



REFERENCE: 16/3/3/2/B1/14/1067/20
ENQUIRIES: BERNADETTE OSBORNE
DATE OF ISSUE: 11 November 2021

The Board of Directors
Hokaai Boerdery (Pty) Ltd
PO Box 405
ROBERTSON
6705

Attention: Mr JF Roux

Cell: (084) 677 2332
E-mail: fjrhoukai@gmail.com

Dear Sir

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT (“EIA”) REGULATIONS, 2014: THE EXPANSION OF A DAM AND THE ESTABLISHMENT OF NEW CULTIVATION AREAS ON PORTIONS 1, 17 AND 19 OF FARM NO. 88, FARM NO. 231 AND FARM NO. 55, ROBERTSON.

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

Yours faithfully

**DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING**

Cc: (1) Mr P de Villiers (Cornerstone Environmental Consulting)
(2) Ms T Brunings (Langeberg Municipality)
(3) Mr Rhett Smart (CapeNature)
(4) Mr Rudolph Röscher (Department of Agriculture)
(5) Ms Elkerine Rossouw (BGCMA)

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REFERENCE: 16/3/3/2/B1/14/1067/20
NEAS REFERENCE: WCP/EIA/0000842/2020
ENQUIRIES: Bernadette Osborne
DATE OF ISSUE: 11 November 2021

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: THE EXPANSION OF A DAM AND THE ESTABLISHMENT OF NEW CULTIVATION AREAS ON PORTIONS 1, 17 AND 19 OF FARM NO. 88, FARM NO. 231 AND FARM NO.55, ROBERTSON.

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, 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 Dam Location Alternative, the Preferred Dam Design Alternative Option 5, the Preferred Borrow Pit Location Alternative, Cultivation Area Layout Alternative 2 and the Preferred Pipeline Layout Alternative described in the Environmental Impact Assessment ("EIA") Report, dated July 2021.

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

Hokaai Boerdery (Pty) Ltd
c/o Mr JF Roux
PO Box 405
ROBERTSON
6705
Cell: (084) 677 2332
E-mail: fjrhokaai@gmail.com

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

B. ACTIVITY AUTHORISED

Listed Activity	Project Description
<p>Listing Notice 1 – Activity Number: 19 The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock or more than 10 cubic metres from a watercourse;</p> <p><i>but excluding where such infilling, depositing, dredging, excavation, removal or moving-</i></p> <ul style="list-style-type: none"> (a) <i>Will occur behind a development setback;</i> (b) <i>Is for maintenance purposes undertaken in accordance with a maintenance management plan;</i> (c) <i>Falls within the ambit of activity 21 in this Notice, in which case that activity applies.</i> (d) <i>Occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</i> (e) <i>Where such development is related to the development of a port or harbor, in which case activity 26 in Listing Notice 2 of 2014 applies.</i> 	<p>The development includes the expansion of the in-stream Veld Dam.</p>
<p>Listing Notice 1 – Activity Number: 48 The expansion of-</p> <ul style="list-style-type: none"> (i) infrastructure or structures where the physical footprint is expanded by 100 square metres or more; or (ii) dams or weirs, where the dam or weir, including infrastructure and water surface area, is expanded by 100 square metres or more; <p><i>where such expansion occurs –</i></p> <ul style="list-style-type: none"> (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse <p><i>excluding-</i></p> <ul style="list-style-type: none"> (aa) the expansion of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour; 	<p>The development includes the expansion of the in-stream Veld Dam.</p>

<p>(bb) where such expansion activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 23 in Listing Notice 3 of 2014, in which case that activity applies;</p> <p>(dd) where such expansion occurs within an urban area; or</p> <p>(ee) where such expansion occurs within existing roads, road reserves or railway line reserves.</p>	
<p>Listing Notice 1 – Activity Number: 66 The expansion of a dam where –</p> <p>(i) the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, was originally 5 metres or higher and where the height of the wall is increased by 2.5 metres or more; or</p> <p>(ii) where the high-water mark of the dam will be increased with 10 hectares or more.</p>	<p>The dam wall of Veld Dam will be raised from approximately 12m to 20m.</p>
<p>Listing Notice 2 – Activity Number: 13 The physical alteration of virgin soil to agriculture, or afforestation for the purposes of commercial tree, timber or wood production of 100 hectares or more.</p>	<p>The development footprint of the cultivation areas, the expanded dam, sand borrow area and associated infrastructure will result in the clearance of indigenous vegetation of 100ha or more.</p>
<p>Listing Notice 2 – Activity Number: 15 The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for –</p> <p>(i) the undertaking of a linear activity; or</p> <p>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p>The development will involve the removal of more than 20ha of indigenous vegetation</p>

The abovementioned activities are hereinafter referred to as “**the listed activities**”.

The holder is herein authorised to undertake the following alternative that includes the listed activities:

- The expansion of the existing in-stream Veld Dam, which will consist of:
 - An additional storage capacity of 410 000m³. This will increase the current storage capacity from 248 000m³ to 658 000m³;
 - Raising the existing wall height of the dam from approximately 12m to 19.9m; and
 - Increasing the existing full supply level footprint from 5ha to 8.9ha.

- The installation of a 250mm diameter inlet pipeline (1.3km long) from the Breede River to the expanded Veld Dam.
- The establishment of new cultivation areas of approximately 89ha.
- The core, general fill and slope protection materials are available in the Veld Dam's basin, except for sand, which will be sourced from an agreed sand borrow site (1 ha) on the neighbouring farm (located on Portion 17 of Farms No. 88 and Farm No. 55).

C. SITE DESCRIPTION AND LOCATION

The listed activities will be undertaken on Portions 1, 17 and 19 of Farm No. 88, Farm No. 231 and Farm No. 55, Robertson and has the following co-ordinates:

	Latitude (S)	Longitude (E)
Co-ordinates of the dam:	33° 49' 25.63" South	19° 40' 32.47" East
Co-ordinates of Area 3:	33° 49' 14.66" South	19° 41' 10.08" East
Co-ordinates of Area 5:	33° 50' 51.62" South	19° 40' 27.53" East
Co-ordinates of Area 6:	33° 50' 57.75" South	19° 39' 46.70" East
Co-ordinates of Area 7:	33° 51' 28.83" South	19° 39' 45.50" East
Co-ordinates of sand borrow area:	33° 49' 59.76" South	19° 41' 38.64" East

The SG digit codes are:

C065 0000 00000088 00001
 C065 0000 00000088 00017
 C065 0000 00000088 00019
 C065 0000 00000231 00000
 C065 0000 00000055 00000

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

Cornerstone Environmental Consultants (Pty) Ltd
 c/o Mr Pieter de Villiers
 PO Box 12606
 Die Boord
STELLENBOSCH
 7613
 Cell: (083) 243 0994
 Email: pieter@cornerstoneenviro.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 Dam Location Alternative, the Preferred Dam Design Alternative Option 5, the Preferred Borrow Pit Location Alternative, Cultivation Area Layout Alternative 2 and the Preferred Pipeline Layout Alternative described in the EIA Report dated July 2021 on the site as described in Section C above.
2. The holder must commence with the listed activities on the site within a period of **five years** from the date issue of this Environmental Authorisation.
3. The development must be concluded within **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. Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of construction 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, 10, 12 and 18

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 Appeals Regulations, 2014 detailed in Section F below;
- 7.3 draw the attention of all registered I&APs to the manner in which they may access the decision;
- 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 2014 National Appeals Regulations.
- 8. The listed activities, including site preparation, may not commence within 20 (twenty) calendar days from the date of issue of this Environmental Authorisation. 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.

Management of activity

- 9. The draft or Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.
- 10. The Maintenance Management Plan ("MMP") must be amended to include the correct maps for the development and the final site development plan for the demarcated 89ha area for cultivation. The amended MMP must be submitted to the Competent Authority for adoption prior to the commencement of clearance activities on the site.
- 11. The EMPr must be included in all contract documentation for all phases of implementation.

Monitoring

12. The holder must appoint a suitably experienced environmental control officer ("ECO"), or site agent where appropriate, before commencement of any land clearing or construction activities to ensure compliance with the provisions of the EMPr and the conditions contained herein.
13. A copy of the Environmental Authorisation, EMPr, audit reports and compliance monitoring reports which must be submitted quarterly to the Competent Authority during the construction phase must be kept at the site of the authorised activities, and must be made available to anyone on request, including a publicly accessible website.
14. 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

15. In terms of Regulation 34 of the NEMA EIA Regulations, 2014, the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation, the EMPr and the MMP. The Environmental Audit Report must be prepared by an independent person (other than the appointed Environmental Assessment Practitioner or Environmental Control Officer) and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014.

The holder must undertake an environmental audit and submit Environmental Audit Reports to the Competent Authority once a year during the construction phase. The final Environmental Audit Report must be submitted to the Competent Authority within three months after all the activities have been completed.

The holder must, within 7 days of the submission of each of the above-mentioned reports to the Competent Authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request and on a publicly accessible website (if applicable).

Specific Conditions

16. 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.

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.

17. A qualified archaeologist and/or palaeontologist must be contracted where necessary (at the expense of the holder) to remove any heritage remains. Heritage remains can only be disturbed by a suitably qualified heritage specialist working under a directive from the relevant heritage resources authority.
18. A final Site Development Plan for the demarcated 89ha area for cultivation must be compiled and submitted to the Department before commencement of the construction activities.

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 a listed activity within the period referred to in Condition 2, this Environmental Authorisation shall lapse for that activity, 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 EIA Regulations, 2014 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, must be done in accordance with Regulations 35 to 37 of the EIA Regulations 2014 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.

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 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 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: 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 2659)
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>.

H. 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)

DATE OF DECISION: 11 NOVEMBER 2021

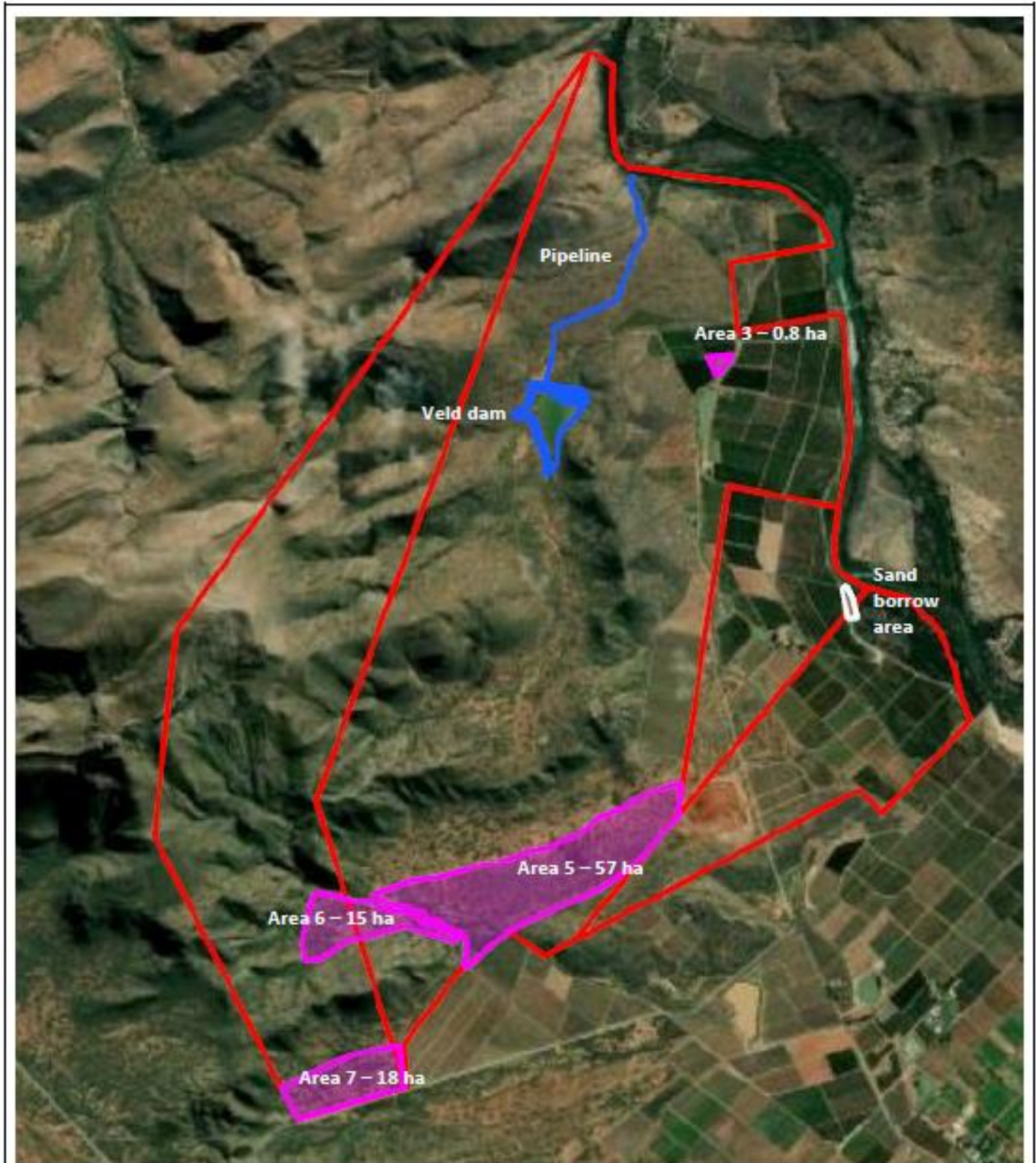
Cc: (1) Mr P de Villiers (Cornerstone Environmental Consulting)
(2) Ms T Brunings (Langeberg Municipality)
(3) Mr Rhett Smart (CapeNature)
(4) Mr Rudolph Röscher (Department of Agriculture)
(5) Ms Elkerine Rossouw (BGCMA)

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ANNEXURE 1: LOCALITY MAP



ANNEXURE 2: SITE PLAN



Appendix B2

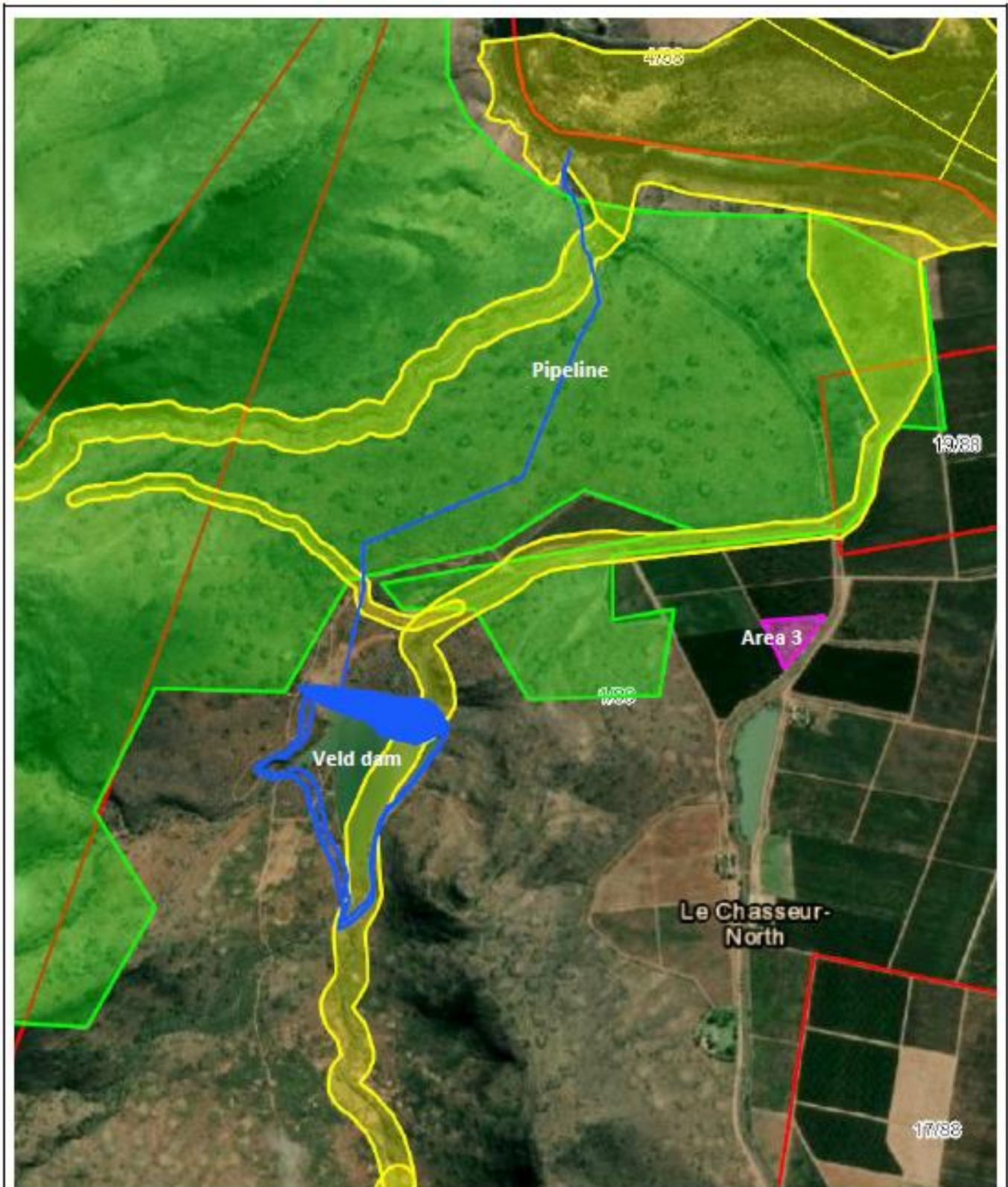
Alternative Layout for
the Hokaai Farm
Development.



CORNERSTONE
ENVIRONMENTAL CONSULTANTS

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PREFERRED LAYOUT FOR THE NORTHERN SECTIONS OF THE SITE:



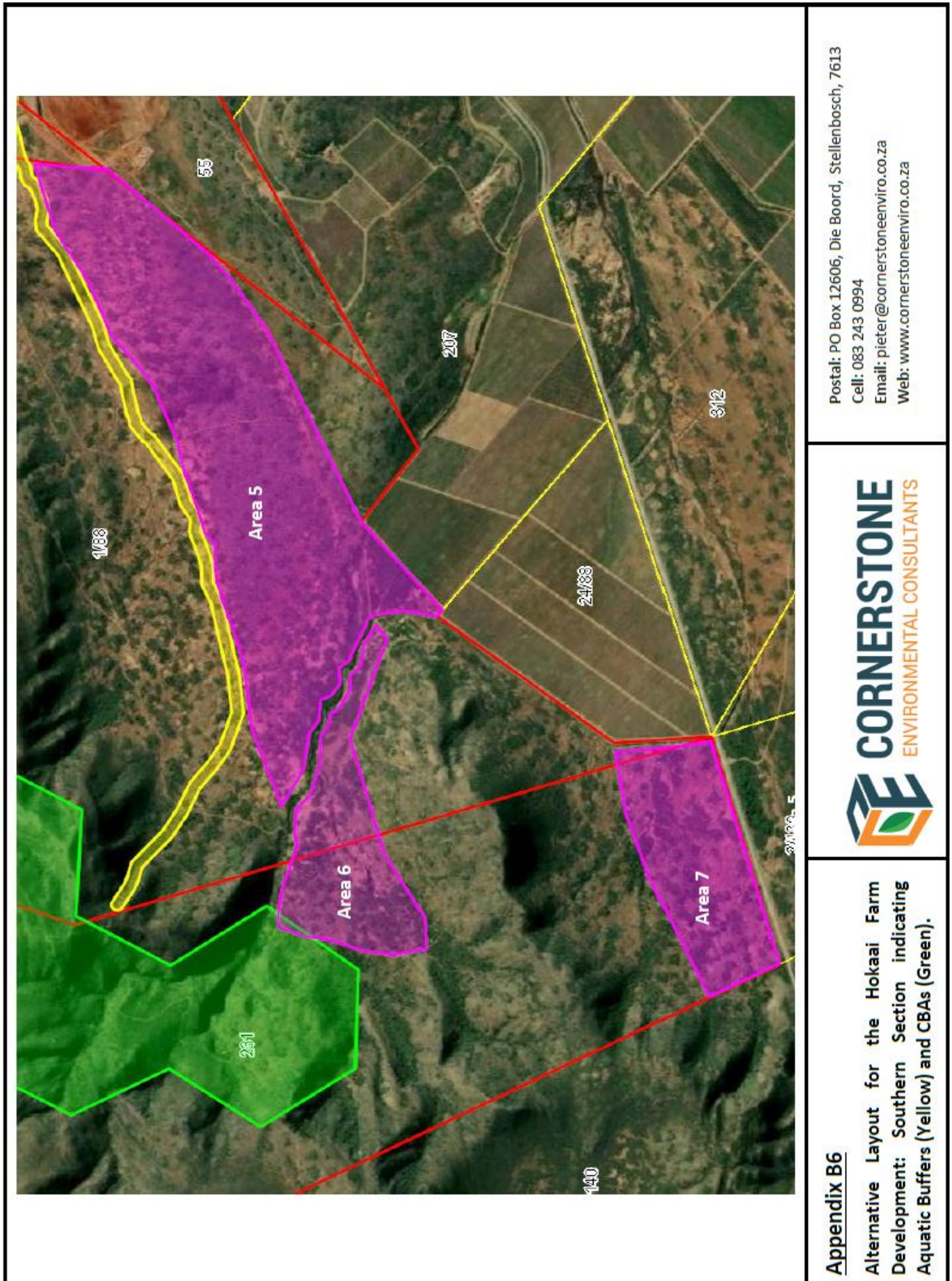
Appendix B5

Alternative Layout for the Hokaai Farm Development: Northern Section indicating Aquatic Buffers (Yellow) and CBAs (Green).



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PREFERRED LAYOUT FOR THE SOUTHERN SECTION OF THE SITE:



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 2 December 2020, the final Scoping Report received by the Department on 24 February 2021, the EMPr, and the MMP submitted together with the final EIA Report dated July 2021 and the additional information received between 3 and 4 November 2021;
- b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation and Alternatives (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 EIA Report dated July 2021; and
- e) The balancing of negative and positive impacts and proposed mitigation measures.

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 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;
- A notice was placed at the entrance to the site on 6 April 2019;
- the placing of a newspaper advertisement in the '*Standard*' on 24 October 2019;
- 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 24 October 2019;
- making the pre-application Draft Scoping Report available for comment from 28 October 2019;
- making the in-process Draft Scoping Report available for comment from 7 December 2020; and
- making the in-process Draft EIA Report available for comment from 28 May 2021.

The Department is satisfied that the Public Participation Process that was followed met the minimum legal requirements and the comments raised and responses thereto were included in the comments and response report.

Specific alternatives, management and mitigation measures have been considered in this Environmental Authorisation and EMPr to adequately address the concerns raised.

2. Alternatives

Dam Location Alternatives

Preferred Dam Location Alternative (Herewith authorised)

This alternative entails the increased footprint of the existing dam (from its current full supply level footprint area of 5 ha to 8.9 ha). This alternative was preferred since it will result in a much lower impact on biodiversity than the construction of a new dam within a pristine natural ravine. The watercourses at the existing site have already been impacted upon and no significant loss of any aquatic habitat would be associated with the proposed dam enlargement.

Alternative Dam Location Alternative

This alternative entails the construction of a new in-stream dam directly west of the existing Veld Dam but was not preferred because it would have been less feasible in terms of economy and biodiversity.

Dam Design Alternatives

Dam optimisation alternatives were assessed in Ingerop's engineering report by using an irrigation survey with a target storage capacity of 658 000 m³, water/wall ratio and cost per m³ storage. The water/wall ratio is a good indication for selecting the most economical dam design alternative as it represents the volume of water gained per volume of fill required to construct the dam embankment. The options assessed in the report were considered and ranked in terms of their economic feasibility and in terms of design optimisation. A downstream raising was considered as the existing dam's core trench is considered adequate as no significant foundation seepage is experienced at present. A downstream raising also has the benefit that the dam does not have to be drained for construction. Another benefit is that a lower raising is also required with consequently less additional inundation in the dam basin. Option 5, with a wall height of 19.90 m, was selected as the Preferred Option from an engineering perspective as this option has the highest water/wall ratio as shown in the table below.

Options	Storage Capacity m ²	Full Supply m	Free board m	Wall height m	Crest length m	Surface area at FSL ha	Enlarged wall volume including core trench m ³	Water / wall ratio	R / m ³ storage
Existing	248 000	91.5	1.4	12.00	320	5.0	N/A	N/A	N/A
Option 1	484 000	94.6	1.5	18.10	321	7.2	55 293	3.62	7.25

Option 2	500 000	94.8	1.5	18.30	322	7.4	55 736	3.87	7.02
Option 3	633 000	96.1	1.5	19.60	335	8.6	85 891	3.99	7.73
Option 4	653 000	96.3	1.5	19.60	339	8.8	90 000	4.18	7.52
Option 5	658 000	96.4	1.5	19.90	340	8.9	91 000	4.20	7.53

Borrow Pit Location Alternatives

Preferred Borrow Pit Location Alternative (Herewith authorised)

This alternative entails positioning the sand borrow pit on a neighbouring farm at Le Chasseur Boerdery. This alternative is preferred, as it is likely to have a very low to insignificant impact on the adjacent wetland area. There are no aquatic constraints associated with this site, provided borrowing activities remain at least 30m away from the adjacent watercourses to the west and east of the site. An agreement with the neighbouring farm owner, Mr. GJ Roux, is in place.

Alternative Borrow Pit Location Alternative

This alternative entails placing the sand borrow pit in the wider valley bottom wetland area of the Breede River and was therefore not preferred. Although this area of the Breede River appears to be overgrown with invasive alien vegetation, sand borrowing at this site is likely to alter the network of high flow channels that are inundated in large flood events and will also modify the associated wetland habitat.

Cultivation area layout alternatives:

Cultivation area layout alternative 1 (Preferred by the Applicant)

This Cultivation Area Layout includes the following cultivation areas: Areas 1, 2A, 2B, 3 and 5. The sum of these respective cultivation areas adds up to approximately 89 ha (88.8 ha). This layout includes the cultivation areas north of Veld Dam (Areas 1, 2A, 2B and 3, which equates to 38.8ha) as well as a cultivation area in the southern section of the farm (Area 5 of 50 ha). Areas 1, 2A and 2B are highly significant in terms of natural connectivity and falls within a Critical Biodiversity Area, but development of these areas will not impact on endangered vegetation or on watercourses. No environmental constraints are associated with Area 5. The main motivation for this Layout is that Areas 1, 2A and 2B can be irrigated directly from Veld Dam without the need for actively pumping the water, due to the available gravitational pressure. This would significantly reduce electricity costs and will make agricultural activities in these areas more economically viable. The soil potential associated with this Cultivation Area Layout is predominantly Medium to Medium Low, and all four main crops cultivated in the Robertson area could be cultivated here as well.

Cultivation area layout alternative 2 (Environmentally preferred and herewith authorised)

This Cultivation Area Layout includes the following cultivation areas: Areas 3, 5, 6 and 7. Most of the proposed cultivation areas are in the southern section of the farm, with only Area 3 (0.8 ha) located north of the Veld Dam. The collective sum of these cultivation areas is approximately 91 ha of which the Applicant will choose the best 89 ha of arable land. This

alternative is preferred since the exclusion of Areas 1 and 2 from this layout, will ensure the continued existence of a natural connectivity corridor which links the Riviersonderend and Langeberg Mountains across the Breede River Valley. This corridor is regarded as being highly significant in terms of climate change adaptation and conservation. The soil potential associated with this Cultivation Area Layout is also predominantly Medium to Medium Low, with small sections of High potential, and all four main crops cultivated in the Robertson area could be cultivated here as well.

Pipeline Layout Alternatives

Preferred Pipeline Layout Alternative (Herewith authorised)

This alternative entails the placement of the pipeline at the existing road crossings where the watercourse is already impacted by the road. This alternative is preferred since it should not impede or concentrate flow in the watercourse and the associated habitat disturbance would be kept to a minimum, particularly where it relates to longer term maintenance activities.

Alternative Pipeline Layout Alternative

This alternative entails the placement of the pipeline in a straight line from the pump station to the dam. It was not preferred since the pipeline will need to cross two tributaries of the Breede River between Veld Dam and the existing pump station on the Breede River. These pipeline crossings have the potential to result in aquatic habitat disturbance.

No-go alternative

This alternative entails maintaining the *status quo*, whereby the existing Veld Dam would not be enlarged, and the new irrigation areas will, as a result, not be established. This alternative was not preferred since it will not aid in achieving the optimum agricultural potential on this property.

3. Impact Assessment and Mitigation measures

3.1 Activity need and desirability

The site is zoned as "Agriculture" and thus the development is accommodated within the property's existing land use rights. The development is in line with the Provincial Spatial Development Framework. The dam will store water in accordance with the Existing Lawful Water Use rights, which, together with the additional cultivation, will support a sustainable farming practice, contribute to food security and ensure employment security.

3.2 Biophysical Impacts

According to the available mapping resources indigenous vegetation is present on the site, namely the Endangered Breede Alluvium Renosterveld vegetation. However, based on the findings of the Botanical Impact Assessment compiled by Johlene Krige dated 4 March 2020, the area does not support Breede Alluvium Renosterveld vegetation but rather Bonnievale Gwarrieveld vegetation, which is classified as least threatened. Cultivation area layout alternative 1 which is preferred by the applicant, includes Areas 1 and 2, which are located within the northern portion of the farm and are mapped as terrestrial Critical Biodiversity Areas ("CBAs"). This northern portion of the farm forms part of a corridor that forms a natural link

between the Riviersonderendberge, the Breede River and the Langeberge. Apart from this corridor, Area 1 has a high biodiversity value due to its direct, natural connectivity to the Breede River. Cultivation area layout alternative 2 has no environmental constraints and was preferred from an environmental perspective and is herewith authorised. This is supported by CapeNature in their comment dated 21 July 2021 in which they have indicated that the cultivation area layout alternative, which excludes Areas 1 and 2 in the CBA, should be authorised for implementation. This was further supported by the additional comment subsequently received from CapeNature.

According to Freshwater Impact Assessment compiled by BlueScience dated September 2019, the watercourses present on the site consist of a number of minor tributaries and drainage lines of the Breede River, and the Breede River itself with its associated valley bottom wetland. The Veld Dam is an existing in-stream dam that is filled from the catchment as well as an existing water entitlement out of the Breede River and the Le Chasseur and Goree Canal. The watercourses at the dam have already been impacted by the existing dam and no significant loss of any aquatic habitat would be associated with the dam enlargement. The recommended mitigation measures made by the study has been included in the EMPr that was approved for implementation in Condition 9 under Section E of this Environmental Authorisation.

A Water Use Licence Authorisation ("WULA") in terms of the National Water Act, 1998 (Act 38 of 1998) that also considered the watercourse related impacts was issued by the Department of Water and Sanitation on 10 June 2021.

The development will result in both negative and positive impacts.

Negative Impacts:

The development will have a negative biophysical impact due to the loss of indigenous vegetation and the potential impacts on the watercourses present on the site. These impacts will however be mitigated to a satisfactory level with the implementation of the recommended mitigation measures, the preferred alternatives and adherence to the EMPr.

Positive impacts:

- The development will provide an opportunity to reduce abstraction from the Breede River in the dry low flow season due to the increased winter water storage capacity.
- The development will provide a sustainable farming practice, contribute to food security and ensure employment security.

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 activities 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 activities can be mitigated to acceptable levels.

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