



**Western Cape
Government**

Environmental Affairs and
Development Planning

**DIRECTORATE: ENVIRONMENTAL GOVERNANCE
SUB-DIRECTORATE: RECTIFICATION**

24G APPLICATION REF: 14/2/4/2/1/A5/55/0030/19

ENQUIRIES: Ziyaad Allie

The Trustees
WP Dreyer Trust
P. O. Box 2001
WINDMEUL
7630

Tel: (021) 869 8251

Email: willie@leeuwenkuil.co.za

Attention: Willie Dreyer

Dear Sir

APPLICATION IN TERMS OF SECTION 24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) ("NEMA"): UNLAWFUL COMMENCEMENT OF A LISTED ACTIVITY: UNLAWFUL EXPANSIONS TO IN-STREAM DAMS ON PORTION 11 OF FARM 171 AND THE REMAINING EXTENT OF FARM KNOLLEFONTEIN 70, PAARL

With reference to your application dated 26 August 2020 in terms of section 24G of the NEMA for the consequences of unlawful commencement of listed activities identified in terms of the NEMA, find below the decision in respect of your application.

ENVIRONMENTAL AUTHORISATION

A. DECISION

By virtue of the powers conferred by section 24G of the NEMA and the *Environmental Impact Assessment Regulations, 2014* ("EIA Regulations, 2014") (as amended), the competent authority herewith **grants environmental authorisation** to the applicant to continue with the listed activities specified in Section C below as described in the application and environmental assessment dated 26 August 2020.

The granting of this Environmental Authorisation is for the continuation, conducting or undertaking of the listed activities as described in Section C below and is subject to compliance with the conditions set out in Section G. This Environmental Authorisation shall only take effect from the date on which it has been issued.

The Environmental Authorisation does not exempt the holder thereof from compliance with any other applicable legislation.

B. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

WP Dreyer Trust
 c/o Mr Willie Dreyer
 P.O. Box 2001
 WINDMEUL
 7630

Cell: 082 440 5646
 Email: willie@leeuwenkuil.co.za

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

C. LIST OF ACTIVITIES AUTHORISED

Listed Activities	Activity/Project Description
<p><i>Government Notice No. R. 1182 of 1997 –</i></p> <p>Activity Number: 1 (i) (j)</p> <p>Activity Description: <i>The construction, erection or upgrading of (i) canals and channels, including structures causing disturbances to the flow of water in a riverbed, and water transfer schemes between water catchments and impoundments; (ii) dams, levees and</i></p>	<p>Boonste Dam Embankment and dam wall upgrades to the existing Boonste Dam. Storage capacity of 40 000m³ increased to 120 000m³</p> <p>Wall height raised by 3.5m to maximum of 9.5m.</p>

<p><i>weirs affecting the flow of a river</i></p>	<p>Onderste Dam Embankment and dam wall upgrades to the existing Onderste Dam. From 25000m³ to 80 000m³ Inundation: unknown area to 7ha Wall height from 2.5m to 7.5m. Wall length from unknown m to 195m long.</p>
<p>Government Notice No. R544 of 18 June 2010 –</p> <p>Activity Number: 18</p> <p>Activity Description: <i>The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock from (i) a watercourse; (ii) the sea; (iii) the seashore; (iv) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater- but excluding where such infilling, depositing, dredging, excavation, removal or moving (i) is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or (ii) occurs behind the development setback line.</i></p>	<p>Boonste Dam Embankment and dam wall upgrades to the existing Boonste Dam.</p> <p>Storage capacity of 40 000m³ increased to 120 000m³</p> <p>Wall height raised by 3.5m to maximum of 9.5m.</p> <p>Onderste Dam Embankment and dam wall upgrades to the existing Onderste Dam.</p> <p>From 25000m³ to 80 000m³ Inundation: unknown area to 7ha Wall height from 2.5m to 7.5m. Wall length from unknown m to 195m long.</p>
<p>Government Notice No. R544 of 18 June 2010 –</p> <p>Activity Number: 55</p> <p>Activity Description: <i>The expansion of a dam where: (i) the highest part of the dam wall, as measured from the outside</i></p>	<p>Onderste Dam Expansion of existing dam by following changes to embankment and dam wall.</p>

<p>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 (ii) where the high-water mark of the dam will be increased with 10 hectares or more.</p>	
<p>Government Notice No. R. 327 of 07 April 2017 -</p> <p>Activity Number: 19</p> <p>Activity Description: <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; but excluding where such infilling, depositing, dredging, excavation, removal or moving— (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (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.</i></p>	<p>Pumphouse A pumphouse existing prior to 1998, with dimensions of 5.5m x 5.5m (30.25m²), was expanded in 2016 to 14.5m x 5.5m (79.75m²). Therefore, it was expanded by 49.5m². It is assumed that the foundation is not deeper than 0.5m and that the total expansion is 49.5m² x 0.5m = 24.75m³. Onderste Dam Emergency upgrade to dam wall and embankment to prohibit any further degradation and structural loss to the dam wall.</p>
<p>Government Notice No. 327 of 07 April 2017 -</p> <p>Activity Number: 27</p> <p>Activity Description: <i>The clearance of an area of 1 hectares or more, but less than</i></p>	<p>Onderste Dam Emergency upgrade to dam wall and embankment to prohibit any further degradation and structural</p>

<p>20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p>loss to the dam wall. This will require the removal of vegetation that may have established on the dam wall and surrounding areas.</p>
<p>Government Notice No. 327 of 07 April 2017-</p> <p>Activity Number: 49</p> <p>Activity Description: <i>The expansion of – (v) infrastructure or structures where the physical footprint is expanded by 100 square metres or more; where such expansion or expansion and related operation occurs— (a) within a watercourse;</i></p>	<p>Pumphouse A pumphouse existing prior to 1998, with dimensions of 5.5m x 5.5m (30.25m²), was expanded in 2016 to 14.5m x 5.5m (79.75m²). Therefore, it was expanded by 49.5 m². It is assumed that the foundation is not deeper than 0.5m and that the total expansion is 49.5m² x 0.5m = 24.75m³. Onderste Dam Emergency upgrade to dam wall and embankment to prohibit any further degradation and structural loss to the dam wall.</p>
<p>Government Notice No. 324 of 07 April 2017-</p> <p>Activity Number: 12</p> <p>Activity Description: <i>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. i. Western Cape i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National</i></p>	<p>Clearance of indigenous vegetation as part of emergency works undertaken at Onderste Dam.</p>

<p><i>Spatial Biodiversity Assessment 2004; ii.</i> <i>Within critical biodiversity.</i></p>	
<p><i>Government Notice No. 324 of 07 April 2017-</i></p> <p>Activity Number: 23</p> <p>Activity Description: <i>The expansion of— (x) buildings where the building is expanded by 10 square metres or more in size; (xi) boardwalks where the boardwalk is expanded by 10 square metres or more in size; or (xii) infrastructure or structures where the physical footprint is expanded by 10 square metres or more; where such development occurs— within a watercourse;</i></p>	<p>Pumphouse A pumphouse existing prior to 1998, with dimensions of 5.5m x 5.5m (30.25m²), was expanded in 2016 to 14.5m x 5.5m (79.75m²). Therefore, it was expanded by 49.5m². It is assumed that the foundation is not deeper than 0.5m and that the total expansion is 49.5m² x 0.5m = 24.75m³. Onderste Dam Emergency upgrade to dam wall and embankment to prohibit any further degradation and structural loss to the dam wall.</p>

The abovementioned list is hereinafter referred to as “the listed activities”.

D. PROPERTY DESCRIPTION AND LOCATION

The listed activities commenced on Portion 11 of Farm Straat van Paarde Berg 171 and Remaining Extent of Farm Knollefontein 170, Windmeul, Paarl

The SG digit code are: C05500000000017100011

C05500000000017000000

The co-ordinates for the property boundary are:

Point	Latitude (S)	Longitude (E)
1	33° 38' 59.83" South	18° 49' 57.34" East
2	33° 38' 9.27" South	18° 49' 44.26" East
3	33° 38' 22.80" South	18° 50' 2.19" East
4	33° 37' 50.11" South	18° 51' 16.46" East

The co-ordinates for the site boundary are:

Point	Latitude (S)	Longitude (E)
Boonste Dam	33° 38' 30.55" South	18° 50' 16.47" East
Onderste Dam	33° 38' 48.93" South	18° 51' 3.46" East
Pumphouse	33° 38' 50.28" South	18° 51' 10.82" East

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

Herein-after referred to as "the site".

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

GroenbergEnviro (Pty) Ltd

C/o Pieter Badenhorst & Nerine Coertzen

P.O. Box 1058

WELLINGTON

7654

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Email: nerine@groenbergenviro.co.za / pieter@groenbergenviro.co.za

F. DETAILS OF THE ACTIVITIES UNDERTAKEN

The activities undertaken on the site entail the upgrade and expansion of two existing in-stream dams; namely, Boonste Dam and Onderste Dam. Portion 11 of Farm Straat van Paardeberg and the Remaining extent of Farm Knollefontein 170 is situated 6 km northwest of Windmeul. The properties are situated adjacent to one another and both are owned by the holder. The two instream dams, Boonste Dam (Portion 11 of Farm Straat van Paardeberg) and Onderste Dam (the Remaining extent of Farm Knollefontein 170) are situated adjacent to one another in a tributary of the Sandrivier (Sand River). These dams are used as balancing dams for the holder to store summer existing lawful water use (ELU) water and irrigate crops or vineyards when necessary. Furthermore, a pumphouse directly below the dam wall has existed prior to 1998 but was expanded in 2016.

Boonste Dam

Embankment and dam wall upgrades were made to the existing Boonste Dam during 2002 and 2003. These led to the following changes as seen in the table below.

	1998	2002-2003
Storage capacity	40 000 m ³	120 000 m ³
Wall height	3.5m	9.5m
Wall length	Unknown	310m
Inundation area	Unknown	8ha

Onderste Dam

Embankment and dam wall upgrades were made to the existing Onderste Dam during 2002 and 2003, and again in the summer of 2012 as seen in the table below.

	1998	2002-2003	2012	2019
Storage capacity	25 000m ³	180 000m ³	1 234 166m ³	Emergency repairs
Wall height	2.5m	7.5m	12.8m	
Wall length	Unknown	310m	600m	
Inundation area	Unknown	8ha	27ha	

The dam was expanded in 2012 due to an urgent need for larger storage capacity required to irrigate the existing vineyards. Due to an incident at the dam in October 2018, piping or internal erosion occurred, and some emergency work was necessary in 2019. The dam started to leak in the latter half of 2018 and a dam engineer confirmed that it was unsafe and would require part reconstruction. In order to store winter water for the 2019/2020 irrigation period, the dam urgently required the reconstruction work to commence and this was finalised in August 2019. Failure to undertake the work would have resulted in poor irrigation potential for the vineyards, with resultant lower production and fewer job opportunities. The return on vineyard farming is already small and with less than optimal irrigation, it would be even smaller.

This included the following: 1. New core trench and zone in upstream face of dam wall; 2. Imported riprap; 3. New general fill zone on downstream face containing sand blanket drain and imported rock toe; 4. Topsoil and gravel capping finishing layers.

Pumphouse

A pumphouse existing prior to 1998, with dimensions of 5.5m x 5.5m (30.25m²), was expanded in 2016 to 14.5m x 5.5m (79.75m²). Therefore, it was expanded by 49.5m². It is

assumed that the foundation is not deeper than 0.5m and that the total expansion is $49.5\text{m}^2 \times 0.5\text{m} = 24.75\text{m}^3$.

G. CONDITIONS OF AUTHORISATION

The following are conditions of authorisation that are set and must be implemented for this Environmental Authorisation.

PART I

Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section C above in accordance with and restricted to the implemented Alternative described in the application and assessment report dated 26 August 2020 on the site as described in Section D above.
2. 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.
3. Any changes to, or deviations from the scope of the alternative described in Section F 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 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.

PART II

Written notice to the competent authority

4. Seven (7) calendar days' notice, in writing, must be given to the competent authority before continuation of the maintenance/rehabilitation activities.
 - 4.1 The notice must make clear reference to the site details and 24G Reference number given above.

PART III

Notification and administration of an appeal

5. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–
 - 5.1 notify all registered Interested and Affected Parties (“I&APs”) of –
 - 5.1.1 the outcome of the application;
 - 5.1.2 the reasons for the decision as included in Annexure 3;
 - 5.1.3 the date of the decision; and
 - 5.1.4 the date when the decision was issued.
 - 5.2 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 I below.
 - 5.3 draw the attention of all registered I&APs to the manner in which they may access the decision.
 - 5.4 provide the registered I&APs with:
 - 5.4.1 the name of the holder (entity) of this Environmental Authorisation;
 - 5.4.2 name of the responsible person for this Environmental Authorisation;
 - 5.4.3 postal address of the holder;
 - 5.4.4 telephonic and fax details of the holder;
 - 5.4.5 e-mail address, if any, of the holder; and
 - 5.4.6 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*.
6. 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.

PART IV

Management of the activity/development

7. The draft Construction and Operational Management Programme (“COMPr”/“EMPr”) which includes the Maintenance Management Programme (“MMP”) of February 2020

compiled by Groenberg Environmental and submitted as part of the application for environmental authorisation is hereby approved and must be implemented.

8. The EMPr must be included in all contract documentation for all phases of implementation.

PART V

Monitoring

9. The holder must appoint a suitably experienced Environmental Control Officer ("ECO") or site agent where appropriate, before undertaking any maintenance/rehabilitation activities to ensure compliance with the EMPr and the conditions contained herein.
10. A copy of the Environmental Authorisation, EMPr, any independent assessments of financial provision for rehabilitation and environmental liability, closure plans, audit reports and compliance monitoring reports must be kept at the site of the authorised activity/ies, and must be made available to anyone on request, including a publicly accessible website (if applicable).
11. Access to the site referred to in Section D 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.

PART VI

Auditing

12. In terms of regulation 34 of the *EIA Regulations, 2014* the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation and the EMPr and submit Environmental Audit Reports to the competent authority upon receiving such request in writing from the competent authority. The Audit Report must be prepared by an independent person and must consider all the information required in Appendix 7 of the *EIA Regulations, 2014*.

PART VII

Activity/ Development Specific Conditions

13. 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 paleontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artefacts and bone remains; structures and other built features with heritage significance; rock art and rock engravings; and/or graves or unmarked human burials including grave goods and/or associated burial material.

14. 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.
15. The recommendations made by the Freshwater Specialist in the Freshwater Assessment of August 2019 must be adhered to and implemented. These measures must be undertaken within two years of issue of this Environmental Authorisation. Proof of implementation must be kept and made available on request for compliance monitoring purposes.

H. 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 or term of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.

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* 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 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.

I. APPEALS

Appeals must comply with the provisions contained in the *National Appeal Regulations, 2014*.

1. An appellant (if the holder) must –
 - 1.1 submit an appeal in accordance with regulation 4 *National Appeal Regulations, 2014* to the Appeal Administrator and a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision maker within 20 (twenty) calendar days from the date the holder was notified by the competent authority of this decision.
2. An appellant (if NOT the holder) must –
 - 2.1 submit an appeal in accordance with regulation 4 *National Appeal Regulations, 2014* to the Appeal Administrator, and a copy of the appeal to the holder, any registered I&APs, any Organ of State with interest in the matter and the decision maker within 20 (twenty) calendar days from the date the holder notified the registered I&APs of this decision.
3. The holder (if not the appellant), the decision-maker, I&APs and 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. This appeal and responding statement must be submitted to the address listed below -

By post: Attention: Marius Venter
Western Cape Ministry of Local Government, Environmental Affairs &
Development Planning
Private Bag X9186, Cape Town, 8000; or

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, 8000; or

By e-mail: DEADP.Appeals@westerncape.gov.za

Note: You are also requested to submit an electronic copy (Microsoft Word format) of the appeal and any supporting documents to the Appeal Administrator 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 the office of the appeal authority/ at: Tel. (021) 483 3721, E-mail DEADP.Appeals@westerncape.gov.za or URL <http://www.westerncape.gov.za/eadp>.

J. CONSEQUENCES OF NON-COMPLIANCE WITH CONDITIONS

Non-compliance with a condition or term of this Environmental Authorisation or EMPr may result in suspension or withdrawal of this Environmental Authorisation and may render the holder liable for criminal prosecution.

K. DISCLAIMER

The Western Cape Government, 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.

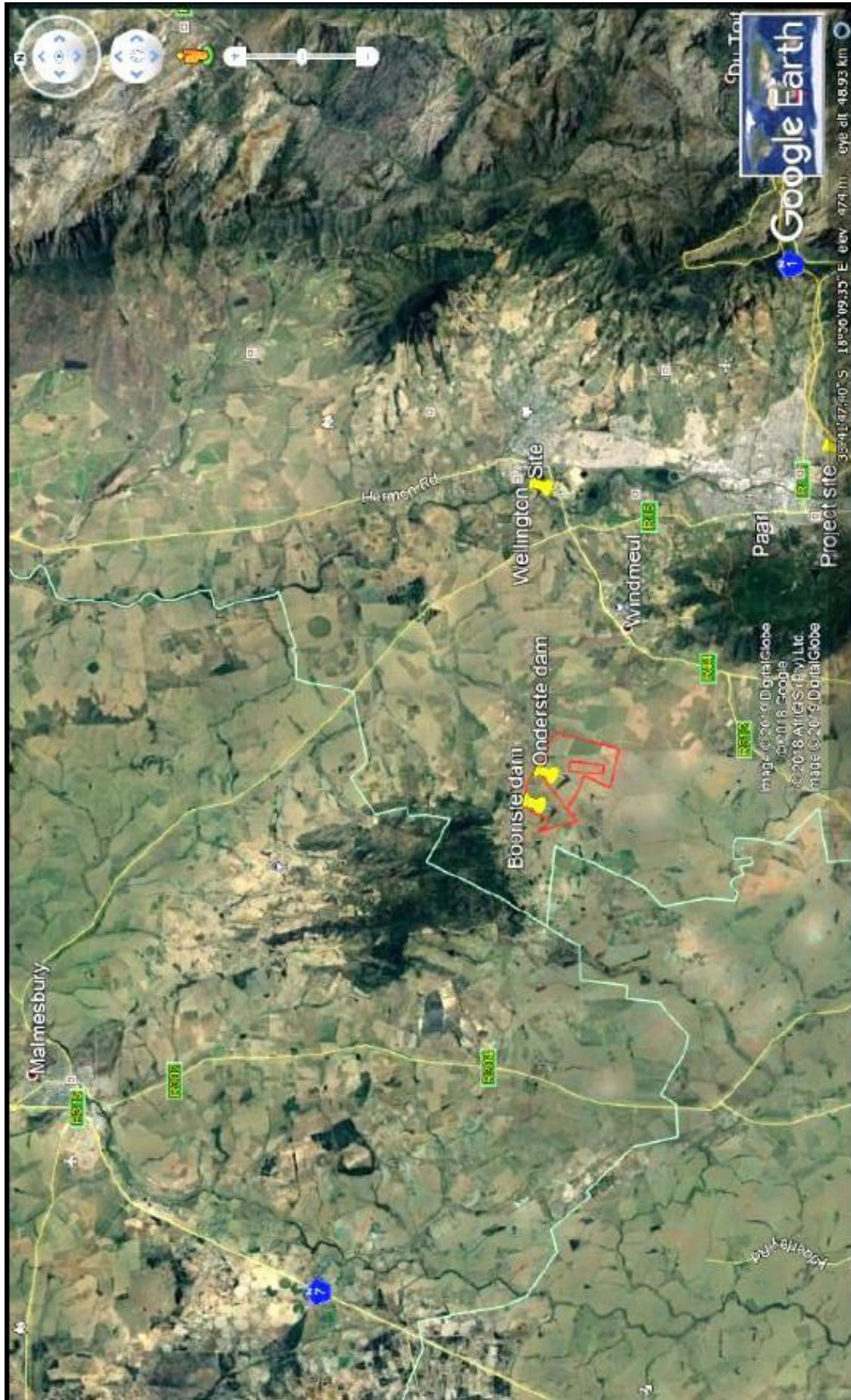
Yours faithfully

ADV. CHARMAINE MARÉ
DIRECTOR: ENVIRONMENTAL GOVERNANCE

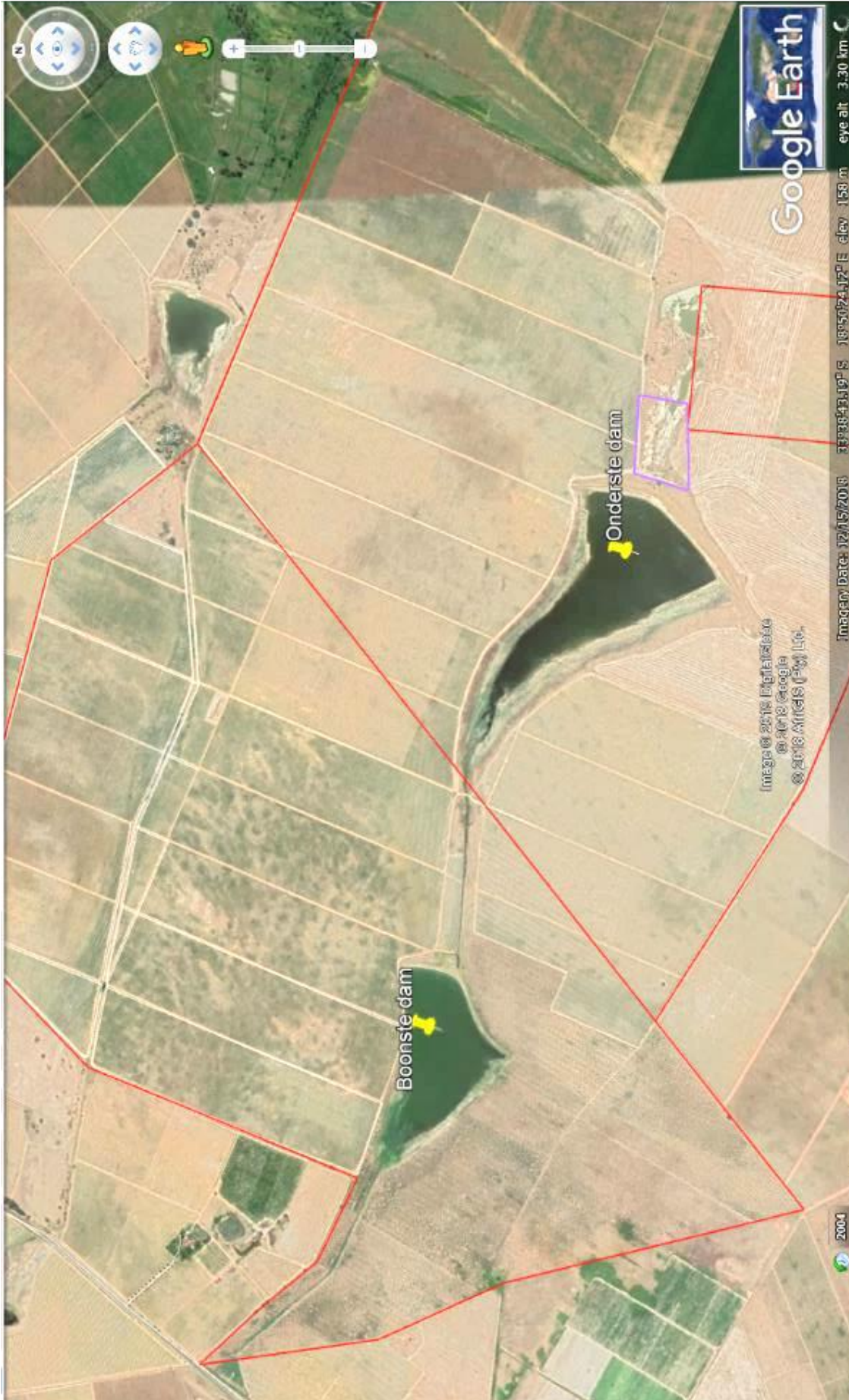
Copied to: (1) Nerine Coertzen (EAP)

Email: nerine@groenbergenviro.co.za

ANNEXURE 1: LOCALITY MAP



ANNEXURE 2: SITE PLAN



FOR OFFICIAL USE ONLY:

S24G REFERENCE: 14/2/4/2/1/A5/55/0030/19

ANNEXURE 3: REASONS FOR THE DECISION

This Environmental Authorisation is in respect of the consequences of commencement of the afore-mentioned illegal activities. An Environmental Assessment Practitioner ("EAP") was appointed to submit a section 24G Environmental Impact Assessment ("EIA") to the Department to obtain this Environmental Authorisation. The EIA was considered adequate for informed decision-making. In addition, the holder paid an administrative fine of R125 000 (One hundred and twenty-five thousand Rand) to meet the requirements of section 24G of the *National Environmental Management Act, 1998* ("NEMA").

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

- a) The information contained in the application form dated 26 August 2020 and the Comments and Responses report ("C&R") received by the Department on 04 September 2020.
- b) The Construction and Operational Management Programme ("COMPr"/"EMPr") which includes the Maintenance Management Programme ("MMP") of February 2020 submitted together with the application.
- c) Relevant information contained in the Departmental information base, including, the Guidelines on Public Participation and Alternatives.
- d) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the NEMA.
- e) The comments received from Interested and Affected Parties ("I&APs") and the responses provided thereto.
- f) The sense of balance of the negative and positive impacts and proposed mitigation measures.
- g) The site visit conducted on 26 February 2020 attended by officials from this Directorate.
- h) The appeal decision on the 24G administrative fine dated 29 March 2021.

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 Process

In terms of section 24G(1)(vii)(dd) of the NEMA, "...a description of the public participation process followed during the course of compiling the report, including all comments received from interested and affected parties and an indication of how the issues raised have been addressed ...", is required.

The public participation process conducted by the EAP comprised of the following:

- An advertisement was placed in the Paarl Post newspaper on 15 November 2018;
- A site notice was erected; and
- Letters were sent to interested and affected parties ("I&APs") and the municipal ward councillor.
- I&APs were afforded the opportunity to provide comments on the application.

1.1 Consultation with organs of state in terms of section 24O of the NEMA

The following organs of state provided comment on the application:

- CapeNature ("CN")
- This Department's Pollution and Chemicals Management directorate
- Department of Water and Sanitation ("DWS")
- Drakenstein Municipality ("DM")

The comments received during the public participation process and the responses thereto are summarised below.

CapeNature

Impacts on Boonste Dam:

CN accepted the evidence provided by the botanical specialist that there is no representation of the original ecosystem on site or within the immediate surroundings.

Impacts on Onderste Dam:

2002-2003 dam enlargement impacted some natural habitat through inundation which included the loss of Swartland Shale Renosterveld. CN agreed with the botanical

specialist that the natural elements currently re-establishing on the outer edges of the dam must be used to rehabilitate and stabilise the outer faces of the dam walls. Furthermore, CN supports the findings and recommendations of the freshwater specialist and also supports the mitigation measures and agrees that with mitigation the impact of the dam enlargement will be LOW negative.

Department of Water and Sanitation ("DWS")

The DWS stated that all unauthorised water uses should cease with immediate effect. In cases where activities require specialised rehabilitation; the applicant is encouraged to provide a Rehabilitation Plan for approval.

The EAP responded by stating that a settlement agreement was reached between the applicant and DWS regarding the emergency work that was undertaken. A formal Rehabilitation Plan will be compiled for the rehabilitation and re-vegetation of all freshwater features, as well as the rehabilitation and stabilisation of the outer faces of the dam walls, as recommended by the specialists. This will be done when all authorisations have been obtained, prior to rehabilitation taking place and will also be a condition as part of the Water Use License. The Rehabilitation Plan will clearly state the rehabilitation activities required, as well as how and when these must be implemented. Where required, method statements will also be included in the rehabilitation plan.

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

The competent authority concurs with the EAP's responses to the issues raised during the public participation process and has included appropriate conditions in this Environmental Authorisation and in the EMPr.

2. Alternatives

2.1 Site/Activity Alternatives

Alternative 1 (Herewith authorised)

This entails the expansion of two existing instream dams and the pump station, as well as repairs required to one of the dams. Two instream dams, Boonste Dam (Portion 11 of Farm Straat van Paardeberg) and Onderste Dam (the Remaining extent of Farm Knollefontein 170) as well as the pump station are situated adjacent to one another

in a tributary of the Sand River. These dams are used as balancing dams for the applicant to store summer ELU water and irrigate crops or vineyards when necessary. Various activities have taken place with regard to upgrades and repair work to the dams.

Boonste Dam

Embankment and dam wall upgrades were made to the existing Boonste Dam during 2002 and 2003. These led to the following changes as seen in the table below.

	1998	2002-2003
Storage capacity	40 000 m ³	120 000 m ³
Wall height	3.5m	9.5m
Wall length	Unknown	310m
Inundation area	Unknown	8ha

Onderste Dam

Embankment and dam wall upgrades were made to the existing Onderste Dam during 2002 and 2003, and again in the summer of 2012 as seen in the table below.

	1998	2002-2003	2012	2019
Storage capacity	25 000m ³	180 000m ³	1 234 166m ³	Emergency repairs
Wall height	2.5m	7.5m	12.8m	
Wall length	Unknown	310m	600m	
Inundation area	Unknown	8ha	27ha	

The dam was expanded in 2012 due to an urgent need for larger storage capacity required to irrigate the existing vineyards. Due to an incident at the dam in October 2018, piping or internal erosion occurred, and some emergency work was necessary in 2019. The dam started to leak in the latter half of 2018 and a dam engineer confirmed that it was unsafe and would require part reconstruction. In order to store winter water for the 2019/2020 irrigation period, the dam urgently required the reconstruction work to commence and this was finalised in August 2019. Failure to undertake the work would have resulted in poor irrigation potential for the vineyards, with resultant lower production and fewer job opportunities. The return on vineyard farming is already small and with less than optimal irrigation, it would be even smaller. This included the following: 1. New core trench and zone in upstream face of dam wall. 2. Imported riprap. 3. New general fill zone on downstream face containing

sand blanket drain and imported rock toe. 4. Topsoil and gravel capping finishing layers.

Pumphouse

A pumphouse existing prior to 1998, with dimensions of 5.5m x 5.5m (30.25m²), was expanded in 2016 to 14.5m x 5.5m (79.75m²). Therefore, it was expanded by 49.5m². It is assumed that the foundation is not deeper than 0.5m and that the total expansion is 49.5m² x 0.5m = 24.75m³.

Alternative 2

Alternative 2 proposes the abstraction of water from the scheme pipeline and using it directly where needed.

This is not the preferred alternative for the following reasons:

- When water is available to be abstracted, it might not be necessary to irrigate, which would lead to damage to crops and/or loss of water if not abstracted and used.
- By pumping water directly, operational costs inclusive of pumping costs increase and this converts to a lower profit.
- Direct pumping can result in water not being available when necessary in dry and drought periods, which would lead to crop and yield loss as well as income and employment positions losses.

2.2 The option of not implementing or continuing with the activity ("No-Go" Alternative)

This alternative would entail not repairing damages to the Onderste Dam and/or demolishing the dams and rehabilitating the site.

This alternative has been considered but is not a viable option for the following reasons:

- The dam couldn't be used to its full capacity, as it resulted in water loss and this could have led to damages to downstream users and surrounding cultivation areas;
- Availability of water for irrigation during the summer months will be of great concern;
- The applicant will not be gaining financial benefits and will lose crops, vineyards, income. Employees would lose their positions;
- Better management of both water resources and water use will not be achieved;

- No job security for existing workers and future workers; and
- The rehabilitation of the site may not be successful, due to extensive degradation as well as the impact of the five other instream dams upstream from this site.

Therefore, this alternative is not deemed preferred.

3. Environmental Impact Assessment (EIA) and Mitigation Measures

In reaching its decision, the competent authority, considered the following in respect of the EIA and mitigation measures:

3.1. Activity Need and Desirability

The development was in line with its existing use, which is agricultural. The development of the existing dams is, therefore, the expansion of the existing use.

3.2. Biophysical and Biodiversity Impacts

The site consists of previously cultivated lands and the expanded dams occur on a site which was previously disturbed. Furthermore, the report states that the watercourse which feeds the two dams (Boonste and Onderste dam) is in a fairly modified state, with dam impoundments occurring further upstream prior to entering the site. The development will have very low negative impacts on any natural vegetation and aquatic ecosystems, as the dams were expanded within an unnamed stream in an area which had already been completely transformed by agricultural practices.

4. NEMA 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.

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 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.

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