

**CONSERVATION INTELLIGENCE: LANDSCAPE  
CENTRAL**

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**reference** SSD14/2/6/1/9/6/66-1\_Water\_Roodezandskloof\_Tulbagh  
**date** **06 November 2025**

Lindsay Speirs  
Earth Grace Environmental Consultancy  
21 St Andrews Close  
Worcester  
6850

By email: [lindsay@earthgrace.co.za](mailto:lindsay@earthgrace.co.za)

Dear Ms Speirs

**RE: Proposed Expansion of an Instream Dam on Portion I of Farm 66, Roodezandskloof, Tulbagh – Pre-Application Basic Assessment Report**

DEA&DP Ref: 16/3/3/6/7/1/B5/14/1191/25 (Pre-app)

CapeNature would like to thank you for the opportunity to comment on the Pre-Application Basic Assessment Report. Please note that our comments pertain primarily to impacts on biodiversity and not to the overall desirability of the project.

1. According to the South African Vegetation Map (2018), the proposed dam area and expansion area historically supported Breede Shale Fynbos, which is listed as an Endangered Vegetation Type. However, the area appears to be transformed by previous cultivation and other disturbances (clearing for the existing dam), and very little natural vegetation remains in small, scattered patches across the farm – especially along the dam and wetland areas.
2. The proposed site is partially situated within a Terrestrial Critical Biodiversity Area (CBA 1 & CBA 2: Degraded) – the CBAs are mapped within the existing dam basin, on the embankment of the existing dam and a small fragment upstream of the dam, overlapping the dam basin. CBAs include areas that are usually, but not always in a natural condition that are required to meet biodiversity targets for species, ecosystems or ecological processes and ecological infrastructure. No further loss of natural habitat should occur in CBAs and degraded areas should ideally be rehabilitated. The Terrestrial CBA was determined due to the presence of the Endangered vegetation type and Threatened Ecosystem, for Water Resource Protection (Berg River), and the presence of the Southwest Shale Fynbos Channelled Valley Bottom Wetland and seep wetlands (upstream of the dam) and the area should be maintained in a natural or near-natural state. Furthermore, the property lies downslope of the Winterhoek Mountain Catchment Area (MCA), a formally protected area. The Welbedacht Nature Reserve is also located about 300 m to the east of the dam, and the site falls within a Strategic Water Source Area (SWSA) for Surface (Boland) and Groundwater (Northwestern Cape Ranges).
3. The application involves the following components:
  - a. Enlargement of Modderas Dam from 200,000 m<sup>3</sup> (13.8 m wall high) to a gross storage capacity of 310,000 m<sup>3</sup> (15.1 m wall high). The proposed total footprint area = 7.5 ha, which is only 2.2 ha of additional footprint area. The existing pumpstation will be used.
  - b. Extension of the existing Ø200 mm Class 6 uPVC outlet pipe on the upstream side.
  - c. Proposed by-pass spillway to discharge into the existing channel.
  - d. Decommissioning of Dam D2 (located north-east of the current dam)

Point (a) above states that the proposed dam enlargement area will only have an additional footprint area of 2.2 ha, however the Site Sensitivity Verification Report (SSVR) states on Page 5 that approximately 0.55 ha will be lost. Please can you clarify if this (0,55 ha) only refers to the amount of Agricultural land or area that would be lost and how much (total area or size of the footprint) would need to be cleared for the proposed dam enlargement.

4. Additionally, the Site Sensitivity Verification Report (SSVR) confirmed that the site was found to be in a degraded to transformed state with a mix of natural and transformed vegetation cover. The river still contains natural riparian vegetation within its upper reaches on the farm, but similarly to the terrestrial vegetation, comprises a mix of indigenous and alien vegetation within the lower reaches. The few indigenous species that were observed are mostly disturbance related and comprise secondary vegetation, therefore the threshold for triggering the botanical related NEMA activities is not exceeded, and no Terrestrial Biodiversity Impact Assessment/Study is needed.
5. According to the Aquatic Impact Assessment, the proposed site falls within quaternary catchment G10E which forms part of the Breede-Olifants Water Management area (WMA). The property lies on the wide valley floor of the Klein Berg River. The dam is instream on the Modderas River which drains into the Roodezand River, a tributary of the Klein Berg River, within the middle Berg River System. The Modderas River at the site comprises several small foothill streams with a defined riparian zone of indigenous and alien trees and shrubs that lie within the already significantly modified on the valley floor. The proposed area is located within a wider area considered of Very High Aquatic Biodiversity Sensitivity. This is due to the Aquatic Critical Biodiversity Areas (CBAs) and Freshwater Ecosystem Priority Area (FEPA) Wetlands, as well as a Strategic Water Source Area (SWSA) for surface water (Boland) occurring in the wider area. The Present Ecological State (PES) of the river (Klein Berg River) is Largely Modified; however, the river has a High Ecological Importance and a Very High Ecological Sensitivity. Therefore, every effort needs to be made to improve the PES and general health of the River System and ensure that the proposed enlargement does not negatively impact on the Freshwater ecosystems.

Furthermore, the Aquatic Impact assessment states that “Removal of invasive vegetation and revegetation of the aquatic habitats could be informed by an adopted Maintenance Management Plan (MMP) for the property” and “Longer-term maintenance activities associated with the operation of the dam should follow an adopted MMP for the property.” We agree with these statements and supports the Freshwater Specialist recommendation to include a MMP as part of the application. The Assessment indicates on Page 40 that the dam enlargement would provide opportunity to “Facilitate implementation of the Environmental Flow Release (the existing dam has no release requirement)” – please can you clarify why an existing instream dam has no release requirements? Additionally on Page 44 it states “Given the above findings, there is no reason why the constructed dam and garden cannot be retained. The risk rating is considered to be Moderate.” Please can you clarify which constructed dam and garden are you referring to.

6. We recommend that water-saving measures should be implemented on the property, with respect to farming practices and to keep quarterly water balance and abstraction records. Furthermore, flow meters should be installed on all the abstraction and release points as well as pipelines to measure abstraction and any water loss. This should include the implementation of an appropriate irrigation plan (that is cognisant of the existing rainfall patterns) to ensure that there are no leakages in the water supply infrastructure and that all equipment is in good working condition, as well as implementing decreased abstraction during dry summer months. We also suggest that a qualified Environmental Control Officer (ECO) should be appointed to ensure that the mitigation measures set out by the EMPr and Aquatic Impact Assessment are adhered to and implemented.
7. In general, CapeNature does not support new instream dams or enlargement of existing instream dams unless it can be shown that the condition of the catchment, particularly downstream of the dam, will not worsen and that other compensation measures are put in place.

8. We recommend that an additional Freshwater specialist assessment should be conducted to determine ecological flow release or ecological flow reserve and the impact that the proposed dam enlargement will have on freshwater ecology and the downstream water users. Ideally, the ecological flow release of river systems or tributaries should be improved continually, to ensure that controlled water flows are sent into rivers to maintain a healthy ecosystem and provide benefits to society. These releases are necessary to sustain riverine habitats, recharge groundwater, and support plant and animal life, especially where water use is regulated by dams or other structures.

We also recommend that a Hydrological assessment be conducted to determine how this proposed enlargement will impact runoff, streamflow and groundwater within the river (Tributary), wetlands and larger area. Even though there is a dam downstream of the Modderas Dam, the cumulative impacts and ability to meet Ecological Flow Requirements must be assessed, as well as the potential negative impacts of the proposed development on freshwater ecosystems.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.

Yours sincerely



Leandra Knoetze



**REFERENCE:** 16/3/3/6/7/1/B5/14/1191/25

**DATE:** 5 November 2025

The Board of Directors  
Modderas Boerdery (Pty) Ltd  
P O Box 138  
**TULBAGH**  
6820

**Attention: Mr. Philip du Plessis**

Cell: 084 657 6797  
Email: info@modderasrivier.co.za

Dear Sir

**COMMENT ON THE DRAFT BASIC ASSESSMENT REPORT (“BAR”) IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (“NEMA”), 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT (“EIA”) REGULATIONS, 2014 (AS AMENDED) FOR THE PROPOSED ENLARGEMENT OF AN EXISTING INSTREAM DAM ON PORTION 1 OF FARM ROODE ZANDS KLOOF NO. 66, TULBAGH.**

1. The electronic copy of the draft BAR, as received by the Directorate: Development Management (“this Directorate”) on 2 October 2025, and the Directorate’s acknowledgement thereof issued on 13 October 2025, refer.
2. Following the review of the information submitted to this Directorate, the following is noted:
  - 2.1 The proposed development entails the enlargement of the instream Modderas Dam from 200 000m<sup>3</sup> (13.8m wall high) to a gross storage capacity of 310 000m<sup>3</sup> (15.1m wall high) and the decommissioning of Dam D2.
  - 2.2 The proposed total footprint area is approximately 7.5ha, which is a 2.2ha increase of the existing development footprint.
  - 2.3 The existing 200mm diameter outlet pipe will be extended on the upstream side of the dam.
  - 2.4 A by-pass spillway will be constructed to discharge into existing channel.
  - 2.5 The natural vegetation type mapped as occurring within the area is endangered Breede Shale Fynbos.
  - 2.6 The in-stream dam is located in the Modderas River, which is a tributary of the Klein Berg River in the larger Berg River System. The stream is joined by another stream before its confluence with the Roodezand River. Seep wetlands are mapped as feeding the streams in their upper reaches.
  - 2.7 The site is zoned Agriculture Zone 1 and is located outside the urban area of Tulbagh.
3. This Directorate’s comments are as follows:
  - 3.1 Based on the site development plan and maps, Farm No. 329 is located within the farm boundaries and next to the dam. It appears that the expanded dam footprint extends onto this property, but

the farm details are not included in the DBAR. Clarity must be provided in this regard. If applicable, it must be included in the relevant sections of the DBAR and the supporting documents.

- 3.2 It is indicated that *"little to no natural vegetation will be lost"*. Please provide confirmation that Activity 12 of Listing Notice 3 is not triggered by the proposed development.
  - 3.3 Comment from, but not limited to the following Organs of State must be obtained:
    - 3.3.1 Department of Agriculture,
    - 3.3.2 CapeNature,
    - 3.3.3 BOCMA,
    - 3.3.4 Heritage Western Cape, and
    - 3.3.5 Witzenberg Municipality
  - 3.4 A comprehensive Comments and Response Report that includes all the comments received and the responses thereto must be included in the BAR. In addition, please ensure that copies of all the comments received are attached to the BAR.
  - 3.5 Proof of compliance with all the public participation steps undertaken, as required in terms of Regulation 41 of the NEMA EIA Regulations, 2014 (as amended) must be included in the BAR.
  - 3.6 Omission of any required information in terms of Appendices 1 and 4 of EIA Regulations, 2014 (as amended) with respect to the final submission of the BAR and EMPr, respectively to this Directorate, may result in the application for Environmental Authorisation being refused.
  - 3.7 Please be advised that an original or electronically signed and dated applicant declaration is required to be submitted with the BAR to this Directorate. It is important to note that by signing this declaration, the applicant is confirming that they are aware and have taken cognisance of the contents of the report submitted for decision-making. Furthermore, through signing this declaration, the applicant is making a commitment that they are both willing and able to implement the necessary mitigation, management and monitoring measures recommended within the report with respect to this application.
  - 3.8 In addition to the above, please ensure that original or electronically signed and dated EAP and specialist declarations are also submitted with the BAR for decision-making.
4. Kindly quote the abovementioned reference number in any future correspondence in respect of the application.
  5. Please note that the proposed development may not commence prior to an Environmental Authorisation being granted by the Competent Authority.

Yours faithfully

**Andrea  
Thomas**

Digitally signed by  
Andrea Thomas  
Date: 2025.11.05  
09:21:56 +02'00'

pp **HEAD OF COMPONENT**

**DIRECTORATE: ENVIRONMENTAL MANAGEMENT (REGION 1)**

**DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING**

CC: (1) Ms. Lindsay Speirs Du Toit (Earth Grace Environmental Consultancy)  
(2) Mr. David Nasson (Witzenberg Municipality)

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