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NEAS REFERENCE: WCP/EIA/0000507/2018

ENQUIRIES: MS. K. ADRIAANSE

DATE OF ISSUE:
2019 -08- 15

ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): PROPOSED DEVELOPMENT OF A BULK STORAGE FACILITY FOR THE STORAGE OF ORE, MANGANESE AND OTHER MINERALS, TRANSPORTATION INFRASTRUCTURE AND ASSOCIATED INFRASTRUCTURE ON FARM NO. 1233, SALDANHA.

With reference to your application for the abovementioned, find below the outcome with respect to this application.

DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to the Preferred Alternative, described in the Environmental Impact Assessment Report ("EIAR") dated May 2019 and the addendum to the EIAR dated 21 June 2019.

The applicant for this Environmental Authorisation is required to comply with the conditions set out in section E below.

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

The Director
Terra Nominees (Pty) Ltd.
c/o Ms. L. Legong
P.O. Box 61820
Marshalltown
JOHANNESBURG
2000.

Tel: (011) 376 3128
Email: Lerato.Legong@south32.net

The abovementioned applicant is the holder of this Environmental Authorisation and is hereinafter referred to as "**the holder**".

B. LIST OF ACTIVITIES AUTHORISED

Listed Activities	Activity/Project Description
<p>Listing Notice 2 of the NEMA EIA Regulations, 2014 (as amended):</p> <p>Activity Number: 6 Activity Description:</p> <p><i>The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent,</i></p> <p>excluding—</p> <p>(i) <i>activities which are identified and included in Listing Notice 1 of 2014;</i></p> <p>(ii) <i>activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies;</i></p> <p>(iii) <i>the development of facilities or infrastructure for the treatment of effluent, polluted water, wastewater or sewage where such facilities have a daily throughput capacity of 2 000 cubic metres or less; or</i></p> <p>(iv) <i>where the development is directly related to aquaculture facilities or infrastructure where the wastewater discharge capacity will not exceed 50 cubic metres per day.</i></p> <p>Activity Number: 15 Activity Description:</p> <p><i>The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for—</i></p> <p>(i) <i>the undertaking of a linear activity; or</i></p> <p>(ii) <i>maintenance purposes undertaken in accordance with a maintenance management plan.</i></p>	<p>The proposed development will entail the bulk storage and handling of ore, manganese and other minerals, which will require an Atmospheric Emissions Licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004).</p> <p>The proposed development will entail the clearance of approximately 36.7ha indigenous vegetation for the establishment of a bulk storage facility for the storage of ore, manganese and other minerals, transportation infrastructure and associated infrastructure on Farm No. 1233, Saldanha.</p>
<p>Listing Notice 3 of the NEMA EIA Regulations, 2014 (as amended):</p> <p>Activity Number: 4 Activity Description:</p> <p><i>The development of a road wider than 4 metres with a reserve less than 13,5 metres.</i></p> <p>i. Western Cape</p> <p>i. <i>Areas zoned for use as public open space or equivalent zoning;</i></p>	<p>The proposed development includes the development of internal roads wider than 4m with a reserve less than 13.5m, outside an urban area on areas containing indigenous vegetation.</p>

<p>ii. Areas outside urban areas;</p> <p>(aa) Areas containing indigenous vegetation; (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or</p> <p>iii. Inside urban areas: (aa) Areas zoned for conservation use; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.</p>	
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The abovementioned list is hereinafter referred to as "**the listed activities**".

The holder is herein authorised to undertake the following alternative that includes the listed activities as it relates to the proposed development:

The proposed development entails the development of a bulk storage facility for the storage of ore, manganese and other minerals, transportation infrastructure and associated infrastructure on Farm No. 1233, Saldanha.

The proposed development will comprise:

- 6 (six) covered storage areas;
- A container yard;
- A rail track;
- A weigh bridge;
- A machine workshop;
- A diesel depot, which will store approximately 20m³ of diesel;
- A truck stop;
- Admin buildings;
- Internal roads;
- A stormwater pond; and
- Associated infrastructure.

Internal roads, which will be approximately 7m in width, will be developed. Access to the site will be gained off TR85/1.

The ore, manganese and other minerals will be transported to and from the site via railway infrastructure and/or via truck.

Water pipeline infrastructure will connect to the existing municipal infrastructure for potable water supply. An 8000L conservancy tank will be installed for the temporary storage of sewage. A private service provider will be contracted to empty the conservancy tank, as and when required. Confirmation of sufficient, spare and unallocated solid waste disposal has been confirmed by the Saldanha Bay Municipality (in their correspondence dated 14 May 2019). Confirmation of sufficient, spare and unallocated electricity supply has been confirmed by Eskom (in their correspondence dated 19 June 2019).

A stormwater management system will be established on the site, which will include a stormwater pond with a capacity of approximately 43 200m³. Water from the stormwater pond will be used for dust suppression as far as practically possible. A borehole will be drilled to access groundwater for dust suppression. Rainwater tanks will be strategically placed to capture rainwater for additional non potable water sources for dust suppression.

The total development footprint will be approximately 36.7ha in extent.

C. SITE DESCRIPTION AND LOCATION

The authorised listed activities will be undertaken on Farm No. 1233, Saldanha and has the following co-ordinates:

Point	Latitude	Longitude
Middle	32°57'03.23" South	18°03'26.64" East

The SG 21-digit code is:

Farm No. 1233	C04600000000123300000
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Refer to Annexure 1: Locality Map and Annexure 2: Site Plan.

The above is hereinafter referred to as "**the site**".

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Pieter Badenhorst Professional Services cc
c/o Mr. P. Badenhorst / Ms. N. Coertzen
P.O. Box 1058
WELLINGTON
7654

Tel: (021) 864 9901

Fax: (086) 672 1916

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section B above in accordance with and restricted to the Preferred Alternative described in the EIAR dated May 2019 and the addendum to the EIAR dated 21 June 2019 on the site as described in Section C above.
2. The holder must commence with the listed activities on site within a period of **5 (five) years** from the date of issue of this Environmental Authorisation.
3. The development must be concluded within **10 (ten) years** from the date of commencement of the listed activities.
4. The holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.
5. Any changes to, or deviations from the scope of the alternative described in section B above must be accepted or approved, in writing, by the Competent Authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the Competent Authority may request information in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.

Written notice to the Competent Authority

6. A minimum of 7 (seven) calendar days' notice, in writing, must be given to the Competent Authority before commencement of development activities.
 - 6.1. The notice must make clear reference to the site details and EIA Reference number given above.
 - 6.2. The notice must also include proof of compliance with the following conditions described herein:

Conditions: 7, 8, 9, 10 and 16.1.

Notification and administration of appeal

7. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–
 - 7.1. Notify all registered Interested and Affected Parties ("I&APs") of –
 - 7.1.1. the outcome of the application;
 - 7.1.2. the reasons for the decision as included in Annexure 3;
 - 7.1.3. the date of the decision; and
 - 7.1.4. the date when the decision was issued.
 - 7.2. Draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeal Regulations, 2014 (as amended) detailed in Section G below;
 - 7.3. Draw the attention of all registered I&APs to the manner in which they may access the decision; and
 - 7.4. Provide the registered I&APs with:
 - 7.4.1. the name of the holder (entity) of this Environmental Authorisation,
 - 7.4.2. name of the responsible person for this Environmental Authorisation,
 - 7.4.3. postal address of the holder,
 - 7.4.4. telephonic and fax details of the holder,
 - 7.4.5. e-mail address, if any, of the holder,
 - 7.4.6. the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the National Appeal Regulations, 2014 (as amended).
8. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the holder notifies the registered I&APs of this decision. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided i.e. the listed activities, including site preparation, must not commence until the appeal is decided.

Management of activity

9. The draft Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation is hereby approved, on condition that the following amendments are made to the EMPr prior to the commencement of any land clearing activities and must be implemented:
 - 9.1. The roles and responsibilities of, *inter alia*, the holder of this Environmental Authorisation, the Environmental Control Officer ("ECO"), site agent and the contractors must be defined.

- 9.2. A dust management plan must be compiled prior to the commencement of the operational phase. A copy of the dust management plan must be submitted to this Directorate prior to the commencement of the operational phase for record purposes.
- 9.3. The amended EMPr must be included in all contract documentation for all phases of implementation.

Monitoring

10. The holder must appoint a suitably experienced ECO, or site agent where appropriate, before the commencement of any land clearing to ensure compliance with the provisions of the EMPr and the conditions contained in this Environmental Authorisation.
11. A copy of the Environmental Authorisation, EMPr, Environmental Audit Reports and compliance monitoring reports must be kept at the site where the listed activities will be undertaken and must be made available to any authorised official on request.
12. Access to the site referred to in Section C above must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

Auditing

13. In terms of Regulation 34 of the NEMA EIA Regulations, 2014 (as amended), the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation and the EMPr and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Reports must be prepared by an independent person and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014 (as amended).
 - 13.1. The holder must undertake an environmental audit within 6 (six) months of the commencement of the development activities and submit an Environmental Audit Report to the Competent Authority upon the completion of the environmental audit.
 - 13.2. An Environmental Audit Report must be submitted to the Competent Authority 1 (one) month after the completion of the development activities.
 - 13.3. A final Environmental Audit Report must be submitted to the Competent Authority 6 (six) months after the commencement of the operational phase.
 - 13.4. The holder must, within 7 (seven) calendar days of the submission of an Environmental Audit Report to the Competent Authority, notify all potential and registered I&APs of the submission and make the Environmental Audit Report available to anyone on request.

Specific Conditions

14. Should any heritage remains be exposed during excavations or any other actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape. Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape.

- 14.1. Heritage remains include: meteorites, archaeological and/or palaeontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features with heritage significance; rock art and rock engravings; and/or graves or unmarked human burials including grave goods and/or associated burial material.
- 14.2. All earthworks must be monitored by a qualified Palaeontologist and a report detailing the results of this monitoring must be submitted to Heritage Western Cape within three (3) months of the completion of the bulk earthworks.
15. An integrated waste management approach, which is based on waste minimisation and incorporates reduction, recycling, re-use and disposal, where appropriate, must be employed. Any solid waste must be disposed of at a landfill licensed in terms of the applicable legislation.
16. In accordance with the Botanical Impact Assessment (compiled by Bergwind Botanical Surveys and Tours and dated July 2015), the following mitigation measures must be implemented:
 - 16.1. A search and rescue of the two clusters of *Gethyllis* sp. located on the site must be undertaken by a suitably qualified botanist or horticulturalist, prior to the commencement of any development activities.
 - 16.1.1. The *Gethyllis* sp. must be translocated to a suitable area prior to the commencement of the development phase.
 - 16.1.2. A suitable translocation area must be identified prior to the commencement of the search and rescue.
 - 16.2. Any areas of semi-natural habitat that will not be used for development must be demarcated (cordoned off) as a "no-go" area to allow the indigenous vegetation to continue as near natural as possible.
17. In accordance with the Air Quality Impact Assessment (compiled by DDA Environmental Engineers and dated May 2019), the following mitigation measures must be implemented:
 - 17.1. Dust suppression methods must be implemented during the development phase. No potable water must be used for dust suppression.
 - 17.2. Trucks transporting ore, manganese and other minerals to and from the site, must be covered at all times when in transit.
18. Employment opportunities must be afforded to the local community (as far as possible) during all phases of the proposed development.

F. GENERAL MATTERS

1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.
2. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.

3. If the holder does not commence with the listed activities within the period referred to in Condition 2, this Environmental Authorisation shall lapse, and a new application for Environmental Authorisation must be submitted to the Competent Authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be made to the Competent Authority prior to the expiry date of the Environmental Authorisation.
4. The holder must submit an application for amendment of the Environmental Authorisation to the Competent Authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for Amendment in terms of Part 1 of the NEMA EIA Regulations, 2014 (as amended) must be submitted.

Please note that an amendment is not required if there is a change in the contact details of the holder. In this case, the Competent Authority must only be notified of such changes.

5. The manner and frequency for updating the EMPr is as follows:

Amendments to the EMPr, other than those required by this Environmental Authorisation, must be done in accordance with Regulations 35 to 37 of the NEMA EIA Regulations, 2014 (as amended) or any relevant legislation that may be applicable at the time.

G. APPEALS

Appeals must comply with the provisions contained in the National Appeal Regulations, 2014 (as amended).

1. An appellant (if the holder of the decision) must, within 20 (twenty) calendar days from the date the notification of the decision was sent to the holder by the Competent Authority –
 - 1.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and
 - 1.2. Submit a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.
2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the date the holder of the decision sent notification of the decision to the registered I&APs–
 - 2.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and
 - 2.2. Submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.
3. The holder of the decision (if not the appellant), the decision-maker that issued the decision, the registered I&AP and the Organ of State must submit their responding statements, if any, to the appeal authority and the appellant within 20 (twenty) calendar days from the date of receipt of the appeal submission.

4. The appeal form/s must be submitted by means of one of the following methods:

By post: Attention: Marius Venter
Western Cape Ministry of Local Government, Environmental Affairs and
Development Planning
Private Bag X9186
CAPE TOWN
8000

By facsimile: (021) 483 4174; or

By hand: Attention: Mr. M. Venter (Tel: 021 483 2659)
Room 809
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

5. The prescribed appeal form, as well as assistance regarding the appeal processes is obtainable from the office of the appeal authority/ at: Tel. (021) 483 3721, E-mail DEADP.Appeals@westerncape.gov.za or URL <http://www.westerncape.gov.za/eadp>.

H. DISCLAIMER

The Western Cape Government, the holder, committees or any other public authority or organisation appointed in terms of the conditions of this Environmental Authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is appreciated.

Yours faithfully


MR. ZAHIR JOEY
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

DATE OF DECISION: 15/08/2019

Copies to: (1) Ms. N. Coertzen / Mr. P. Badenhorst (Pieter Badenhorst Professional Services)
(2) Ms. N. Duarte / Mr. L. Gaffley (Saldanha Bay Municipality)
(3) Ms. C. Ganten-Bein (West Coast District Municipality)

Fax: (086) 672 1916
Fax: (022) 715 1518
Fax: (022) 713 5952

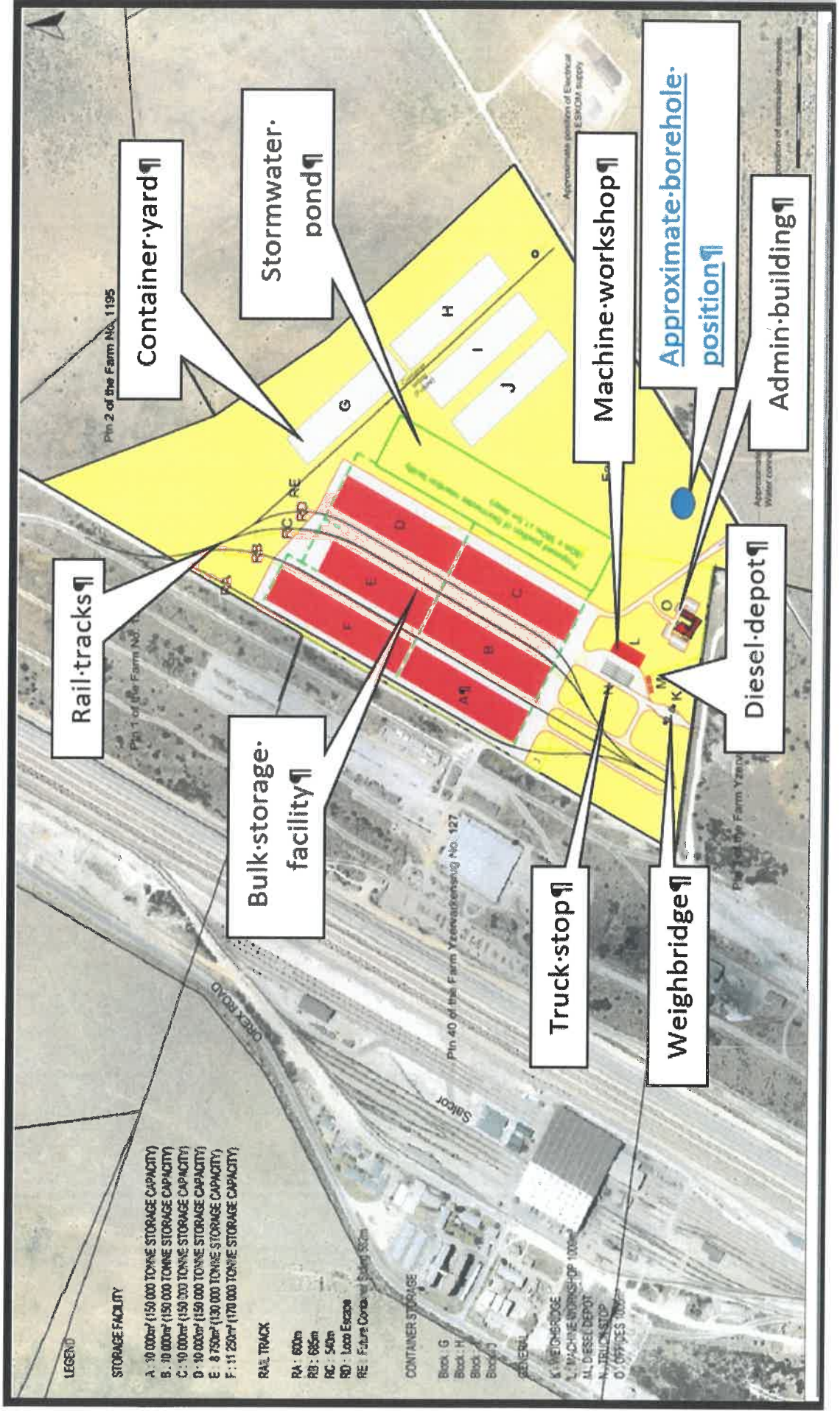
ANNEXURE 1: LOCALITY MAP

Locality map of the proposed site (highlighted in pink).



ANNEXURE 2: SITE PLAN

Site plan of the proposed development.



ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, *inter alia*, the following:

- a) The information contained in the Application Form dated 22 October 2018, the amended Application Form dated 04 February 2019, the Scoping Report received by the Competent Authority on 07 December 2018, the EIAR received by the Competent Authority on 03 May 2019, the addendum to the EIAR received by the Competent Authority on 25 June 2019 and the EMPr submitted together with the EIAR, as received by the Competent Authority on 25 June 2019;
- b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation, Alternatives and Need and Desirability (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998);
- d) The comments received from I&APs and responses to these, included in the EIAR dated May 2019 and the addendum to the EIAR dated 21 June 2019;
- e) The balancing of negative and positive impacts and proposed mitigation measures; and
- f) The site visit conducted on 09 July 2019.

Attended by Ms. T. Dreyer, Ms. K. Adriaanse, Mr. P. Harmse and Ms. G. Mhlarhi of the Western Cape Government Department of Environmental Affairs and Development Planning.

All information presented to the Competent Authority was taken into account in the consideration of the application for Environmental Authorisation. A summary of the issues that were considered to be the most significant for the decision is set out below.

1. Public Participation

The public participation process included:

- identification of and engagement with I&APs;
- fixing a notice board on the site where the listed activities are to be undertaken on 28 October 2018;
- giving written notice to the owners and occupiers of land adjacent to the site where the listed activities are to be undertaken, the municipality and ward councillor, and the various organs of state having jurisdiction in respect of any aspect of the listed activities on 29 October 2018;
- the placing of a newspaper advertisement in the 'Die Burger' and the 'Weslander' on 18 October 2018; and
- making the EIAR available to I&APs for public review from 15 March 2019 to 15 April 2019 and making the addendum to the EIAR available to I&APs for public review from 20 May 2019 to 20 June 2019.

All the concerns raised by I&APs were responded to and adequately addressed during the public participation process. Specific management and mitigation measures have been considered in this Environmental Authorisation and in the EMPr to adequately address the concerns raised.

The Competent Authority concurs with the Environmental Assessment Practitioner's responses to the issues raised during the public participation process and has included appropriate conditions in this Environmental Authorisation and in the EMPr.

2. Alternatives

Initially, two layout alternatives and the “no-go” alternative were considered as part of the proposed development. However, Layout alternative 2 was not considered feasible since Layout alternative 2 would not have been financially feasible and does not allow for the optimal use of the site. Therefore, only the Preferred Alternative and the “no-go” alternative were assessed as follows:

The Preferred Alternative (herewith authorised)

The proposed development entails the development of a bulk storage facility for the storage of ore, manganese and other minerals, transportation infrastructure and associated infrastructure on Farm No. 1233, Saldanha.

The proposed development will comprise:

- 6 (six) covered storage areas;
- A container yard;
- A rail track;
- A weigh bridge;
- A machine workshop;
- A diesel depot, which will store approximately 20m³ of diesel;
- A truck stop;
- Admin buildings;
- Internal roads;
- A stormwater pond; and
- Associated infrastructure.

Internal roads, which will be approximately 7m in width, will be developed. Access to the site will be gained off TR85/1.

The ore, manganese and other minerals will be transported to and from the site via railway infrastructure and/or via truck.

Water pipeline infrastructure will connect to the existing municipal infrastructure for potable water supply. An 8000L conservancy tank will be installed for the temporary storage of sewage. A private service provider will be contracted to empty the conservancy tank, as and when required. Confirmation of sufficient, spare and unallocated solid waste disposal has been confirmed by the Saldanha Bay Municipality (in their correspondence dated 14 May 2019). Confirmation of sufficient, spare and unallocated electricity supply has been confirmed by Eskom (in their correspondence dated 19 June 2019).

A stormwater management system will be established on the site, which will include a stormwater pond with a capacity of approximately 43 200m³. Water from the stormwater pond will be used for dust suppression as far as practically possible. A borehole will be drilled to access groundwater for dust suppression. Rainwater tanks will be strategically placed to capture rainwater for additional non potable water sources for dust suppression.

The total development footprint will be approximately 36.7ha in extent.

The Preferred Alternative is regarded as preferred since the site was identified as an ideal location for the bulk storage and transportation hub in the area, as it is located between the railway and main roads. The Preferred Alternative further incorporates the recommendations of all the specialist reports to reduce the potential impacts associated with the proposed development, and the proposed development is in line with the relevant planning policies applicable to the area.

"No-Go" Alternative

The "No-Go" alternative would result in maintaining the "*status quo*". However, since the Preferred Alternative will not result in unacceptable environmental impacts, the "No-Go" alternative was not warranted.

3. Impact Assessment and Mitigation measures

3.1. Activity Need and Desirability

The property (i.e. Farm No. 1233 previously known as a Portion of Portion 4 of Farm Langeberg No. 187 and the Remainder of Erf 1195, Vredenburg) is zoned Industrial and is located within the proposed Industrial Expansion Corridor identified in the Saldanha Bay Spatial Development Framework (dated February 2011). The proposed site is located between the Sishen-Saldanha Railway line and main roads in the Saldanha area, which is a suitable location for the proposed development. As the Industrial Expansion Corridor continues to expand, the need for bulk storage facilities for ore, manganese and other minerals will increase. The proposed development will therefore address the need for additional storage facilities. Some employment opportunities will be created. Approximately 476 short term and approximately 10 long term employment opportunities will be created during the proposed development.

3.2. Air Quality Impacts

An Air Quality Impact Assessment (compiled by DDA Environmental Engineers and dated May 2019) was undertaken to determine the potential air quality impacts associated with the proposed development. Monthly dust fallout monitoring has been carried out at four locations on the proposed site. The monitoring results indicated that the existing dust fallout levels were within the relevant industrial and residential guidelines, except in the southwest corner of the proposed site where construction activities were taking place adjacent to the proposed site.

The specialist modelled the potential air quality impacts with and without the implementation of mitigation measures. The modelling results indicated that the cumulative particulate matter ("PM₁₀") concentration over a 24-hour period and an annual period were within the respective residential guidelines. The specialist further modelled the PM₁₀ concentrations if the PM₁₀ released is that of manganese ore. The modelling results indicated that the PM₁₀ concentration over a 24-hour period and an annual period would be exceeded, based on the World Health Organisations' guideline for manganese. This modelling result was based on with and without the implementation of mitigation measures.

The potential health impacts associated with the storage of manganese was assessed by the specialist. Mitigation measures to reduce the potential air quality impacts and the potential health impacts have been recommended by the specialist. The potential air quality impacts and potential health impacts during the development phase will be of low negative significance post mitigation, and the potential air quality impacts during the operational phase will be of medium negative significance post mitigation. To reduce the potential air quality impacts, all the storage areas will be covered, minerals that will be transported to and from the site will be covered at all times and a dust management plan will be developed for the operational phase of the proposed development. The recommendations of the specialist have been included as conditions set in this Environmental Authorisation and in the EMPr.

An Atmospheric Emissions Licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEMAQA") will be submitted to the relevant authority to comply with the requirements of the NEMAQA.

3.3. Botanical impacts

A Botanical Impact Assessment (compiled by Bergwind Botanical Surveys and Tours and dated July 2015) was conducted to determine the potential botanical impacts associated with the proposed development. The vegetation type on the site was historically Saldanha Flats Strandveld, which is classified as Vulnerable in terms of the National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) – National list of ecosystems that are threatened and in need of protection, 2011. However, given that the proposed site has been previously disturbed by agricultural activities, the specialist indicated that the vegetation on site is degraded and is not mapped as a Critical Biodiversity Area. The proposed site is therefore deemed to be of low botanical sensitivity.

The specialist further indicated that the potential botanical impacts will be of very low negative significance post mitigation. The specialist recommended that the any areas of semi-natural habitat that would not be used for development, be set aside and allowed to continue as near natural as possible. Further, the two clusters of *Gethyllis sp.* that were found must be searched and relocated prior to the commencement of the development phase. These recommendations have been included as a condition set in this Environmental Authorisation and in the EMPr.

An addendum to the Botanical Impact Assessment (dated February 2019) was obtained from the botanical specialist to determine whether the findings of the original Botanical Impact Assessment (dated July 2015) were still applicable. The specialist indicated that no marked deterioration or improvement of the vegetation on the site has occurred since the original assessment. The findings of the original assessment are therefore still applicable.

CapeNature indicated (in their comment dated 19 March 2019) that they agree with the findings of the botanical specialist regarding the fact that the site is largely degraded, but recommended all areas not being used for development should be allowed to rehabilitate and supported the botanist's recommendation of the search and rescue of sensitive species.

3.4. Groundwater Impacts

A Geohydrological Assessment (compiled by GEOSS and dated 18 April 2019) was conducted to determine whether groundwater can be drilled. The specialist indicated that the site is underlain by a regional aquifer and is described as an intergranular and fractured aquifer. No boreholes were located on the proposed site. The specialist indicated that the potential for groundwater development on the site is low.

However, the specialist indicated that recent exploration drilling in the area has indicated water strikes at depths of 114m, 150m and 168m. The specialist therefore recommended that the drilling is approached as "exploration" targeting both shallow primary aquifer and weathered bedrock to a depth of 180m. The specialist provided mitigation measures for the proposed drilling and development of a borehole on the proposed site. The recommendations of the specialist have been included in the EMPr. A Water Use Licence Application in terms of the National Water Act, 1998 (Act No. 36 of 1998) has been submitted to the Department of Water and Sanitation in this regard.

A stormwater management system will be established on the site. The proposed site will be graded accordingly and surface water runoff will be diverted through an open channel into a sunken stormwater pond. The stormwater pond will have a capacity of approximately 43 200m³ and will be lined with an impermeable layer. Water from the stormwater pond will be used for dust suppression as far as practically possible. The potential groundwater impacts associated with the conservancy tank will be of low negative significance post mitigation. A private contractor will be contracted to empty and maintain the conservancy tank as and when required. The overall potential groundwater impacts will be of low negative significance post mitigation. Mitigation measures have been included in the EMPr.

3.5. Traffic Impacts

A Traffic Impact Assessment (compiled by ITS Innovative Transport Solutions and dated May 2019) was undertaken to determine the potential traffic impacts associated with the proposed development. Given that the ore, manganese and other minerals will mainly be transported via railway, the potential traffic impacts will be limited. The truck trip generation is anticipated to be less than 15 trucks per hour. It is anticipated that the number of trucks will increase to 29 trucks per hour when the railway is unavailable. The additional number of trucks will not significantly impact negatively on the potential traffic impacts. The potential traffic impacts are therefore anticipated to be of low negative significance.

3.6. Heritage Impacts

A Notice of Intent to Develop was submitted to Heritage Western Cape ("HWC"). HWC indicated (in their correspondence dated 28 July 2015) that although the proposed development will impact on heritage resources, the significance of the heritage resource is known. HWC recommended that all earthworks be monitored by a qualified Palaeontologist and a report detailing the results of this monitoring be submitted to HWC. This recommendation has been included as a condition set in this Environmental Authorisation and in the EMPr.

3.7. Socio-Economic Impacts

A Socio-Economic Impact Assessment (conducted by Urban-Econ Development Economists and dated 13 May 2019) was undertaken to determine the potential socio-economic impacts associated with the proposed development.

It is anticipated that approximately 476 employment opportunities will be created during the development phase and approximately 10 employment opportunities will be created during the operational phase. The potential socio-economic impacts will be of medium positive impact. The specialist recommended that a recruitment office be established in order to control the potential influx of employment seekers into the area. Employment opportunities will be afforded to the local community (as far as possible) during all phases of the proposed development. The recommendations of the specialist have been included in the EMPr.

3.8. Services

An Engineering Services Report (compiled by Element Consulting Engineers and dated 23 April 2019) was conducted to determine the service infrastructure required for the proposed development.

Water pipeline infrastructure will connect to the existing municipal infrastructure for potable water supply. An 8000L conservancy tank will be installed for the temporary storage of sewage. A private service provider will be contracted to empty the conservancy tank as and when required. Confirmation of sufficient, spare and unallocated solid waste disposal has been confirmed by the Saldanha Bay Municipality (in their correspondence dated 14 May 2019). Confirmation of sufficient, spare and unallocated electricity supply has been confirmed by Eskom (in their correspondence dated 19 June 2019).

3.9. Noise Impacts

Potential noise impacts associated with the proposed development will be mitigated by the implementation of the mitigation measures included in the EMPr. Given that the proposed development will be located in an industrial area, the potential noise impacts are anticipated to be of low negative significance post mitigation.

The development will result in both negative and positive impacts.

Negative Impacts include:

- Loss of indigenous vegetation;
- Potential air quality impacts;
- Potential groundwater impacts; and
- Potential heritage impacts during the development phase.

Positive impacts include:

- Optimal use of available land within the Industrial Expansion Corridor;
- Increased bulk storage of ore, manganese and other minerals;
- Economic benefits; and
- Some employment opportunities.

4. National Environmental Management Act Principles

The National Environmental Management Principles (set out in section 2 of the NEMA, which apply to the actions of all organs of state, serve as guidelines by reference to which any organ of state must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and
- the selection of the best practicable environmental option.

5. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the Competent Authority is satisfied that the proposed listed activity will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the listed activity can be mitigated to acceptable levels.

You are reminded of your general duty of care towards the environment in terms of Section 28(1) of the NEMA which states: "*Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment.*"

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