



**EIA REFERENCE:** 16/3/3/2/F3/16/3020/23  
**NEAS REFERENCE:** WCP/EIA/0001264/2023  
**DATE OF ISSUE:** 26 February 2024

The Board of Directors  
Cederberg Farming Trawal (Pty) Ltd  
P. O. Box 50  
**TRAWAL**  
8147

**For Attention: Mr. Jaco Tredoux**

Cell: 083 645 5664

E-mail: [j.tredoux@cederbergfarming.com](mailto:j.tredoux@cederbergfarming.com)

Dear Sir

**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): THE PROPOSED DEVELOPMENT OF A WATER STORAGE DAM AND ASSOCIATED INFRASTRUCTURE ON PORTIONS 101 AND 168 OF THE FARM MELKBOOM NO. 384, VANRHYNSDORP**

1. With reference to the above application, the Department 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 fourteen (14) days of the date of the decision on the application, that all registered Interested and Affected Parties ("I&APs") are provided with access to the decision 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 National Appeal Regulations, 2014 (as amended), which prescribes the appeal procedure to be followed. This procedure is summarised in the Environmental Authorisation below.

Your interest in the future of the environment is greatly appreciated.

Yours faithfully

**MR. ZAAHIR TOEFY**  
**DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)**  
**WESTERN CAPE GOVERNMENT: ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING**

Copied to:

- (1) Mr. Bernard de Witt (EnviroAfrica CC)
- (2) Mr. Maboe Nthejane (EnviroAfrica CC)
- (3) Ms. Thesme van Zyl (Matzikama Municipality)
- (4) Ms. Annali van der Westhuizen

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**EIA REFERENCE:** 16/3/3/2/F3/16/3020/23  
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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): THE PROPOSED DEVELOPMENT OF A WATER STORAGE DAM AND ASSOCIATED INFRASTRUCTURE ON PORTIONS 101 AND 168 OF THE FARM MELKBOOM NO. 384, VANRHYNSDORP

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 Listed Activities specified in section B below with respect to the Preferred Design Alternative 2, described in the final EIA Report, dated October 2023.

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

#### A. DETAILS OF THE HOLDER FOR THIS ENVIRONMENTAL AUTHORISATION

Cederberg Farming Trawal (Pty) Ltd  
C/O Mr. Jaco Tredoux  
P. O. Box 50  
**TRAWAL**  
8147

Cell: 083 645 5664  
E-mail: [j.tredoux@cederbergfarming.com](mailto:j.tredoux@cederbergfarming.com)

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

## B. LISTED ACTIVITIES AUTHORISED

Listed Activity	Activity/Project Description
<p>Listing Notice 1 of the EIA Regulations, 2014 (as amended)–</p> <p>Activity Number: 12 Activity Description: “The development of—</p> <p>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or</p> <p>(ii) infrastructure or structures with a physical footprint of 100 square metres or more;</p> <p>where such development occurs—</p> <p>(a) within a watercourse;</p> <p>(b) in front of a development setback; or</p> <p>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —</p> <p>excluding—</p> <p>(aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;</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>A water storage dam with a development footprint that exceeds 100m<sup>2</sup> will be constructed within 32m of the left bank (from the perspective of an upstream onlooker facing downstream) of the Olifants River.</p>
<p>Listing Notice 1 of the EIA Regulations, 2014 (as amended)–</p> <p>Activity Number: 19 Activity Description: “The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of</p>	<p>The development of the off-stream water storage dam will result in the infilling and depositing more than 10 cubic metres from- and into the Olifants River and riparian zone.</p>

<p>soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;</p> <p>but excluding where such infilling, depositing, dredging, excavation, removal or moving—</p> <p>(a) will occur behind a development setback;</p> <p>(b) is for maintenance purposes undertaken in accordance with a maintenance management plan;</p> <p>(c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;</p> <p>(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</p> <p>(e) 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."</p>	
<p>Listing Notice 2 of the EIA Regulations, 2014 (as amended)–</p> <p>Activity Number: 16</p> <p>Activity Description:</p> <p><i>"The development of a dam where the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 metres or higher or where the high-water mark of the dam covers an area of 10 hectares or more."</i></p>	<p>The off-stream water storage dam will have a wall, which measures approximately 8m in height.</p>

The abovementioned list is hereinafter referred to as "**the Listed Activities**".

The holder is herein authorised to undertake the following alternative that includes the Listed Activities relating to the proposed development of an off-stream water storage dam within 32m of the left bank (from the perspective of an upstream onlooker facing downstream) of the Olifants River.

The design dimensions of the off-stream water storage dam will be, as follows:

Dam Feature	Design / Physical Dimension and sizing
Wall Crest (metres above sea level "masl")	31.0
Full Supply Level (masl)	30.0
Lowest Ground Level (masl)	23.0
Max Wall Height (m)	8.0
Crest Length (m)	441
Crest Width (m)	4.0
Upstream Slope	1:3
Downstream Slope	1:2
Free Board (m)	1.0
Embankment Volume (m <sup>3</sup> )	33 100
Storage Capacity (m <sup>3</sup> )	92 000
Water Surface Area (hectares "ha")	2.3
Embankment Footprint (ha)	1.1

The off-stream water storage dam will be supplied with water from the Bulshoek Dam Canal in terms of an existing lawful water use allocated for the said property by the Lower Olifants River Water Users Association ("LORWUA").

The water will be stored in the dam during the rainy winter months and used during the dry summer months to irrigate the vineyards and plantations on the farm via the existing irrigation canals on the farm.

The existing means of access to the farm will be used.

### C. SITE DESCRIPTION AND LOCATION

The Listed Activities will be undertaken on Portions 101 and 168 of the Farm Melkboom No. 384, which is located approximately 3km north-east of Trawal in the Vanrhynsdorp District.

The SG 21-digit codes, are given below:

Portion 101 of the Farm Melkboom No. 384, Vanrhynsdorp	C07800000000038400101
Portion 168 of the Farm Melkboom No. 384, Vanrhynsdorp	C07800000000038400168

The co-ordinates, are given below:

	<b>Latitude (S)</b>	<b>Longitude (E)</b>
Portion 101 of the Farm Melkboom No. 384, Vanrhynsdorp	31° 52' 3.7992" South	18° 37' 49.1448" East
Portion 168 of the Farm Melkboom No. 384, Vanrhynsdorp	31° 52' 6.3624" South	18° 37' 36.433" East

Refer to **Annexure 1**: Locality Map. Refer to **Annexure 2**: Site Layout Plan.

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

### D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

EnviroAfrica CC  
 C/O Mr. Bernard de Witt  
 P. O. Box 5367  
**HELDERBERG**  
 7135

Tel.: (021) 161 0258  
 E-mail: [Bernard@enviroafrica.co.za](mailto:Bernard@enviroafrica.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 Design Alternative 2 described in Section B above.
2. 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

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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.
  - (b) A period of ten (**10**) years, from the date the holder commenced with the authorised Listed Activities, during which period the authorised Listed Activities must be concluded.
3. The holder shall be responsible for ensuring compliance with the conditions by any person acting on his behalf, including an implementing agent, sub-contractor, employee or any person rendering a service to the holder.
  4. Any changes to, or deviations from the scope of the alternative described in section B above must be approved in writing by the Competent Authority before such changes or deviations may be implemented. In assessing whether or not to grant such approval, 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**

5. A written notice of seven (7) calendar days must be given to the Competent Authority before construction work can be commenced with.
  - 5.1. The notice must make clear reference to the site details and EIA Reference number given above.
  - 5.2. The notice must include proof of compliance with the following conditions described herein:

Conditions: 6, 7 and 11.

#### **Notification of Environmental Authorisation and Administration of Appeal**

6. The holder must in writing, within fourteen (14) calendar days of the date of this decision–
  - 6.1. notify all registered Interested and Affected Parties (“I&APs”) of –
    - 6.1.1. the decision reached on the application;
    - 6.1.2. the reasons for the decision as included in Annexure 3;
    - 6.1.3. the date of the decision; and
    - 6.1.4. the date when the decision was issued.
  - 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) detailed in Section H below;
  - 6.3. draw the attention of all registered I&APs to the manner in which they may access the decision;
  - 6.4. provide the registered I&APs with the:
    - 6.4.1. 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, of the holder; and
    - 6.4.6. 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 Appeals Regulations, 2014 (as amended).

### Commencement

7. The Listed Activities, including site preparation, must not be commenced with within twenty (20) calendar days from the date the applicant notifies the registered I&APs of this decision.
8. 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 Environmental Management Programme ("EMPr") (dated October 2023), is hereby approved and must be implemented.
10. The Environmental Authorisation and EMPr must be included in all contract documentation for all phases of implementation.

### Monitoring

11. The holder must appoint a suitably experienced Environmental Control Officer ("ECO") before the Listed Activities can be commenced with, to ensure compliance with the EMPr and the conditions contained herein. The ECO must submit ECO reports on a quarterly basis for the duration of the construction phase.
12. A copy of the Environmental Authorisation, EMPr, ECO reports, audit reports and compliance monitoring reports must be kept at the contractor's site office during the construction phase and thereafter the said documents must be kept at the office of the holder and must be made available to any authorised official of the Competent Authority on request.
13. Access to the site referred to in Section C must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see the reports for the purposes of assessing and/or auditing compliance with the conditions contained herein.

### Auditing

14. In terms of Regulation 34 of the EIA Regulations, 2014 (as amended), the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation and the EMPr. Environmental audit reports must be compiled and submitted to the Competent Authority. Environmental audit reports must be prepared by an independent person with expertise and must contain all the information required in Appendix 7 of the EIA Regulations, 2014 (as amended).
15. The audit reports must be compiled and subsequently submitted to the Competent Authority in the following manner:
  - 15.1. An audit report must be submitted to the Competent Authority within **six (6) months** of the commencement of the construction phase; and
  - 15.2. A final audit report must be submitted within **three (3) months** of the proposed development being completed.
  - 15.3. The holder must submit an environmental audit report to the competent authority **every five (5) years** while the Environmental Authorisation remains valid.



16. The audit report must indicate compliance status with the conditions of this Environmental Authorisation, and the EMPr and make recommendations for improved environmental management.
17. The holder must, within **seven (7) calendar days** of the submission of the audit report to the Competent Authority, notify all registered I&APs of the submission and make the audit report available to any registered I&AP on request and, where the holder has such a facility, place on a publicly accessible website.

### Specific Conditions

18. Should any heritage remains be exposed during excavations or any other actions on the site, this 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 disturbed further until the necessary approval has been obtained from Heritage Western Cape.

Heritage remains include, *inter alia*, meteorites, archaeological and/or paleontological 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.

19. A qualified archaeologist and/or paleontologist 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.
20. An integrated waste management approach must be used that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate. Any solid waste that cannot be recycled, re-use shall be disposed of at a licensed waste disposal facility.
21. The following measures adapted from the final EIA Report (dated October 2023 and compiled by Mr. Bernard de Witt of EnviroAfrica CC), must be implemented:

- 21.1. The areas shaded in green and yellow in the illustration below must be declared and maintained, as 'no-go' areas during the construction phase:





- 21.2. Indigenous vegetation must be planted and maintained on the dam wall.
  - 21.3. A long-term alien plant clearing program for the riparian area affected by the off-stream storage dam must be implemented. A copy of the alien plant clearing program must be submitted to this Directorate for record purposes.
  - 21.4. The footprint of the dam must, as far as possible, remain within areas that have been transformed by previous ploughing activities.
22. The following measures adapted from the Botanical Statement (dated 16 November 2021 and compiled by P. J. J. Botes of PB Consult Environmental Management Services), must be implemented:
- 22.1. The river and wetland areas to the north of the site must be regarded as 'no-go' areas.
  - 22.2. Lay-down areas as well as the construction site/camp must be located within already disturbed areas or areas of low ecological value and must be pre-approved by the ECO.
23. The following measures adapted from the Fresh Water Report (dated September 2021 and compiled by Cederberg Farming), must be implemented:
- 23.1. A small volume of water of no less than 0.4m deep must remain in the dam after the irrigation season has ended.
  - 23.2. Loose sediments along with storm water must not be allowed to enter the Oliphants River.

## **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 any Condition of this Environmental Authorisation or EMPr may render the holder liable for criminal prosecution.
- 3. If the holder does not commence with the Listed Activities within the period referred to in Condition 2, this Environmental Authorisation shall lapse. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be lodged with the Competent Authority.
- 4. An application for amendment of the Environmental Authorisation must be submitted 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.
- 5. Please note that an amendment of the Environmental Authorisation is not required for a change in the contact details of the holder. In such a case, the Competent Authority must only be notified of such changes.
- 6. The manner and frequency for updating the EMPr must be as follows:
  - 6.1. Amendments to the EMPr must be made in accordance with Regulations 35 to 37 of GN No. R.982 (as amended) or any relevant legislation that may be applicable at the time.

## G. APPEALS

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

1. An appellant (if the holder of the decision) must, within twenty (20) calendar days from the date the notification of the decision was sent to the holder by the Competent Authority –
  - 1.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and
  - 1.2. Submit a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision-maker, *i.e.*, the Competent Authority that issued the decision.
2. An appellant (if not the holder of the decision) must, within twenty (20) 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 twenty (20) 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  
8<sup>th</sup> 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 at the address listed above and/or via e-mail to [DEADP.Appeals@westerncape.gov.za](mailto:DEADP.Appeals@westerncape.gov.za).

5. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from the Appeal Authority at: Tel.: (021) 483 3721, E-mail: [DEADP.Appeals@westerncape.gov.za](mailto: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 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 greatly appreciated.

Yours faithfully

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**MR. ZAAHIR TOEFY**  
**DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)**  
**WESTERN CAPE GOVERNMENT: ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING**

**DATE OF DECISION: 26 February 2024**

Copied to:

- (1) Mr. Bernard de Witt (EnviroAfrica CC)
- (2) Mr. Maboeë Nthejane (EnviroAfrica CC)
- (3) Ms. Thesme van Zyl (Matzikama Municipality)
- (4) Ms. Annali van der Westhuizen

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## ANNEXURE 1: LOCALITY MAP





**ANNEXURE 2: THE SITE LAYOUT PLAN**



REVISION			
<b>SAREL BESTER ENGINEERS</b> Consulting Civil Engineers Architectural Services			
Date: 28/02/2021		MO BESTER	
P.O. Box 21 62 Lyle Street GARDEN OF EDEN		Ph: 022-312 2017 Fax: 022-312 3802 e-mail: sarling@sef.co.za	
OWNER Cedarberg Farming P.O. Box 50 TRAWAL 8147			
PROJECT PROPOSED NEW WAVE DAM ON THE FARM MELKBOOM 384, TRAWAL, CLANWILLIAM RD (OPTION 2)			
DETAIL Contour Layout Plan (Aerial Photo)			
DRAWN SC-Hetzberg	DATE MAY 2021	SCALE as shown	SHEET 1 of 1
SUBMITTED D. Willemse C. Bester	DESIGNED Carel Bester Engineers	DRAWING NUMBER 2114-S1-03	REV.
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## 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 received by this Directorate via electronic on 14 April 2023, the final Scoping Report and Plan of Study received by this Directorate on 29 May 2023, the final EIA Report received by this Directorate on 23 October 2023, the EMPr (dated October 2023), and the additional information received on 29 January 2024 and 30 January 2024, respectively;
- b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation, Need and Desirability and Alternatives (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the NEMA;
- d) The comments received from I&APs and the responses thereto, included in the final BAR; and
- e) The balancing of negative and positive impacts and proposed mitigation measures.

No site visit was 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 ("PPP") included:

- Notification letters were sent to all relevant I&APs, occupiers and owners of land parcels adjacent to the site, stakeholders, ward councillor, authorities on 14 April 2023;
- Posters were placed at the gate next to the gravel road entering the farm, at the on-site packshed, at the local Superspar, at the local post office counter and at the Trawal Handelhuis on 14 April 2023;
- An advertisement was placed in the 'Ons Kontrei' local newspaper on 14 April 2023;
- Copies of the draft Scoping Report were made available for a minimum commenting period of thirty (30) days from 14 April 2023 to 19 May 2023; and
- Copies of the draft EIA Report were made available for a minimum commenting period of thirty (30) days from 10 September to 12 October 2023.

The Department is satisfied that the PPP that was followed met the minimum legal requirements. All the comments raised, and responses thereto were included in the comments and responses report.

Specific management and mitigation measures have been considered in this Environmental Authorisation and in the EMPr to adequately address any significant concerns raised. Downstream left

### 2. Alternatives

#### Preferred Site Alternative (Authorised together with the Preferred Alternative)

The Preferred Site Alternative entails the development of an off-stream storage dam and associated infrastructure on Portions 101 and 168 of the Farm Melkboom No. 384, Vanrhynsdorp. This is the only Preferred Site Alternative, as the dam is required to be constructed on the farm where the crops to be irrigated by the stored water will be used. The off-stream water storage dam is also required to be constructed on the Preferred Site Alternative, where it will be located closer to the left bank (from the perspective of an upstream onlooker facing downstream) of the Olifants River and thereby allow for more of the agricultural land located outside the inundation zone to remain available for cultivation.



### Preferred Activity Alternative (Herewith Authorised)

The Preferred Activity Alternative entails the development of an off-stream water storage dam and associated infrastructure. This is the only Preferred Activity Alternative, as the said dam is required to store water that will augment the farm's water supply for crop irrigation during summer months. Furthermore, the said dam will enable the farm to have the adequate storage capacity to utilize its existing lawful water use allocation.

### Design Alternative 1 (Rejected)

Design Alternative 1 entails the development of an off-stream water storage dam, which is located beyond 32m from the Oliphants River riverbank. The design dimensions of the said dam will be, as follows:

Dam Feature	Design/ Physical Dimension and sizing
Max Wall Height (m)	7
Crest Length (m)	320
Total earthworks (m <sup>3</sup> )	24 400
Storage Capacity (m <sup>3</sup> )	71 000
Flooded area (ha)	2.5
Storage: Earthworks	2.91
Estimated Cost (R)	2 973 000

### Design Alternative 2 (Preferred and Authorised)

Design Alternative 2 entails the proposed development of an off-stream water storage dam within 32m of the left bank (from the perspective of an upstream onlooker facing downstream) of the Olifants River. The design dimensions of the new dam will be, as follows:

Dam Feature	Design / Physical Dimension and sizing
Wall Crest (metres above sea level "masl")	31.0
Full Supply Level (masl)	30.0
Lowest Ground Level (masl)	23.0
Max Wall Height (m)	8.0
Crest Length (m)	441
Crest Width (m)	4.0
Upstream Slope	1:3
Downstream Slope	1:2
Free Board (m)	1.0
Embankment Volume (m <sup>3</sup> )	33 100
Storage Capacity (m <sup>3</sup> )	92 000
Water Surface Area (hectares "ha")	2.3
Embankment Footprint (ha)	1.1
Estimated Cost (R)	3 420 000

### Design Alternative 3 (Rejected)

Design Alternative 1 entails the construction of a dam which is located beyond 32m from the Oliphants River riverbank. The design dimensions of the dam will be, as follows:

Dam Feature	Design/ Physical Dimension and sizing
Max Wall Height (m)	8
Crest Length (m)	375
Total earthworks (m <sup>3</sup> )	37 700
Storage Capacity (m <sup>3</sup> )	93 000

Flooded area (ha)	2.6
Storage: Earthworks	2.47
Estimated Cost (R)	3 880 000

Design Alternative 2 is preferred and Design Alternatives 1 and 3 are rejected based on the following reasons:

- Although it was estimated that Design Alternative 2 will be slightly more costly than Design Alternative 1, Design Alternative 2 will have significantly more storage capacity than Design Alternative 1;
- Design Alternative 2 provides the optimal water storage capacity required by the farm; and
- Design Alternative 2 results in the dam being located closer to the left bank (from the perspective of an upstream onlooker facing downstream) of the Olifants River, as opposed to the other Design Alternatives and thereby allow for more land to remain available for cultivation on the farm.

#### 'No-go' Alternative

The 'No-Go' Alternative entails maintaining the *status quo*, i.e., no construction of the off-stream water storage dam and associated infrastructure. The 'No-Go' Alternative was rejected, as it would mean that the farm will continue to have insufficient capacity to store water to utilise its existing and allocated lawful water. The 'No-Go' Alternative may further pose the risks of crop failure caused by water shortages and threatened job security for the existing farm employees.

### **3. Impact Assessment and Mitigation Measures**

#### 3.1 Need and Desirability

The off-stream water storage dam will store water from the Bulshoek Dam Canal in terms of an existing lawful water use allocation for the said property, that cannot yet be fully utilised, as a result of insufficient water storage capacity in the existing on-site farm dams. The storage of water in the proposed dam will therefore allow the full utilization of the existing and allocated lawful water use. Having the new dam will also enable the farming operations to become less vulnerable to the impacts of drought such as inadequate water supply, which results in crop failure.

#### 3.2 Regional and Local Planning

The proposed site is zoned for Agricultural purposes, and the proposed development is permitted in terms of the property's existing land use rights. Given the nature of the proposed development, it is not expected to be inconsistent with the forward planning and strategic context for the area.

#### 3.3 Aquatic Impacts

The Olifants River from where water will be abstracted is listed as a National Freshwater Ecosystem Priority Area. It should, however, be noted that water will be abstracted in terms of an existing lawful water use allocated for the said property by LORWUA. No new or additional water will thus be abstracted from the surrounding catchment. No significant cumulative impacts on the surrounding catchment are therefore expected.

According to the Fresh Water Report (dated September 2021), the construction and the operation of the said dam are unlikely to compromise the status of any presence of endangered fish species, as the reaches of the river where the dam is to be constructed has been impacted by agriculture to an extent that it does not support suitable habitat for fish.

The north-western portion of the said dam is located within the vicinity of Aquatic- and Terrestrial Ecological Support Areas. The construction and operation of the said dam will, however, take place within the transformed section of the site. This will largely limit the development from having any direct impacts on these areas.

The only potential impact identified is the possible transport of sediments into the river during the construction phase. The provision of the approved EMPr therefore requires that construction work be limited to the dry season, as far as possible.

A Water Use Licence for the proposed site was issued by the National Department of Water and Sanitation on 15 March 2023.

### 3.4 Botanical Impacts

The proposed dam will inundate an area of more than 1ha that would have historically been covered by Vanrhynsdorp Gannabosveld as well as Namaqualand Riviere vegetation associated with the riparian zone of the Olifants River. However, the said dam will be located on agricultural fields that have historically been ploughed overtime, resulting in transformed and degraded conditions. Little to no remnants of natural environment remain on the site that could significantly be impacted upon.

It is required that the footprint of the said dam remain within areas that have been transformed by previous ploughing activities as far as possible, as a means to limit any potential negative botanical impacts. The areas deemed to be of environmental significance must be regarded as 'no-go' areas, as far as possible (refer to condition 21.4).

A long-term alien plant clearing program must be implemented to the benefit of the indigenous vegetation located in the riparian area. These measures together with relevant provisions of the EMPr will ensure that any potential negative botanical impacts will be negligible.

### 3.5 Geotechnical Aspects

According to the Geotechnical Report (dated 25 October 2022 and compiled by Sarel Bester Engineers Ltd.), there were no on-site geological features or conditions found, which may require special attention in the design of the said dam.

Suitable material for the foundation of the said dam as well as the sand for use in sand filters and drains will be imported from commercial sources. All other bulk earthfill will be obtained from within the said dam basin.

### 3.6 Agriculture Aspects

The off-stream water storage dam is required to sustain the existing agricultural activities on the farm. Since Design Alternative 2 will be located closer to the left bank (from the perspective of an upstream onlooker facing downstream) of the Olifants River, more land will remain available for cultivation on the farm. No significant negative impacts from an agricultural perspective are therefore deemed likely.

According to correspondence from the Western Cape Government: Agriculture (dated 8 November 2022), there was no objection to the proposal.

### 3.7 Heritage Impacts

No impacts on heritage resources are anticipated. Heritage Western Cape ("HWC") in correspondence (dated 9 May 2022), confirmed that there is no reason to believe that the development will impact on heritage resources and no further action under Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) is required. On 24

March 2023, HWC confirmed that the comment in their previous correspondence (dated 9 May 2022), remains valid.

The implementation of Conditions 18 and 19 of this Environmental Authorisation will help to ensure the protection of any heritage resources that may be encountered on the site.

### 3.8 Visual Impacts

The proposed off-stream water storage dam will be located on an existing operational farm in a rural area where similar operational farms with similar water storage dams exist. The said dam is therefore not expected to be out of character and will therefore blend in with its surrounds.

### 3.9 Nuisance Impacts

Nuisance related impacts during the construction phase such as noise and dust will be short-term and managed in accordance with the standard best practice provisions of the EMPr. Due to the nature of the development, no further significant nuisance related impacts are expected after the construction phase has ended.

### 3.10 Service Requirements

The existing means of access to the farm will be used. The proposed dam will not require any additional municipal services.

### 3.11 Socio-economic Impacts

The said dam will help the farm to have sufficient water stored to sustain the farm's crops and thereby enabling it to become a more reliable supplier of agricultural produce whilst also strengthening the farm, as an enterprise and as an employer in the rural area. In terms of the latter, the proposed dam will particularly provide greater job security for existing employees on the farm.

The development proposal will result in both negative and positive impacts.

Negative Impacts include:

- Temporary nuisance related impacts during the construction phase.
- Construction activities within 32m of the Olifants River and associated riparian zone.

Positive Impacts include:

- Sufficient storage capacity to store the existing lawful water use allocated to the farm.
- Sustained crop production and agricultural produce.
- Improved job security.

## 4. National Environmental Management Act, 1998 (Act No. 107 of 1998) 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 activity (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 authorised 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 undertaking of the Listed Activities can be mitigated to acceptable levels.

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