



REFERENCE: 16/3/3/1/A6/57/2049/22
NEAS REFERENCE: WCP/EIA/0001177/2022
DATE OF ISSUE: 19 May 2023

The Municipal Manager
City of Cape Town: Human Settlements (Housing Implementation)
1st Floor, Plessey Building
Corner of Main & Victoria Street
PLUMSTEAD
7800

Attention: Ms. Cecilia Thiem

E-mail: Cecilia.thiem@capetown.gov.za

Dear Madam

APPLICATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) (“NEMA”) AND THE ENVIRONMENTAL IMPACT ASSESSMENT (“EIA”) REGULATIONS, 2014 (AS AMENDED): PROPOSED ESTABLISHMENT OF THE MASIPHUMELELE PHASE 4, STAGE 2 HOUSING DEVELOPMENT ON REMAINDER ERF NO. 5131, MASIPHUMELELE.

1. With reference to the above application, the competent authority hereby notifies you of its decision to **grant** Environmental Authorisation, attached herewith, together with the reasons for the decision.
2. In terms of Regulation 4 of the EIA Regulations, 2014 (as amended), you are instructed to ensure, within 14 days of the date of the Environmental Authorisation, that all registered interested and affected parties are provided with access to and reasons for the decision, and that all registered interested and affected parties are notified of their right to appeal.
3. Your attention is drawn to Chapter 2 of the Appeal Regulations, 2014 (as amended), which prescribes the procedure to be followed in the event of appeals being lodged. This procedure is summarised in the attached Environmental Authorisation.

Yours faithfully

MR. ZAAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

CC: (1) Ms. Natalie Ritsch (Lukhozi Consulting Engineers (Pty) Ltd.)
(2) Mr. André Oosthuizen (DEA&DP: DDF)
(3) Mr. A. Greenwood (City of Cape Town: ERM)

E-mail: n.ritsch@lukhozi.co.za
E-mail: andre.oosthuizen@westerncape.gov.za
E-mail: andrew.greenwood@capetown.gov.za

REFERENCE: 16/3/3/1/A6/57/2049/22
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ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) ("NEMA") AND THE ENVIRONMENTAL IMPACT ASSESSMENT ("EIA") REGULATIONS, 2014 (AS AMENDED): PROPOSED ESTABLISHMENT OF THE MASIPHUMELELE PHASE 4, STAGE 2 HOUSING DEVELOPMENT ON REMAINDER ERF NO. 5131, MASIPHUMELELE.

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 NEMA and the EIA Regulations, 2014 (as amended), the competent authority herewith grants Environmental Authorisation to the applicant to undertake the list of activities specified in Section B below with respect to the preferred alternative as included in the Basic Assessment Report ("BAR") dated February 2023.

In terms of Regulation 25(4) of the EIA Regulations, 2014 (as amended), the competent authority herewith **replaces** the existing valid Record of Decision ("RoD") issued on 27 August 2007 (Reference No: E12/2/1-AN4-PRTN ERF 4198, NOORDHOEK), to include the proposed Masiphumelele Phase 4, Stage 2 housing development on Remainder Erf No. 5131 within the authorised project description of the authorised Masiphumelele Phase 4, Stage 1 low income housing development on Erf No. 4198, Noordhoek.

The granting of this Environmental Authorisation (hereinafter referred to as the "Environmental Authorisation") is subject to compliance with the conditions set out in Section E below.

A. DETAILS OF THE HOLDER OF THIS ENVIRONMENTAL AUTHORISATION

City of Cape Town
Human Settlements (Housing Implementation)
c/o Ms. Cecilia Thiem
1st Floor, Plessey Building
Corner of Main & Victoria Street
PLUMSTEAD
7800

Tel.: (021) 444 9631
E-mail: Cecilia.thiem@capetown.gov.za

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

B. LIST OF ACTIVITIES AUTHORISED

The following listed activities were authorised in the RoD issued on 27 August 2007:

These are activities identified in Schedule 1 of Government Notice No. R. 1182 of 5 September 1997, as amended, being:

“Item 1 (c) *The construction, erection or upgrading of with regard to any substance which is dangerous or hazardous and is controlled by national legislation –*
(i) infrastructure, excluding road and rails, for the transportation of any such substance; and
(ii) manufacturing, storage, handling, treatment or processing facilities for any such substance.

Item 1 (d) *The construction, erection or upgrading of roads, railways, airfields and associated structures.*

Item 1 (f) *The construction, erection or upgrading of canals and channels, including structures causing disturbance to the flow of water in a river bed, and water transfer schemes between water catchments and impoundments.*

Item 2 (e) *The change of land use from use for nature conservation or zoned open space to any other land use”.*

The following listed activities are authorised for Phase 4:

Listed Activity	Activity/Project Description
<p>Listing Notice 1 of the EIA Regulations, 2014 (as amended):</p> <p>Activity 12: <i>“The development of-</i> <i>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or</i> <i>(ii) infrastructure or structures with a physical footprint of 100 square metres or more;</i></p> <p><i>where such development occurs-</i> <i>(a) within a watercourse;</i> <i>(b) in front of a development setback; or</i> <i>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; -</i></p> <p><i>excluding-</i> <i>(aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;</i></p>	<p>The proposed site is located outside an urban area and infrastructure/structures of more than 100m² will be constructed within 32m from the edge of a watercourse.</p>

<p>(bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;</p> <p>(cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;</p> <p>(dd) where such development occurs within an urban area;</p> <p>(ee) where such development occurs within existing roads, road reserves or railway line reserves; or</p> <p>(ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared".</p>	
<p>Activity 19: <i>"The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;</i></p> <p><i>but excluding where such infilling, depositing, dredging, excavation, removal or moving -</i></p> <p>(a) <i>will occur behind a development setback;</i></p> <p>(b) <i>is for maintenance purposes undertaken in accordance with a maintenance management plan;</i></p> <p>(c) <i>falls within the ambit of activity 21 in this Notice, in which case that activity applies;</i></p> <p>(d) <i>occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</i></p> <p>(e) <i>where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies".</i></p>	<p>The development proposal entails the removing or moving, dredging, excavation, infilling or depositing of material of more than 10m³ from the watercourse.</p>

Listed Activity	Activity/Project Description
<p>Listing Notice 3 of the EIA Regulations, 2014 (as amended):</p> <p>Activity 4: <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>ii. <i>Areas outside urban areas;</i></p> <p>(aa) <i>Areas containing indigenous vegetation;</i></p> <p>(bb) <i>Areas on the estuary side of the development setback line or in an</i></p>	<p>Internal roads (wider than 4m) will be constructed on areas containing indigenous vegetation.</p>

<p style="text-align: center;"><i>estuarine functional zone where no such setback line has been determined; or</i></p> <p>iii. <i>Inside urban areas:</i></p> <p style="padding-left: 20px;"><i>(aa) Areas zoned for conservation use; or</i></p> <p style="padding-left: 20px;"><i>(bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority".</i></p>	
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The abovementioned lists are hereinafter referred to as "the listed activities".

Due to the proposed Masiphumelele Phase 4, Stage 2 housing development on the Remainder of Erf No. 5131, certain aspects of the authorised Phase 4, Stage 1 development will no longer be applicable. The description of the authorised development issued to the City of Cape Town on 27 August 2007 is herewith **replaced** as follows:

The establishment of approximately 252 double storey residential units) and associated infrastructure, with erven being allowed for sport fields, an urban agriculture/community park and public open spaces. The development site is approximately 11ha in extent, of which the residential development footprint is approximately 5.5ha.

A 10m wide buffer along the southern storm water channel on the southern edge of the developed area will be established to accommodate a cut-off drain and reed beds to polish contaminated runoff from the WWTW. The southern storm water channel will also be upgraded to provide flood protection from the adjacent WWTW ponds. The 10m wide buffer will provide adequate space for ensuring the maintenance of a functional storm water channel.

The existing Myeza Road will provide access to and from the site and diesel will be stored during the construction phase.

The holder is herein authorised to undertake the following related to the listed activities for the proposed Masiphumelele Phase 4, Stage 2 housing development on the Remainder of Erf No. 5131, Masiphumelele.

Approximately 635 housing opportunities, internal services and roads, community and utility uses will be established. A 10m ring road will be established along the northern and western edges, adjacent to the Table Mountain National Park. Houses of varying heights/typologies will be established on the site, adjacent to the Table Mountain National Park.

Since the entire site will be developed, the wetlands identified on the site will be infilled. Remainder of Erf No. 4836, Noordhoek, hereinafter referred to as the "offset site", has been identified as the offset site to meet the offset target for ecosystem conservation.

Access will be obtained via the extension of Myeza Street.

C. LOCATION AND SITE DESCRIPTION

The authorised site is situated off Kommetjie Main Road and adjoins the existing residential area of Masiphumelele and the Wildevoëlvlei WWTW on a Portion of Erf No. 4198, Noordhoek.

Co-ordinates of authorised site:

Latitude: 34° 06' 30" S

Longitude: 18° 23' 00" E

The proposed Phase 4, Stage 2 housing development will be undertaken on Remainder Erf No. 5131, Masiphumelele.

Remainder Erf No. 5131 is located at the end of Myeza Street, adjacent to the existing Masiphumelele sports field (east). The erf is bordered to the east by Masiphumelele urban development, the Wildevoëlvlei WWT to the south, and to the west and north by a nature area forming part of Table Mountain National Park.

SG 21-digit code is: C01600280000513100000

Co-ordinates of Remainder Erf No. 5131:

Latitude: 34° 07' 48" S

Longitude: 18° 22' 05" E

Refer to Annexure 1: Locality Plan and Annexure 2: Site Plan.

hereinafter referred to as "the site".

Offset Location:

The offset site is located on Remainder Erf No. 4836, Noordhoek.

SG 21-digit code is: C01600370000483600000

Co-ordinates of the offset site (Remainder Erf No. 4836):

Latitude: 34° 06' 35" S

Longitude: 18° 22' 36" E

Refer to Annexure 3: Locality Plan

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

Lukhozi Consulting Engineers (Pty) Ltd.

c/o Ms. Natalie Ritsch

Office 111, 1st Floor, Tijger Park 3

Willie van Schoor Avenue

BELLVILLE

7530

Tel.: (021) 686 2550

E-mail: n.ritsch@lukhozi.co.za

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 BAR dated February 2023 on the site as described in Section C above.
2. Authorisation of the activities is subject to compliance with the conditions set out in this Environmental Authorisation. The holder must ensure 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.
3. The holder must commence with, and conclude, the listed activities within the stipulated validity period which this Environmental Authorisation is granted for, or this Environmental Authorisation shall lapse and a new application for Environmental Authorisation must be submitted to the competent authority.

This Environmental Authorisation is granted for–

- (a) A period of five (**5**) years, from the date of issue, during which period the holder must commence with the authorised listed activities; and
 - (b) A period of ten (**10**) years, from the date the holder commenced with an authorised listed activity, during which period the authorised listed activities must be concluded.
4. The activities that have been authorised may only be carried out at the site described in Section C above in terms of the approved Environmental Management Programme ("EMPr").
 5. Any changes to, or deviations from the scope of the description set out in Section B and Condition 2 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 such information 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.

Notification of authorisation and right to appeal

6. The holder of the authorisation must in writing, within 14 (fourteen) calendar days of the date of this decision –
 - 6.1 notify all registered interested and affected parties ("I&APs") of –
 - 6.1.1 the outcome of the application;
 - 6.1.2 the reasons for the decision;
 - 6.1.3 the date of the decision; and
 - 6.1.4 the date of issue of the decision;
 - 6.2 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);

- 6.3 draw the attention of all registered I&APs to the manner in which they may access the decision; and
- 6.4 provide the registered I&APs with:
- 6.4.1 the name of the holder (entity) of this Environmental Authorisation,
 - 6.4.2 name of the responsible person for this Environmental Authorisation,
 - 6.4.3 postal address of the holder,
 - 6.4.4 telephonic and fax details of the holder,
 - 6.4.5 e-mail address, if any;
 - 6.4.6 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).

Commencement

7. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notified the registered I&APs of this decision.
8. In the event that an appeal is lodged with the Appeal Administrator, the effect of this Environmental Authorisation is suspended until such time as the appeal is decided. In the instance where an appeal is lodged the holder may not commence with the activity, including site preparation, until such time as the appeal has been finalised and the holder is authorised to do so.

Written notice to the competent authority

9. A minimum of 7 (seven) calendar days' notice, in writing, must be given to the competent authority before commencement of construction activities. Commencement for the purpose of this condition includes site preparation.
- 9.1 The notice must make clear reference to the site details and EIA Reference number given above.
 - 9.2 The notice must also include proof of compliance with the following conditions described herein:
Conditions: 6, 7 and 14.

Management of activity

10. The draft EMPr dated February 2023 (as compiled by Lukhozi Consulting Engineers (Pty) Ltd.) is hereby approved and must be implemented.
11. An application for amendment to the EMPr must be submitted to the competent authority in terms of Chapter 5 of the EIA Regulations, 2014 (as amended) if any amendments are to be made to the outcomes of the EMPr, and these may only be implemented once the amended EMPr has been authorised by the competent authority.
12. The EMPr must be included in all contract documentation for all phases of implementation.
13. A copy of the Environmental Authorisation and the EMPr must be kept at the site where the listed activities will be undertaken. Access to the site referred to in

Section C above must be granted and, the Environmental Authorisation and EMPr 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. The Environmental Authorisation and EMPr must also be made available for inspection by any employee or agent of the applicant who works or undertakes work at the site.

Monitoring

14. The holder must appoint a suitably experienced Environment Control Officer ("ECO"), for the duration of the construction phase to ensure compliance with the provisions of the EMPr and the conditions contained in this Environmental Authorisation.

The ECO must–

- 14.1 be appointed prior to commencement of any construction activities commencing;
- 14.2 ensure compliance with the EMPr and the conditions contained herein;
- 14.3 keep record of all activities on site; problems identified; transgressions noted, and a task schedule of tasks undertaken by the ECO;
- 14.4 remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed;
- 14.5 provide the competent authority with copies of the ECO reports within 30 days of the project being finalised; and
- 14.6 conduct monthly site inspections during the construction phase.

Environmental audit reports

15. The holder must, for the period during which the Environmental Authorisation and EMPr remain valid -
 - 15.1 ensure that the compliance with the conditions of the Environmental Authorisation and the EMPr is audited;
 - 15.2 submit an environmental audit report four (4) months after commencement of the construction phase to the relevant competent authority;
 - 15.3 submit an environmental audit report six (6) months after completion of the construction phase to the relevant competent authority; and
 - 15.4 submit an environmental audit report every five (5) years while the Environmental Authorisation remains valid.
16. The environmental audit reports must be prepared by an independent person with expertise and must address the objectives and contain all the information set out in Appendix 7 of the EIA Regulations, 2014 (as amended).

In addition to the above, the environmental audit report, must -

- 16.1 provide verifiable findings, in a structured and systematic manner, on–
 - (a) the level of compliance with the conditions of the Environmental Authorisation and the EMPr and whether this is sufficient or not; and
 - (b) the extent to which the avoidance, management and mitigation measures provided for in the EMPr achieve the objectives and outcomes of the EMPr and highlight whether this is sufficient or not;
- 16.2 identify and assess any new impacts and risks as a result of undertaking the activity;
- 16.3 evaluate the effectiveness of the EMPr;

- 16.4 identify shortcomings in the EMPr;
 - 16.5 identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr;
 - 16.6 indicate the date on which the construction work was commenced with and completed or in the case where the development is incomplete, the progress of the development and rehabilitation;
 - 16.7 include a photographic record of the site applicable to the audit; and
 - 16.8 be informed by the ECO reports.
17. The holder must, within 7 days of the submission of the environmental audit report to the competent authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request and, where the holder has such a facility, be placed on a publicly accessible website.

Specific conditions

18. Surface or ground water must not be polluted due to any actions on the site. The applicable requirements with respect to relevant legislation pertaining to water must be met.
19. 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 waste disposal facility licensed in terms of the applicable legislation.
20. Should any heritage remains be exposed during excavations or any actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape (in accordance with the applicable legislation). Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape. Heritage remains include archaeological remains (including fossil bones and fossil shells); 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; rock art and rock engravings; shipwrecks; and graves or unmarked human burials.

A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.

21. The location of the construction camp must be located towards the southern boundary of the site to prevent pollution impacts (leaking chemical toilets or contaminated runoff) to the adjacent wetlands.
22. The holder of the Environmental Authorisation must, at all times, ensure that the activities comply with the Noise Regulations in terms of the relevant legislation.
23. Water saving mechanisms and/or water recycling systems must be installed in order to reduce water consumption that include *inter alia*, the following:
- 23.1 Dual-flush toilet systems.
 - 23.2 All taps must be fitted with water saving devices (i.e., tap aerators, flow restrictors and low flow shower heads).
 - 23.3 Water-wise landscaping must be established.

24. The development must incorporate energy/electricity saving measures, which include *inter alia*, the following:
 - 24.1 Use of energy efficient lamps and light fittings. Low energy bulbs must be installed, and replacement bulbs must also be of the low energy consumption type.
 - 24.2 Street lighting must be kept to a minimum and down lighting must be used to minimise light impacts. Streetlights must be switched off during the day.
 - 24.3 All geysers must be covered with geyser "blankets".
 - 24.4 The installation of solar water heaters and solar panels must be considered for all buildings.

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. If the holder does not commence with the listed activities within the period referred to in Condition 3, this Environmental Authorisation shall lapse for the activities, 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.
3. 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 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.

4. The manner and frequency for updating the EMPr is as follows:
Amendments to the EMPr, other than those mentioned above, must be done in accordance with Regulations 35 to 37 of the EIA Regulations, 2014 (as amended) or any relevant legislation that may be applicable at the time.
5. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.

F. 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 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 and the responding statement must be submitted to the address listed below:

By post: Attention: Mr. 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. Marius Venter (Tel: 021 483 3721)
Room 809
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

Note: For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to DEADP.Appeals@westerncape.gov.za.

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

G. DISCLAIMER

The Western Cape Government, the Local Authority, 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. ZAAHIR TOEFY
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

DATE OF DECISION: 19 MAY 2023

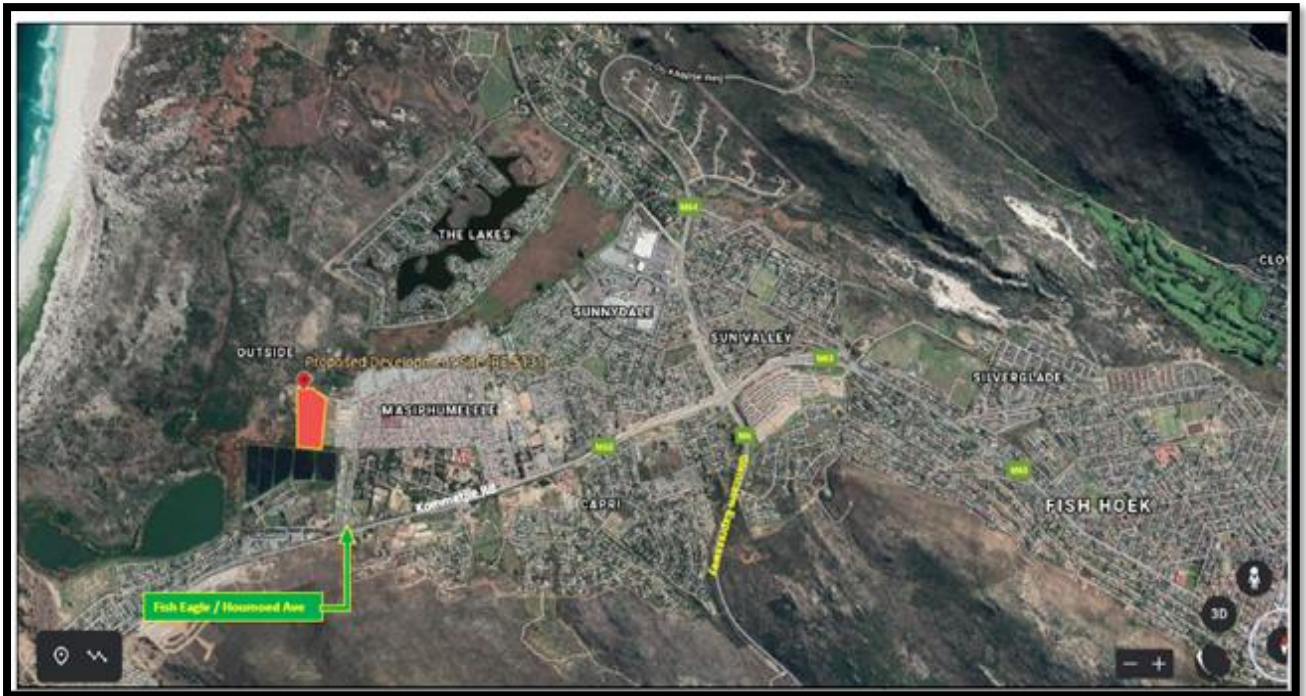
CC: (1) Ms. Natalie Ritsch (Lukhozi Consulting Engineers (Pty) Ltd.)
(2) Mr. André Oosthuizen (DEA&DP: DDF)
(3) Mr. A. Greenwood (City of Cape Town: ERM)

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FOR OFFICIAL USE ONLY:

EIA REFERENCE NUMBER: 16/3/3/1/A6/57/2049/22
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ANNEXURE 1: LOCALITY PLAN

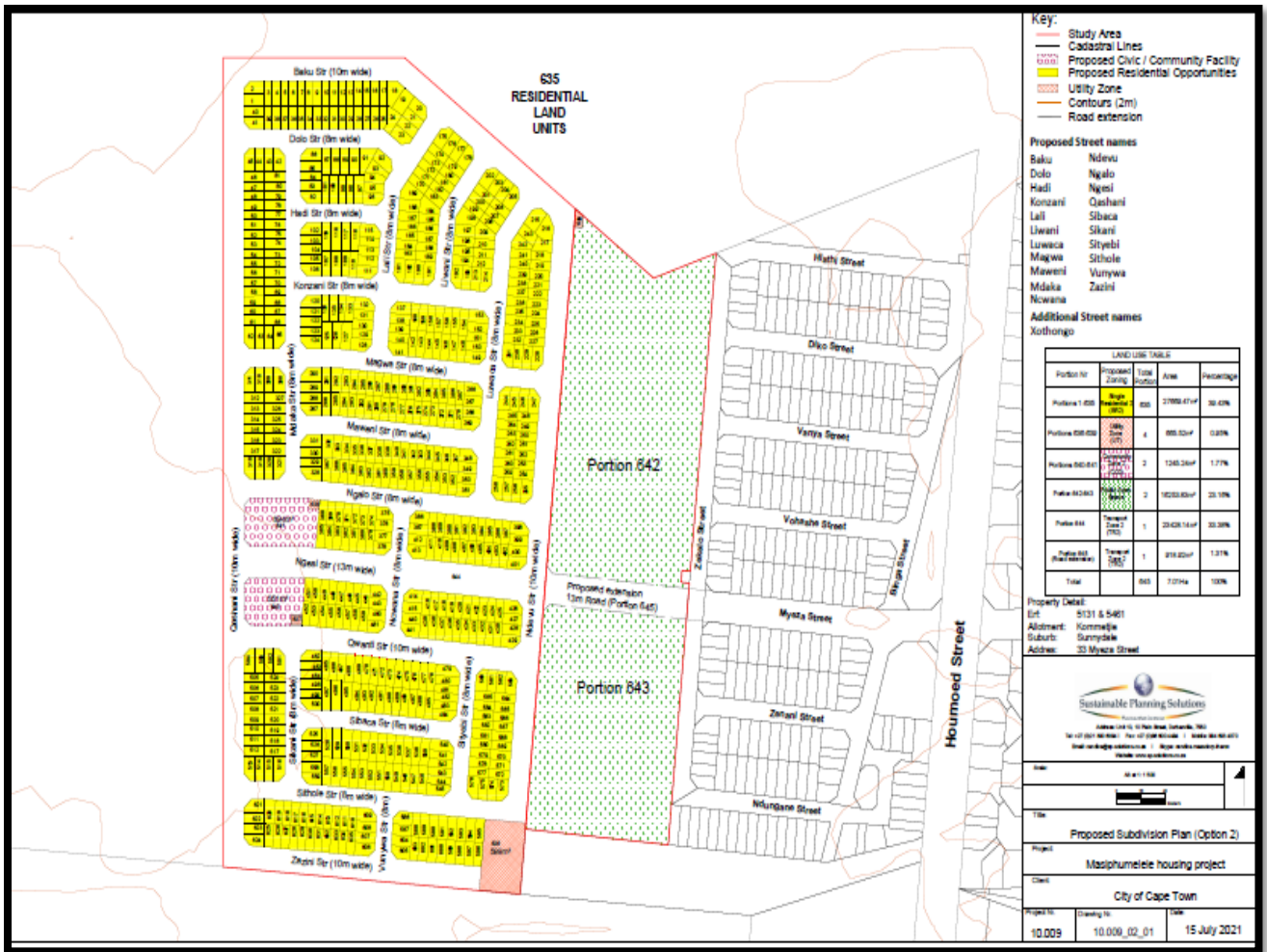


ANNEXURE 2: SITE PLAN

Subdivisional plan of the authorised Masiphumelele Phase 4, Stage 1 low income housing development on Erf No. 4198, Noordhoek:

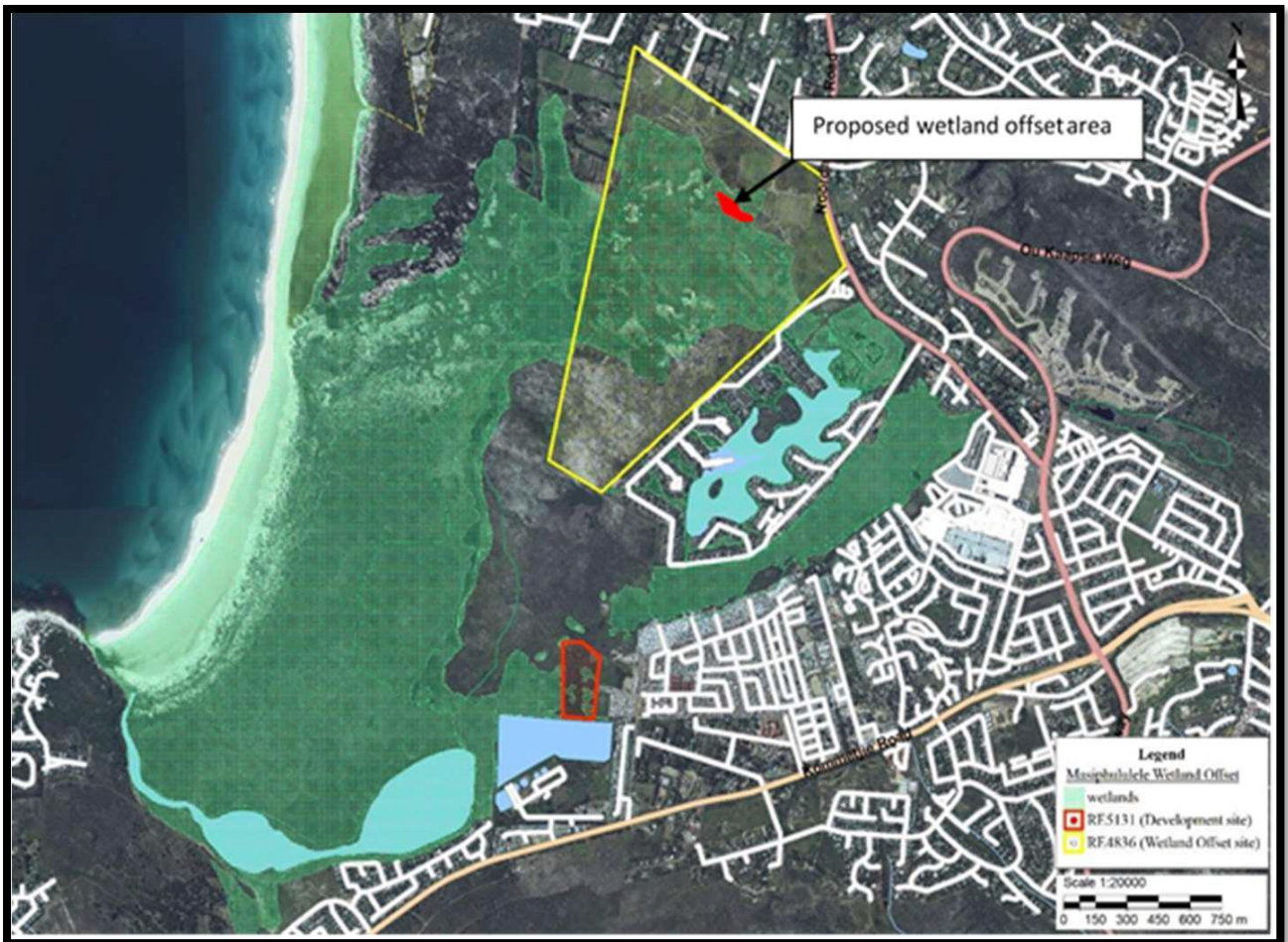


Site development plan for the proposed Masiphumelele Phase 4, Stage 2 housing development on Remainder Erf No. 5131:



ANNEXURE 3: LOCALITY PLAN OF OFFSET SITE

The yellow polygon depicts the site (Remainder of Erf No. 4836, Noordhoek) on which the proposed wetland offset will be located.



ANNEXURE 4: REASONS FOR THE DECISION

In reaching its decision, the competent authority, *inter alia*, considered the following:

- a) The information contained in the application form received by the competent authority via electronic mail correspondence 12 October 2022; the BAR dated February 2023, as received by the competent authority via electronic mail correspondence on 02 February 2023; the EMPr submitted together with the BAR; and the additional information received by the competent authority via electronic mail correspondence on 03 February 2023, 14 March 2023 and 19 April 2023, respectively;
- b) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the NEMA.
- c) The comments received from I&APs and the responses provided thereon, as included in the BAR dated February 2023.
- d) The pre-application meeting held on 11 January 2021 -

Attended by: Ms. Natalie Ritsch of Lukhozi Consulting Engineers; Mr. Eldon van Boom, Ms. Taryn Dreyer, Mr. André Oosthuizen, Ms. Keshni Rughoobee and Ms. Rondine Isaacs of the Department of Environmental Affairs and Development Planning ("DEA&DP").

The pre-application meeting held on 22 January 2021 -

Attended by: Ms. Natalie Ritsch and Mr. James Lochner of Lukhozi Consulting Engineers; Ms. Candice MT and Ms. Alanza Wildskit of Sustainable Planning Solutions; Mr. Eldon van Boom, Ms. Taryn Dreyer and Mr. André Oosthuizen of the DEA&DP; Mr. Bernie Wentzel, Mr. Linda Ndlela and Ms. Daleen van Zyl of the City of Cape Town; and Mr. Warren Dreyer of the Department of Water and Sanitation.

The pre-application meeting held on 23 November 2021 -

Attended by: Ms. Natalie Ritsch of Lukhozi Consulting Engineers and Ms. Taryn Dreyer and Ms. Rondine Isaacs of the DEA&DP.

The meeting held on 15 February 2022 -

Attended by: Ms. Natalie Ritsch and Mr. James Lochner of Lukhozi Consulting Engineers; Ms. Cecilia Thiem of the City of Cape Town and Ms. Taryn Dreyer and Ms. Rondine Isaacs of the DEA&DP.

The meeting held on 24 August 2022 -

Attended by: Ms. Natalie Ritsch of Lukhozi Consulting Engineers; Ms. Cecilia Thiem of the City of Cape Town and Ms. Taryn Dreyer and Ms. Rondine Isaacs of the DEA&DP.

The meeting held on 17 January 2023 -

Attended by: Ms. Natalie Ritsch of Lukhozi Consulting Engineers and Ms. Taryn Dreyer and Ms. Rondine Isaacs of the DEA&DP.

- e) No site visits were conducted. The competent authority had sufficient information before it to make an informed decision without conducting a site visit.

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 which, according to the competent authority, were the most significant reasons for the decision is set out below.

1. Public Participation

The Public Participation Process comprised of the following:

- Notice boards were placed at the entrance of Fish Eagle Park; at the corner of Fish Eagle and Myeza Road; at the entrance to the sports field; within the Phase IV residential area; at a community hall at Myeza Road; at a community health facility at the corner of Myeza and Pokela Roads and at the Masiphumelele taxi rank located at Tambo Road, respectively;
- An advertisement was placed in the "False Bay Echo" newspaper on 04 March 2021;
- Letter drops were conducted at the Masiphumelele Phase IV residential site adjacent to the sports field on 08 March 2021;
- Notification letters were sent via e-mail and WhatsApp on 12 April 2021;
- The pre-application BAR was placed at the Ikamva Youth Masiphumelele Library and Fish Hoek Public Library for the duration of the commenting period;
- An electronic copy of the pre-application BAR was made available for download on the website of Lukhozi Consulting Engineers;
- The pre-application BAR was made available from 13 April 2021 until 14 May 2021;
- E-mails were sent on 17 November 2021 to announce the availability of the draft BAR;
- Follow-up e-mails were sent on 24 November 2021 to announce the revised dates of the commenting period of the draft BAR;
- The draft BAR was placed at the Ikamva Youth Masiphumelele Library and on the EAPs website for the duration of the commenting period;
- Hard copies of the draft BAR were provided to all members of the Masiphumelele Public Steering Committee, with the appendices included on a DVD, which were delivered to the offices of the ward councillor for ease of collection; and
- The draft BAR was made available from 10 November 2022 until 12 December 2022.

Authorities consulted

The authorities consulted included the following:

- CapeNature;
- DEA&DP Directorate: Air Quality Management;
- DEA&DP Directorate: Pollution and Chemicals Management;
- DEA&DP: Directorate: Waste Management;
- Western Cape Department of Agriculture;
- Department of Human Settlements;
- Western Cape Department of Education;
- Western Cape Department of Transport and Public Works;
- Western Cape Department of Health;
- Heritage Western Cape;
- City of Cape Town;
- South African National Parks ("SANParks"); and
- Department of Water and Sanitation.

The competent authority is satisfied that the Public Participation Process that was followed met the minimum legal requirements. All the comments and responses that were raised were responded to and included in the BAR.

2. Alternatives

Alternatives were considered such as relocating the existing sports fields to the west of the site along the edge of the Table Mountain National Park. Various considerations included the provision of a new sports field versus rehabilitating the existing field, timeframes related to these changes, the issue of wasteful expenditure, and accommodating the victims of the December 2020 fire, who have since been accommodated on the existing sports field.

Based on the input received and discussions held with the Sports and Recreation Department of the City of Cape Town, it was decided to keep the sports field in its current position, *i.e.*, rehabilitating the field once the residents can be moved. The Sports and Recreation Department confirmed that they do not support the proposed relocation of the sports field.

Site alternatives:

Pockets of land were previously identified that could be considered for development to address the overcrowded conditions in Masiphumelele and the future growth of the area. The following sites were identified:

- Kompanjiesuin (Remainder Erf No. 5142);
- Dassenberg (Cape Farm 940/7);
- The Noordhoek Wetland southeast of the Noordhoek sports fields (Erf No. 930); and
- The Chicken Farm in the Solele area (Cape Farm 951/25).

The sites were discarded for the following reasons:

- The land is privately owned and will have to be purchased by the City of Cape Town;
- There are various development-related issues such as existing approvals that are in place and site constraints such as existing waste, the slope of property, scenic routes etc.; and
- The associated environmental impacts related to the development of these sites.

Preferred site – herewith authorised:

The authorised site for the Masiphumelele Phase 4, Stage 1 low income housing development is situated on Erf No. 4198, Noordhoek and the proposed Masiphumelele Phase 4, Stage 2 housing development will be situated on Remainder Erf No. 5131, Masiphumelele.

Preferred alternative – herewith authorised:

The preferred alternative entails the proposed establishment of the Masiphumelele Phase 4, Stage 2 housing development on the Remainder of Erf No. 5131, Masiphumelele.

Approximately 635 housing opportunities, internal services and roads, community and utility uses will be established. A 10m ring road will be established along the northern and western edges, adjacent to the Table Mountain National Park. Houses of varying heights/typologies will be established on the site, adjacent to the Table Mountain National Park.

Since the entire site will be developed, the wetlands identified on the site will be infilled. Remainder of Erf No. 4836, Noordhoek, has been identified as an offset site to meet the offset target for ecosystem conservation.

Access will be obtained via the extension of Myeza Street.

The following layout alternatives were considered:

Alternative 1:

This alternative entails the construction of approximately 700 housing opportunities, internal services and roads and community and utility use. Alternative 1 proposes a row of houses of

varying heights/typologies along the western and northern edges adjacent to the Table Mountain National Park. This alternative was discarded as it does not provide for a ring road which will assist as a hard edge between the site and the adjacent Table Mountain National Park.

Alternative 2 (preferred alternative – herewith authorised):

Alternative 2 entails the construction of approximately 635 residential opportunities, internal services and roads, community and utility uses. A 10m ring road will be established along the northern and western edges, adjacent to the Table Mountain National Park. Houses of varying heights/typologies will be established along the northern and western edges, adjacent to the Table Mountain National Park.

A 10m wide buffer will be created along the southern storm water channel on the southern edge of the site to provide adequate space for ensuring the maintenance of a functional storm water channel. Upgrades to the southern storm water channel to provide flood protection from the adjacent WWTW ponds will also be undertaken.

This is the preferred layout as the ring road will provide a hard edge between the site and the adjacent Table Mountain National Park, thereby assisting with surveillance related to potential encroachment.

“No-Go” Alternative:

This alternative entails maintaining the *status quo* and as such, the proposed Masiphumelele Phase 4, Stage 2 housing development will not be established. This alternative was not deemed as preferred, as the proposed development will augment the economic activities, provide for much needed housing and the benefits to the holder and creation of jobs would not be realised. The “no-go” alternative is therefore not warranted.

3. Impacts, assessment and mitigation measures

3.1 Activity Need and Desirability

A RoD was issued by this Department on 27 August 2007, authorising the Masi Phase 4 development which consists of a residential development, totaling 174 single storey units, or alternatively, 252 double-storey units, including a sports field as well as areas for urban agriculture/community park and public open spaces. Since the RoD was issued on 27 August 2007, the majority of the Masiphumelele Phase 4, Stage 1 low income housing on Erf No. 4198 has been implemented, *i.e.*, the construction of the sports field, and the majority of the housing development. Approximately 156 double-storey houses have been constructed as part of Phase 1 and the remaining 96 houses will be constructed once the area has been cleared of informal structures.

The only portion that has not been developed is the southern section of Myeza Street, which has been informally settled. The proposed Masiphumelele Phase 4, Stage 2 housing development will decant the residents living in the informal settlement onto the proposed site to construct the last 96 houses.

The undeveloped part of the authorised site has remained as a buffer area, acting as a natural buffer between the urban area and the Table Mountain National Park. Due to the pressure to provide housing in the Masiphumelele area, as well as the lack of available land, it is now proposed to develop the buffer area, *i.e.*, Remainder of Erf No. 5131.

Remainder Erf No. 5131 is zoned Subdivisional Area in terms of the City of Cape Town Development Management Scheme regulations.

An application to deviate from the City of Cape Town Municipal Spatial Development Framework ("CTMSDF") (2018) for township establishment has been approved on 19 October 2021. In terms of section 98 of the City of Cape Town Municipal Planning By-Law (2015), the following was approved:

- (a) The deviation from the MSDF (2018) for the site-specific reasons;
- (b) The application for the rezoning from Open Space 2 and Limited Use to Subdivisional Area overlay zone; and
- (c) The application for subdivision in accordance with the plans of subdivision LUM/69/5131-1 and 2.

The most recent Spatial Development Framework ("SDF") for Masiphumelele and environs proposes that the site be a future urban development area and specifically almost exclusively residential development. The proposed development therefore aligns with the proposed SDF.

Masiphumelele is a rapidly growing low-income residential enclave in the far-south area and there is a massive shortage of land to accommodate the current and future growth of Masiphumelele. The site is directly adjacent to the existing Masiphumelele area. It is also very closely located to where the Masiphumelele crisis is the greatest, *i.e.*, the informal settlement area in the wetlands outside the urban edge at the northern periphery of Masiphumelele. The site's proximity is therefore a distinct advantage in terms of assisting with overcoming the informal settlement area crisis.

The site is designated in the CTMSDF (2018) as a "Buffer 2: Other Ecological Area of Significance" which is the lowest rating category for land of any biodiversity significance. The site is also not identified as a World Heritage Site.

The preferred alternative will provide for a road which will serve as a clearly communicated edge. The road will also assist with surveillance regarding any possible future land invasion or inappropriate activities.

3.2 Geotechnical impacts

A Phase 1 Geotechnical Site Investigation Report dated September 2019, was compiled by Core Geotechnical Consultants to assess the potential geotechnical impacts associated with the proposed development.

According to the Report, a perched groundwater table was encountered at depths of between 1.1m and 1.6m. These levels may rise to within 1m to 1.5m of the surface. These levels may rise even further (possibly within 0.5m of the surface) close to the existing wetland pond areas and historically marshy areas, during wet winter periods.

Given the undulating surface topography and the occurrence of seasonal wetland ponds within the topographically lower lying areas, extensive additional earthworks will be required to both level the site and fill-in/raise the levels within the lower lying pond areas to prepare the site for development.

No difficulty in excavation was encountered within the transported sandy and clayey soils. Due to the granular nature of the sandy soils, sidewall collapse occurred within test pits, especially below the perched water table. Excavation deeper than 1.5m will thus require shoring or battering of sidewalls for safety reasons.

Although extensive earthworks will be required on site, there is no real risk of large scale slope failures unless large cuts are envisaged. Design precautions are required for both temporary and permanent cut slopes. The cohesion-less sands at surface are susceptible to erosion under the influence of both water and wind, once vegetation is removed. Appropriate design precautions will thus be required.

Site geotechnical conditions vary across the site and in certain areas extensive earthworks and precautionary measures will be required before the site is deemed suitable for development.

3.3 Botanical impacts

A Specialist Botanical Impact Assessment Report dated 04 March 2021, was compiled by Nick Helme Botanical Surveys, to assess the potential botanical impacts associated with the proposed development.

The site is located within the City of Cape Town's Biodiversity Network which indicates that the site is mapped as an Other Ecological Support Area ("OESA").

The botanical specialist classified most of the vegetation as Cape Flats Dune Strandveld. However, no intact examples of Hangklip Sand Fynbos are present on the site and is no longer present on site.

The vegetation sensitivity is divided into just two categories, *i.e.*, low and high sensitivity. The primary determinant of these categories is degree of soil disturbance, with the low sensitivity areas being most heavily and recently disturbed (heavily trampled, disturbed or with negligible indigenous vegetation), and the least disturbed (largely natural) areas being of high sensitivity.

High sensitivity areas:

The high sensitivity areas are the least disturbed portions of the site, and six discrete patches have been mapped. These patches support the highest plant diversity on site, which also happen to be wetlands. There are no high sensitivity areas of non-wetland vegetation on site, although there are some just to the north of the site, including a large Milkwood.

From a regional and national conservation perspective the high sensitivity areas are considered ecologically irreplaceable, although from a strictly botanical perspective they are not of particularly high diversity and support no threatened plant species. None of these areas is pristine, but all areas have very good rehabilitation potential, and are currently ecologically functional. Disturbance in these areas includes disturbance and grazing by livestock, some illegal dumping and trampling by people.

The wetlands are typically fringed by alien invasive trees such as Port Jackson. Some of the wetlands have saltmarsh elements, due to the underlying clays which prevent the water from draining away, whilst others have deeper sands and lack the saltmarsh indicator species.

Low sensitivity areas:

The majority of the site (approximately 75%) has been mapped as low botanical sensitivity. These areas have been heavily disturbed, especially in the last five years, and now support a very low diversity of indigenous vegetation. The plant community is heavily dominated by a few weedy species many of which are alien invasive weeds of

disturbed or cultivated areas. Rehabilitation potential in these areas is low to moderate and will require significant inputs of material and time.

No plant species of conservation concern are likely to occur, and there are no ecological constraints in terms of the proposed development. Since the site has a history of disturbance there are numerous alien invasive species on site. The low sensitivity wetland areas (typically manmade canals) are dominated by *Typha capensis* and *Phragmites australis*.

No plant species of conservation concern are likely to be impacted on, but approximately 1ha of high sensitivity natural vegetation (of an endangered vegetation type) will be lost during the construction phase, in six discrete patches, all of which are also wetlands. Loss of vegetation in the low sensitivity parts of the site (75% of the site) will be of low negative significance, with no threatened species and low diversity.

The botanical specialist indicated in a letter dated 05 June 2021 that approximately 1ha of high sensitivity vegetation will be lost due to the proposed development, with a medium to high negative botanical impact.

The proposed wetland offset will not immediately compensate for the 1ha of vegetation and habitat lost as a result of the proposed development. However, the proposed rehabilitation of the offset site may allow for the development of an adequate plant community that partly compensates for the original loss of 1ha of high sensitivity vegetation.

The botanical specialist further indicated in a letter dated 15 July 2021 that the proposed offset is large enough to adequately compensate for the unavoidable loss of 1ha of high sensitivity habitat, even though only about 1ha of the offset site is of similar vegetation of medium to high or high sensitivity, with the remaining 4.4ha being partly to very degraded. With proper management, the degraded areas will rehabilitate to a fairly significant degree.

The recommendations and mitigation measures recommended by the botanical specialist have been included in the EMPr.

3.4 Freshwater impacts

An Aquatic Impact Assessment Report dated August 2021, was compiled by BlueScience, to assess the potential freshwater impacts associated with the proposed development.

The site is located within a wider area considered of very high aquatic biodiversity sensitivity. This is due to the Aquatic Critical Biodiversity Areas ("CBAs"), Freshwater Ecosystem Priority Area ("FEPA") Rivers, Wetlands and Estuaries, as well as Strategic Water Source Area for surface water (Table Mountain) occurring in the wider area. While the site is located in a National Surface Water Strategic Water Source Area (Table Mountain), the proposed development will not impact the area as a strategic water source area.

Remainder Erf No. 5131 is mapped as an OESA: Irreversibly Modified Site of Conservation Significance that should preferably not be developed, but rather be maintained as open space and rehabilitated, where possible. A small artificial wetland area associated with the Wildevoëlvele WWTW is also mapped on the site.

The aquatic ecosystems most likely to be impacted by the proposed development are the fringes of the Pick 'n Pay reed bed; isolated depressions that occur adjacent to Papkuilsvlei and Wildevoëlvlei Wetlands and some artificial wetland associated with seepage from the Wildevoëlvlei WWTW. The wetland areas within and adjacent to the site consist of a mix of:

- Seasonally inundated *Juncus* wetland that is within isolated pans or depressions;
- Fringe wetland areas of the Pick 'n Pay reed bed, Wildevoëlvlei and Papkuilsvlei wetland areas; and
- Artificial *Typha* bulrush wetland that is associated with the Wildevoëlvlei WWTW.

The surrounding land use activities have impacted the habitat as well as the flow and water quality of the water feeding the wetland areas adjacent to the site, with only the isolated depressions within and adjacent to the site remaining in a moderately modified ecological condition. Direct habitat modification impacts along the Pick 'n Pay reed bed fringe have also impacted the wetlands, together with the removal of indigenous vegetation and some invasive alien plant invasion, which resulted in the largely modified ecological condition of this wetland within the immediate area. The permanently inundated wetland adjacent to the WWTW is considered to be largely to seriously modified as a result of the seepage water from the WWTW.

The Freshwater Consulting Group undertook a scoping assessment for the authorised site in 2005. The following aquatic habitats were identified and delineated in the assessment:

- Artificial storm water channels that were considered of low conservation value but high functional value, providing a hydraulic barrier to the passage of nutrient-rich water from the WWTW;
- Seasonal wetland mosaic considered of high conservation importance as a remnant of habitat typical to the Noordhoek Wetlands;
- Artificial pans that comprised of two habitat types, *i.e.*, excavated pans on which wetland vegetation has not established and those colonised by wetland vegetation;
- Permanent *Typha* marsh; and
- Fragmented *Sarcocornia* patches that are remnants of the original salt marsh that occurred in the area and are considered both vulnerable to change and of high conservation value.

General aquatic ecological considerations provided were as follows:

- No further infilling of wetlands;
- Volume and quality of water discharged to the Noordhoek Wetlands should not be increased; and
- An ecological buffer of at least 25m from the wetland edge should be in place.

Of the development options considered, Option 3 (the entire area being developed as sports fields) was considered to have the least potential freshwater impacts, followed by Options 2a and 2b (a portion to be residential development and a portion sports fields), with Option 1 (almost entirely residential development) having significant impacts (high negative significance was given for Options 1 and 2 as a result of infilling of seasonal wetland and degradation of adjacent wetlands and a medium to low negative significance for Option 3).

Since the previous freshwater assessments were undertaken in 2004 and 2005, considerable expansion of the surrounding developed areas has taken place with an

associated increase in the disturbance and degradation of the wetland areas within the area.

The entire area assessed in 2005 has been modified for housing and the adjacent sports facilities. There has also been a shift in the characteristic of the adjacent wetlands on the Remainder of Erf No. 5131 from seasonal wetlands to increasing pans with little to no associated wetland vegetation. In addition, the more permanently inundated wetlands with nutrient-rich water from the WWTW to the west of the site has increased substantially.

The area in which the northern storm water channel occurs has been relatively undisturbed in the past twenty years. Due to the high risk of creating new areas of disturbance where alien vegetation will be introduced, as well as altering the drainage and inundation patterns of the wetlands, any future works must be further investigated before any such works may be undertaken.

The proposed Phase 4, Stage 2 development on the Remainder of Erf No. 5131 will result in the loss of at least 1ha of wetland habitat that is of a moderately modified ecological condition and which is considered of a moderate to high ecological importance and sensitivity. The wetland areas that will be lost comprise mostly of seasonal wetlands dominated by *Juncus kraussii* and *J. effuses*. Some of the depressions also contain *Sarcocornia natalensis*. It is more pragmatic to offset the loss of wetland habitat than to try and retain any wetland habitat on the site.

The proposed layout will assist in reducing the risks and impacts on adjacent aquatic features. A road will be placed along the outer edge of the site which will provide both a buffer between the buffer and the wetland habitat and also provide access to monitor and manage any impacts to the wetland areas.

Considering the ongoing urban development of the surrounding area, the continued functioning of the wetland areas, such that they can retain their current character, is not likely. Should the wetland areas be treated as "no-go" areas and only the remaining portions of the site be developed, it is unlikely that the aquatic ecosystems will remain as ecosystems that can support the current aquatic plant communities. Instead, the aquatic ecosystems are likely to be filled with storm water runoff and litter from the surrounding developed areas.

Wetland offset:

The offset site will be located on the Remainder of Erf No. 4836, Noordhoek. The property is almost 150ha in extent and owned by the City of Cape Town. The site is currently zoned as "Limited Use Zone Open Space 2: Public Open Space", but primarily extends into the Table Mountain National Park, an area managed by SANParks.

The rehabilitation and creation of approximately 5.5ha of wetland area that will consist of a mosaic of seasonal depression wetlands adjacent to the sports fields on Remainder Erf No. 4836 will serve as a wetland offset. The desired condition of the proposed wetland offset is a B/C Category (largely natural to moderately modified).

The new seasonal wetlands that will be established will contain very similar habitat and vegetation. The wetlands have the potential to provide habitat for species of conservation concern such as the Western Leopard Toad. The proposed wetland offset will be located within the same area and is within the same vegetation type and will be of the same wetland types to the wetland areas that will be lost.

A large portion of the offset site comprises seasonal and more permanently inundated sand fynbos depression and dune Strandveld wetland areas. As such, the wetlands on the offset site are of the same type as the wetlands for which an offset is required for both the proposed development and the Houmoed Avenue Extension project.

Over 1ha of seasonally inundated rush depressions/pans and permanently inundated *Typha* reed beds must be offset with a functional offset of 0.6ha equivalents and an ecosystem conservation offset of 1.1ha equivalents. Approximately 5.5ha of wetland area on the offset site will be created/rehabilitated to provide a wetland offset.

For the Houmoed Avenue Extension, the estimated total extent of wetland loss that requires a wetland offset is approximately 8.2ha. It was determined that the required offset should have a functional target of 3.8ha equivalents and an ecosystem conservation offset of 2.5ha equivalents.

The wetland offset for the proposed development comprises of securing increased protection levels for the wetlands on the offset site, while improving the functioning of the wetlands through the implementation of wetland rehabilitation interventions. These interventions comprise redistribution of water from the Lake Michelle outlet, addressing the impacts of horse-riding activities, removal of alien invasive vegetation and reinstatement of an area of approximately 2ha of seasonal wetland.

The proposed Masiphumelele Phase 4, Stage 2 wetland offset is thus in addition to and have synergies with the Houmoed Avenue extension wetland offset interventions. This will bring about an increased improvement in wetland extent, condition and functionality.

By allowing both wetland offsets on the same property that will enjoy increased protection, and which is located mainly within the Table Mountain National Park, the sustainability of the wetland areas will be improved. The proposed reinstated wetland areas are located adjacent to each other to allow a greater area of functional seasonal wetland on the offset site.

Upgrading of the northern channel:

The rationale for the upgrading/formalising of the existing channel that runs to the north of the site was due to "the need to control flows from The Lake Development to Papkuilsvlei". From an ecological perspective, the proposed channel upgrade was assessed (2005) as ecologically problematic and associated with several unknown factors. Mitigation measures were provided to both reduce uncertainty and thus assist in design, and to reduce impacts to adjacent wetlands.

Dr Liz Day concluded in a letter dated 18 August 2021 that by not implementing the upgrade/formalising of the northern channel as part of the proposed development, is ecologically favorable, and there is thus no need to implement any of the associated impact mitigation measures.

Conclusion:

The proposed wetland offset for the proposed Masiphumelele Phase 4, Stage 2 development is significantly larger than the legal requirement directly linked to wetland habitat that will be lost.

Whilst the wetland offset for the Houmoed Avenue development is a separate wetland offset proposal to the proposed Masiphumelele Phase 4, Stage 2 development, both offset proposals will be implemented on Remainder of Erf No. 4836. The two offset proposals will work collectively within the Remainder of Erf No. 4836, such that wetland habitat with a combined area of approximately 8.5ha will be re-established.

A number of broader actions are proposed in the Houmoed Avenue wetland offset plan for the larger wetland area, including:

- Securing the conservation status of the wetlands;
- Addressing water supply to the wetlands;
- Addressing horse riding pathways through the wetland area; and
- Removal of alien vegetation.

Since the above aspects have already been included in the Houmoed Avenue offset plan for Remainder of Erf No. 4836, these aspects were not repeated in the offset plan for the proposed Phase 4, Stage 2 development to avoid duplication. The proposals are conceptual and will require further work, investigation and monitoring to inform more detailed plans.

The aquatic habitats on the site are unlikely to provide habitat for Western Leopard Toads, nor has any such habitat been identified on the site. The proposed wetland offset site on Remainder of Erf No. 4836 will provide additional habitat for Western Leopard Toads as it is located in an area important for this species. The detailed design and creation of aquatic habitat for amphibians (including Western Leopard Toads) will be included in the final offset plan and will be based on the advice of faunal specialists.

Several engagements were held with SANParks to discuss the wetland offset and the management of the offset site. The City of Cape Town submitted a commitment letter during August 2022 to confirm the process that will be followed to ensure the declaration of the offset site. An application that motivates for SANParks to take on formal responsibility was assessed at the National SANParks land meeting, where after it was confirmed that there is support for the offset proposal. The wetland offset site will be declared as a National Park in terms of section 20 of the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEM: PAA") and for SANParks to be appointed as the Management Authority in terms of section 38(1)(A) of the NEM: PAA.

The freshwater specialist concluded that, from an aquatic ecosystem perspective, the proposed Masiphumelele Phase 4, Stage 2 development can proceed with the implementation of the recommended mitigation measures. The mitigation measures have been included in the EMP.

A Water Use License dated 27 June 2022, referenced "LICENCE NO.: 01/G22A/CI/11879; FILE NO.: 27/2/2/G122/25/3; WULA NO.: WU19235" has been issued by the Department of Water and Sanitation.

3.5 Groundwater impacts

A Groundwater Baseline Assessment Report dated 10 September 2019, was compiled by GEOSS, to assess the potential groundwater impacts associated with the proposed development.

An assessment of the groundwater use in the region via a hydrocensus, suggested that the region has minimal groundwater users. The source of the groundwater is primarily the deeper secondary aquifer.

No boreholes were logged on The National Groundwater Archive, within the 1km search radius. During the hydrocensus two groundwater users were located within the 1km search radius and one groundwater user was found just outside of the search boundary. The hydrocensus indicated that the groundwater use in the region primarily takes place in the deeper secondary aquifer. The boreholes located indicated low yields with poor groundwater quality.

Based on the soil profiles of the augered holes, the water found in the augered holes are shallow groundwater just below the surface, on top of the clay layer. The boreholes found during the hydrocensus also indicated saline water of poor quality. The groundwater from the hydrocensus boreholes, originates from the deeper secondary, fractured and intergranular aquifer. Thus, the groundwater quality of both the primary shallow unconfined aquifer and the semi-confined secondary aquifer is of poor quality in terms of electrical conductivity.

Based on information obtained from a local hydrocensus and site investigation, the groundwater from both the primary and secondary aquifer is of poor, saline quality. The water level in the perched aquifer is shallow and prevented from infiltrating the deeper aquifer by a clay layer. It was concluded that the proposed development is unlikely to have a negative impact on the regional groundwater.

3.6 Air quality impacts

An Air Quality Impact Assessment Report dated October 2019, was compiled by DDA Environmental Engineers, to assess the potential air quality impacts associated with the proposed development.

The main objective of the study was to assess the air quality and health impacts due to the operation of the Wildevoëlvele WWTW and determine an appropriate buffer zone for the WWTW.

The sensitivity of the area is considered medium and the odour guideline applicable is 5 Odour Units. The maximum odour concentrations reached 10 Odour Units in an area northwest of the WWTW plant, outside the site boundaries, as well as a small area immediately outside the western portion of the southern boundary. Masiphumelele, Ocean View and Imhoff's Gift are situated well outside the 2 Odour Unit contour. In addition, the odour concentrations at the proposed development are expected to be lower than 1 Odour Unit. The 5 Odour Unit contour reached approximately 150m outside the southern boundary and 750m outside the site towards northwest. However, there are no residential developments in these areas.

The residential areas of Imhoff's Gift and Masiphumelele, as well as the proposed site, are outside of the 0.2 contour zone, which indicates that the long-term non-carcinogenic impact in these areas is acceptable.

The Air Quality Assessment concluded that the risk of developing cancer due to the operation of the WWTW from a lifetime exposure is less than 0.2 in a million for persons who reside around the WWTW, including in the proposed development area. This risk is considered negligible.

3.7 Traffic impacts

A Traffic Impact Assessment Report dated March 2021, was compiled by Innovative Transport Solutions, to assess the potential traffic impacts associated with the proposed development.

Traffic surveys were conducted at the study intersections to determine the peak hour traffic volumes at the intersections in the area. Based on the results of the analyses, all the intersections are operating satisfactorily with no capacity conditions being experienced.

The 2024 background traffic conditions scenario analyses the existing traffic after applying a 1.8% per annum traffic growth rate to the through movement along Kommetjie Main Road over five years. None of the study intersection are expected to experience capacity constraints during the weekday morning and afternoon peak hours.

The 2024 total traffic conditions scenario analyses the background traffic conditions plus the development trips assigned and distributed through the road network. Based on the intersection capacity analyses, all the study intersections except the Houmoed Road/Kommetjie Main Road intersection, is expected to operate satisfactorily during the respective weekday morning and afternoon peak hours. The southbound right turn movement at the Houmoed Road/Kommetjie Main Road intersection is expected to operate at capacity in the future with the expected development trips. However, this intersection will only be signalised once the Houmoed Extension is in place or alternatively, once signalisation is warranted.

All the intersections currently operate and can be expected to operate in the future at acceptable conditions from an intersection capacity point-of-view.

There is currently no clear access to the site. Access to the site is therefore proposed via Myeza Street which will be extended further west into the site.

The expected development traffic will have a minor impact on the external road network and no road improvements are required from an intersection capacity point-of-view.

3.8 Storm water impacts

The storm water management system will ensure quality and quantity control, as per the requirements of the City of Cape Town's Storm Water Impact Policy (27 May 2009).

The concept design will include the following:

- The construction of an attenuation storm water pond/swale to the southeast of the site from where the storm water for all recurrence intervals will be discharged into a controlled manner.
- The diversion of the runoff emanating from the hardened/impervious surfaces constructed as part of the development, away from the housing units via a conventional underground storm water culvert system, including catch pits, manholes, gullies, etc., to the proposed new pond/swale located near the southern boundary of the development.

The upgrading of the southern storm water channel to provide flood protection from the adjacent WWTW ponds will be undertaken. However, the upgrading of the northern storm water channel will not be implemented.

3.9 Dust, visual and noise impacts

Potential dust, visual and noise impacts are anticipated during the construction phase. However, no significant potential dust, visual and noise impacts are anticipated as these impacts will be mitigated by the implementation of the mitigation measures included in the EMPr and a Dust Management Plan.

The development will result in both negative and positive impacts.

Negative Impacts:

- Potential traffic and botanical impacts;
- Potential air quality impacts; and
- Potential impacts on the watercourses.

Positive impacts:

- Employment opportunities will be created during the construction and operational phases of the development;
- Optimal use of available vacant land;
- Additional residential opportunities in the Masiphumelele area; and
- Contribution to the local economy.

National Environmental Management Act Principles

The National Environmental Management Act 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.

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 activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the NEMA and that any potentially detrimental environmental impacts resulting from the listed activities 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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