

**24G Application: 14/2/4/2/3/B5/4/0007/19**

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## ENVIRONMENTAL AUTHORISATION

The Owner  
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### **Attention: Johan van der Vyver**

## **APPLICATION IN TERMS OF SECTION 24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) ("NEMA"): UNLAWFUL EXPANSION OF OFF-STREAM STORAGE DAMS AND THE DEGRADATION OF THE SURROUNDING ENVIRONMENT AT FARMS BUFFELSKLOOF 14/97, 18/87 AND ANNEX DWARS RIVIER 4/100 (DIE EIKE, LADISMITH)**

With reference to your application dated 17 April 2019 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.

### **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 in accordance with the preferred alternative as described in the application and environmental assessment dated 17 April 2019.

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. In this regard, the authorisation is required for the activities in terms of *Section 21b, c and i* and *Section 40* of Chapter 4 of the *National Water Act, 1998 (Act 36 of 1998)*.

## B. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

Van der Vyver Trust  
 c/o Mr Johan van der Vyver  
 P O Box 85  
 LADISMITH  
 6655

Tel: (028) 551 2014

Fax: (028) 551 2014

Email: johanvdv@hilbert.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. 327 of 7 April 2017 -</i></p> <p><b>Activity Number: 12</b></p> <p>Activity Description: <i>The development of –</i></p> <p><i>(iii) Dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or</i></p> <p><i>(iv) Infrastructure or structures with a physical footprint of 100 square metres or more;</i></p> <p><i>Where such development occurs-</i></p> <p><i>(d) Within a watercourse;</i></p>	<p>The enlarged dam on the farm Springvale has a new wall within 32 m of the river. The activity commenced in June 2017.</p>

<p>(e) In front of a development setback; or (f) If no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.</p>	
<p>Government Notice No. 327 of 7 April 2017 - <b>Activity Number: 48</b> Activity Description: <i>The expansion of</i> <i>(iii) Infrastructure or structures where the physical footprint is expanded by 100 square metres or more; or</i> <i>(iv) Dams or weirs, where the dam or weir, including infrastructure and water surface area, is expanded by 100 square metres or more;</i> <i>Where such expansion occurs</i> <i>(d) within a watercourse;</i> <i>(e) in front of a development setback; or</i> <i>(f) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.</i></p>	<p>The enlarged dam on the farm Springvale</p>
<p>Government Notice No. 327 of 7 April 2017 - <b>Activity Number: 50</b> Activity Description: <i>The expansion of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, where the combined capacity will be increased by 50 000 cubic metres or more.</i></p>	<p>The four dams situated on the Towerkop farm. The combined capacity of the new dam and the upgrade of an old dam is above 50 000 cubic metres.</p>
<p>Government Notice No. 327 of 7 April 2017 - <b>Activity Number: 66</b> Activity Description: <i>The expansion of a dam where -</i> <i>(iii) the highest part of the dam wall, as measured from the outside toe of the wall to</i></p>	<p>Enlarged dam walls on farm Buffelskloof 14/97.</p>

<p><i>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 (iv) where the high-water mark of the dam will be increased with 10 hectares or more.</i></p>	
<p>Government Notice No. 327 of 7 April 2017 -  <b>Activity Number: 16</b>          Activity Description: <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 enlarged dam on the Springvale farm has a wall of which the highest point is 5 metres or higher. The new dams' walls on the Towerkop farm are higher than 5 metres.</p>

The abovementioned list is hereinafter referred to as "the listed activities/development".

#### D. PROPERTY DESCRIPTION AND LOCATION

The listed activities commenced on Farms Buffelskloof 14/97, 18/87 And Annex Dwars Rivier 4/100, Die Eike, Ladismith.

The SG digit codes are: C04200000000009700014  
 C04200000000009700018  
 C042000000000010000004

The co-ordinates for the property boundaries are:

Farm Buffelskloof 14/97		
Point	Latitude (S)	Longitude (E)
1	33° 29' 46.04" South	21° 11' 16.93" East
2	33° 29' 52.65" South	21° 11' 49.03" East
3	33° 29' 56.47" South	21° 11' 43.69" East

4	33° 29' 55.50" South	21° 09' 57.69" East
5	33° 30' 03.71" South	21° 11' 58.78" East
6	33° 30' 02.23" South	21° 11' 58.12" East
7	33° 29' 56.95" South	21° 11' 16.97" East
8	33° 30' 01.68" South	21° 11' 43.69" East

Farm Buffelskloof 18/97		
Point	Latitude (S)	Longitude (E)
1	33° 29' 58.18" South	21° 11' 56.72" East
2	33° 29' 58.94" South	21° 11' 59.60" East
3	33° 30' 03.71" South	21° 11' 58.78" East
4	33° 30' 02.23" South	21° 11' 58.12" East

Annex Dwars River 4/100		
Point	Latitude (S)	Longitude (E)
1	33° 29' 55.50" South	21° 11' 56.72" East
2	33° 29' 54.79" South	21° 11' 59.60" East
3	33° 30' 11.79" South	21° 11' 58.78" East
4	33° 30' 13.08" South	21° 11' 58.12" East

The co-ordinates for the site boundaries are:

Dam 1 - Buffelskloof A			
Point	Latitude (S)		Longitude (E)
1	33°	30' 1.62"	21° 11' 43.46" East
2	33°	29' 57.30"	21° 11' 46.63" East
3	33°	29' 57.91"	21° 11' 54.56" East
4	33°	30' 3.12"	21° 11' 52.46" East

Dam 2 - Buffelskloof B			
Point	Latitude (S)		Longitude (E)
1	33°	30' 3.12"	21° 11' 52.46" East
2	33°	30' 0.27"	21° 11' 58.86" East
3	33°	30' 4.68"	21° 11' 58.46" East
4	33°	30' 6.18"	21° 11' 52.71" East

Dam 3 - Springvale			
Point	Latitude (S)		Longitude (E)
1	33°	29' 55.43"	21° 10' 16.85" East
2	33°	30' 0.18"	21° 10' 21.32" East
3	33°	30' 4.70"	21° 10' 23.59" East
4	33°	30' 1.87"	21° 10' 13.41" East

Refer to Annexure 1: Locality Plan and Annexure 2: Site Plans.  
Herein-after referred to as "the sites".

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

Desiree du Preez Environmental Consultants

C/o Ms Desiree du Preez

17 Mountain Road

GEORGE

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## **F. DETAILS OF THE ACTIVITY/IES UNDERTAKEN**

The holder commenced with maintenance and improvements on his farm dams on the farm Die Eike in the Ladismith district during the dry season of 2017 when the dams were empty. In 2018 the drought experienced in the Klein Karoo resulted in complaints laid by surrounding landowners about the dams that were allegedly upgraded. Accordingly, environmental law enforcement administrative action was undertaken resulting in the issuance of pre-compliance notices. Below is a description of the activities undertaken as specified in the application.

### Farm Towerkop:

A dam on the farm Towerkop (Portion 14 of Buffelskloof 97) was leaking and had to be repaired. However, the dam was made substantially larger, merging the wall with that of an adjacent dam. The dam has a volume of 113 076 m<sup>3</sup>.

Another dam was also constructed where there was an old small, overgrown dam partly on Buffelskloof 14/97 and Buffelskloof 18/97. This dam was not mentioned in the pre-compliance notice. The capacity of the dam was calculated to be 42 000 m<sup>3</sup>.

These dams are filled from the existing lawful water use from the Buffelskloof River, registered with the Buffelskloof Irrigation Board. The monthly water allocation from the

Buffelskloof River, which will be stored in the 5 Towerkop dams, is 11 385 m<sup>3</sup>. This water is used to irrigate the vineyards and orchards located south of the public road adjacent to the dams.

#### Farm Springvale:

On the Springvale farm (Dwars River 4/100) which is also part of Die Eike, the farm has its water source from a spring flowing into a small dam. The spring is registered in the title deed of the farm.

As this dam was leaky and did not suffice for storage to irrigate the vineyards on the farm, this dam was substantially enlarged on land that previously was vineyard.

The dam extended to within 32 metres of the bank of the Dwars River.

The Springvale dam has a surveyed capacity of 142 899m<sup>3</sup> and a wall of 9.5 m high. The monthly water supply from the spring is calculated as approximately 6058m<sup>3</sup>. The Springvale farm has had an approved storage volume of 15 892m<sup>3</sup>.

In addition to the requirement for environmental authorisation in terms of the NEMA, the works on the dams without prior authorisation was also in contravention of Sections 118 and 53(1)(a) of the *National Water Act, 1998 (Act 36 of 1998)*. The Springvale dam altered the bed, banks, course or characteristics of the Dwars River and water is being stored without water use authorisation.

## **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 activity/ies specified in Section C above in accordance with and restricted to the preferred alternatives described in the application and assessment report dated 17 April 2019 on the site as described in Section D above.
2. The Environmental Authorisation is valid for a period of **five years** from the date of the decision.



3. The development must be concluded within 2 years from the date of continuation of the first listed activity.
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 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**

6. Seven (7) calendar days' notice, in writing, must be given to the competent authority before continuation of commencement of the construction activities.
  - 6.1 The notice must make clear reference to the site details and 24G Reference number given above.
  - 6.2 The notice must also include proof of compliance with the following condition:  
Condition 7 and 9

## **PART III**

### **Notification and administration of an 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 I 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; and

7.4.6 the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the *National Appeal Regulations, 2014*.

8. The listed activities, including site preparation, may not commence within 34 (thirty-four) 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.

## **PART IV**

### **Management of the activity/development**

9. The draft Environmental Management Programme ("EMPr") of April 2019 compiled by Desireé du Preez Environmental Consultants and submitted as part of the application for environmental authorisation is hereby approved and must be implemented.

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

11. Rehabilitation and maintenance activities must be undertaken in accordance with the EMPr of April 2019.

## **PART V**

### **Monitoring**

12. The holder must appoint a suitably experienced Environmental Control Officer ("ECO") before continuation of commencement of any construction or rehabilitation activities to ensure compliance with the EMPr and the conditions contained herein.
13. A copy of the Environmental Authorisation, EMPr, audit reports and compliance monitoring reports must be kept at the site of the authorised activities and must be made available to anyone on request.
14. 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**

15. 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, the EMPr and submit Environmental Audit Reports to the competent authority annually. 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**

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 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.

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. All water storage within the dams should be from already allocated water rights, and no unallocated water should be stored in the dams.

## **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. If the holder does not continue, conduct or undertake listed activities within the period referred to in Condition 2 of Section G, this Environmental Authorisation shall lapse for that activity or activities, and a new application for Environmental Authorisation must be submitted to the competent authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment must be made on condition that the environmental authorisation is valid on the date of receipt of such amendment application.

Note that:

(1) In terms of regulation 28(1A) of the *EIA Regulations, 2014* the competent authority shall not accept or process an application for amendment of an environmental authorisation if such environmental authorisation is not valid on the day of receipt of such amendment application but may consider an application for environmental authorisation for the same development.

(2) In terms of regulation 28(1B) of the *EIA Regulations, 2014* an environmental authorisation which is the subject of an amendment application remains valid pending the finalisation of the amendment application.

(3) It is an offence in terms of section 49A(1)(a) of the NEMA for a person to commence with a listed activity if the competent authority has not granted an environmental authorisation for the undertaking of the activity.

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.

## **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](mailto: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](mailto: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](mailto: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

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**ADV. CHARMAINE MARÉ**  
**DIRECTOR: ENVIRONMENTAL GOVERNANCE**

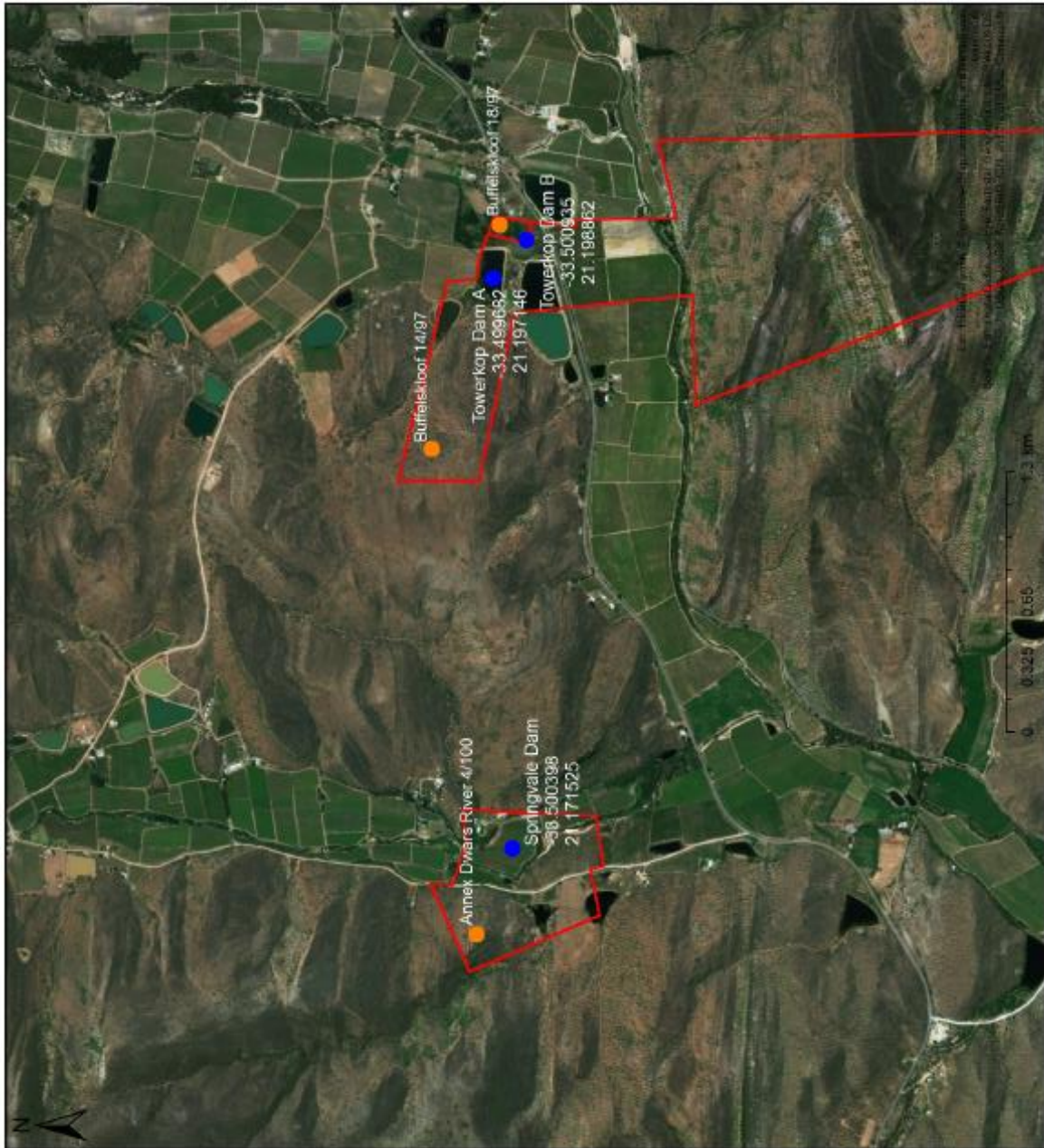
CC: (1) Desiree du Preez (EAP)

Fax: (086) 510 7015

Email: [desdup@telkomsa.net](mailto:desdup@telkomsa.net) / [desireedup@gmail.com](mailto:desireedup@gmail.com)

# ANNEXURE 1: LOCALITY MAP

## Die Eike 24G Dams



Scale: 1:26 058

Date created: March 4, 2019

Compiled with CapeFarmMapper



Western Cape  
Government

Agriculture



## ANNEXURE 2: SITE PLANS



**FOR OFFICIAL USE ONLY:**

**S24G REFERENCE:**

**14/2/4/2/3/B5/4/0007/19**

**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 R250 000 (Two hundred and fifty 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 17 April 2019 and the Comment and Response Report dated 25 September 2019.
- b) The Environmental Management Programme ("EMPr") of April 2019 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 06 August 2019 attended by officials of this Directorate: Environmental Governance.

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:

- identification of and engagement with I&APs.
- fixing a notice board at the site where the listed activities unlawfully commenced on 15 October 2018.
- giving written notice to the owners and occupiers of land adjacent to the site where the listed activities were undertaken, the municipality and ward councillor, and the various organs of state having jurisdiction in respect of any aspect of the listed activities on 11 October 2018 and 11 April 2019.
- the placing of a newspaper advertisement in the **Die Hoorn** on 11 October 2018 and 11 April 2019, respectively.
- I&APs were afforded the opportunity to provide comments on the application.

Various comments and concerns were raised by downstream water users and members of the Buffelsdrift Conservancy. Below is a summary of the concerns raised:

- *The dams should be removed as the applicant diverts the stream to his dam and then diverts the water to all his other dams. Additionally, the claim that the dam is filled by a spring is unfounded. Simply measuring the spring output will prove this. It is also known that the impact of the applicant's dam has not only been devastating to the downstream farmers, but also to the river in the Conservancy. The river used to flow for a good part of the year and now it is simply dry, while the applicant's dams are full.*
- *We object to the application to rectify the illegal activities and request that the applicant immediately release the water in the dams and remove the dams due to the economic, social, and ecological devastation caused to the river and landowners downstream.*
- *The EAP stated in her report that a third alternative for the Springvale dam is an alternative of moving the dam wall away from the 1:100-year flood line, or more than 32m from the river, creating a dam with higher capacity than the original dam. Should this assessment have been done pre-commencement, this alternative would most likely have been favoured. The low significance of the negative biophysical impacts of the*

Springvale dam, however, does not warrant the cost of reconstructing the dam. Therefore, it makes sense from the applicant's point of view to construct illegal dams and then apply for permission after the fact. This ensures that not only is the dam approved but he also gets the benefit of storing water for months or years before he receives approval.

- It is believed that there are inter-basin water transfers (between dams) involved and it is not known if the applicant has approved water licenses for the dams and water allocation for each dam.
- The existing spring does not fill the Springvale dam; the dam must therefore be filled by the Dwars River being diverted into this dam. If the spring was able to fill the massive Springvale Dam, the dam would have been built many years ago. It is also a stretch to call it an off-stream dam as it lies within the riverbed (which is meant to be rehabilitated). The specialist report by Blue Science stated that the riverine area must be rehabilitated. The Springvale dam was also not built to service the existing vineyards because the vineyards were already there. It was built to store water to ensure that the applicant would not run out of water in the drought and to enable him to expand his operation at the expense of the downstream farmers.
- As stated in the applicant's 24G report, one of the main principles of environmental management is that it must place people and their needs at the forefront of its concern and serve their physical, psychological, developmental, cultural and social interests equitably. Development must be socially, environmentally, and economically sustainable. The use and exploitation of non-renewable natural resources must be responsible and equitable and must consider the consequences of the depletion of the resource. This means that the applicant should therefore ensure that water from the river bypasses his dam and is allowed to flow downstream to maintain the ecological reserve.
- The EAP states in her report that no proof of unsustainable or inequitable resource use could be found but there is no release of the ecological reserve. This cannot be seen as sustainable.
- For 10 years we have had a river that didn't always flow, but was at least a wetland. In drier times the trickle from the scarce rains could flow down the rivers and were not diverted as they have been since the building (enlarging) of the new dam below Mymering.
- It is ultimately the freshwater and ecology of the River systems in our area that are being undermined. I understand that economics and money are more important to some people but ultimately if we manipulate nature too much for personal gain, we will all lose in the end.

- *The dams are illegal and unauthorized, and the rivers are being manipulated for a few upstream farmers sole use. Ultimately this is not fair on others including fragile fauna and flora and the entire environment. Drought or no drought.*
- *I object strongly as a landowner to the building of illegal dams as it is affecting our and my staffs livelihood.*
- *I acknowledge the fact that we are still in a severe drought, however the ever-increasing dams being built upstream from us will have a long-term effect on the people like myself living downstream.*
- *We did not go into buying our farm blindly, we put every single cent we had and then some to try to make it work, and whilst we were not making a killing, we were at least able to service our expenses whilst we were still receiving snow melt off. The repercussions of no water running past that dam wall is not just the loss of the flood irrigation. Both boreholes on our farm have run dry. This is because the water table is not able to replenish itself in this area as there is no water passing through. The environmental impact is horrendous.*
- *We get a tiny trickle out of the one that services household needs alone. Our once thriving lucerne fields are arid patches of ground where not even weeds can grow. Our sheep were all sold off before they died of starvation. We have absolutely no way of earning an income off this land any longer. The value of the farm has also gone down as who wants to buy a farm where there is no water.*
- *We have lost poultry livestock that was supplying an income to the poor wild animals who have no food and water as the environmental impact in the area is so vast.*
- *We accept that there is an ongoing terrible drought in our area, however the illegal water activities occurring upstream has most definitely exacerbated the issue and has had a strong hand in turning this once thriving community into total socio, economic and environmental collapse.*
- *Should the applicant have applied for permission to enlarge and construct the dams it would most likely not have been approved. We now have a situation where it is highly unlikely that the applicant will deconstruct the dams that he built or enlarged, due to the costs involved. The S24G gives farmers the perfect opportunity to rather ask for forgiveness than permission. The S24G process now allows the applicant to use a legislated process to benefit from building illegal dams.*
- *This sets a precedent as other farmers now think that they can take the same course of action as your client.*
- *The Applicant has many dams on his property and your report makes no attempt to explain how the water transfer system works but we believe this is integral to the*

application. One cannot separate the storage of water and the management of the resources from the dams. Without the availability of water there is no point in the dams being constructed in the first place. We believe there are inter-basin water transfers involved and we do not understand if in fact the Applicant has water licenses for which dams and if and how much water is allocated to his farms in the form of water licenses.

- Blue Science are the aquatic specialists and, in their report, have come up with some very good recommendations which must be enforced.
- It is still not understood how the applicant could apply for a water use license for water use, over and above what he is currently using, especially in a time like this.

#### 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)
- Breede Gouritz Catchment Management Agency (BGCMA)
- Department of Agriculture (DoA)

CapeNature indicated that, in terms of the *Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)* ("CARA"), landowners must prevent the spread of alien invasive plants on the property. The level of alien infestation is therefore not seen as reducing the sensitivity of a site, nor is the subsequent removal of alien vegetation from a property regarded as a mitigation measure due to this is being a legal requirement. Infestation by alien plants does not necessarily mean that an area is not important for biodiversity as some vegetation types are particularly prone to invasive alien infestation but may recover when cleared of alien vegetation.

All (specific) alien trees such as present at the property should be removed as they are a propagule source for further spread of invasive alien plants.

There was no suitable habitat rehabilitation plan submitted, although there is mention that certain areas need to be rehabilitated, but without such a plan how can the landowner know what to rehabilitate, where to rehabilitate and how to rehabilitate? There should also be a monitoring regime associated with the plan and the entire plan appended to the Environmental Management Programme (EMPr).

Why did the farmer not consider rather building a water tower or similar structure, or reservoirs at the proposed locations? Such structures would not have been illegal and can produce the same pressure (to be able to initiate the irrigation scheme), without needing to construct additional dams. CapeNature maintains that the farmer is seeking to store and use additional water, which directly impacts the ecological reserve. The EAP

responded that the Water towers and reservoirs require the pumping of water, which increases electricity use and an increased carbon footprint. The nett result may not be of great benefit over the proposed alternative.

Micro-irrigation and additional storage will result in less water being "lost" downstream due to more irrigation and storage occurring and less runoff taking place resulting in less water being in the system for downstream users? It therefore means that there will be a negative impact on downstream users and the ecosystem as there will be less water available downstream and in the system.

An alternative should have been considered that the farmer would plant crops which are not as heavily dependent on irrigation and therefore the dams could be rehabilitated.

It is unclear how the Springdale dam can be considered off stream when it is directly fed by an existing stream? These impacts should be updated accordingly.

CapeNature does not view the abstraction being triggered when the water is used for a purpose (like irrigation), but rather when the water is removed from a natural system (and placed even in an instream dam). Therefore, as soon as the water is captured or stored in a reservoir or dam, the water resource is lost from the natural system accordingly.

The lack of ecological reserve or water in the system due to over abstraction of the system by upper catchment users, cannot be used as a motivation for not considering ecological reserve determinations. The fact that the farmer expanded and built new dams is clear evidence that additional water was available, otherwise the landowner would not have invested in this additional infrastructure? It is therefore recommended that ecological reserve determinations be calculated, and if (as suspected or alluded to), there is no ecological reserve available, due to over abstraction of the catchment, then the dams should be removed accordingly.

Following ecological reserve determination, the EAP has been requested to illustrate if the farmer is able to keep the dams, which areas would be irrigated accordingly. These volumes should be cross referenced with existing irrigation volumes and the difference discussed against the ecological reserve. This impact on downstream users and ecosystem, not obtaining that volume of water and will directly impact those user's ability to keep their farms operational.

If there are floods will the dams fill with flood water, if so, these dams should be considered instream.

Details regarding the spillways, including details relating to the envisaged dimensions, slope and outlet design were not provided. Concentration of water flow combined with acceleration of flow velocity is a leading cause of erosion in watercourses. It is therefore recommended that the spillway discharge be designed to be as diffuse as possible. In

addition to which, it is recommended that the design consider structures that can reduce the velocity of the water discharged from the spillway.

What proposals were raised by the wetland specialist regarding the mitigation of sediment starvation? Alternative design measures should be suggested by the specialist to limit evaporation of existing water resources and consider such systems as an alternative to the legalisation of these dams. Will the loss of the ESA 2 on the site compromise any CBA and conservation targets? Have control measures put in place to ensure this does not occur?

Following the fine determination process and taking into consideration the concerns from I&APs and CapeNature, together with the conclusions of the freshwater specialist; an independent review and/or comment from the CapeNature's in-house freshwater specialist, as well as comment from the BGCMA was again requested.

CapeNature's inhouse specialist provided feedback on the above, indicating that they agree with the initial comments on this application. Even though the dams are in dried up watercourses, they are still to be considered "instream". If you remove the upstream dam walls, the water will follow the existing (dried up) water courses downstream. The hydrology of this local catchment has been impacted on, but the potential for repair exists should the dam walls be removed. It was recommended that an ecological reserve should be determined, even if it will only serve the purpose to show the DWS and BGCMA that this catchment is already over allocated. This will also update their hydrological data to base their future commenting on.

The BGCMA indicated that an application must be submitted to the Dam Safety office for the classification of the 3 dams, review of the design reports, review of construction completion reports, review of the operation and maintenance manuals and review of the emergency preparedness plans for the dams in order to comply with dam safety legislation. Additionally, it is noted that authorisation is required for the above-mentioned activities in terms of Section 21b, c and i and Section 40 of Chapter 4 of the *National Water Act, 1998 (Act 36 of 1998)* ("NWA"). Therefore, the applicant must apply for water use licence in terms of Section 40 of the NWA. The applicant may only store the Existing Lawful Use of 15 892m<sup>3</sup> on Portion 4 of Farm 100. The water stored in and used from the dams must be metered and readings should be submitted to this office.



The BGCMA indicated that in terms of the Springvale Dam, the Dwars River was already diverted prior to the dam construction. The tributary was already cut off from the Dwars River by construction of a small dam prior to the construction of the Springvale Dam. Therefore, the recommendations from the Freshwater Specialist are highly supported by the BGCMA.

In terms of the Towerkop West and East dams, the two dams are located in what would have been the non-perennial tributary of the Swartberg River. The Towerkop West Dam appears to have been increased by about 50% and has a potential to capture more runoff from the non-perennial tributary of the Swartberg Dam. In this area, some of the flow, at least 11% of the natural Mean Annual Runoff (nMAR) must remain in the rivers to ensure that an ecological condition of largely natural is maintained, and that there is continued flow especially in the channel of Buffelskloof river that is still connected to Swartberg River. This should be the case in both Springvale and Towerkop catchments.

The concluding comment from the BGCMA is that the watercourses have been cut off from the Swartberg River downstream before the construction of the recent Towerkop West and East dams, and have been cultivated over and completely lost, even by 1944. Removal of these dams would not be of any ecological benefit downstream of them. The ecological functioning has been completely lost. All water storage within the dams should be from already allocated water rights, and no unallocated water should be stored in the dams. The Existing Lawful Use (ELU) of the farms must be confirmed for the site.

The Western Cape Department of Agriculture had no comment.

## **2. Alternatives**

### 2.1 Property/Location/Site Alternatives

The farm Die Eike consists of many properties that could potentially provide dam sites, but dams have to be constructed /enlarged where there is a source of water. The Springvale farm has a consistent water source, but the dam was insufficient to irrigate the vineyards on the farm. It was therefore enlarged. Any other property or site would require the installation of a pipeline through the river between the source and the dam, which would have more negative impacts and outcomes. It would also require the installation of new bulk irrigation pipelines through the river. Existing infrastructure is available for the dam in its current position.

On the Towerkop farm an existing dam was expanded, limiting to potential for alternative sites or properties. For the second dam alternatives could have been considered. The dam was, however, constructed near the source and near the other dams where bulk irrigation pipelines already exist. Other sites and properties would require more impacts due to the installation of new services.

## 2.2 Activity Alternatives

The activity serves the purpose of providing a consistent water supply to the orchards and vineyards on Die Eike. The only alternative would be the old flood irrigation activity, which is not as efficient as the new drip irrigation system, especially under low river flow conditions when water is not available during crucial times of crop development.

## 2.3 Design and Layout Alternatives

### Alternative 1 (No-go Alternative)

The no-go alternative is similar to the option of ceasing or refusing the activities, as the work to the dams has basically been completed.

This is the scenario of the landowner not changing anything, or in this ex post facto situation ceasing with the activities and rehabilitating all works to the pre-commencement state. In this scenario no activities are approved and no further mitigation than rehabilitation of the disturbed sites will be required and enforced.

The dam on Springvale was small and leaky and not functional as an irrigation storage dam. The dam that was extended on the Towerkop farm also had a leaky dam wall that has broken in the past and that could not be repaired successfully without complete replacement. These dams therefore needed maintenance that had to extend beyond the original footprint, as a new wall had to be constructed outside of the old wall. Rehabilitation to the exact pre-disturbance situation is therefore not feasible.

The applicant purchased these farms high up in the valley near the source to enable the construction of storage dams to hedge the farm against drought and from which water can be gravitated to the vineyards and orchards without pumping.

Impacts related to reduced river flow due to increased storage (impacts from all dams) and increased erosion in the Dwars River channel will not be experienced. On the other hand, the socio-economic impacts of high cost of rehabilitation without any benefit to the farm and the lack of long-term benefit from increased storage and

sustainable farming practice could have a significant impact on the economy of the farm, the district as well as the social welfare of many poor farm workers.

Ceasing with the activities and rehabilitating the sites would have very limited benefits to the biophysical environment and downstream landowners.

#### Alternative 2 Continuing or legalising of the dams (Preferred alternative)

The three dams that were made or extended were investigated. Their impacts on the biophysical environment, the water allocations for these dams and their impact on the resource were investigated. No evidence was found to prove that water in addition to existing lawful allocations is stored. The impact of the Springvale dam on the floodlines of the Dwars River was also investigated to ensure that there will not be flood impacts on neighbours or public services. Unless the Springvale dam wall is eroded during floods causing breaking of the dam, the dam was found to have no significant impacts. Erosion risk can be mitigated by the provision of rock riprap on the outside of the wall. The Towerkop dams also have no significant impacts on the environment. The most significant impact of all the dams is that of increased storage of winter surplus in the catchment area of the rivers although the stored water is legally allocated. The impact of the dams in this study is, however, less significant than the cumulative impact of all dams high up in the catchment areas.

The socio-economic benefits of sustainable farming would benefit the local community as well as that of Ladismith, while the impacts experienced by downstream landowners are not exclusively resulting from these dams.

The assessment of the impacts does not indicate any good reasons not to allow the continuation of the activities associated with these dams. Conditional authorising of these dams with requirements for invasive alien eradication in the rivers and reduced summer (low flow) water abstraction would be beneficial to the environment.

#### Alternative 3 Moving the Springvale dam away from the river

The options for the Towerkop dams are limited and therefore entail legalising for this alternative. For the Springvale dam there is an alternative of moving the dam wall away from the 1:100 year floodline or more than 32m from the river, creating a dam with higher capacity than the original dam. The vineyard could be replanted in the previous remaining footprint.

Should this assessment have been done pre-commencement, this alternative would most likely have been favoured. The low significance of the negative biophysical

impacts of the Springvale dam and the high cost of moving the wall, however, do not warrant the cost of reconstructing the dam.

#### 2.4 Technology Alternatives

The farm used to be irrigated by flood irrigation through open channels. This system works well when water resources are plentiful and rivers run throughout the year. It is, however, also wasteful. As an alternative to flood irrigation, drip irrigation was installed in all vineyards and orchards. This irrigation system uses less water to produce the same amount of fruit. The main constraint is a constant source of water in the form of dams. The development of the dams, therefore, represents a technology alternative to the flood irrigation.

#### 2.5 No-go Alternatives

As mentioned above as the Design and Layout of alternative 1.

### **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 farm is situated in the Kannaland Municipality with its main centre in Ladismith. Agriculture is a major sector in the economy and 33% of the population live in rural areas outside of the towns. More than half of the total workforce in the municipal area is unemployed and seeking work. Although the activities in question does provide direct benefit for job alleviation, the applicant employs 80 permanent workers of whom most are unschooled or with basic schooling.

#### 3.2. Biodiversity Impacts

The specialist conclusions are that, although the Springvale and Towerkop Dams have been constructed in minor tributaries of the Dwars and Buffelskloof Rivers, both tributaries have largely ceased to exist as a result of upstream dams that impede flow in the watercourses.

These dams, together with the Towerkop East Dam can be considered as off-channel dams that will be filled with existing allocations of water from the Dwars and Buffelskloof Rivers. A determination and stipulation of any environmental flow requirement for the tributaries of the Swartberg River at the dams is thus considered

irrelevant. The Towerkop East Dam does not have runoff from its catchment entering it. The impacts of a dam that has been built in or adjacent to a watercourse on the aquatic ecosystems in the area comprise of:

- Loss of aquatic habitat associated with the watercourse;
- Modification to the flow in the tributary; and
- Water quality impacts.

Secondary impacts such as increasing the potential for erosion and facilitating the growth of invasive alien vegetation may also occur.

The construction of the Springvale dam resulted in minimal modification to the stream bed or banks of the Dwars River during dam construction. The only activity associated with the Springvale Dam construction that was within the stream channel is the downstream sump. The dam construction has however considerably confined the river channel at the dam and as a result, has altered the hydraulics and floodlines of the river at the dam. The confinement of the river channel at the dam will result in higher speeds in the river during high flow events which is likely to result in further downcutting of the river channel and will increase the potential for erosion of the river channel at the dam.

The enlargement of Towerkop West Dam would not have had any impact on aquatic habitat of any significance. The aquatic habitat that was present at the site prior to the dam's construction would have only been associated with the existing dam.

At Towerkop East Dam, the aquatic habitat present was remnant valley wetland within the stand of poplar trees. Historically this wetland would have been fed by the secondary channel of the Buffelskloof River. While the construction of the dam has resulted in the partial loss of wetland habitat at the dam, this patch of wetland habitat is isolated and in a very degraded condition.

### 3.3. Visual / Sense of Place

The development of the dams has no significant impact on the visual character or sense of place affecting people as it was constructed on agricultural land where many existing dams are present.

### 3.4. Pollution Impacts

No polluting agents are involved in water storage in earthen dams.

## 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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