tripper Conveyor CV-B would measure approximately 260m in length and would use a 1050mm wide conveyor belt. This conveyor would comprise stringers in gantries with two 750mm wide walkways, lighting, handrailing, idlers, pulleys, scrapers, gravity take-up unit, drive unit, etc.

Should the warehouse be extended in future, the conveyor drive and head pulley could be moved forward and the conveyor with gallery extended accordingly, during (typically) a 2- or 3-day shutdown.

A tripper would travel the length of CV-B, discharging material into the designated stockpile areas below. The tripper discharge chute is bifurcated and would gravity-feed through the gantry to build a stockpile of 17.0m height. The bifurcated chute would guide the material through the gantry structure on both sides of Conveyor CV-B.

This tripper would be self-propelled and remotely controlled. Power and control supply would be via an energy chain or cable-reeler. An on-board MCC would be provided, together with all safety interlocks and field instruments for the tripper operation.

Provide a motivation for the preferred technology alternative.

The preferred option was selected on the basis of achieving operational efficiencies and maximise use of the already existing infrastructure and minimise the level of modification required.

Provide a detailed motivation if no alternatives exist.

N/A

List the positive and negative impacts that the technology alternatives will have on the environment.

Positive impact of the property and site alternatives on the environment:

- The warehouse Option 1 is positioned along the northwestern perimeter of the site and is more accessible for rail, conveyers, mobile plant and trucks both coming in and leaving the Logistics Hub. This minimises the need to construct or develop additional infrastructure or use equipment and facilities for the Logistics Hub as it will utilise existing infrastructure, facilities and equipment. This minimises the environmental impact and improves the sustainability of the project. The logistics hub will be developed on an existing approved engineered lined area used for the storage of various raw materials.
- The extended rectangular shape of the Option 1 warehouse provides a longer eastern façade which is the leeward side of the warehouse minimising the emissions and dust generation of commodities from the warehouse.
- The extended rectangular shape of the Option 1 warehouse provides a longer eastern façade which facilitates more entrances along this façade and allows for more efficient movement of vehicles entering and exiting the building without loss of internal surface area for equipment movement. This minimises the need to create access roads on site and into the Logistics Hub and minimises the environmental disturbance to the area adjacent to the proposed areas for the Logistics Hub.
- The warehouse option 1 and 2 is located in an area that will have minimal impact on the terrestrial and aquatic biodiversity of the proposed location and the site as the hub will be constructed and developed on a hardstand and in an area that was disturbed due to the operations at the Saldanha Steel facility.
- The warehouse option 1 and 2 is located in an area that will have minimal impact on archaeological and cultural heritage as the proposed location and the site as the hub will be constructed and developed on a hardstand that was previously disturbed and where excavations were conducted previously.
- The location is within the existing Saldanha Steel Facility and in an area zoned as industrial therefore the proposed Logistics Hub will have minimal impact on the sense of place of the area and minimal visual impact.
- The facility is accessible directly from the OP538 road which connects to the TR8501 road and the existing road network. The OP538 is not a major road nor does it support major traffic movement. Considering the industrial nature of the area, the access road and entrance to the Saldanha Steel Facility was designed for large trucks and haul vehicles, no negative impacts to local traffic are expected because of the expansion.

Negative impacts of the property and site alternatives on the environment:

There were no obvious negative impacts of the proposed development of the Logistics Hub as a result of the property and site alternatives and the engineering and administrative controls included in the design of the proposed Logistics Hub.

1.5.	Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred operational alternative.

The preferred operational alternative is provided below.

Commodities will be received via rail and road to the Logistics Hub. Transnet Freight Rail (TFR) shunts rail wagons from the Northern Cape to the Saldanha Logistics Hub rail siding. Wagons loaded with commodities will be tipped at the Rotary Tippler, transported via the existing infrastructure, new conveyancing systems (Transfer station, Conveyor belts, tripper car, etc.) and stockpiled at the newly proposed enclosed warehouse (to be lined with concrete floors, roof structure, side walls sheeting, lighting and access doors for yellow equipment/trucks used during the dispatching). Road deliveries direct from mine to warehouse offloading will be conducted as well. Road deliveries will use existing access roads to the proposed warehouse.

It is proposed that 50% of the manganese commodity (2,000,000 tpa) will be delivered via rail to the Logistics Hub and the remainder via truck via roads (2,000,000 tpa). To note the proposed volume of manganese (2,000,000 tpa) to be delivered by road represents a worst-case scenario allowing for current challenges regarding rail infrastructure and its impact on transport of commodities via rail. Following planned rail infrastructure upgrades in 2026, it is anticipated that the volume of manganese delivered by road will decrease and the majority to be delivered by rail via the shunt wagons and the tipplers. This will reduce the truck volume on the roads. It is anticipated that only a total volume of 1,000,000 tpa of manganese commodity will be delivered via road after the rail upgrades are complete.

Bulk material received via the haul road into the warehouse will be wetted by water sprayers to reduce emissions, whereas material received via rail will be chemically sprayed at the tippler and wetted along the conveyor belts prior to being deposited within the warehouse. Within the warehouse and before exporting, the material stockpiles will be wetted by water sprayers to reduce emissions. Before exporting, commodities will be loaded (within the warehouse) with the use of yellow equipment onto skip trucks, then dispatched to the port of Saldanha via the haul road. A detailed description on bulk commodity receipts is provided below.

The 50% of Mn ore delivered via rail will comprise:

- Delivery from rail to the existing rotary tippler, contained within a building with dust extraction and sprayers delivering chemical suppressant to the Mn ore while being tipped from the rail wagons.

- Mn ore will move from the rotary tippler along conveyor CV111 (underground conveyor) to Transfer Station 1 (TS1), contained within a building enclosure.
- From TS1 the ore will be transferred to a new conveyor, which is an above-ground conveyor, semi-enclosed equipped with longitudinal water sprayers.
- From the new conveyor, ore will be loaded onto the main Mn ore stockpile, within the warehouse. Notably, this ore will still be wet from the chemical suppressant applied at the rotary tippler and water applied by the longitudinal sprayers on the new conveyor. Further, the main Mn ore stockpile will be wetted via water sprayers and within an enclosed warehouse to reduce dust emissions.

The bulk material commodities, 50% Mn ore and other commodities, delivered by truck to the warehouse will comprise:

- Trucks will enter the Saldanha Steel site via the existing truck entrance road from the OP 538 Road located east of the Logistics Hub site. Approximately 1 km of this entrance road is unpaved, this section of the road receives chemical dust suppressant. All trucks will drive towards the existing weighbridge and then towards the Logistics Hub warehouse. From the weighbridge to the Saldanha site and Logistics Hub, this section of entrance road is unpaved and will also receive chemical suppressant.
- Trucks will carry approximately 34 t of commodities per load, covered by the standard strapped tarpaulins required for road tipper trucks.
- Trucks will unload in the southern end of the warehouse to a truck stockpile, with water being applied to the truck stockpile to reduce dust emissions. The onsite operations will ensure that truck offloading does not result in mixing of commodities. The warehouse has been designed to handle the different commodities to be stored on site.
- Yellow equipment (front-end loaders) will be used to transfer material from the truck stockpile to the main commodity stockpiles for reclaiming.
- Trucks delivering commodities from the warehouse to the TPT terminal will carry approximately 69 t of commodities per load, comprising three skips covered by heavy duty, fixed tarpaulins.
- Trucks will exit the warehouse and the Saldanha Steel site via existing paved haul roads that were established for terminal access. Trucks transporting commodities to the terminal for export will not make use of public roads.
- The bulk of the trucks for commodities export to the terminal will remain at the Saldanha Steel site between deliveries, located at the designated truck staging area, avoiding unnecessary use of public roads. Note, this will be dependent on the trucking requirements of the cargo handling company, so the number of trucks onsite may vary from time to time.

It was calculated that the number of vehicles (trucks) to access the site daily would be approximately # vehicles which equates to 10-16 number of vehicles per hour. It was initially proposed to transport all Manganese via rail, however due to the current challenges regarding rail infrastructure and its impact on transport of commodities via rail it was proposed to transport manganese commodities via road as well. The required mitigation measures to minimise dust generation and emissions during transport of all commodities via rail and road were addressed in the atmospheric impact assessment report and included in the EMPr. A fugitive dust management plan detailing onsite dust fallout monitoring and control effectiveness of the commodities was developed and the necessary monitoring conditions were included in the EMPr.

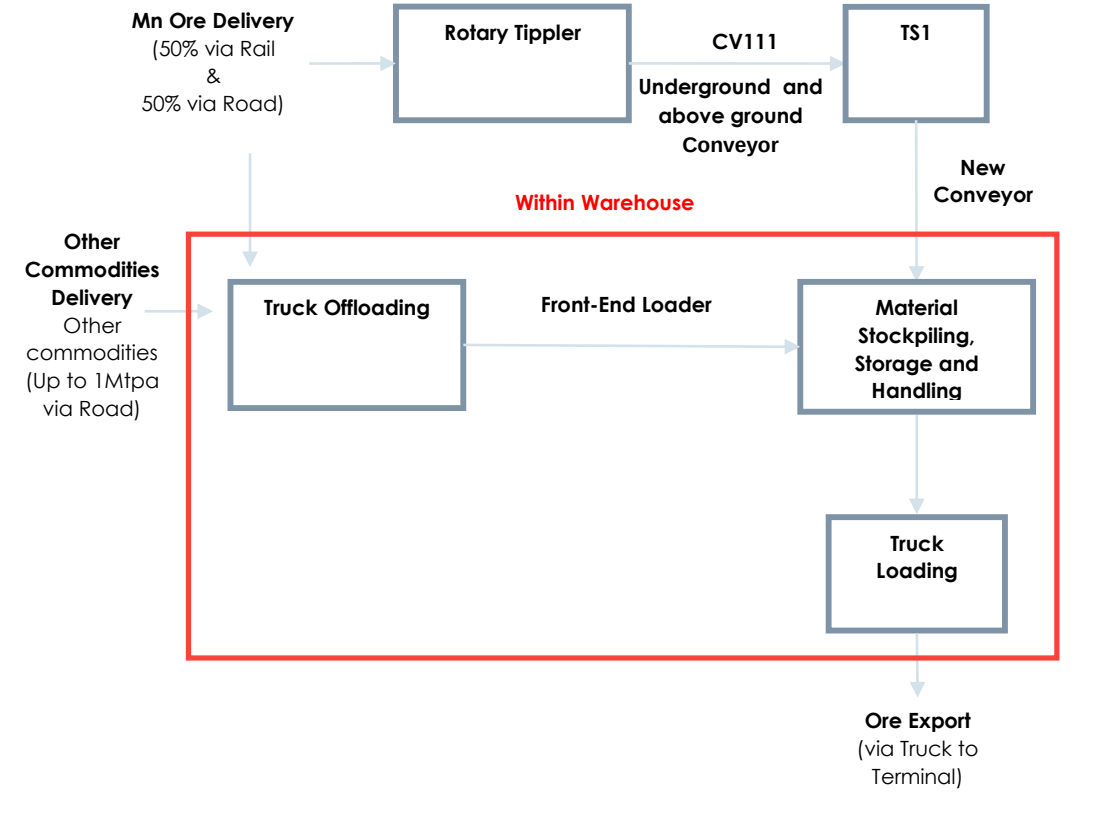


Figure 15: Process flow for the Logistics Hub (Saldanha Steel AEL AIR, WSP, 2023)

Provide a description of any other operational alternatives investigated.
The operational alternative that was investigated was that 75% of the manganese commodity (3,000,000 tpa) will be delivered via rail to the Logistics Hub and no manganese is transported via road. However, due to current challenges regarding rail infrastructure and its impact on the transport of commodities via rail, 100% of the manganese commodity could not be transported via rail. It was therefore proposed to transport 50% of the manganese commodity via rail and the remainder via road during the initial year(s) of operations. Following planned rail infrastructure upgrades in 2026, it is anticipated that the volume of manganese delivered by road will decrease and the majority to be delivered via rail (shunt wagons) and the tipplers. This will reduce the truck volume on the roads. It is anticipated that only a total volume of 1,000,000 tpa of manganese commodity will be delivered via road after the rail upgrades are complete.
Provide a motivation for the preferred operational alternative.
Due to the current challenges experienced with the existing railway line the preferred alternative was selected.
Provide a detailed motivation if no alternatives exist.
N/A
List the positive and negative impacts that the operational alternatives will have on the environment.
Positive impacts of the operational alternatives: • Transport of manganese via rail reduces the impacts of the transport of the manganese to the Logistics Hub operations. Due to the current cost of fuel, transporting commodities via rail is cost effective, produces less emissions and is therefore more viable and sustainable. Negative impacts of the operational alternatives: • More trucks are required due to the current challenges regarding the rail infrastructure. This results in a higher truck volume and more vigilance and precautionary measures to be taken during transport of the commodities. • The high truck volume results in a greater operational cost and higher volume of emissions when compared to rail transport.
1.6. The option of not implementing the activity (the 'No-Go' Option).
Provide an explanation as to why the 'No-Go' Option is not preferred.

The 'No-Go' option is not preferred for the reasons provided below:

- The proposed Logistics Hub is aligned with the national, provincial and local policy objectives and plans as it will contribute to the creation of employment and through expenditure on sectors supplying goods and services during the construction and operation phase.
- The unemployment caused since the Saldanha Steel facility was placed 'under care and maintenance' and the impact this had had on employee livelihoods and well-being. Should the proposed Logistics Hub re-employ employees who were retrenched, this would result in an improved level of household income and standard of living,
- The proposed Logistics Hub can cater to the growing population through the provision of employment opportunities within local communities and the broader West Coast District Municipality, as well as the Northern Cape,
- Less people are now employed at Saldanha Steel and therefore in the Saldanha Bay Municipality, this resulted in less revenue for the municipality to provide services to the residents within the municipality,
- People within the Saldanha Bay have limited education and limited skills. The construction and operation of the logistics hub allows the transfer of skills to people and increases the employability of the local labour and their chances of finding employment opportunities on other construction-related projects once their contract with the proposed development has expired.
- The Saldanha Steel facility is currently 'under care and maintenance' and is under-utilised,
- The proposed Logistics Hub will result in improved storage capacity of commodities; this in turn would potentially result in mines who transport their commodities to the Port of Saldanha, to expand upon their mining operations thus increasing production and increasing the local, provincial and national GDP.
- The lack of exports of commodities and the impact on the local, provincial and national GDP and the negative effects on the economic strength, domestic production, job creation and revenue from export sales.

1.7.	Provide an explanation as to whether any other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist.

N/A

1.8.	Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.

The size of the warehouse in both options is identical and differs only in location on the site. The preferred option was selected on the basis of achieving operational efficiencies, utilising the already existing infrastructure , processes systems and contractors already in place.

This was provided in Sections above.

22. "No-Go" areas

Explain what "no-go" area(s) have been identified during identification of the alternatives and provide the co-ordinates of the "no-go" area(s).

'No-go' areas were identified during the identification of alternatives for the Logistics Hub. These are listed below:

- Ensure the development of the logistics hub is on previously disturbed areas thereby minimising environmental impacts. This also minimises development of new infrastructure and equipment on site.
- Ensure the warehouse which will require land clearing and excavations is on an area previously disturbed to minimise impact of vegetation clearing, paleontological and archaeological impacts.
- No new development or clearing adjacent to the hardstand previously used to stockpile iron ore.
- No new development in close proximity to depressions on site that could potentially be classified as a water course or affect aquatic fauna or biota.

Due to the location and proposed development, 'no-go' areas were not identified by the following specialist studies:

- Terrestrial biodiversity compliance statement,
- Aquatic biodiversity compliance statement,
- Heritage Impact Assessment,
- Palaeontology and Archaeological Impact Assessment,
- First Nations Group Stakeholder Engagement with the Aikonese Cochoqua Khoi Tribal Council,
- Atmospheric Impact Assessment,
- Social Impact Assessment, and
- Economic Impact Assessment.

23. Methodology to determine the significance ratings of the potential environmental impacts and risks associated with the alternatives.

Describe the methodology to be used in determining and ranking the nature, significance, consequences, extent, duration of the potential environmental impacts and risks associated with the proposed activity or development and alternatives, the degree to which the impact or risk can be reversed and the degree to which the impact and risk may cause irreplaceable loss of resources.

Impact Assessment Criteria and Scoring System

The assessment of impacts and mitigation evaluates the likely extent and significance of the potential impacts on identified receptors and resources against defined assessment criteria, to develop and describe measures that will be taken to avoid, minimise or compensate for any adverse environmental impacts, to enhance positive impacts, and to report the significance of residual impacts that occur following mitigation.

The key objectives of the risk assessment methodology are to identify any additional potential environmental issues and associated impacts likely to arise from the proposed project, and to propose a significance ranking. Issues / aspects will be reviewed and ranked against a series of significance criteria to identify and record interactions between activities and aspects, and resources and receptors to provide a detailed discussion of impacts. The assessment considers direct[1], indirect[2], secondary[3] as well as cumulative[4] impacts.

A standard risk assessment methodology is used for the ranking of the identified environmental impacts pre-and post-mitigation (i.e. residual impact). The significance of environmental aspects is determined and ranked by considering the criteria[5] presented in Error! Reference source not found..

Table 5: Risk Assessment Methodology

CRITERIA	SCORE 1	SCORE 2	SCORE 3	SCORE 4	SCORE 5
Impact Magnitude (M) The degree of alteration of the affected environmental receptor	Very low: No impact on processes	Low: Slight impact on processes	Medium: Processes continue but in a modified way	High: Processes temporarily cease	Very High: Permanent cessation of processes
Impact Extent (E) The geographical extent of the impact on a given environmental receptor	Site: Site only	Local: Inside activity area	Regional: Outside activity area	National: National scope or level	International: Across borders or boundaries
Impact Reversibility (R) The ability of the environmental receptor to rehabilitate or restore after the activity has caused environmental change	Reversible: Recovery without rehabilitation		Recoverable: Recovery with rehabilitation		Irreversible: Not possible despite action
Impact Duration (D) The length of permanence of the impact on the environmental receptor	Immediate: On impact	Short term: 0-5 years	Medium term: 5-15 years	Long term: Project life	Permanent: Indefinite

[1] Impacts that arise directly from activities that form an integral part of the Project.

[2] Impacts that arise indirectly from activities not explicitly forming part of the Project.

[3] Secondary or induced impacts caused by a change in the Project environment.

[4] Impacts are those impacts arising from the combination of multiple impacts from existing projects, the Project and/or future projects.

[5] The definitions given are for guidance only, and not all the definitions will apply to all the environmental receptors and resources being assessed. Impact significance was assessed with and without mitigation measures in place.

Probability of Occurrence (P) The likelihood of an impact occurring in the absence of pertinent environmental management measures or mitigation	Improbable	Low Probability	Probable	Highly Probability	Definite
Significance (S) is determined by combining the above criteria in the following formula:	$[S = (E + D + R + M) \times P]$ $Significance = (Extent + Duration + Reversibility + Magnitude) \times Probability.$				

IMPACT SIGNIFICANCE RATING			
Total Score	0 – 30	31 to 60	61 – 100
Significance Rating (Negative (-)	**Low (-)**	**Medium (-)**	**High (-)**
Significance Rating (Positive (+)	**Low (+)**	**Medium (+)**	**High (+)**

Impact Mitigation

The impact significance without mitigation measures will be assessed with the design controls in place. Impacts without mitigation measures in place are not representative of the proposed development's actual extent of impact and are included to facilitate understanding of how and why mitigation measures were identified. The residual impact is what remains following the application of mitigation and management measures and is thus the final level of impact associated with the development. Residual impacts also serve as the focus of management and monitoring activities during Project implementation to verify that actual impacts are the same as those predicted in this report.

The mitigation measures chosen are based on the mitigation sequence/hierarchy which allows for consideration of five (5) different levels, which include avoid/prevent, minimise, rehabilitate/restore, offset and no-go in that order. The mitigation sequence/hierarchy is shown in Figure 5 below.

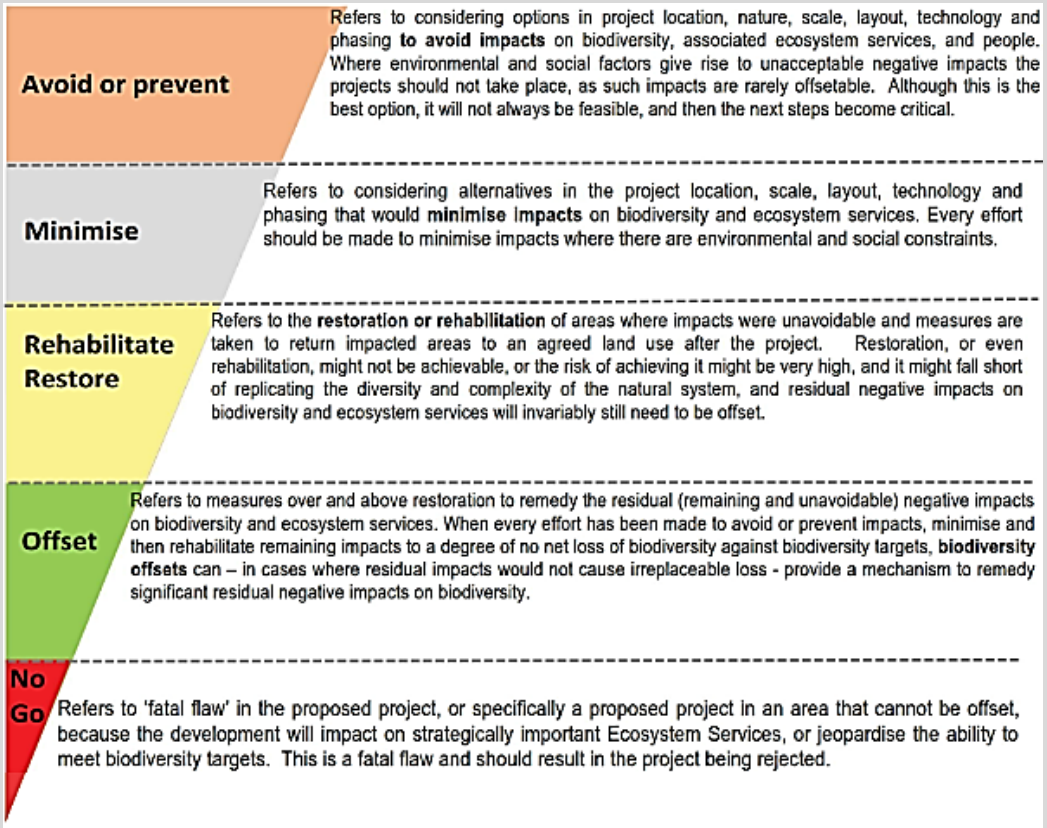


Figure 14: Mitigation Sequence/Hierarchy

The idea is that when project impacts are considered, the first option should be to avoid or prevent the impacts from occurring in the first place if possible, however, this is not always feasible. If this is not attainable, the impacts can be allowed, however

they must be minimised as far as possible by considering reducing the footprint of the development for example so that little damage is encountered. If impacts are unavoidable, the next goal is to rehabilitate or restore the areas impacted back to their original form after project completion. Offsets are then considered if all the other measures described above fail to remedy high/significant residual negative impacts. If no offsets can be achieved on a potential impact, which results in full destruction of any ecosystem for example, the no-go option is considered so that another activity or location is considered in place of the original plan.

24. Assessment of each impact and risk identified for each alternative

Note: The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. The EAP may decide to include this section as Appendix J to this BAR.

CONSTRUCTION PHASE	
Alternative:	**Preferred option**
Planning, design and development phase	
Potential impact and risk:	**Social Impact: Economic development**
Nature of impact:	Positive. The logistics hub construction will positively impact the local, regional and national GDP. Goods and services will need to be sourced locally. The Project will also create short term jobs that provide salaries that will, in turn, support the local economy.
Extent and duration of impact:	Extent: Regional - Outside activity area Short Term: 0-5yrs
Consequence of impact or risk:	Magnitude of impact is medium.
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation
Indirect impacts:	Increase in Regional and Provincial Gross Domestic Product during the construction phase Businesses development and improvement in skills set Increased municipal revenue and provision of municipal services
Cumulative impact prior to mitigation:	Improved standard of living
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium positive
Degree to which the impact can be avoided:	Impact cannot be avoided
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	No mitigation measures however, the positive impact can be enhanced by engagement with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers where feasible by AMSA and BPO.
Residual impacts:	The proposed Logistics Hub will contribute to both local and national Gross Domestic Product during the construction because increased investment in the local economy would result in an improved GDP contribution within the Saldanha Bay Local Municipality, especially considering the loss of GDP that resulted in the closure of the Saldanha Bay Steel Works that occurred in 2020.

Cumulative impact post mitigation:	Refer to residual impact above. Furthermore, the improved GDP contribution to local municipalities will improve provision of local services in municipalities. The employment opportunities provided during the construction phase improves the livelihoods and wellbeing of employees and their respective households.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High positive
Potential impact and risk:	**Social Impact: Employment during construction**
Nature of impact:	Positive Eighty-nine (89) direct employment opportunities will be created during construction, increasing household incomes by an estimated R48.1 million.
Extent and duration of impact:	Regional: Outside activity area Short term: 0-5 years
Consequence of impact or risk:	Magnitude of impact is high
Probability of occurrence:	Highly probable
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation
Indirect impacts:	Temporary increase in employment in local and national economies Limited cumulative construction jobs with skilled employees Improved standard of living Temporary increase in government revenue will result in lower government debt and servicing costs
Cumulative impact prior to mitigation:	Improved labour productivity and employability of construction workers
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Positive
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	Impact to be enhanced. High
Proposed mitigation:	No mitigation measures however, the risk can be enhanced. Non-locals should only be hired when specialist skills, which are unavailable locally, are required. The following aspects in this regard should receive priority: • Residents and communities should be employed wherever possible; • Local construction companies should be used whenever possible, especially for unskilled and semi-skilled work and • Local workers should be used and mentored as far as possible.
Residual impacts:	Improved standard of living Improved health and living conditions of the affected households
Cumulative impact post mitigation:	Refer to residual impact above. Furthermore, the increased employment opportunities will allow households to contribute to the GDP and local municipal income and thereby improve provision of local services in municipalities.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Positive
Potential impact and risk:	**Traffic during construction**

Nature of impact:	Negative. There will be an increase in traffic during the construction of the Logistics Hub, but this will be minimal and only during the construction period.
Extent and duration of impact:	Extent: Regional Duration: Short Term: 0-5yrs
Consequence of impact or risk:	Magnitude of impact is high
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation
Indirect impacts:	Altered traffic flows and increased occurrence of slow-moving heavy vehicles.
Cumulative impact prior to mitigation:	Social nuisances such as increased safety risks, air quality, and noise impacts due to the increase in traffic. Altered traffic flows and increased occurrence of slow-moving heavy vehicles.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Negative
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• Trucks will be fitted with tracking devices to maintain speed limits and improve safety by monitoring driver behaviour. • A complaints register will be available to any stakeholder who might want to complain about construction trucks. • A toll-free number will be provided on construction trucks, allowing drivers to report bad driving. • The gravel roads will be kept wet when trucks access the site to reduce dust. • Vehicles will be regularly serviced to reduce exhaust emissions. • Appropriate traffic signals at intersections to manage traffic flow will be introduced. • The site is zoned for industrial use, and only trucks coming to the logistics hub will access the site.
Residual impacts:	Limits to general traffic along the proposed project area entrance road during construction, altered traffic flow due to increased occurrence of slow-moving heavy vehicles.
Cumulative impact post mitigation:	Refer to comment above.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Negative
Potential impact and risk:	**Social, Health and Safety: Dust and Exhaust Emissions during construction**
Nature of impact:	Negative. Some dust will be generated during construction, which will be limited to the construction site and will not fall out on sensitive social receptors.
Extent and duration of impact:	Extent: Local: Inside activity area Duration: Short Term: 0-5yrs

Consequence of impact or risk:	Some dust will be generated during construction due to foundation excavation, and earth-moving activities that will be limited to the construction site and road haulage on-site and near the site.
Probability of occurrence:	Highly probable
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation
Indirect impacts:	Social nuisances. Health and safety impact to staff on site. Visual nuisance on site due to generation of dust on site.
Cumulative impact prior to mitigation:	No significant cumulative impacts predicted as a result of the Construction Phase of the Proposed Development.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Negative
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• Implementation of a fugitive dust management plan • Monitoring of dust emissions to determine effectiveness of controls and impacts on the receiving environment. • Exposed areas created by the construction activities will be kept wet during construction to minimise dust emissions from the site activities. • Strict speed limits on dust roads will be enforced to prevent dust. • A complaints register will be available to stakeholders to report any dust complaints. • Construction material stockpiles will be restricted to designated areas where these can be managed. • No waste burning, such as plastic bags, cement bags, and litter, will be permitted. • All materials to the site must be transported so they do not fall off the construction vehicle. It may be necessary to cover or wet construction materials. • Vehicles and machines must be maintained to minimise exhaust emissions.
Residual impacts:	No significant residual impacts predicted as a result of the Construction Phase of the Proposed Development.
Cumulative impact post mitigation:	No significant cumulative impacts predicted as a result of the Construction Phase of the Proposed Development.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low Negative
Potential impact and risk:	**Social Impact: Noise emissions during construction**
Nature of impact:	Negative Construction activities have the potential to generate noise for construction workers and sensitive social receptors. However, social receptors are far from the construction site as it is in an industrial zone.
Extent and duration of impact:	Extent: Local: Inside activity area Duration: Short term: 0-5 years
Consequence of impact or risk:	Low

Probability of occurrence:	Highly probable
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation
Indirect impacts:	Social nuisance
Cumulative impact prior to mitigation:	No significant residual impacts predicted as a result of the Construction Phase of the Proposed Development as social receptors are for from the site and noise generating activities will be limited to the daytime. Furthermore, the site is in an industrial zone and the nearest industrial facility is 1.4 km from the proposed site.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Negative
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• Occupational health surveys will be conducted to ensure that the noise emissions do not exceed the acceptable occupational health limits (85 dBA) for construction workers. • Workers will be provided hearing protection should they work in environments that exceed the acceptable occupational limits. • Workers will be made aware of a complaints register should they wish to report noise issues. • Construction activities will be planned so that the most significant potential actions that could generate noise are scheduled during periods that will result in the least disturbance, for instance, restricting construction activities to daytime. • Ensuring equipment is well-maintained to avoid additional noise generation. • A maximum 40 km/h speed will be set on all unpaved roads. • Receiving construction materials will be planned for during non-peak traffic hours to avoid additional traffic and associated noise. Construction vehicles and equipment will be regularly serviced to reduce noise generated from these.
Residual impacts:	None anticipated once construction is complete is mitigation measures are implemented
Cumulative impact post mitigation:	None.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low Negative
Potential impact and risk:	**Influx of jobseekers**
Nature of impact:	Negative Not all job seekers will find work, which might increase the area's unemployment rate
Extent and duration of impact:	Extent: Regional: Outside activity area Duration: Short term: 0-5 years
Consequence of impact or risk:	Low
Probability of occurrence:	Probable
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation

Indirect impacts:	The increased number of unemployed people may lead to increased social ills.
Cumulative impact prior to mitigation:	Growing pressure on local resources, infrastructure and social services Increased prostitution activities Increase in unemployment within the local municipality
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Negative
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	• As part of onboarding construction workers, training should be provided on preventing Gender Based Violence, Sexual Assault and Sexual Harassment. • The Project must engage with communities using a dedicated community liaison officer and have an effective stakeholder engagement plan, including a grievance mechanism for communities to access and lodge complaints. • Local employment should be a priority for the construction contractor to lessen the number of individuals away from their homes. • No recruitment should occur at the Project gate to prevent informal settlements around the Project site. • Increased security in the Project area should be provided to regulate access to the site and prevent informal settlements.
Residual impacts:	Development of informal settlements Degradation in livelihood and standard of living
Cumulative impact post mitigation:	Growing pressure on local resources, infrastructure and social services
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Potential impact and risk:	**Cultural heritage during construction**
Nature of impact:	Negative No archaeological or heritage resources were identified within or near the areas proposed for development during the archaeological field assessment. No impact on archaeological heritage resources is anticipated due to the complete transformation of the area through past industrial developments. The results of this field assessment corroborate the findings of previous assessments, which note that the site in the Saldanha Bay IDZ is located away from the sensitive coastal area and has Low sensitivity for impacts on archaeological heritage. With respect to the living cultural heritage, the Aikonese Cochoqua Khoi Tribal Council were consulted as part of the impact assessment process. No places or features of cultural value were identified within or near to the proposed development area by the Aikonese Cochoqua Khoi Tribal Council as part of the extensive consultation process undertaken.
Extent and duration of impact:	Extent: Site only Duration: Short term: 0-5 years
Consequence of impact or risk:	Low
Probability of occurrence:	Low

Degree to which the impact may cause irreplaceable loss of resources:	Should archaeological or palaeontological finds be exposed on site during excavation and are damaged or not preserved and removed from the excavated areas on site, this will have irreplaceable loss of heritage resources.
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation
Indirect impacts:	Impact on archaeological heritage resources Social unrest based on cultural, heritage, archaeological or paleontological impacts.
Cumulative impact prior to mitigation:	The cumulative impact to heritage and cultural resources within the proposed project environment is negligible as the project is located in an industrial development zone, is concentrated in one location on site and will not result in complete change to the sense of place of the area.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low Negative
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• If archaeological resources are uncovered during excavation, work must cease near the find, and the Environmental Compliance Officer (ECO) must contact Heritage Western Cape to determine the best way forward. • Although it is noted that the Aikonese Cochoqua Khoi Tribal Council have requested that they benefit directly from the development of the Logistics Hub, both in a profit share and from CSI projects and spending. AMSA is a publicly listed company and is responsible to its shareholders. Everyone has an opportunity to benefit from the Project by purchasing shares in the company. AMSA will not target one community or organisation for benefit above another. AMSA will follow a fair process to identify CSI initiatives it will support.
Residual impacts:	In the event that archaeological or palaeontological finds are identified they can be preserved and removed from the excavated areas on site resulting in negligible damage to heritage resources. This will result in a low positive impact.
Cumulative impact post mitigation:	Heritage resources are preserved for scientific research and observation. Heritage resources add to cultural heritage of the site.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low Positive
Potential impact and risk:	**HIA: Impacts to palaeontological resources - Langebaan Formation capping calcrete during construction**
Nature of impact:	Negative The results of the HIA indicate that the proposed development site is not a sensitive archaeological landscape, and has been highly transformed by historical agriculture and industrial development. Although no fossil remains were identified on the surface within the proposed development area, it is possible that extensive excavations may uncover fossil remains associated with the Langebaanweg Formation. It is understood that the excavations anticipated for the proposed grid connection development will not exceed 3m. As such, it is possible that fossil remains may be impacted by these excavations.

	The calcreted Langebaan Formation is classified to be of very high sensitivity (Figure 3, inset, red), due to previous fossil finds of significant scientific value. The pylon foundations excavations will be embedded within the underlying Langebaan Fm. calcrete. The relatively limited depths of disturbance, together with the sparse distribution of fossil bones in the uppermost part of the calcrete, serve to ameliorate the associated intensity of impact on the fossil content
Extent and duration of impact:	Extent: Site (site only) Duration: Permanent (indefinite)
Consequence of impact or risk:	The magnitude of the impact is rated as low.
Probability of occurrence:	Probable
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	Irreversible: Not possible despite action
Indirect impacts:	Loss of valuable paleontological artefact and information
Cumulative impact prior to mitigation:	The cumulative impact to the loss of valuable paleontological artefact and information within the proposed project environment is negligible as the project is located in an industrial development zone, is concentrated in one location on site and will not result in complete change to the sense of place of the area.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium negative
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• The HWC Chance Fossil Finds Procedure must be implemented for the duration of construction activities. • Construction personnel to be alert for rare fossil bones and follow Fossil Finds Procedure. • Cease construction on (chance) discovery of fossil bones and protect fossils from further damage. • Contact appointed palaeontologist providing information and images. • Palaeontologist will assess information and establish suitable response, such as the importance of the find and recommendations for preservation, collection and record keeping. • Exposed fossiliferous sections in earthworks recorded and sampled by appointed palaeontologist.
Residual impacts:	Gain of valuable paleontological artefact and information.
Cumulative impact post mitigation:	The cumulative impact to the gain of valuable paleontological artefact and information will lead to a positive impact as information gained will provide invaluable historical information and knowledge within the proposed project area and environment.

Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Positive
Potential impact and risk:	**Impact on Production during construction**
Nature of impact:	Positive. The construction phase of the proposed project will involve activities such as engineering and design, site and infrastructure development, construction of buildings and facilities, installation of machinery and equipment, civil engineering works, and other business activities related to the construction. The direct effect will be experienced in the building and construction sector, trade and accommodation sector, and real estate and business services sector.
Extent and duration of impact:	Short term:0-5 years Regional: Outside activity area
Consequence of impact or risk:	High
Probability of occurrence:	High probability
Degree to which the impact may cause irreplaceable loss of resources:	None. Impact is the increase of temporary production. Impact is positive and will occur .if activity goes ahead
Degree to which the impact can be reversed:	Irreversible: Not possible despite the action
Indirect impacts:	The economic benefits of the investment into the project will spread throughout the provincial economy which will positively impact all economic sectors. The effect is categorised according to direct, indirect, and induced impacts, together forming the multiplier effect of the project. These various impacts spread throughout the economy, contributing to heightened production levels. Better livelihood of employees and contractors appointed during the construction phase. Increased municipal revenue and provision of municipal services Better GDP to the Province. Unemployment decreases in the municipality.
Cumulative impact prior to mitigation:	Cumulative economic impacts will occur for positive impacts production, GDP, employment, household income, and government revenue.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	• The developer should encourage contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies. • The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible.
Residual impacts:	Increase household income. Increased household's consumption. The economic benefits of the investment into the project will spread throughout the provincial economy which will positively impact all economic sectors. The effect is categorised according to direct, indirect, and induced impacts, together forming the multiplier effect of

	the project. These various impacts spread throughout the economy, contributing to heightened production levels. Better livelihood of employees and contractors appointed during the construction phase. Increased municipal revenue and provision of municipal services Better GDP to the Province. Unemployment decreases in the municipality.
Cumulative impact post mitigation:	Cumulative economic impacts will occur for positive impacts production, GDP, employment, household income, and government revenue.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Potential impact and risk:	**Economic impact: gross domestic product during construction phase**
Nature of impact:	Positive It is estimated that the proposed project will generate a direct R92.5 million worth of growth. Overall, the initial investment for the construction of the proposed project will inflate the South African GDP by R241.0 million.
Extent and duration of impact:	Extent: Regional: Outside activity area Duration: Short term:0-5 years
Consequence of impact or risk:	The magnitude of the impact is rated Medium.
Probability of occurrence:	High probability
Degree to which the impact may cause irreplaceable loss of resources:	None. Impact is the increase of GDP for the region. Impact is positive and will occur if the proposed activity goes ahead
Degree to which the impact can be reversed:	Irreversible: Not possible despite the action
Indirect impacts:	The indirect impact is projected to create R87.4 million in value added within the national economy. Sectors forecast to greatly benefit from the indirect impacts include manufacturing, real estate and business services, and transport and storage. The real estate and business services sector will experience the greatest value added due to consumption stimulation. Addition of the GDP to the municipality.
Cumulative impact prior to mitigation:	• Cumulative economic impacts will occur for positive impacts production, GDP, employment, household income, and government revenue • Improved living standards of the directly and indirectly affected households. • Increased municipal revenue and provision of municipal services Better GDP to the Province • Unemployment decreases in the municipality
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• The developer should encourage contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies.

	• The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible. • Employ labour-intensive methods in construction where feasible.
Residual impacts:	• Better livelihood • Development of new skills, enterprise development and expertise
Cumulative impact post mitigation:	The cumulative economic impacts will be a positive impact on the GDP, household income for staff employed during construction and government revenue. Furthermore, this will result in reduction in unemployment in the municipality and improvement in the socio-economy of affected households and municipality.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Potential impact and risk:	**Household Income and Livelihoods during the construction phase**
Nature of impact:	Positive The creation of 626 direct, indirect, and induced Full Time Equivalent employment positions during the construction period will temporarily increase affected households' income to the value of R110.0 million in 2023 prices. Approximately 43.7% of this will be earned by households whose members will be working at the project site itself. It is anticipated that most of this direct income earned by households will remain in the local municipality. Additionally, an improvement in the standard of living of the benefiting households will occur, albeit temporarily.
Extent and duration of impact:	Duration: Short term (0-5 years) Extent: Regional (Outside activity area)
Consequence of impact or risk:	The magnitude of the impact is Medium
Probability of occurrence:	High probability
Degree to which the impact may cause irreplaceable loss of resources:	None. Impact is positive and will occur if the proposed activity goes ahead
Degree to which the impact can be reversed:	Irreversible: Not possible despite the action
Indirect impacts:	Businesses supplying inputs to the project's establishment are expected to indirectly benefit and earn R37.3 million in household income (2023 prices). Due to increased household consumption induced through the creation of direct and indirect employment opportunities, an additional R24.6 million will be earned by households. Overall, trade and accommodation, building and construction, and the real estate and business services sector will have the greatest gains in household income. Increased municipal revenue and provision of municipal services. This will result in improved GDP of the Province. Unemployment decreases in the municipality.
Cumulative impact prior to mitigation:	Cumulative economic impacts will occur for positive impacts production, GDP, employment, household income, and government revenue.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	• Recruit local labour as far as feasible to increase the benefits to the local households.

	• Employ labour intensive methods in construction where feasible. • Sub-contract to local construction companies where possible. • Use local suppliers where feasible and arrange with local SMME's and BBBEE compliant enterprises to provide transport, catering, and other services to the construction crews.
Residual impacts:	Better livelihood of employees and contractors appointed during the construction phase. Increased municipal revenue and improvement of municipal services. Unemployment decreases in the municipality.
Cumulative impact post mitigation:	Positive cumulative economic impacts will occur for production, GDP, employment, household income, and government revenue.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Potential impact and risk:	**Impact on Government Revenue during the construction phase**
Nature of impact:	Positive A positive impact will result due to the capital expenditure on the project in companies generating a revenue and employing people. From this, companies are obliged to pay the government income taxes and payroll taxes. Additionally, increased spending power will translate into more purchases, which would increase the Value Added Tax base for government. The various tax received by government improves government's ability to deliver services and an increase in national fiscus will prevail.
Extent and duration of impact:	Duration: Short term (0-5 years) Extent: Regional (Outside activity area)
Consequence of impact or risk:	The magnitude of the impact is Medium
Probability of occurrence:	High probability
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Irreversible: Not possible despite the action
Indirect impacts:	Increased municipal revenue and provision of municipal services Better GDP to the Province Unemployment decreases in the municipality
Cumulative impact prior to mitigation:	Cumulative economic impacts will occur for positive impacts production, GDP, employment, household income, and government revenue
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	None.
Residual impacts:	Increase in Value Added Tax base for government Improves government's ability to deliver services and an increase in national fiscus.
Cumulative impact post mitigation:	Increase in Value Added Tax base for government

	Improves government's ability to deliver services and an increase in national fiscus.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Potential impact and risk:	**Terrestrial Biodiversity:**
Nature of impact:	Negative Permanent loss and degradation of the existing partly disturbed vegetation and faunal habitat and species adjacent to the development footprint, which could eventually lead to loss of almost all the vegetation and fauna on the entire site. **Botanical:** Portions of the site have been identified as being located within a Critical Biodiversity Areas 1 (5% of the site) and an Ecological Support Area 1 (aquatic) (30% of the site) as it is considered to be part of the West Strandveld bioregion, part of the Fynbos biome. A site assessment confirmed that the current site is not worthy of this status, being essentially a patch of common *Lycium ferocissumum* shrubs. The entire study area can be considered previously disturbed, previously cultivated land and hence all the vegetation present on the site has re-established over the years and is considered 70% indigenous. The site has a low botanical sensitivity with low to moderate levels of botanical diversity and structure and supports a single plant Species of Conservation Concern (SCC), *Ruschia langebaanensis* (Vulnerable). **Fauna:** The proposed project area has a Low to Medium faunal sensitivity. The whole area has been heavily disturbed in the past, has low to moderate levels of faunal diversity, but may support at least one insect Species of Conservation Concern (SCC; *Bullacris obliqua*), a Bladder grasshopper and may occasionally support foraging specimens of as many as three bird SCC (Black Harrier, Endangered; Southern Black Korhaan, Vulnerable; and Ludwig's Bustard, Vulnerable). The site has a Low faunal sensitivity.
Extent and duration of impact:	Extent: Local Duration: Short term
Consequence of impact or risk:	The magnitude of the impact is rated as low.
Probability of occurrence:	Probable
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation
Indirect impacts:	The potential disturbance of one insect Species of Conservation Concern (SCC; *Bullacris obliqua*) and foraging species.
Cumulative impact prior to mitigation:	The cumulative botanical impacts are understood to be equivalent to the regional botanical impacts, in that the vegetation type and faunal habitats and species likely to be impacted by the proposed development have been, and will continue to be, impacted by agricultural and urbanization developments.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• Construction works should be confined to the proposed development footprint. No construction-related activities should occur on the adjacent vegetated area.

	• The area adjacent to the proposed development to be cordoned off as a no-go area during the construction phase.
Residual impacts:	The proposed area for the logistics hub warehouse is on a hardstand previously used to stockpile ore. With the implementation of the mitigation measures and the low sensitivity for vegetation on the proposed area, there are no residual vegetation impacts.
Cumulative impact post mitigation:	No cumulative impacts predicted as a result of the Construction Phase of the Proposed Development if mitigation is implemented.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very low negative.
Potential impact and risk:	**Aquatic Biodiversity**
Nature of impact:	Negative No natural aquatic ecosystems (rivers or wetlands) were observed within the study area during the field assessment conducted. No other wetland or watercourse features were identified in the proposed expansion area, nor within the 500 m study area. The system is not considered to support wetland or riparian habitat.
Extent and duration of impact:	Duration: Short term (0-5 years) Extent: Local (inside activity area)
Consequence of impact or risk:	The magnitude of the impact is Low.
Probability of occurrence:	Low probability
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Recoverable
Indirect impacts:	No indirect aquatic biodiversity impacts were identified as no wetland or watercourse features were identified within 500m of the study area.
Cumulative impact prior to mitigation:	No cumulative aquatic biodiversity impacts were identified.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	Limit vegetation removal to the infrastructure footprint area only. Where removed or damaged, bare areas should be revegetated as soon as possible, and monitored for alien invasive species colonisation – where this occurs, it should be controlled immediately. Runoff from construction areas should be designed and managed to ensure that sediments do not reach watercourses in the wider catchment during rainfall events. The implementation of the recommended mitigation measures should be monitored on an at least annual basis, to audit their efficacy in addressing potential impacts, so that adaptive management actions can be timeously undertaken as necessary, to ensure that potential impacts on the receiving environment are avoided/minimised.
Residual impacts:	No residual aquatic biodiversity impacts were identified post mitigation.
Cumulative impact post mitigation:	No cumulative aquatic biodiversity impacts were identified post mitigation. Furthermore, no wetland or watercourse features were identified within 500m of the study area.

Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very low negative
Alternative: Preferred option	
OPERATIONAL PHASE	
Potential impact and risk:	**Economic development during operation**
Nature of impact:	Positive The local economy will benefit from supplying goods and services to the Project during the operational phase. The proposed Logistics Hub will contribute to local and national gross domestic product during the operational phase of development, resulting from the operational expenditure. This would result in an improved GDP contribution within the Saldanha Bay Local Municipality, especially considering the loss of GDP that resulted in the closure of the Saldanha Bay Steel Works that occurred in 2020. Additionally, improved exports through the Port of Saldanha would result in economic contribution (GDP) within the Saldanha Bay Local Municipality.
Extent and duration of impact:	Extent: Regional Long term: Project life
Consequence of impact or risk:	Magnitude of the impact is High.
Probability of occurrence:	Highly Probable
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation
Indirect impacts:	Increase in employment in local and national economies The potential expansion of mining operations, which may result from improved storage capacity of commodities at the Port of Saldanha, would enable an improved level of GDP contribution and growth within the Northern Cape. Improved standard of living Increase in government revenue will result in lower government debt and servicing costs
Cumulative impact prior to mitigation:	Improved labour productivity and employability of workers Improved GDP in the Saldanha Bay municipality, Western Cape Province and nationally through exports from the Port of Saldanha.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium positive
Degree to which the impact can be avoided:	Impact cannot be avoided
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High. Impact can be enhanced.
Proposed mitigation:	No mitigation measures however, the positive impact can be enhanced by engagement with local authorities and business organisations in order to investigate the possibility of procuring materials, goods and products from local suppliers where feasible.
Residual impacts:	The proposed Logistics Hub will contribute to both local and national Gross Domestic Product during the operational phase because increased investment in the local economy would result in an improved GDP contribution within the Saldanha Bay Local Municipality, especially considering the loss of GDP that resulted in the closure of the Saldanha Bay Steel Works that occurred in 2020. Improved standard of living of

	staff employed and local services procured during the operation phase.
Cumulative impact post mitigation:	The improved GDP contribution to local municipalities will improve provision of local services in municipalities. The employment opportunities provided during the operation phase improves the livelihoods and wellbeing of employees and their respective households. Improved GDP in the Saldanha Bay municipality, Western Cape Province and nationally through exports from the Port of Saldanha.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High Positive
Potential impact and risk:	**Employment and household income during operation**
Nature of impact:	Positive. Three hundred and ninety-one (391) direct employment opportunities will be created during operations, increasing household incomes by R42.0 million annually. 139 of the 391 direct employment opportunities are expected to be direct jobs. A further 114 jobs are expected to materialise through second-round suppliers. These jobs occur when suppliers of new goods and services to the appointed companies (first-round suppliers) experience larger markets and the potential to expand.
Extent and duration of impact:	Extent: Regional: Outside activity area Duration: Long term: Project life
Consequence of impact or risk:	Magnitude of impact is High.
Probability of occurrence:	Highly probable.
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation
Indirect impacts:	Increase in employment in local and national economies. Improved standard of living Households contribute to payment of tax and municipal rates thereby increasing government revenue which can result in lower government debt and servicing costs. 114 jobs are expected to materialise through second-round suppliers.
Cumulative impact prior to mitigation:	Improved labour productivity and employability of workers The increased income in these households, employed directly or indirectly through the operations of the proposed development, will result in additional expenditure in the economy, stimulating growth and spurring additional employment.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Positive
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High. Impact is positive and can be enhanced.
Proposed mitigation:	No mitigation measures however, the positive impact can be enhanced. It is suggested that non-locals should only be hired when specialist skills, which are unavailable locally, are required. The following aspects in this regard should receive priority: • Residents and communities should be employed wherever possible;

	• Local companies should be used whenever possible, especially for unskilled and semi-skilled work. • Local workers should be used and mentored as far as possible. • Rigorous and transparent recruitment processes should be followed, and regular audits should be undertaken to establish whether workers are locals.
Residual impacts:	Improved standard of living Improved the health and living conditions of the affected households
Cumulative impact post mitigation:	An improvement in the socio-economic of the Saldanha Bay community may occur to the improvement in livelihoods. The increased income in households, employed directly or indirectly through the operations of the proposed development, will result in additional expenditure in the economy, stimulating growth and contributing to the local and national GDP.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High Positive
Potential impact and risk:	**Traffic during operation**
Nature of impact:	Negative. It is estimated that between 10 and 16 trucks per hour will be added to the roads. There is also no change in the land use; the area and surrounds are zoned for industrial use and therefore this traffic increase can be accommodated in the area with limited impact. Following the transition from road to increased rail the road haulage should reduce.
Extent and duration of impact:	Extent: Regional: Outside activity area Duration: Long term: Project life
Consequence of impact or risk:	The magnitude of the impact is high.
Probability of occurrence:	Highly Probable
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation
Indirect impacts:	Social nuisances such as increased safety risks, air quality, and noise impacts. Altered traffic flows. Increased occurrence of slow-moving heavy vehicles may cause traffic delays.
Cumulative impact prior to mitigation:	Due to the zoning of the site and the current land uses and operations within this industrial zone, this traffic increase can be accommodated in the area with limited impact. Following the transition from road to increased rail once the rail has been repaired and restored the road haulage should reduce.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Negative
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• Trucks will be fitted with tracking devices to maintain speed limits and improve safety by monitoring driver behaviour. • A complaints register will be available to any stakeholder who might want to complain about trucks.

	• A toll-free number will be provided on trucks, allowing drivers to report bad driving. • The gravel roads will be kept wet when trucks access the site to reduce dust. • Vehicles will be regularly serviced to reduce exhaust emissions. • Turning lanes will be provided when trucks coming to the Logistics Hub must turn off public roads. • The site is zoned for industrial use, and only trucks coming to the Logistics Hub will access the site.
Residual impacts:	Altered traffic flows and increased occurrence of slow-moving heavy vehicles as trucks access the Saldanha Steel facility.
Cumulative impact post mitigation:	Due to the zoning of the site and the current land uses and operations within this industrial zone, this traffic increase can be accommodated in the area with limited impact. Following the transition from road to increased rail once the rail has been repaired and restored the road haulage should reduce.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Negative
Potential impact and risk:	**Dust and Exhaust Emissions during operation**
Nature of impact:	Negative Dust will be generated by transporting the commodities by rail and road. Further dust will be generated when loading and offloading the commodities and transporting these by conveyor belts. Workers and the public could be exposed to dust impacts. The Atmospheric Impact Assessment found that dust concentrations associated with the Logistics Hub operations are predicted to exceed the 24-hour average of PM10 NAAQS past the Saldanha Steel fence line, extending towards the east. However, these concentrations do not impact residential sensitive receptors, with all sensitive receptor concentrations predicted to remain low. Concentrations associated with the Logistics Hub operations are predicted to remain well below respective international guidelines, with no impacts on sensitive receptors or the receiving environment. Dust concentrations associated with the Logistics Hub operations are predicted to remain well below respective international guidelines, with no impacts on sensitive receptors or the receiving environment. (WSP, 2023) Sensitive receptors or the receiving environment will not be impacted by dust. Workers handing the commodities at the site will be exposed to dust, and mitigation measures are recommended to mitigate this exposure.
Extent and duration of impact:	Extent: Regional: Outside activity area Duration: Long term – for the project life
Consequence of impact or risk:	The magnitude of the impact is medium.
Probability of occurrence:	Highly probable
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation
Indirect impacts:	Social nuisances such as increased safety risks and air quality impacts due to dust and exhaust emissions. Health and safety impacts to staff on site due to dust particulate matter and exhaust emissions. Visual nuisance on site and visibility concern due to generation of dust.
Cumulative impact prior to mitigation:	Health and safety impacts to staff due to dust particulate matter and continued exposure to dust from surrounding areas.

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Negative
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• Implement the FDMP that was developed for the site to manage and mitigate dust and air emissions on site. • Conduct occupational health surveys to ensure dust emissions do not exceed the acceptable occupational health limits. • Provide workers with dust masks and, where appropriate, ventilators where dust emissions exceed the acceptable occupational health limits. • Annual medical assessments for staff to record and monitor health of staff. All staff to undergo assessments annually or as required by law, whichever is more frequent. • Workers will be made aware of a complaints register should they wish to report dust issues. • Strict speed limits on dust roads will be enforced to prevent dust generated by trucks. • Truckload beds will be covered with tarpaulin to prevent dust from being generated when commodities are in transit. • Train wagons carrying manganese will be covered to prevent dust. • A complaints register will be available to community stakeholders to report any dust complaints. • Any commodities stockpiles will be restricted to designated areas where these can be managed, such as the warehouse. • Manganese stockpiles will be kept wet or treated with a dust-a-cide to reduce and manage dust. • Conveyor belts will be partly covered and use sprayers to reduce dust.
Residual impacts:	Minimal dust and exhaust emissions with the introduction and implementation of mitigation measures. Occupational health surveys will advise on working conditions for staff and whether additional engineering and administrative controls should be introduced on site. The exposure to dust and exhaust emissions magnitude and probability will reduce to low with the introduction of the mitigation measures.
Cumulative impact post mitigation:	Dust and exhaust emissions will not impact on sensitive receptors or the receiving environment beyond the site. Minimal exposure of dust to staff by implementing mitigation measures on site.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low Negative
Potential impact and risk:	**Noise emissions during operation**
Nature of impact:	Negative. The transporting and handling of the commodities will generate noise, which must be mitigated for workers and members of the public. The site is within an industrial zone, and sensitive social receptors are far from noise-generating activities. However, noise impacts still need to be managed.
Extent and duration of impact:	Extent: Site: Site Only Duration: Long term: Project life
Consequence of impact or risk:	The magnitude of the impact is very low
Probability of occurrence:	Highly probable

Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Recoverable: Recovery with rehabilitation
Indirect impacts:	Social nuisance as transporting and handling of the commodities will generate noise, which must be mitigated for workers and members of the public.
Cumulative impact prior to mitigation:	No significant noise cumulative impacts predicted as a result of the activities of the Operation Phase of the Proposed Development. Furthermore, the development is in an industrial zone.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Negative
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• Conduct occupational health surveys to ensure noise emissions do not exceed the acceptable occupational limits (85 dba). • Workers will be provided hearing protection should they work in environments that exceed the acceptable occupational limits. • Workers will be made aware of a complaints register should they wish to report noise issues. • All vehicles and machines must be adequately maintained to minimise potential noise emissions. • Machinery will be retrofitted with silencers that emit noise higher than the acceptable emissions limits. • The public will be aware of the complaints register where they can register noise-related complaints
Residual impacts:	Significant reduction in noise generated on site. Staff will be issued with PPE to manage the impact of the noise. Health and Safety assessments and medical assessments will be conducted on staff to ensure their hearing is not negatively impacted by the activities on site. Monitoring of noise emissions will be conducted to determine and mitigate noise generated.
Cumulative impact post mitigation:	No significant cumulative impacts predicted as a result of the Operation Phase of the Proposed Development as the development is in an industrial zone.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low Negative
Potential impact and risk:	**Health during operation phase**
Nature of impact:	Negative. Several stakeholders raised concerns about the potential health impacts of manganese exposure. The primary health problem is manganese dust. The adverse effects of exposure are associated with the inhalation of manganese dust, which can result in toxicity symptoms that may appear slowly over months and years. Manganese toxicity can result in a permanent neurological disorder known as manganism, with symptoms that include tremors, difficulty walking, and facial muscle spasms (Agency for Toxic Substances and Disease Registry, 2023). The literature reviewed indicated that workers are most likely exposed to health risks associated with Manganese dust. (The National Institute for Occupational Safety and Health , 2023).

	Manganese (Mn) 24-hour average and long-term (annual) concentration predictions will remain below the relevant international guidelines at all residential sensitive receptors. Mental health and wellbeing stress, risk of depression and other outcomes due to exposure or risk of exposure. Increased mortality rate in the district
Extent and duration of impact:	Duration: Indefinite Extent: Local – Inside activity area
Consequence of impact or risk:	The magnitude of the impact is high.
Probability of occurrence:	Highly Probable
Degree to which the impact may cause irreplaceable loss of resources:	Low.
Degree to which the impact can be reversed:	Irreversible: Not possible despite action subsequent to manganese exposure.
Indirect impacts:	Degradation of the standard of living. Loss of household income of employees affected.
Cumulative impact prior to mitigation:	Manganese toxicity can result in a permanent neurological disorder known as manganism to staff affected. Only staff on site are at risk of exposure due to dust. Degradation of the standard of living Loss of income of employees affected.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High Negative
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• The mitigation measures mentioned for dust impacts must be implemented to manage and reduce manganese dust exposure and impacts. • Workers working with manganese must be regularly monitored for health impacts caused by exposure to manganese dust. They should be monitored long-term to identify any impacts from long-term extended exposures to manganese dust. • The engineering control and maintenance measures within the FDMP should be implemented onsite to minimise dust generation. • The dust monitoring measures included in the FDMP must be implemented. These include control inspections, dust fallout monitoring and ambient continuous monitoring.
Residual impacts:	With the engineering and administrative controls proposed for the development, there is no risk of exposure of dust and emissions beyond the AMSA boundary. These were modelled in the atmospheric emissions assessment.
Cumulative impact post mitigation:	No cumulative health impacts predicted as a result of the Operation Phase of the Proposed Development as the mitigation measures minimise risk of exposure. Furthermore, continuous onsite dust and emission monitoring, and annual health medicals will indicate whether staff are at risk of exposure to manganese dust.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Negative

Potential impact and risk:	Sustainable Impact on Production and GDP during the operational phase
Nature of impact:	Positive The operations of the proposed project will generate R179.8 million (2023 prices) of business sales per annum. Due to the backward linkages and the multiplier effect associated with the consumption induced impacts, the total annual impact on the production in the country will amount to R394.9 million per annum.
Extent and duration of impact:	Duration: Long term (Project Life) Regional: Outside activity area
Consequence of impact or risk:	The magnitude of the project is rated as Medium
Probability of occurrence:	Highly probable
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Irreversible: Not possible despite the action
Indirect impacts:	The proposed project will have to acquire inputs from a variety of sectors such as trade and accommodation, transport and storage, and government services. These additional new business sales averaging R118.8 million (2023 prices) per year, will be created as a result of the indirect multiplier effect stimulated by operating activities of the proposed project. Manufacturing followed by real estate and business services will experience the largest increase in production due to stimulus. The upsurge in household expenditure, induced by the project's activities, will further generate R96.2 million (2023 prices) per annum. This expenditure pattern of households will cause the manufacturing and real estate and business services to experience the largest increase in demand for their products and services. Considering that the project will be located in the Saldanha Bay Local Municipality and assuming that the entire production value will be accounted as part of the output of the municipality, the size of Saldanha Bay Local Municipality economy is expected to increase.
Cumulative impact prior to mitigation:	Positive cumulative economic impacts will occur for increased production, GDP, employment, household income, and government revenue. This will further improve municipal and government service delivery, livelihoods and standards of living.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High. Positive impacts can be enhanced
Proposed mitigation:	• The proponent should focus on increasing local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies. • The proponent should engage with local authorities and business organisations to investigate the possibility of procuring goods and products from local suppliers were feasible.
Residual impacts:	Increased GDP to the municipality, province and nationally. Improvement in municipal and government revenue and service delivery, Improved livelihoods, wellbeing and standards of living for staff and households positively influenced.

Cumulative impact post mitigation:	Positive cumulative economic impacts will occur for increased production, GDP, employment, household income, household's consumption and government revenue.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Potential impact and risk:	**Sustainable Impact on Employment during operation**
Nature of impact:	Positive The operational nature and scale of proposed project will positively impact the socio-economic environment through creating employment opportunities, which will be sustained over the operational phase. Direct employment opportunities were provided by the proponent and the proposed project is expected to create **391 jobs**, **139 of which are expected to be direct jobs**.
Extent and duration of impact:	Duration: Long term (project life) Extent: Regional (Outside activity area)
Consequence of impact or risk:	The magnitude of the impact is rated as low.
Probability of occurrence:	Highly probable
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Irreversible: Not possible despite the action
Indirect impacts:	A further 114 jobs are expected to materialise through second round suppliers. This occurs when suppliers of new goods and services to the appointed companies (first round suppliers) experience larger markets and potential to expand.
Cumulative impact prior to mitigation:	The increased income in households employed directly or indirectly through the operations of the proposed development will result in additional expenditure in the economy which stimulates growth and spurs additional employment. Unemployment will decrease in the municipality thereby promoting the socio economy of the municipality. Additional cumulative economic impacts will occur for positive impacts on increased GDP and improved livelihoods of households.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• Employ labour-intensive methods in operation where feasible. • Sub-contract to local companies particularly SMMEs and BBBEE compliant enterprises where possible. • Use local suppliers where feasible and arrange with the local SMMEs to provide transport and other services where applicable during operation. Employ previously retrenched employees of Saldanha Steel Works.
Residual impacts:	The increased income in households employed directly or indirectly through the operations of the proposed development will result in additional expenditure in the economy which stimulates growth and spurs additional employment. Unemployment will decrease in the municipality thereby promoting the socio-economy of the municipality.
Cumulative impact post mitigation:	Cumulative economic impacts will occur for positive impacts on increased GDP and improved livelihoods of households directly and indirectly affected, government revenue.

	Increased municipal revenue and provision of municipal services. Development of new skills, enterprise development and expertise in the municipality.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Potential impact and risk:	**Sustainable Impact on Household Income during operation**
Nature of impact:	Positive The proposed project will create employment positions throughout the country which will generate personal income and will be sustained for the entire duration of the project's lifespan. It is estimated that households benefitting directly from the proposed projects operation will earn R42.0 million on average annually, and people are to benefit from the proposed projects operations directly and through multiplier effects, as household income levels are set to rise by R76.3 million (2023 costs). Household income will have a positive impact and will be sustainable over a prolonged period of time.
Extent and duration of impact:	Extent: Regional: Outside activity area Duration: Long term: Project life
Consequence of impact or risk:	Magnitude of the impact is rated as Low.
Probability of occurrence:	Highly probable
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Irreversible: Not possible despite the action
Indirect impacts:	The sustainable income generated because of the operation of the proposed project will positively affect the nutrition, living conditions, access to better health care, access to more options regarding education, and improved ability to make economic choices. The sustainable income generated as a result of the project's operation will positively affect the standard of living of all benefitting households.
Cumulative impact prior to mitigation:	Cumulative economic impacts will occur for increased GDP and government revenue, and improved livelihoods of households directly and indirectly affected by the proposed development.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High. Impact can be enhanced.
Proposed mitigation:	• Where possible, the local labour supply should be considered for employment opportunities to increase the positive impact on the area's economy. • As far as feasible, local small and medium enterprises should be approached to investigate the opportunities for supply inputs required for the maintenance and operation of the facility. • Employ previously retrenched employees of Saldanha Steel Works
Residual impacts:	Increased household income will have a positive impact and will be sustainable over a prolonged period of time. This sustainable income will positively affect the nutrition, living conditions, access to better health care, access to more options regarding education, and improved ability to make economic choice. This improves the standard of living of households directly and indirectly affected.

Cumulative impact post mitigation:	The sustainable income generated will positively affect the wellbeing of households directly or indirectly affected. Positive cumulative economic impacts will occur for increased GDP and government revenue.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Positive
Potential impact and risk:	**Sustainable Impact on Improved Economic Input to the Northern Cape and Government Revenue during operation**
Nature of impact:	Positive The proposed Logistics Hub would enable an improved level of storage for commodities from the Northern Cape; the provision of improved storage would potentially result in the associated mines expanding and improving on their production levels and/ or new mines becoming operational. This would result in improved economic contribution in the Northern Cape as a result of increased operational investment of the associated mines; economic contribution would occur through improved GDP contribution, production, employment, and household income. A significant amount of government revenue will be derived from payments of income taxes, royalties, contributions towards fee payments in line with respective regulations, and payroll taxes as a result of the proposed projects operations. The main source of the payments will be personal income taxes.
Extent and duration of impact:	Extent: Regional: Outside activity area Duration: Long term: Project life
Consequence of impact or risk:	Magnitude rated as Low
Probability of occurrence:	Highly probable
Degree to which the impact may cause irreplaceable loss of resources:	None. Impact is positive and will occur if the proposed activity goes ahead.
Degree to which the impact can be reversed:	Irreversible: Not possible despite the action
Indirect impacts:	Strengthening the economy, would assist the Northern Cape further gaining the capacity and resources required to provide public goods and services required by its population. Increase in government revenue allows the public sector to maintain the existing infrastructure and improve on its service delivery.
Cumulative impact prior to mitigation:	Cumulative economic impacts will occur for increased GDP and government revenue, and improved livelihoods of households directly and indirectly affected by the proposed development, decrease in unemployment.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	None envisioned.
Residual impacts:	Increased mining activity and expansion in the Northern Cape will strengthen the economy and improve ability of municipalities in Northern Cape to provide municipal services Increase the Value Added Tax base for government.
Cumulative impact post mitigation:	Improvement in the livelihoods of households directly and indirectly affected by mining activity in the Northern Cape. Improved provision of

	municipal services to household in the Northern Cape. Increase the Value Added Tax base for government will improve government's ability to deliver services and is an increase in national fiscus.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Positive medium
Potential impact and risk:	**Sustainable Impact on Improved Level of Export in Saldanha Bay Local Municipality**
Nature of impact:	Positive The proposed Logistics Hub is envisioned to assist in the operations at the Port of Saldanha and increase the productivity of export operations at the Transnet National Ports Authority Multi-Purpose Terminal in Saldanha. The increase storage of mined commodities, i.e., Manganese Ore, Phosphate Concentrate, Lead Concentrate, Copper concentrate, Zinc Concentrate, Garnet sand, Anthracite, Ilmenite and Zircon sand, from the Northern Cape at the Port of Saldanha, would enable an improved level of export in turn contributing to an improved trade surplus level thus resulting in economic growth. A key export would be manganese, especially, considering the potential the proposed Logistics Hub has in offering increased storage capacity for Northern Cape Mines transporting their commodities via rail or road; this especially considering the number of new manganese mines becoming operational to meet the global demand for manganese. This in turn would result in attraction of potential international customers. According to shippers and exporters of manganese, a demand exists to export between 20 to 22 million tons per annum, with South Africa only exporting 19 million tons of manganese in 2022. The provision of improved operational efficiencies (i.e., improved storage capacity) translates into lowered logistics costs, enabling greater export volumes even when the international commodity price is low.
Extent and duration of impact:	Extent: Regional: Outside activity area Duration: Long term: Project Life
Consequence of impact or risk:	Magnitude rated as Very High
Probability of occurrence:	Highly Probable
Degree to which the impact may cause irreplaceable loss of resources:	None. Impact is positive and will occur if the proposed activity goes ahead.
Degree to which the impact can be reversed:	Irreversible: Not possible despite the action
Indirect impacts:	Improved livelihood
Cumulative impact prior to mitigation:	An increase in exports increases GDP, in this case, particularly, the Saldanha Bay Local Municipality, as improved revenue would occur through commodities exported. Furthermore, an improved level of export, highlights that businesses are operating at an improved level which directly leads to the creation of employment. Increase economic diversification in the local economy but also impact the provincial economy
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High Positive
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Opportunity can be enhanced by ensuring that operations continue for as long as possible as project operation will have a positive impact on the local and provincial economy.

Residual impacts:	No residual impacts identified.
Cumulative impact post mitigation:	An increase in exports increases GDP, in this case, particularly, the Saldanha Bay Local Municipality, as improved revenue would occur through commodities exported. Furthermore, an improved level of export, highlights that businesses are operating at an improved level which directly leads to the creation of employment.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High Positive
Potential impact and risk:	**Sustainable Impact on Economic Diversification**
Nature of impact:	Positive The transport and storage sector of the Saldanha Local Municipality will be expanded significantly thereby impacting positively on the upstream and downstream activities on the value chain. The upstream activities like mining and transportation will be positively influenced as they are the input product and service to the transport and storage sector. The downstream activities in the form of business services and logistics will expand as a result of the proposed logistics hub operation. The operation of the proposed logistics hub will therefore increase economic diversification in the local and provincial economy.
Extent and duration of impact:	Extent: Regional: Outside activity area Duration: Long term: Project Life
Consequence of impact or risk:	Magnitude rated as High
Probability of occurrence:	Highly Probable
Degree to which the impact may cause irreplaceable loss of resources:	None. Impact is positive and will occur if the proposed activity goes ahead.
Degree to which the impact can be reversed:	Irreversible: Not possible despite the action
Indirect impacts:	Improved livelihood
Cumulative impact prior to mitigation:	Increase economic diversification in the local and provincial economy. Cumulative economic impacts will occur for increased economic activity, GDP and government revenue, and improved livelihoods of households directly and indirectly affected by the proposed development and decrease in unemployment. Socio-economic improvement in the Western and northern Cape.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium Positive
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Opportunity can be enhanced by ensuring that operations continue for as long as possible as project operation will have a positive impact on the provincial and local economy.
Residual impacts:	No residual impacts identified
Cumulative impact post mitigation:	Cumulative economic impacts will occur for increased GDP and government revenue, and improved livelihoods of households directly and indirectly affected by the proposed development, decrease in unemployment. Increase the Value Added Tax base for government improves government's ability to deliver services.

Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High Positive
Potential impact and risk:	**Terrestrial Biodiversity: Increased fragmentation and loss of terrestrial ecological connectivity**
Nature of impact:	Negative **Botanical:** Operational phase ecological impacts include notably increased habitat fragmentation and loss of current terrestrial ecological connectivity across the currently partly natural study area. No other indirect botanical impacts are likely. **Fauna:** Operational phase faunal impacts include displacement of existing animal populations into adjacent areas (possibly including the Vulnerable Bullacris obliqua), placing resource pressure (competition) on these adjacent areas and their existing animal populations.
Extent and duration of impact:	Extent: Local: Inside activity area Duration: Project Life
Consequence of impact or risk:	The magnitude of the impact is rated as Low.
Probability of occurrence:	Low probability
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	Reversible
Indirect impacts:	No other indirect botanical or faunal impacts are likely.
Cumulative impact prior to mitigation:	The vegetation type and faunal habitats and species impacted by the proposed development continue to be, impacted by agricultural and urbanization developments thereby reducing their presence.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	• Works onsite should be confined to the proposed development footprint. No work-related activities should occur on the adjacent vegetated area. • Staff to receive awareness training that no clearing of vegetation is conducted beyond the footprint of the warehouse.
Residual impacts:	Given the complete lack of likely biodiversity impact due to the operation phase of the project, there is no residual biodiversity impact for the operation phase of the development.
Cumulative impact post mitigation:	Minimal disturbance to the area adjacent to the proposed development footprint will minimise impact on vegetation and faunal habitats and species promoting their natural development.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very Low negative
Potential impact and risk:	**Aquatic Biodiversity:**
Nature of impact:	Negative No natural aquatic ecosystems (rivers or wetlands) were observed within the study area during the field assessment conducted. No other wetland or watercourse features were identified in the proposed expansion area, nor within the 500 m study area. The system is not considered to support wetland or riparian habitat.

Extent and duration of impact:	Duration: Project Life Extent: Local (inside activity area)
Consequence of impact or risk:	The magnitude of the impact is Low.
Probability of occurrence:	Low probability
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Reversable
Indirect impacts:	No indirect aquatic biodiversity impacts were identified as no wetland or watercourse features were identified within 500m of the study area.
Cumulative impact prior to mitigation:	No cumulative aquatic biodiversity impacts were identified.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	Limit vegetation removal to the infrastructure footprint area only. Where removed or damaged, bare areas should be revegetated as soon as possible, and monitored for alien invasive species colonisation – where this occurs, it should be controlled immediately. Runoff from the finished operational infrastructure, should be designed and managed to ensure that sediments do not reach watercourses in the wider catchment during rainfall events. The implementation of the recommended mitigation measures should be monitored on an at least annual basis, to audit their efficacy in addressing potential impacts, so that adaptive management actions can be timeously undertaken as necessary, to ensure that potential impacts on the receiving environment are avoided/minimised.
Residual impacts:	No residual aquatic biodiversity impacts were identified post mitigation.
Cumulative impact post mitigation:	No cumulative aquatic biodiversity impacts were identified post mitigation. Furthermore, no wetland or watercourse features were identified within 500m of the study area.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very low negative
Decommissioning and closure phase	
Potential impact and risk:	**Economic Impacts due to decommissioning activities**
Nature of impact:	The decommissioning of the logistics hub will result in short term positive economic impact due construction-related activities to dismantle and decommission the warehouse for the logistics hub. This will have positive impacts on production, employment and household income required for decommissioning and dismantling the logistics hub. The long term negative economic impact to the decommissioning of the logistics hub will be due to the direct loss of employment and household income, the loss of economic activity in the municipality, provinces and decrease of local, provincial and national GDP contribution. Furthermore, there will be a loss of household income, drop in standard of living of employees and staff directly and indirectly affected by the decommissioning of the logistics hub. Mines exporting commodities from the Northern Cape to Saldanha will be negatively affected due to drop in production and economic activity within the Northern Cape.

	The overall impacts that would ensue during the decommissioning phase will mostly be of low positive significance for the dismantling of the new proposed warehouse and transfer station through temporary employment opportunities, but the distinct loss of operational jobs would be of high negative significance.
Extent and duration of impact:	Duration: Permanent Extent: National
Consequence of impact or risk:	The magnitude of the impact is very high.
Probability of occurrence:	High probability
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Recoverable
Indirect impacts:	There are no additional indirect impacts.
Cumulative impact prior to mitigation:	Loss of economic activity in the municipality, provinces and decrease of local, provincial and national GDP contribution. Decrease in government revenue through due to job losses and decrease in tax contributions resulting in decrease in government revenue and service delivery. Decrease in household income will result in increased unemployment, drop in standards of living and access to healthcare and wellbeing of households directly and indirectly affected by the logistics hub. The extent of the impact will be national therefore increasing the cumulative impact.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	Engagements should happen with the local authorities to inform them that the operations will be closing. A closure plan should be developed to transition businesses which will have become dependent on the logistics hub to other economic opportunities. A downscaling and retrenchment plan must be developed before the operation enters the decommissioning phase. Reskilling should be offered to workers so they can find alternative jobs. Workers should be assisted in accessing the Unemployment Insurance Fund. Local social services should know that the operation will be closing and that workers will need assistance.
Residual impacts:	There are no additional or decrease of residual impacts post mitigation. With mitigation the magnitude and duration of the impact decrease, this however does not alter the nature of the impact to households directly and indirectly affected and the decrease in government revenue and contribution to the municipal, local and national GDP.
Cumulative impact post mitigation:	Loss of economic activity in the municipality, provinces and decrease of local, provincial and national GDP contribution. Decrease in household income will result in increased unemployment, drop in standards of living and access to healthcare and wellbeing of households directly and indirectly affected by the logistics hub. The extent of the impact will be national therefore increasing the cumulative impact.

Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium negative
Potential impact and risk:	**Social Impacts due to loss of employment and household income**
Nature of impact:	Negative. The positive social impacts experienced during the operation phase will end when the logistics hub is decommissioned. Nearly four hundred (400) direct employment opportunities will end when the logistics hub is decommissioned, decreasing household income by R42.0 million annually.
Extent and duration of impact:	Duration: Permanent Extent: National
Consequence of impact or risk:	The magnitude of the impact is very high.
Probability of occurrence:	High probability
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Recoverable
Indirect impacts:	No indirect and secondary jobs experienced when the logistics hub is decommissioned. Decrease in employment in local and national economies and a decrease in contribution to the local and national GDP. Decrease in economic activity from households and decrease in standard of living for households directly or indirectly affected. Households contribute to payment of tax and municipal rates thereby no employment from the logistics hub will result in decrease in government revenue which can result in higher government debt and servicing costs.
Cumulative impact prior to mitigation:	Decrease in labour productivity, employability of workers and an increase in unemployment in the municipality. Significant decrease in standard of living by households directly and indirectly affected by the decommissioning of the logistics hub. Decrease in government revenue resulting in decrease in provision of basic services.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	A downscaling and retrenchment plan must be developed before the operation enters the decommissioning phase. Reskilling should be offered to workers so they can find alternative jobs. Workers should be assisted in accessing the Unemployment Insurance Fund. Local social services should know that the operation will be closing and that workers will need assistance.
Residual impacts:	There are no additional or decrease of residual impacts post mitigation. With mitigation the magnitude and duration of the impact decrease, this however does not alter the nature of the impact to households directly and indirectly affected (i.e. the decrease in standard of living of households directly affected).

	Increase in unemployment in the municipality will result in a negative social impact and create further strain on the local municipality to provide basic services to the public with less revenue generated through payment of rates and services provision.
Cumulative impact post mitigation:	Loss of economic activity in the municipality, provinces and decrease of local, provincial and national GDP contribution. Decrease in household income will result in increased unemployment, drop in standards of living and access to healthcare and wellbeing of households directly and indirectly affected by the logistics hub. The extent of the impact will be national therefore increasing the cumulative impact.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium negative
Potential impact and risk:	**Health and Safety impacts due to dust and noise emissions**
Nature of impact:	Overall positive. Dust will be generated from the dismantling and construction-related activities required for the decommissioning phase. However, dust generated during the operation phase will stop. Overall, there will be an initial negative impact but a long-term positive impact as no dust will be generated. Similarly, noise will be generated from the dismantling and construction-related activities required for the decommissioning phase. However, noise generated during the operation phase will stop. Overall, there will be an initial negative impact but a long-term positive impact for noise. Due to the decommissioning of activities on site, no staff will be exposed to dust and noise.
Extent and duration of impact:	Duration: Permanent Extent: Local
Consequence of impact or risk:	The magnitude of the impact is low.
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	None.
Degree to which the impact can be reversed:	Reversible
Indirect impacts:	No additional indirect health and safety impacts were identified.
Cumulative impact prior to mitigation:	Once the logistics hub is decommissioned, all staff employed at the logistics hub will not be exposed to dust and noise and their health will not be compromised due to the activities on site.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium positive
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	Mitigation measures are provided for the initial dust and noise impacts experienced for the construction-related activities during the dismantling and decommissioning activities. **Dust** • Continue implementation of a fugitive dust management plan • Continue monitoring of dust emissions to determine effectiveness of controls and impacts on the receiving environment.

	• Exposed areas created by the decommissioning activities will be kept wet to minimise dust emissions from the site activities. • Strict speed limits on dust roads will be enforced to prevent dust. • A complaints register will be available to stakeholders to report any dust complaints. • Material stockpiles will be restricted to designated areas where these can be managed. • No waste burning, such as plastic bags, cement bags, and litter, will be permitted. • All materials brought and removed from the site must be transported so they do not fall off the construction vehicle. • Vehicles and machines must be maintained to minimise exhaust emissions. **Noise** • Occupational health surveys will be conducted to ensure that the noise emissions do not exceed the acceptable occupational health limits (85 dBA) for construction workers. • Workers will be provided hearing protection should they work in environments that exceed the acceptable occupational limits. • Workers will be made aware of a complaints register should they wish to report noise issues. • Construction-related activities will be planned so that the most significant potential actions that could generate noise are scheduled during periods that will result in the least disturbance, for instance, restricting construction-related activities to daytime. • Ensuring construction vehicles and equipment is well-maintained to avoid additional noise generation. • A maximum 40 km/h speed will be set on all unpaved roads to minimise noise. No mitigation measures are required for the long-term impacts for dust and noise as no staff will be based on site and positive health impacts are experienced as staff are no longer exposed to any dust and noise emissions.
Residual impacts:	There are no additional or decrease of residual impacts post mitigation.
Cumulative impact post mitigation:	Once the logistics hub is decommissioned, all staff employed at the logistics hub will not be exposed to dust and noise emissions, and their health will not be compromised due to the activities on site.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative

SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

1.	Provide a summary of the findings and impact management measures identified by all Specialist and an indication of how these findings and recommendations have influenced the proposed development.

Social Impact Assessment

The development of the proposed Logistics Hub will offset some of the negative impacts of the closure of Saldanha Steel. The Project will create employment, training, and business opportunities during the construction and operation phases. As detailed above, the potential negative impacts of the construction and operation phases can be mitigated and positive impacts can be enhanced.

Some unfavourable impacts such as the potential impact on workers health as a result of potential dust emissions during loading and offloading activities have been rated as highly negative and significant. Mitigation measures have been presented and with mitigation implement the impact is reduced to a medium negative impact. Other impacts on the construction, operation, and decommissioning phases have been rated as medium negative to high positive, respectively. If

mitigation measures are implemented, it is anticipated that the consequence and probability of the negative impacts will be reduced. The obvious direct positive impacts relating to opportunities for employment in the construction and operation phases will have a significant positive impact to the region's economy. Given the above, it is strongly recommended that the mitigation measures described in this report be incorporated into the proposed Project's Environmental and Social Management Plan. Additionally, measures must be put in place to monitor and assess the implementation of these mitigation measures and take corrective action where necessary.

Economic Impact Assessment

Economically, the proposed Logistic Hub regardless of alternative is not envisioned to create any negative impacts, thus, net positive economic impacts associated with the construction and operation phases of the proposed Logistics Hub would outweigh the net negative effects. The proposed project is envisaged to have a positive stimulus on the local economy and employment creation, leading to the economy's diversification and a small reduction in the unemployment rate. Additionally, the proposed Logistics Hub will provide a means to improving the storage capacity of certain commodities, especially manganese, which will in turn result in improved export, economic diversification of upstream and downstream sectors, as well as enable economic growth in the Northern Cape.

In terms of the site area assessed, there are no fatal flaws from an economic perspective and thus the location is deemed acceptable. In addition, from an economic perspective, this would result in the positive effects / impacts not being realised, especially, the potential reemployment of individuals who lost their jobs due to the closure of Saldanha Steel. Since positive effects/ impacts from an economic perspective would outweigh the lack of negative impacts, the construction and operation of the proposed project is preferred over the 'no-go' alternative.

The proposed logistics hub regardless of alternative should therefore be considered for development, subject to the implementation of the recommended enhancement measures. No imbalance was identified between positive and negative economic impacts; thus, enhancement measures can only be applied to the identified positive economic impacts. Application of the enhancement measures will assist in improving the effect of the impacts in the economy and in local towns/ communities should local labour be utilised.

Heritage Impact Assessment

The area proposed for development was surveyed for archaeological resources. no archaeological resources were identified in the assessment. the proposed development site is largely flat and featureless, comprising old agricultural land that has not been worked for several years prior to the steel works construction (figure 1). The natural vegetation covering the site is covered by iron oxide dust and the landscape is highly transformed by historical agriculture and the impacts of the steel works factory. Patches of surface calcrete/limestone are visible in places, and large numbers of loose, calcrete nodules and chunks are scattered about the site. There is virtually no other surface stone covering the site, which is on a substrate of loose sand. Small animal burrowing is extensive and old vehicle tracks cut through the proposed footprint area.

The survey further supported the hypothesis by Smith and Mutti (2013) that there is a pattern showing a lack of archaeological sites, particularly remains of coastal shell middens or material dropped en route from areas further inland to and from the coast. The areas surveyed for this proposed development lie outside the immediate coastal band and the lack of natural outcrops of granite, streams or deflation bays further add to the unlikelihood of finding extensive archaeological resources on these properties.

The earthworks associated with the construction of the proposed Logistics Hub will involve the thin, loose **Springfontyn Formation Q1 coversands** and the underlying calcrete of the uppermost part of the **Langebaan Formation aeolianites**. Beneath the low elevation parts of the project area less than ~12 m asl. it is expected that shelly beds of the velddrif formation raised beaches are present and could possibly be intersected in places.

Without mitigation the significance of the impact of the earthworks on the fossil bone content of the Springfontyn Fm. Q1 coversands is low negative and with mitigation is low positive.

Without mitigation the significance of the impact of the earthworks on the fossil bone content of the Langebaan is medium negative. Notwithstanding a similar medium, but positive significance with mitigation, depending on the scientific significance of the actual finds, the significance of the impact may range from medium positive to high positive.

Without mitigation the significance of the impact of the earthworks on the fossil shell content of the Velddrif Fm. is low negative and with mitigation is low positive.

No mitigation is required prior to construction commencing. During construction the HWC Chance Fossil Finds Procedure must be implemented. If resources are uncovered during construction these must be immediately reported to Heritage Western Cape.

Atmospheric Impact Assessment

Based on the dispersion modelling predictions, the following key, summary findings are noted:

Concentrations associated with the Logistics Hub operations are predicted to exceed the 24-hour average PM_{10} NAAQS past the Saldanha Steel fence line, extending towards the east. However, importantly, these concentrations do not impact residential sensitive receptors, with all sensitive receptor concentrations predicted to remain **low**. PM_{10} 24-hour average and long-term (annual) concentration predictions will remain below the relevant NAAQS at all residential sensitive receptors. $PM_{2.5}$

24-hour average and long-term (annual) concentration predictions will remain below the relevant NAAQS at all identified sensitive receptors, including the access point.

Mn concentrations associated with the Logistics Hub operations are predicted to remain well below respective international guidelines, with no impacts on sensitive receptors, nor the receiving environment. Manganese (Mn) 24-hour average and long-term (annual) concentration predictions will remain below the relevant international guidelines at all residential sensitive receptors.

Dust fallout rates are predicted to remain **low** at all sensitive receptors, below the Residential Standard. However, exceedances of the non-residential standard are predicted on the northern fence line of Saldanha Steel. Importantly, the Saldanha Steel operations are located alongside the northern fence line, with emissions having little time to disperse sufficiently prior to reaching the fence line. Importantly, compliance with the residential standard is predicted approximately 400m from the fence line, with the area potentially impacted comprising a railway and open lands, with no inhabitants in the area.

Dust emissions remain the single potential impact associated with the proposed Logistics Hub and this can be adequately managed through the implementation of the proposed mitigation measures and the fugitive dust management plan.

Biodiversity Compliance Statement

According to the Biodiversity Compliance Statement undertaken by the specialist botanical consultant, the project area assessed adjacent to the proposed project area has a Low to Medium botanical and faunal sensitivity. This whole area has been heavily disturbed in the past, has low to moderate levels of botanical diversity and structure, and supports only a single plant Species of Conservation Concern (SCC) (Nick Helme Botanical Surveys, 2023). The overall construction phase ecological impact on the adjacent area is likely to be of Medium negative significance and cannot be mitigated in any meaningful way (hence Medium negative after mitigation).

The decision by the proponent was therefore to develop the warehouse for the logistics hub on the hardstand previously used to stockpile iron ore for the steel making process and supports no vegetation. Therefore, no vegetation will be impacted in the wider area assessed by the specialist.

The biodiversity compliance addendum concludes that as the project footprint is within a heavily disturbed area with no remaining biodiversity, there will be no negative impact on either fauna or flora. Therefore, the impact was rated as very low negative during the construction and operation phase and no specific mitigation measures were required.

2.	List the impact management measures that were identified by all Specialist that will be included in the EMPr

Social Impact Assessment

Construction and Operation Conditions

- Trucks will be fitted with tracking devices to maintain speed limits and improve safety by monitoring driver behaviour.
- A toll-free number will be provided on trucks, allowing drivers to report bad driving.
- The gravel roads will be kept wet when trucks access the site to reduce dust.
- Vehicles will be regularly serviced to reduce exhaust emissions.
- If needed, appropriate traffic signals at intersections to manage traffic flow will be introduced.
- Conduct occupational health surveys to ensure noise emissions do not exceed the acceptable occupational limits (85 dBA).
- Workers will be provided hearing protection should they work in environments that exceed the acceptable occupational limits.
- Workers will be made aware of a complaints register should they wish to report noise issues.
- All vehicles and machines must be adequately maintained to minimise potential noise emissions.
- Machinery will be retrofitted with silencers that emit noise higher than the acceptable emissions limits.
- The public will be made aware of the complaints register where they can register noise-related complaints.
- Local residents and communities should be employed wherever possible;
- Local companies should be used whenever possible, especially for unskilled and semi-skilled work.
- Rigorous and transparent recruitment processes should be followed, and regular audits should be undertaken to establish whether workers are locals.
- Engage with local authorities and business organisations to investigate the possibility of procuring materials, goods and products from local suppliers was feasible.
- Inform the municipality of the Project and the potential for an influx of people looking for jobs so that the municipality can prepare for this.

Decommissioning Conditions

- A downscaling and retrenchment plan must be developed before the operation enters the decommissioning phase.
- Reskilling should be offered to workers so they can find alternative jobs.
- Workers should be assisted in accessing the Unemployment Insurance Fund.
- Local social services should know that the operation will be closing and that workers will need assistance.
- Engagements should happen with the local authorities to inform them that the operations will be closing.
- A closure plan should be developed to transition businesses which will have become dependent on the Logistics Hub to other economic opportunities.

Heritage Impact Assessment

- No mitigation is required prior to construction commencing.
- The HWC Chance Fossil Finds Procedure (attached) must be implemented during the construction phase of development, and included in the EMPr as per the recommendations of Pether (2021)
- If any archaeological resources or unmarked human remains are uncovered or exposed during construction operations these must immediately be reported to Heritage Western Cape (Att: Ms Stephanie Barnardt 021 483 9543).

Terrestrial Biodiversity Compliance Statement

- No specific mitigation measures were required by the botanical specialist.

Aquatic Biodiversity Compliance Statement

- No specific mitigation measures were required by the botanical specialist.
- Limit vegetation removal to the infrastructure footprint area only. Where removed or damaged, bare areas should be revegetated as soon as possible, and monitored for alien invasive species colonisation – where this occurs, it should be controlled immediately.
- Runoff from construction areas, and the finished operational infrastructure, should be designed and managed to ensure that sediments do not reach watercourses in the wider catchment during rainfall events.
- The implementation of the recommended mitigation measures should be monitored on an at least annual basis, to audit their efficacy in addressing potential impacts, so that adaptive management actions can be timeously undertaken as necessary, to ensure that potential impacts on the receiving environment are avoided/minimised.

Economic Impact Assessment

- The developer should encourage contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies.
- The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction and operation materials, goods and products from local suppliers were feasible.
- Employ labour-intensive methods in construction where feasible.
- Recruit local labour as far as feasible to increase the benefits to the local households.
- Employ previously retrenched employees of Saldanha Steel Works.

Atmospheric Impact Assessment

Emissions Impact mitigation can be achieved through implementing a a fugitive dust management plan that incorporates general housekeeping and activity specific interventions such as:

- Ensure all material that has the potential to generate fugitive dust or is regarded as a hazardous material is stored and handled within the fully enclosed warehouse.
- Conduct loading and off-loading of trucks within a fully enclosed warehouse.
- Ensure all enclosures are maintained and any leaks from enclosures sealed.
- Ensure water sprayers within enclosure are always operational and maintained accordingly. Operations to stop if sprayers are not operational. Undertake weekly inspections of sprayers and sprayer system to confirm operational status.
- Ensure skips and trucks are clean of material dust, spillages, and other material obtained from destination while in transit returning to site. Including tyres, wheel arches and undercarriages.
- Ensure skips and trucks are clean of material dust, spillages, and other material prior to exiting the warehouse and while on route to TPT. Including tyres, wheel arches and undercarriages.
- Ensure that skips and trucks are always covered while in transit, when empty and/or containing commodity.
- Ensure that skips and trucks are kept in a manner to prevent windblown fugitive dust even when empty and/or while in storage.
- Compile and implement a cleaning procedure for the cleaning of skips, trucks, and warehouses.
- Conduct daily road sweeping and spillage collections, applicable to the warehouse, and its entrance, and both paved and unpaved roads.

3.	List the specialist investigations and the impact management measures that will **not** be implemented and provide an explanation as to why these measures will not be implemented.
All specialists impact management and mitigation measures were included in the EMPr.	
4.	Explain how the proposed development will impact the surrounding communities.
The local economy will benefit from supplying goods and services to the Project during the operational phase. The proposed Logistics Hub will contribute to local and national gross domestic product during the operational phase of development, resulting from the operational expenditure. This would result in an improved GDP contribution within the Saldanha Bay Local	

Municipality, this is considered a high positive impact when considering the loss of GDP that resulted in the closure of the Saldanha Bay Steel Works that occurred in 2020.

People from the local surrounding communities will be appointed during the construction and operation phase of the proposed development. This will increase household income of staff appointed locally and improve their standard of living. Due to increased income, household will be able to contribute to the local economy that will further contribute to the local communities.

The employment opportunities during the construction and operation phase will decrease the unemployment in the surrounding communities.

5.	Explain how the risk of climate change may influence the proposed activity or development and how has the potential impacts of climate change been considered and addressed.

Climate change is known to increase temperature, cause increased rainfall, runoff and floods. Furthermore, the Saldanha Bay is a coastal town and is exposed to wind that may be increase in windspeeds and duration in future due to climate change. These weather changes due to climate change has influenced the design and selection of materials for the construction of the warehouse, transfer station, conveyors and spraying equipment for the logistics hub.

Increased windspeeds and duration: Commodities will be stockpiled and stored within the warehouse until it is exported. Stockpiling the commodities in the warehouse will minimise dust generation and emissions to the neighbouring environment and mitigate the cumulative impact of dust generation. The warehouse design and construction will consider high wind speeds that could occur. Specified materials will be selected for the warehouse for the increased windspeeds. Ongoing maintenance will be conducted on site to ensure integrity of the warehouse. Include building standard.

Increased rainfall and surface water runoff: The warehouse, infrastructure and equipment to be used on site will be designed to withstand heavy rainfall and surface water runoff. The logistics hub will include stormwater channels that will be included into the onsite stormwater management plan and system. Specified materials will be selected for the warehouse and stormwater management system for the increased rainfall and surface water runoff. Ongoing maintenance will be conducted on site to ensure integrity of the warehouse. The design and construction is according to specific engineering standards and codes.

6.	Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.

Not Applicable as there are no conflicting recommendations between specialists.

7.	Explain how the findings and recommendations of the different specialist studies have been integrated to inform the most appropriate mitigation measures that should be implemented to manage the potential impacts of the proposed activity or development.

Findings and recommendations of the specialist studies conducted for the project form part of the mitigation measures and controls included in the EMPr.

8.	Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option.

In accordance with 3(1)(n) in appendix 3 of gn 982 the mitigation hierarchy (avoid, reduce, rehabilitate and Offset impacts) was implemented to arrive at the final proposed alternatives with impact management measures

Avoid

The following key measures were implemented or formed part of the technology to avoid specific impacts:

- Avoid development of the proposed logistics hub warehouse on the vegetated area beyond the proposed development area and more than 500m from a water course to reduce environmental impacts.
- Keep the development of the proposed logistics hub on existing footprint and use existing infrastructure and equipment as far as possible.
- Ensure the construction and operation related activities are within the proposed footprint.

Reduce

The following key mitigation measures are intended to reduce specific impacts:

- Reduce dust generation from site during the construction and operation phase by engineering and administrative controls.
    - Development of the warehouse to house the commodities with sprayer system
    - Development of conveyer systems that are partly covered and have sprayer systems
    - Ensure wetting and chemical suppressant applied to commodities during transport, stockpiling and handing to minimise dust generation and exposure

- Ensure the administrative controls, standard operation procedures, management and mitigation measures required to minimise dust generation impacts are included in the EMPr and the fugitive dust management plan (FDMP).

- Reduce the disturbed footprint on site with the new proposed development of the logistics hub

Rehabilitate

Rehabilitation is stipulated for any areas disturbed during construction as per the measures provided in the EMPR. The EMPR also provides for the maintenance of areas to prevent degradations during the Operational Phase.

Offset

Given the locations as well as specialist findings and recommendations, no offset was applicable to the Proposed alternatives.

SECTION J: GENERAL

25. Environmental Impact Statement

1.1.	Provide a summary of the key findings of the EIA.
	Key findings of the EIA are provided in Section I above.
1.2.	Provide a map that that superimposes the preferred activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. (Attach map to this BAR as Appendix B2)
	Maps that superimpose the preferred activity are provided in the aquatic compliance statement, terrestrial biodiversity compliance statement, atmospheric impact report and social impact assessment reports.
1.3.	Provide a summary of the positive and negative impacts and risks that the proposed activity or development and alternatives will have on the environment and community.
	Positive impacts (with enhancement) of the proposed project/activity are listed below: Economic development – the logistics hub will positively influence the municipal, provincial and national GDP during the construction and operation phases. Employment and household income – during construction approximately 600 employment opportunities will be created and will result in temporarily increase affected households' income to R110.0 million in 2023. Most of this direct income households earn is anticipated to remain in the local municipality. Additionally, an improvement in the standard of living of the benefiting households will occur. Cultural heritage impacts - No archaeological or heritage resources were identified within or near the areas proposed for development during the archaeological field assessment. Therefore, no impact on archaeological heritage resources is anticipated due to the complete transformation of the area through past industrial developments. However, should archaeological or heritage resources be discovered and the Heritage Western Cape chance find procedure be implemented, this will result in a positive archaeological or heritage resources finding that will add positive value to the archaeological and heritage of the site and greater Saldanha Bay community. **Negative residual impacts (after mitigation) of the proposed project/activity are listed below:** Traffic – There will be an increase in traffic during the construction and operation phase. Increased traffic can lead to social nuisances such as increased safety risks, air quality, and noise impacts. Dust nuisance - Some dust will be generated during construction but will be limited to the site and road haulage on-site and near the site. They will not fall out on sensitive social receptors. During the operation phase, dust will be generated by transporting the commodities by rail and road. Dust will also be generated when loading and offloading the commodities and transporting these by conveyor belts. Workers could be exposed to dust impacts. It is modelled and anticipated that no dust or particulate matter impacts residential sensitive receptors, with all sensitive receptor concentrations predicted to remain low. Concentrations associated with the Logistics Hub operations are predicted to remain well below respective international guidelines, with no impacts on sensitive receptors or the receiving environment. However, workers handling the commodities at the site will be exposed to dust, and mitigation measures are recommended to mitigate this exposure. Noise nuisance - Construction activities have the potential to generate noise for construction workers and sensitive social receptors. However, all social receptors are considered sufficiently far from the construction site as it is in an industrial zone. As such, the noise impacts on social receptors are considered negligible. The primary noise impacts associated with the logistics hub are occupational.

	Influx of jobseekers - As news of the development of the logistics hub spreads, there is a potential for an influx of job seekers looking for jobs during the construction and operation phase. The influx is expected to be low but should still be managed. Not all job seekers will find work, which might increase the area's unemployment rate. The increased number of unemployed people may lead to increased social ills such as crime, alcohol abuse, gender-based violence, and growing pressure on local resources, infrastructure and social services. Health - The primary health concern for the operation is manganese dust. The adverse effects of exposure are associated with the inhalation of manganese dust, which can result in toxicity symptoms that may appear slowly over months and years. Manganese toxicity can result in a permanent neurological disorder known as manganism, with symptoms that include tremors, difficulty walking, and facial muscle spasms. (Agency for Toxic Substances and Disease Registry, 2023). The FDMP has considered these risks and provided mitigation measure to ensure the well being and health of on site staff during the operation.

26. Recommendation of the Environmental Assessment Practitioner ("EAP")

2.1.	Provide Impact management outcomes (based on the assessment and where applicable, specialist assessments) for the proposed activity or development for inclusion in the EMPr
All mitigation and management measures from specialist were included into the EMPr document. These mitigation and management measures are included as the mitigation measures per impact identified in Section H 24 above.	
2.2.	Provide a description of any aspects that were conditional to the findings of the assessment either by the EAP or specialist that must be included as conditions of the authorisation.

Construction, Operation and Decommission Phase:

- All issues/complaints must be recorded in the complaints register.

Traffic:

- Trucks will be fitted with tracking devices to maintain speed limits and improve safety by monitoring driver behaviour.
- A toll-free number will be provided on construction trucks, allowing drivers to report bad driving.
- The gravel roads will be kept wet when trucks access the site to reduce dust.
- Vehicles will be regularly serviced to reduce exhaust emissions.
- Appropriate traffic signals at intersections to manage traffic flow will be introduced.

Dust and Exhaust Emissions:

- Monitoring of dust emissions to determine effectiveness of controls and impacts on the receiving environment.
- Exposed areas created by the construction activities will be kept wet during construction to minimise dust emissions from the site activities.
- Strict speed limits on dust roads will be enforced to prevent dust.
- A complaints register will be available to stakeholders to report any dust complaints.
- Construction material stockpiles will be restricted to designated areas where these can be managed.
- No waste burning, such as plastic bags, cement bags, and litter, will be permitted.
- All materials to the site must be transported so they do not fall off the construction vehicle. It may be necessary to cover or wet construction materials.
- Vehicles and machines must be maintained to minimise exhaust emissions.

Noise:

- Conduct occupational health surveys to ensure that the noise emissions do not exceed the acceptable occupational limits (85 dBA).
- Planning, operation and decommissioning activities in consultation with local communities so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance. Information regarding construction activities should be provided to all local communities. Such information includes:
  - Proposed working times;
  - Anticipated duration of activities;
  - Explanations on activities to take place and reasons for activities; and
  - Contact details of a responsible person on site should complaints arise.
- Use noise control devices, such as temporary noise barriers and deflectors for high impact activities, and exhaust muffling devices for combustion engines;
- Select equipment with the lowest possible sound power levels;
- Ensure equipment is well-maintained to avoid additional noise generation;
- It is recommended that a maximum speed of 40 km/h should be set on all unpaved roads;
- Ensure a reduction in unnecessary traffic volumes by developing plans to optimise vehicle usage and movement;
- Encouraging the receipt of materials during non-peak traffic hours to avoid traffic build-up and associated noise; and

- Vehicles should not be allowed to idle for more than five minutes when not in use.
- Receiving construction materials will be planned for during non-peak traffic hours to avoid additional traffic and associated noise.
- Construction vehicles and equipment will be regularly serviced to reduce noise generated from these.
- Workers will be provided hearing protection should they work in environments that exceed the acceptable occupational limits.
- The public will be aware of the complaints register where they can register noise-related complaints

Influx of job seekers:

- As part of onboarding construction workers, training should be provided on preventing Gender Based Violence, Sexual Assault and Sexual Harassment.
- The Project must engage with communities using a dedicated community liaison officer and have an effective stakeholder engagement plan, including a grievance mechanism for communities to access and lodge complaints.
- Local employment should be a priority for the construction contractor to lessen the number of men away from their homes.
- No recruitment should occur at the Project gate to prevent informal settlements around the Project site.
- Increased security in the Project area should be provided to regulate access to the site and prevent informal settlements.

Impacts to palaeontological resources:

- The HWC Chance Fossil Finds Procedure must be implemented for the duration of construction activities.
- Construction personnel to be alert for rare fossil bones and follow Fossil Finds Procedure.
- Cease construction on (chance) discovery of fossil bones and protect fossils from further damage.
- Contact appointed palaeontologist providing information and images.
- Palaeontologist will assess information and establish suitable response, such as the importance of the find and recommendations for preservation, collection and record keeping.
- Exposed fossiliferous sections in earthworks recorded and sampled by appointed palaeontologist.

Operation Phase Measures:

- The mitigation measures for dust and emissions management and control relating to the operations of the Logistics Hub included in the FDMP must be implemented.
- Workers working with manganese must be regularly monitored for health impacts caused by exposure to manganese dust. They should be monitored long-term to identify any impacts from long-term extended exposures to manganese dust.
- The engineering control and maintenance measures within the FDMP should be implemented onsite to minimise dust generation. Abatement equipment to minimise dust generation must be maintained as per the design and supplier specifications.
- The dust monitoring measures included in the FDMP must be implemented. These include control inspections, dust fallout monitoring and ambient monitoring.
- Conduct occupational health surveys to ensure dust emissions do not exceed the acceptable occupational health limits.
- Provide workers with dust masks and, where appropriate, ventilators where dust emissions exceed the acceptable occupational health limits.
- Annual medical assessments for staff to record and monitor health of staff. All staff to undergo assessments annually or as required by law, whichever is more frequent.
- Workers will be made aware of a complaints register should they wish to report dust issues.
- Strict speed limits on dust roads will be enforced to prevent dust generated by trucks.
- Truckload beds will be covered with tarpaulin to prevent dust from being generated when commodities are in transit. Train wagons carrying manganese will be covered to prevent dust.
- A complaints register will be available to community stakeholders to report any dust complaints.
- Any commodities stockpiles will be restricted to designated areas where these can be managed, such as the warehouse.
- Manganese stockpiles will be kept wet or treated with a dust-a-cide to reduce and manage dust.
- Conveyor belts will be partly covered and with the use sprayers to reduce dust.

2.3.	Provide a reasoned opinion as to whether the proposed activity or development should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be included in the authorisation.
This project can proceed with all mitigation measures from item 2.2 above implemented.	
2.4.	Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.
	To the EAP's knowledge, all relevant information was provided by the Proponent resulting in limited uncertainties and accurate mitigation and management measures provided by the EAP and Specialists. Knowledge provided to the EAP was provided to all Specialists that conducted respective studies for the project. No gaps in information was identified by the EAP or Specialists by the Proponent.

2.5.	The period for which the EA is required, the date the activity will be concluded and when the post construction monitoring requirements should be finalised.
The Proponent requests a minimum of 5 years validity period.	

27. Water

Since the Western Cape is a water scarce area explain what measures will be implemented to avoid the use of potable water during the development and operational phase and what measures will be implemented to reduce your water demand, save water and measures to reuse or recycle water.

Potable and treated sewerage water systems will be supplied via the municipal system.

Construction phase **Only potable water will be used. Approximately 300,000 litres per month**

Operational phase **Potable water - 10,000 litres per month**

Treated sewerage water – 300,000 litres per month

Confirm if any water saving measures will be implemented.

Where applicable, awareness training will be provided to staff to encourage water saving opportunities on site. Furthermore, and where possible, water saving taps and sprayers for dust suppression will be used. Sprayers will however be designed to effectively wet commodities and minimise dust during construction, operation and decommissioning on site.

28. Waste

Explain what measures have been taken to reduce, reuse or recycle waste.

General waste - approximately 80 m^3per month.

Construction waste such as the cleared hardstand and material used to develop the hardstand will be generated. Packaging material and general waste to be generated during the construction phase.

General waste will be developed during operation phase.

Minimal hazardous waste will be generated. Hazardous waste include oil and old plant and vehicle parts, and oil spills due to servicing of plant. Depending on final finishes of the warehouse and ancillary equipment, paint waste may be generated as well.

General waste will be serviced by the municipal waste management system.

Hazardous waste will be serviced by a hazardous waste contractor and adequately handled, treated and disposed of as per legal requirements.

29. Energy Efficiency

8.1. Explain what design measures have been taken to ensure that the development proposal will be energy efficient.

Electrical supply will be directly from Eskom.

Construction phase **30,000 kWh per month**

Operational phase **350,000 kWh per month**

SECTION K: DECLARATIONS

DECLARATION OF THE APPLICANT

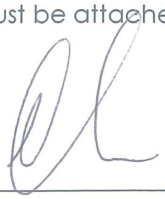
Note: Duplicate this section where there is more than one Applicant.

I, ALDRICH LOUIS, ID number 8502155112026 in my personal capacity or duly authorised thereto hereby declare/affirm that all the information submitted or to be submitted as part of this application form is true and correct, and that:

- I am fully aware of my responsibilities in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), the Environmental Impact Assessment ("EIA") Regulations, and any relevant Specific Environmental Management Act and that failure to comply with these requirements may constitute an offence in terms of relevant environmental legislation;
- I am aware of my general duty of care in terms of Section 28 of the NEMA;
- I am aware that it is an offence in terms of Section 24F of the NEMA should I commence with a listed activity prior to obtaining an Environmental Authorisation;
- I appointed the Environmental Assessment Practitioner ("EAP") (if not exempted from this requirement) which:
  - meets all the requirements in terms of Regulation 13 of the NEMA EIA Regulations; or
  - meets all the requirements other than the requirement to be independent in terms of Regulation 13 of the NEMA EIA Regulations, but a review EAP has been appointed who does meet all the requirements of Regulation 13 of the NEMA EIA Regulations;
- I will provide the EAP and any specialist, where applicable, and the Competent Authority with access to all information at my disposal that is relevant to the application;
- I will be responsible for the costs incurred in complying with the NEMA EIA Regulations and other environmental legislation including but not limited to –
  - costs incurred for the appointment of the EAP or any legitimately person contracted by the EAP;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the NEMA EIA Regulations;
  - Legitimate costs in respect of specialist(s) reviews; and
  - the provision of security to ensure compliance with applicable management and mitigation measures;

- I am responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority, hereby indemnify, the government of the Republic, the Competent Authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action for which I or the EAP is responsible in terms of the NEMA EIA Regulations and any Specific Environmental Management Act.

Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.



29-08-2024

Signature of the Applicant: Date:

SALDANHA STEEL PTY LTD

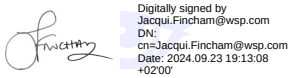
Name of company (if applicable):

I, Jacqui Fincham…. , EAPASA Registration number …2019/362…… as the appointed EAP hereby declare/affirm the correctness of the:

- Information provided in this BAR and any other documents/reports submitted in support of this BAR;
- The inclusion of comments and inputs from stakeholders and I&APs;
- The inclusion of inputs and recommendations from the specialist reports where relevant; and
- Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties, and that:
- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the activity or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another EAP that meets the general requirements set out in Regulation 13 of NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review EAP must be submitted);
- In terms of the remainder of the general requirements for an EAP, am fully aware of and meet all of the requirements and that failure to comply with any the requirements may result in disqualification;
- I have disclosed, to the Applicant, the specialist (if any), the Competent Authority and registered interested and affected parties, all material information that have or may have the potential to influence the decision of the Competent Authority or the objectivity of any report, plan or document prepared or to be prepared as part of this application;
- I have ensured that information containing all relevant facts in respect of the application was distributed or was made available to registered interested and affected parties and that participation will be facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
- I have ensured that the comments of all interested and affected parties were considered, recorded, responded to and submitted to the Competent Authority in respect of this application;
- I have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, where relevant;

- I have kept a register of all interested and affected parties that participated in the public participation process; and

- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations;



23 September 2024

Signature of the EAP: Date:

WSP Group Africa (Pty) Ltd

Name of company (if applicable):