NEW WAVE DAM

DRAFT SCOPING REPORT: THE PROPOSED ESTABLISHMENT OF A WATER STORAGE DAM ON PORTION 101 AND PORTION 168 OF THE FARM MELKBOOM NO. 384, VANRHYNSDORP

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ACRONYMS

CBA	Critical Biodiversity Area
DEA&DP	Department of Environmental Affairs and Development Planning
DWS	Department of Water and Sanitation
EAP	Environmental Assessment Practitioner
ECA	Environment Conservation Act (Act No. 73 of 1989)
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EMP	Environmental Management Programme
HIA	Heritage Impact Assessment
I&APs	Interested and Affected Parties
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEMBA	National Environmental Management: Biodiversity Act (Act No. 10 of 2004)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NID	Notice of Intent to Develop
NWA	National Water Act, 1998 (Act No. 36 of 1998)
OESA	Other Ecological Support Area
SAHRA	South African Heritage Resources Agency
SANBI	South African National Biodiversity Institute
WULA	Water Use Licence Application

1. INTRODUCTION

1.1 BACKGROUND

Cederberg Farming Trawal (Pty) Ltd proposes to establish a water storage dam of approximately 92 000m^3 on Portion 101 and Portion 168 of the Farm Melkboom No. 384, Vanrhynsdorp. The proposed dam will be supplied with water from the Bulshoek Dam Canal in terms of an existing lawful water use allocation that cannot be fully utilised at present as a result of a shortage of water storage capacity in the existing on-site farm dams. The storage of water in the proposed dam will bring the proponent closer to fully utilising the existing lawful water use allocated to the proponent and make the proponent's farming operations less vulnerable to droughts.

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Table 1: Features of the proposed dam

Location	31°52' 02.4"S 18°37' 48.0"E
Option:	**Preferred**
Wall crest level (masl)	31.0
Full supply level (masl)	30.0
Lowest ground level (masl)	23.0
Max wall height (m)	8.0
Crest length (m)	441
Crest width (m)	4.0
Upstream slope	1 : 3
Downstream slope	1 : 2
Free board (m)	1.0
Embankment volume (m³)	33 100
Storage capacity (m³)	±92 000
Water surface area (ha)	±2.3
Embankment footprint (ha)	±1.1

The proponent, Cederberg Farming Trawal (Pty) Ltd has appointed EnviroAfrica CC to be the independent Environmental Assessment Practitioner ("EAP") company to manage the process of applying for environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA").

The purpose of this Draft Scoping Report is to describe the proposed development, the process followed to date, the alternatives considered and to list the issues identified for further investigation. Should the competent authority be satisfied with this Draft Scoping Report, the required specialist studies that will be confirmed by the competent authority and commenting authorities will be proceeded with to the EIR phase of the application and included in the EIR together with other identified significant issues.

Figure 1. *Locality map depicting the proposed site*

1.2 DESCRIPTION OF THE PROPOSED ACTIVITY

Cederberg Farming Trawal (Pty) Ltd has proposed to establish a water storage dam of approximately 92 000m^3 capacity that will altogether inundate approximately 2.3ha of land on Portion 101 and Portion 168 of the farm Melkboom No. 384, Vanrhynsdorp. The proposed site is located approximately 3km north-east of Trawal in the Vanrhynsdorp District and the geographic co-ordinates thereof are 31° 52' 05.40"S; 18° 37' 46.35"E.

The farm is made up of nine portions of the Farm Melkboom No. 384. These farm portions are adjacent to each other and are farmed as a single unit. The focus of production on the farm is table grapes for the export market. However, vegetables are also produced on the farm.

Water will be directed into the proposed dam and collected in there during the rainy winter months and used to irrigate the vineyards and plantations on the farm via the existing irrigation canals on the farm during the dry summer months.

2. NEED AND DESIRABILITY

In terms of the EIA Regulations of 2014 (as amended) the Scoping/EIA report must describe in detail the Need and Desirability of the proposed activity. The consideration of "need and desirability" in EIA decision-making requires the consideration of the strategic context of the development proposal along with the broader societal needs and the public interest.

While the concept of need and desirability relates to the *type* of development being proposed, essentially, the concept of need and desirability can be explained in terms of the general meaning of its two components in which *need* refers to *time* and *desirability refers* to *place* – i.*e*., is this the right time and is this the right place for locating the type of land-use/ activity being proposed? Need and desirability can be equated to the *wise use of land – i.e*., the question of what it is that is the most sustainable way of using the land.

2.1 NEED

Cederberg Farming Trawal (Pty) Ltd owns nine portions of the Farm Melkboom No. 384 in the Van Rhynsdorp district near Trawal, namely Portions 72, 101, 126, 127, 128, 129, 130,168 and 205. These properties are adjacent to each other and so are farmed as a single unit.

These properties have listed water allocations under the Lower Olifants River Water User Association (LORWUA) and are irrigated with water from the Bulshoek Dam canal. However, the canal has a limitation in that irrigation is hampered during the dry summer months when irrigation is of utmost importance. The proponent is mainly farming high-risk export produce, namely, table grapes and if the water supply becomes inadequate in cases such as drought or during canal repairs, the crops can fail during the very last few weeks that precede harvesting time.

The proposed water storage dam will help to provide a more secure supply of water for irrigation on the farm and this will make the farm a more reliable supplier of the farm's agricultural produce. In addition, the proponent anticipates that the availability of water for irrigation throughout the dry summers as a result of the availability of water from the proposed dam will enable cultivation on the farm to be expanded at some point in the future by approximately 5ha to 8ha, thereby facilitating the growth of the farm as an enterprise and an employer in the rural area.

2.2 DESIRABILITY

The following factors affect the desirability of the area for the proposed development.

2.2.1 Location and Accessibility

The proposed off-stream water storage dam will be located on Portion 101 and Portion 168 of the Farm Melkboom No. 384, Vanrhynsdorp and these land parcels form part of an existing operational farm belonging to Cederberg Farming Trawal (Pty) Ltd. Access to the farm exists via gravel roads that connect to the N7 National Road a few kilometres away. The desirability of the location of the proposed development will be further investigated in the Environmental Impact Report ("EIR").

2.2.2 Compatibility with the Surrounding Area

The proposed off-stream water storage dam will be located on an existing operational farm in a rural area where similar operational farms with similar water storage dams exist. The water to be stored in the proposed dam will augment the irrigation water supplied by the two water storage dams that currently exist on the farm. The proposed off-stream storage dam will therefore blend well into the surrounding area.

3. LEGAL REQUIREMENTS

The current assessment is being undertaken with the requirements of the NEMA in mind, as well as the EIA Regulations, 2014 (as amended). However, the provisions of various other Acts must also be considered in this EIA application.

The legislation that is relevant to this study is briefly outlined below.

3.1 THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA

The Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996) states that everyone has a right to a non-threatening environment and that reasonable measures be applied to protect the environment. This includes preventing pollution and promoting conservation and environmentally sustainable development while promoting justifiable social and economic development.

3.2 THE NEMA

The NEMA (as amended) makes provision for the identification and assessment of activities that are potentially detrimental to the environment and which require authorisation from the competent authority based on the findings of an environmental assessment. The NEMA is a national Act and the power to enforce the Act in the Western Cape Province has been delegated to the Department of Environmental Affairs and Development Planning ("DEA&DP").

On 04 December 2014, the Minister of Water and Environmental Affairs promulgated regulations in terms of Chapter 5 of the NEMA, namely the EIA Regulations 2014. These Regulations were amended on 07 April 2017 (GN No. 326, No. 327 (Listing Notice 1), No. 325 (Listing Notice 2), No. 324 (Listing Notice 3) in Government Gazette No. 40772 of 07 April 2017). Listing Notice 1 and 3 are for Basic Assessment and Listing Notice 2 for a full Environmental Impact Assessment.

According to the EIA Regulations, 2014 (as amended), environmental authorisation is required for the following listed activities relating to the proposed off-stream storage dam:

Government Notice R327 (Listing Notice 1) listed activities:

12. "*The development of—*

(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or

(ii) infrastructure or structures with a physical footprint of 100 square metres or more;

where such development occurs—

(a) within a watercourse;

(b) in front of a development setback; or

(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;

— excluding—

(aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;

(bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;

(cc) activities listed in Activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;

(dd) where such development occurs within an urban area;

(ee) where such development occurs within existing roads, road reserves or railway line reserves; or

(ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared".

13. "*The development of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of activity 16 in Listing Notice 2 of 2014*".

19. "*The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock 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 following 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".

Government Notice R325 (Listing Notice 2) listed activities

16. "*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*".

An Application Form and this Draft Scoping Report have been submitted to the competent authority after comment was obtained on the pre-application Scoping Report from the competent authority, commenting authorities and from Interested and Affected Parties ("I&APs"). The pre-application Scoping Process was undertaken to identify potential issues to be dealt with during the application for environmental authorisation.

The principles of environmental management as set out in section 2 of the NEMA have been considered. The said principles regarding this development proposal include *inter alia*, the following:

- "People and their needs must be placed at the forefront while serving their physical, psychological, developmental, cultural and social interests. The activity seeks to provide additional employment and economic development opportunities, which are a local and national need – *the proposed activity is expected to have a beneficial impact on people, especially*

developmental and social benefits, as well as providing additional employment and economic development opportunities".

- "*The development will be socially, environmentally and economically sustainable. Where disturbance of ecosystems, loss of biodiversity, pollution and degradation, and landscapes and sites that constitute the nation's cultural heritage cannot be avoided, are minimised and remedied. The impact that the activity will potentially have on these will be considered, and mitigation measures will be put in place - potential impacts have been identified and considered, and any further potential impacts will be identified during the public participation process. Mitigation measures will be included in the EM".*
- *"Where waste cannot be avoided, it will be minimised and remedied through the implementation and adherence of the Environmental Management Programme (EMP) – this will be included in the EIR".*
- *"The use of non-renewable natural resources will be responsible and equitable".*
- *"The negative impacts on the environment and people's environmental rights will be anticipated, investigated and prevented, and where they cannot be prevented, will be minimised and remedied".*
- *"The interests, needs and values of all interested and affected parties will be taken into account in any decisions through the Public Participation Process".*
- *"The social, economic and environmental impacts of the activity will be considered, assessed and evaluate+666666666666666666666'4]74d, including the disadvantages and benefits".*
- *"The effects of decisions on all aspects of the environment and all people in the environment will be taken into account, by pursuing what is considered the best practicable environmental option*".

3.3 NATIONAL HERITAGE RESOURCES ACT

The protection and management of South Africa's heritage resources is achieved by means of enforcing the National Heritage Resources Act, 1999 (Act No. 25 of 1999). The South African National Heritage Resources Agency ("SAHRA") is the enforcing authority at national level and Heritage Western Cape ("HWC") is the enforcing agency in the Western Cape Province.

In terms of Section 38 of the National Heritage Resources Act, HWC requires a specialist assessment to be conducted where certain categories of development are proposed. Section 38(8) of the National Heritage Resources Act also makes provision for the assessment of heritage-related impacts as part of an EIA process and indicates that if such an assessment is found to be adequate, a separate specialist study is not required.

The National Heritage Resources Act requires relevant authorities to be notified regarding the proposed off-stream water storage dam, as the following is relevant to the proposed dam:

- *any development or other activity which will change the character of a site exceeding 5000m² in extent;*

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3.4 EIA GUIDELINE AND INFORMATION DOCUMENT SERIES

The following are the latest guidelines and information Documents that have been consulted:

- DEA&DP *Environmental Impact Assessment Guideline and Information Document Series (Dated: March 2013)*:
  - ✓ *Guideline on Transitional Arrangements*
  - ✓ *Generic Terms of Reference for EAPs and Project Schedules*
  - ✓ *Guideline on Alternatives*

- ✓ *Guideline on Public Participation*
- ✓ *Guideline on Exemption Applications*
- ✓ *Guideline on Appeals*
- ✓ *Guideline on Need and Desirability*

- Department of Environmental Affairs and Tourism (DEAT*) Integrated Environmental Management Information Series*

3.5 NATIONAL WATER ACT

In addition to the provisions of the NEMA for the EIA process, the proposed development may also require authorization under the National Water Act, 1998 (Act No. 36 of 1998). The National Department of Water and Sanitation which administers the Act, will be a major role-player in the EIA process.

A Water Use Licence ("WULA") process is currently underway and proof thereof is appended to this pre-application Scoping Report as Appendix 2F.

3.6 NATIONAL ENVIRONMENTAL MANAGEMENT ACT: BIODIVERSITY ACT OF 2004

The National Environmental Management Act: Biodiversity Act, 2004 (Act No. 10 of 2004) ("NEMBA") is part of the suite of legislation falling under the NEMA, which includes the Protected Areas Act, the Air Quality Act, the Integrated Coastal Management Act and the Waste Act. Chapter 4 of the NEMBA deals with threatened and protected ecosystems and species and related threatened processes and restricted activities. The need to protect listed ecosystems is addressed (*Section 54*).

4. ALTERNATIVES

The following alternatives have been considered for the proposed development:

4.1 SITE ALTERNATIVES

The proposed site consists of Portion 101 and Portion 168 of the Farm Melkboom No. 384, Vanrhynsdorp and these are the only farm portions out of the nine farm portions owned by Cederberg Farming Trawal (Pty) Ltd that have been considered for the proposed off-stream water storage dam. These are the only farm portions considered, as these farm portions are close to the western bank of the Olifants River where the topography is relatively flat and therefore suitable for establishing the proposed dam. In addition, locating the proposed dam closer to the bank of the Olifants River allows for more optimal usage of the agricultural land that is not going to be inundated.

4.2 ACTIVITY ALTERNATIVES

The only activity alternative that the proponent has considered is the establishment of an off-stream dam to store water that will augment the water supply that the proponent uses for irrigation.

The proponent has a water allocation from the Lower Olifants River Water Users Association that is supplied via the Bulshoek Dam canal. A large percentage of the water that the proponent is allowed to use from the canal cannot be used by the proponent, as the proponent does not have a dam in which to store the water when water is abundant during the rainy winter season. The proposed off-stream dam will enable the proponent to store a higher percentage of the water supplied via the canal and this will provide the proponent with a more reliable supply of water for irrigation during the dry summers.

In addition, the water that will be stored in the proposed dam will add to the existing water supply of the proponent and will enable the proponent at some point in the future to expand operations on the farm by 5ha.

The proposed off-stream storage dam is the only activity alternative considered, as an instream water storage dam in the Olifants River would cause much more significant impacts to the river ecosystem and would result in much higher financial costs for the proponent than the proposed off-stream dam. The proposed off-stream storage dam is therefore deemed the most feasible activity alternative. This alternative will be investigated in depth during the Environmental Impact Report phase.

4.3 DESIGN ALTERNATIVES

The appointed project engineers investigated three design alternatives for the proposed dam and the design alternatives are described in detail in Appendix 2C. The design alternatives entail the proposed dam in different sizes and shapes and at slightly varying distances from the bank of the Olifants River as shown in the Engineering Designs Report attached hereto as Appendix 2B. The alternatives are briefly described in the table below.

Table 1**:** Specifications for the different dam design options

Option	Option 1: (beyond 32m from riverbank)	Option 2- Preferred option: (within 32m of riverbank)	Option 3 (beyond 32m from riverbank)
Max wall height (m)	7	8	8
Crest length (m)	320	440	375
Total earthworks (m^3)	24 400	33 100	37 700
Storage capacity (m^3)	71 000	92 000	93 000
Flooded area (ha)	2.5	2.3	2.6
Storage: Earthworks	2.91	2.78	2.47
Estimated Cost (R)	R2 973 000	R3 420 000	R3 880 000

It is evident in Table 1 above that establishing the proposed dam in line with Design Alternative No. 1 costs only a little less than establishing the proposed dam in line with Design Alternative No. 2, but the water storage capacity in the case of Design Alternative No. 1 is significantly less than in the case of Design Alternative No. 2. It is therefore more desirable to establish the proposed dam in line with Design Alternative No. 2 instead of Design Alternative No. 1.

The cost of establishing the proposed dam in line with Design Alternative No. 3 is a little higher than in the case of Design Alternative No. 2 and the water storage capacity in the case of Design Alternative No. 3 is also a little higher than in the case of Design Alternative No. 2. Considering that Design Alternative No. 2 meets the water storage needs of Cederberg Farming Trawal (Pty) Ltd and is less costly than Design Alternative No. 3, it is clear that the most desirable design alternative for the proposed dam is Design Alternative No. 2.

The alternatives will be dealt with in more detail during the Environmental Impact Reporting phase, taking into account input received during the PPP.

4.4 NO-GO ALTERNATIVE

This is the option of not proceeding with the proposed development.

The implementation of the “no-go” alternative will not directly cause any negative environmental impacts. However, implementing the “no-go” alternative means that the proponent will remain able to only use approximately 112 000m^3 of water from the Bulshoek Dam Canal for operations on the farm, whereas the LORWUA has granted the proponent a water allocation of 477 020m^3.

It is noteworthy that the proponent faces a yearly risk of crop failure when the water supply for irrigation becomes very low in summer during the last few weeks that precede harvesting time.

If the no-go alternative is adopted, the proponent will unnecessarily continue to face the aforesaid risk every year, even though the LORWUA has granted the proponent an allocation of water that is sufficient to minimise the risk and the competent authority can authorise the establishment of the proposed dam without any significant environmental impacts arising from the establishment of the proposed dam.

In addition to limiting the yearly risk of crop failure that is caused by water shortages, the water that will stored in the proposed dam will enable the proponent to expand operations on the farm at some point in the future by approximately 5ha. This would significantly increase the viability of the farm as an enterprise and would result in greater job security for the employees of the farm and the families of the farm employees would in turn enjoy the socio-economic benefits thereof.

In light of the above, the no-go- alternative is undesirable and should be discarded and the preferred alternative authorised by the competent authority.

5. SITE DESCRIPTION

5.1 LOCATION

The proposed off-stream storage dam will be located near the western bank of the Olifants River on Portion 101 and Portion 168 of the farm Melkboom No. 384, Vanrhynsdorp in the jurisdictional area of the Matzikama Local Municipality (See Figure 2). The total area to be inundated by the proposed dam is approximately 2.3ha. The proposed site is located approximately 3km north-east of Trawal and the geographic coordinates thereof are: 31° 52' 05.40"S, 18° 37' 46.35"E.

Figure 2: Aerial view of the proposed site (shaded red) and the surrounding farm portions

5.2 VEGETATION

According to the 2018 version of the Vegetation Map of South Africa, Lesotho and Swaziland (Mucina and Rutherford, 2006), the site is located within an area that historically would have been covered by Vanrhynsdorp Gannabosveld with Namaqualand Riviere vegetation dominating the riparian zone of the Olifants River (See Figure 3). Both these vegetation types are classified as “Least Threatened” in terms of the “*List of ecosystems that are threatened and in need of protection*” (GN 1002, December 2011), promulgated in terms of the National Environmental Management Act, Biodiversity Act, 2004 (Act No. 10 of 2004).

A Botanical Compliance Statement has been compiled by the botanist, Mr Peet Botes. The findings and recommendations contained in the Botanical Compliance Statement will be dealt with in detail in the EIR.

Figure 3: Vegetation types associated with the proposed site for the New Wave Dam

Vanrhynsdorp Gannabosveld is part of the Succulent Karoo Biome (Mucina & Rutherford, 2006). The Succulent Biome vegetation is strongly influenced by winter rainfall and fog and has been compared to a desert rich in succulents. According to the 2004 National Spatial Biodiversity Assessment ("NSBA"), approximately 79% of the Vanrhynsdorp Gannabosveld vegetation remains, with the main reasons for the transformation of the remainder being cultivation and open-cast gypsum mining. A conservation target of 28% has been set for this vegetation type (none of which was formally conserved during 2004), but with the recent proclamation of the Knersvlakte Nature Reserve, at least some of this vegetation type will be formally conserved. The 2004 NSBA originally classified this vegetation type as vulnerable. However, with more information now available, it was declassified to "**Least Threatened**" in the *National list of ecosystems that are threatened and in need of protection* (GN 1002, December 2011).

According to the WCBSP, the north-western portion of the proposed dam is located within an aquatic Ecological Support Area ("ESA") of Class 2 that is associated with the Olifants River and a terrestrial ESA2 (See Figure 4 below).

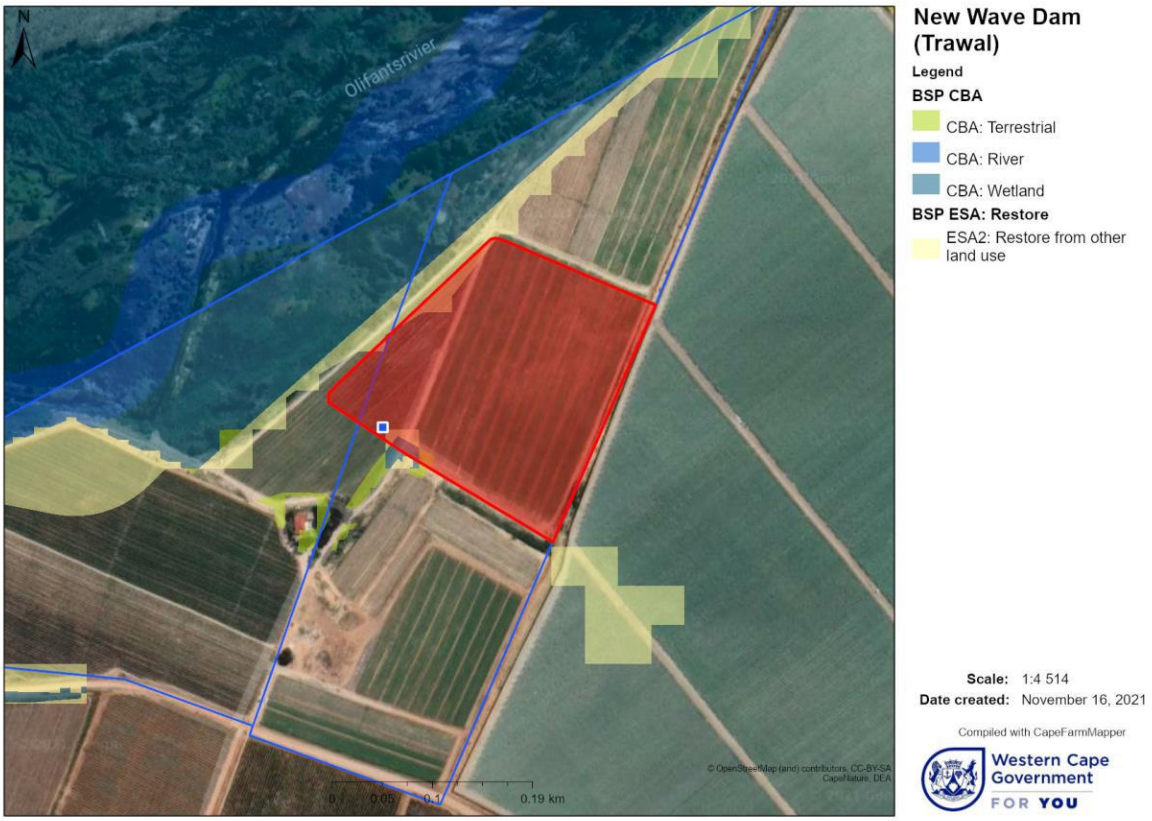

Figure 4: Critical Biodiversity Area ("CBA") intersecting the proposed site

Although the north-western part of the proposed dam is located within 32m of the Olifants River and overlaps a terrestrial ESA and an aquatic ESA, the footprint of the proposed dam will remain within areas that have been transformed by ploughing over the generations and terracing. The proposed dam is therefore unlikely to cause any significant new impacts that would lower the ecological status of the ESAs. This will be investigated further during the EIR phase of the application for environmental authorisation.

5.3 FRESHWATER

The Olifants River is listed as a National Freshwater Priority Environmental Area by the south African National Biodiversity Institute ("SANBI") and as an Aquatic Critical Biodiversity Area in the Western Cape Biodiversity Spatial Plan of 2017. The proposed dam site includes a small portion of land that extends to within 32m of the Olifants River. However, the proposed dam site that is located within 32m of the Olifants River has been transformed by ploughing over the generations and by terracing and the rest of the proposed site further away from the river has been transformed by ploughing over the generations.

An Aquatic Biodiversity Impact Assessment dated September 2021 has been compiled by WATSAN Africa for the proposed dam on the proposed site and is attached hereto as Appendix 2E. It is concluded in the Specialist Assessment that with adequate impact mitigation measures being implemented, the proposed the dam will not lower the ecological status of the proposed Olifants River and associated riparian area. The findings and recommendations contained in the specialist report will be incorporated in the EIR.

5.4 CLIMATE

Vanrhynsdorp is the closest locality for which climatological data is available on-line.

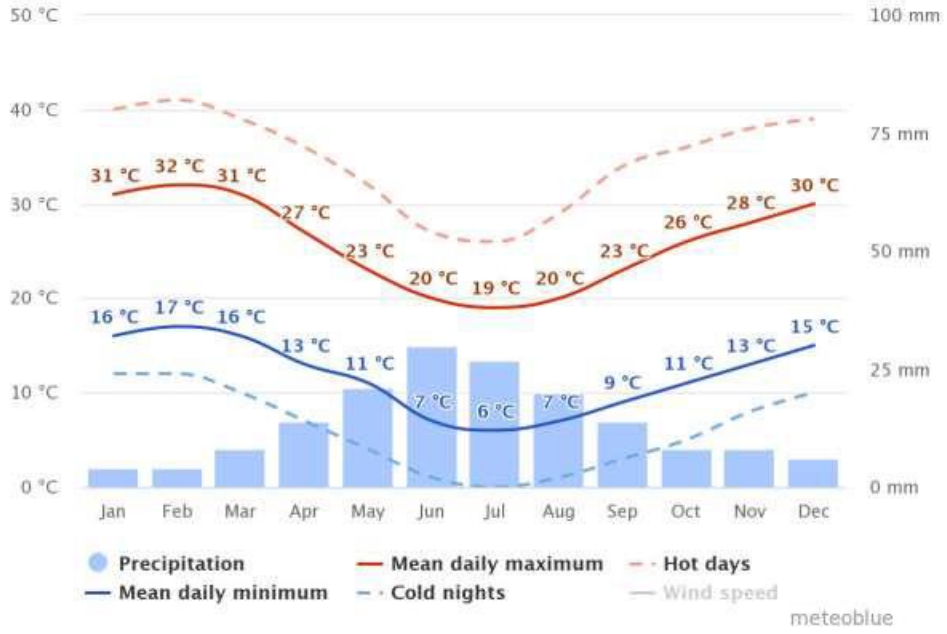

Figure 5: Climate of Vanrhynsdorp

This is an arid area, with hot and dry summers and with mild winters with a little rain. The annual rainfall amounts to only 224mm. This is a harsh part of the world, with local names for districts such as the Knersvlakte and the Hardeveld, all part of the arid Namakwaland.

Rainfall is dependent of elevation, but even here is little consolation, as the Gifberg that rises above the coastal flats is on average 550 masl, which is too low for increasing the rainfall, for which 1500 masl and more is required.

The rainfall is far too little to sustain horticulture. The vineyards are very much dependent on irrigation out or the Olifants River and out of the irrigation canals. Water must be abstracted during the high flow winter months and stored for irrigation during the dry summer months when water is needed most. For this very reason, the proposed New Wave Dam is required. Without this dam, water security for the farming operation would be wholly lacking. The irrigation canals have weathered of age, may leak and even break down. The proposed irrigation dam will do much to store water for use during those times that the irrigation canals are not operational.

5.5 SOCIO-ECONOMIC CONTEXT

The establishment of the proposed dam will not create a significant number of new employment opportunities and instead the proposed dam will provide significantly greater job security for existing employees on the farm. The reinforced water supply as a result of the proposed dam will make the farm less prone to the risk of the irrigation water running out during the dry summer months and will create a few employment opportunities by providing a water supply that will enable operations on the farm to be expand at some point in the future onto 5ha more of land.

5.6 HERITAGE FEATURES

Although the proposed site has been transformed by ploughing over the generations, the proposed dam will alter more than 5000m^2 of land on the farm and therefore it is necessary in terms of the National Heritage Resources Act of 1998 that approval from Heritage western Cape be obtained for the proposed development.

A Notification to Develop was compiled for the proposed dam on the proposed site and submitted to Heritage Western Cape. Heritage Western Cape responded to the Notification to Develop by deciding that "*no further studies are required*…". The EAP is therefore of the opinion that an Archaeological and Cultural Heritage Impact Assessment for the proposed dam on the proposed site is not required.

6. SERVICES

The proposed dam will not result in any change in the need for any services on the farm.

6.1 WATER

The water to be stored in the proposed off-stream storage dam will be obtained from an existing 477 020m^3 allocation of water that the LORWUA has granted to the proponent. The proponent is currently using only a small percentage of the water allocation, as the proponent currently has only two dams that each store approximately 50 000m^3 of water. In terms of the National Water Act, 1998 (Act No. 36 of 1998), an authorisation is required before water can be stored in the proposed dam. Accordingly, a WULA in terms of the National Water Act has been lodged.

6.2 WASTEWATER DISPOSAL

The proposed dam will not cause any kind of significant impact on the situation that currently exists on the farm regarding wastewater disposal.

6.3 ROADS

Existing gravel roads that connect to the N7 National Road will be used to access the proposed site and the farm.

6.4 STORMWATER

The proposed dam will not result in any kind of significant impact on the situation that currently exists on the farm regarding stormwater.

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6.5 SOLID WASTE DISPOSAL

The proposed dam will not result in any kind of significant impact on the situation that currently exists on the farm regarding solid waste disposal.

6.6 ELECTRICITY

The proposed dam will not result in any kind of significant impact on the situation that currently exists on the farm regarding solid waste disposal.

7. ENVIRONMENTAL ISSUES AND POTENTIAL IMPACTS

Environmental issues were raised through informal discussions with the project team, specialists, I&APs and authorities.

The following potential issues have been identified:

7.1 TERRESTRIAL BIODIVERSITY

A Terrestrial Biodiversity Compliance Statement dated 21 November 2021 has been compiled by PB Consult for the proposed dam. Please refer to Appendix 2D.

7.2. AQUATIC BIODIVERSITY

An Aquatic Biodiversity Specialist Assessment dated November 2021 has been compiled by WATSAN Africa for the proposed dam. Please refer to Appendix 2E.

The potential impacts of the proposed dam and the conclusions and recommendations as contained in the Specialist Assessment will be dealt with in detail during the EIR phase of the application for environmental authorisation.

7.3. HERITAGE

Although the proposed site has been transformed by ploughing over the generations, the proposed dam will alter more than 5000m^2 of land on the farm and therefore it is necessary in terms of the National Heritage Resources Act of 1998 that approval from Heritage western Cape be obtained for the proposed development.

A Notification to Develop was compiled for the proposed dam on the proposed site and submitted to Heritage Western Cape and the comment from Heritage Western Cape is attached hereto as Appendix 1D. An Archaeological and Cultural Heritage Impact Assessment for the proposed dam on the proposed site is therefore not required.

7.4. VISUAL IMPACT

The potential visual impact of the proposed dam will also be considered. However, due to the agricultural nature of the proposed development and the similar land uses in the surrounding rural area, the visual impact of the proposed development is unlikely to be of significance. No further studies are suggested.

7.5. Geotechnical

A geotechnical investigation was conducted on the proposed site and the geotechnical study report is attached hereto as Appendix 2M. The conclusion reached in the report is that suitable material for the foundation of the proposed dam will have to be imported to the proposed site and that a homogeneous wall profile in combination with a waterproof liner as a sealing mechanism is required instead of the typical clay core approach. Sand for use in sand filters and drains will also have to be imported from commercial sources.

7.6. OTHER ISSUES IDENTIFIED

The other issues raised during the public participation process by I&APs and commenting authorities or by the Competent Authority that are not mentioned in this section will be dealt with during the EIA phase of the application.

8. DETAILS OF THE PUBLIC PARTICIPATION PROCESS

Potential I&APs have been identified and will continue to be identified throughout the process. Landowners adjacent to the proposed site, relevant organs of state, relevant organizations, ward councillors and the Local and District Municipality have been added to the database. A complete list of organisations and individual groups identified to date is shown in **Appendix 1C.**

Public Participation will be continued with for the proposed development, in line with the requirements outlined in Regulation 41 of the EIA Regulations, 2014 (as amended). The issues and concerns raised during the pre-application Scoping phase have been dealt with. Each subsection of Regulation 41 of the EIA Regulations, 2014 (as amended) will be addressed separately to demonstrate that all potential I&APs were notified of the proposed development.

R54 (2) (a):

R41 (2) (a) (i): Site notices (A2 and A3 sizes) were placed at different locations around the project site as well as at the local post office counter.

The posters contained all details as is prescribed in Regulation 41(3) (a) and (b) and the size of the on-site poster was at least 60cm by 42cm as is prescribed in Regulation 41 (4) (a).

R41 (2) (a) (ii): N/A. There is no alternative site.

R41 (2) b):

R41 (2) (b) (i): N/A. The Applicant is the landowner

R41 (2) (b) (ii): Notification letters were circulated to residents adjacent to/ within proximity to the proposed site.

R41 (2) (b) (iii): A notification letter was sent to the relevant municipal ward councillor at the Matzikama Local Municipality.

R54 (2) (b) (v): A copy of the pre-application Scoping Report and notification letters were sent to the following organs of the state and organisations that have jurisdiction in respect of an aspect of the proposed activity:

- National Department of Water and Sanitation
- Western Cape Department of Agriculture
- Heritage Western Cape
- Lower Olifants River Water Users Association
- CapeNature

R41 (2) (c) (i): An advertisement was placed in the *Ons Kontrei* local newspaper of 01 October 2021.

R41 (2) (d): N/A

R41 (6):

R41 (6) (a): All relevant facts regarding the application will be made available to potential I&APs.

R41 (6) (b): I&APs will be given at least 30 days to register and comment on the pre-application Scoping Report.

R42 (a), (b), (c) and R43(2): A list of potential I&APs has created and will be added to as the pre-application process and subsequent application continue.

All of the above PPP steps have been followed again regarding the Draft Scoping Report, except for the lodging of an advertisement in a newspaper. Comment was received only from CapeNature and from the competent authority. Please refer to the Comments-Responses Table attached hereto as Appendix 1E for the comments received and the responses made thereto.

9. PLAN OF STUDY FOR EIR

9.1 TASKS TO BE UNDERTAKEN

The Application Form will be submitted to the competent authority together with the Draft Scoping Report and be made available for a public commenting period of at least 30 days. The comments received during the PPP will be incorporated in the Scoping Report.

The following is a list indicating what must be included in a Plan of Study for the Environmental Impact Reporting as per the EIA Regulations of 2014 (as amended).

(i) "*a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity*". Please refer to Section 4 of this Draft Scoping Report for the full details on the alternatives considered for the proposed development.

(ii) "*a description of the aspects to be assessed as part of the environmental impact assessment process*". Please refer to Section 7 of this Draft Scoping Report Appendix 2G and Appendix 2H.

(iii) "*aspects to be assessed by specialists*". Please refer to Appendices 2D, 2E and 2M for full details on the aspects dealt with by specialists.

(iv) "*a description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists*". Please refer to Appendices 2D, 2E, 2G, 2H and 2M.

(v) "*a description of the proposed method of assessing duration and significance*". Please refer to Appendix 2G for full details.

(vi) "*an indication of the stages at which the competent authority will be consulted*". Please refer to Table 2 below.

(vii) "*particulars of the public participation process that will be conducted during the environmental impact assessment process*". The PPP that will be followed during the environmental impact assessment process will be identical to the PPP followed during the pre-application phase that has been described in Section 8 of this Draft Scoping Report, except that no advertisement will be placed in a newspaper and no further comment will be requested from Heritage Western Cape.

(viii) "*a description of the tasks that will be undertaken as part of the environmental impact assessment process*" Please refer to Table 2 below.

Table 2. Tasks to be undertaken during the EIR phase

No.	Action		Target Date	Progress
Pre-Application Phase				
1	Clarification meeting with client and appointment of environmental assessment practitioner ("EAP") for EIA and environmental authorisation ("EA") application			
2	Appointment of specialists for EIR assessments	Botanical Specialist Freshwater Specialist Archaeological Specialist		
3	Public Participation Process ("PPP"): - Letter drops (Adjacent Landowner Notification); - Posters placed at gate next to gravel road, at packshed of Cederberg Farming Trawal (Pty) Ltd, at Trawal Superspar, as postal counter and at Trawal Handelhuis - Press advertisement appeared in the *Ons Kontrei* of 01/10/2021		23/09/2021	

	- Notification given to ward councillor - Notification issued to HWC Commenting period is always a minimum of 30 days[1]			
4	Specialist site visits	Freshwater specialist	20/09/2021	
		Botanist	08/09/2021	
5	EAP site visit		17/03/2022	
6	Submit NOI to competent authority		09/05/2022	
7	Receive comment on NOI from competent authority		19/05/2022	
8	Compiling of pre-application Scoping Report and Site Sensitivity Verification Report		09/05/2022- 09/06/2022	
9	Submit pre-application Scoping Report with Site Sensitivity Verification Report to competent authority and make the reports available for I&APs to comment on		01/07/2022	
10	Compiling of Application Form		10/06/2022- 15/07/2022	
11	Receive letter of comment on pre-application Scoping Report from competent authority		27/07/2022	
Application Phase				
12	Submit Application Form and Draft Scoping Report to competent authority with Plan of Study for EIR and make the report available to Registered I&APs for a commenting period of 30 days.		10/02/2023	competent authority has 10 days to acknowledge receipt
13	Compile Comments-Responses Table		10/02/2023- 13/03/2023	
14	Submit Scoping Report with Plan of Study to competent authority		07/04/2023	44 days from date of submitting application form
15	Receive decision on acceptability of Scoping Report and Plan of Study from competent authority		19/05/2022	43 days from date of submitting Scoping Report to competent authority
Environmental Impact Reporting ("EIR") (*Timeframe of 106 days starts from date on which competent authority approves Scoping Report*				
17	Compiling of Draft EIR and appendices			
18	Submit Draft EIR to competent authority and make the report available for I&APs to comment on			Depends on date when the competent authority accepts the Scoping Report and Plan of Study for EIR
19	Submit EIR to competent authority			
20	Receive decision reached by competent authority			Competent Authority has 107 days for decision-making
21	Applicant to inform I&APs of the decision of competent authority and the right of I&APs to appeal. EAP may be instructed to inform I&APs on behalf of Applicant. I&APs have 20 days to appeal decision of competent authority.			The decision made by the competent authority can be expedited on request by the applicant.

KEY: Target not met: In progress: Target met / met to date:

10. PUBLIC PARTICIPATION AND INTERESTED AND AFFECTED PARTIES

The IAPs will be given a chance to view and comment on all reports that are submitted to the competent authority.

At the end of the commenting period, the Draft reports will be revised in response to feedback received from the competent authority and I&APs. All comments received and responses to the comments will be incorporated into the Scoping Report and the Environmental Impact Reporting phase.

Correspondence with I&APs will be via post, fax, telephone, electronic mail.

Should it be required, this process may be adapted depending on input received during the ongoing process. DEA&DP will be informed of any changes in the process.

11. CONCLUSION AND RECOMMENDATIONS

A pre-application scoping exercise was undertaken to present the proposed development to I&APs and to identify potential environmental issues and potential concerns. The issues and concerns raised in response to the notifications that preceded the pre-application Scoping Report by I&APs, authorities, the project team as well as specialist input, have been incorporated in the pre-application Scoping Report and the Draft Scoping Report.

This Draft Scoping Report, compiled in terms of the EIA Regulations, 2014 (as amended), summarises the pre-application process undertaken, the alternatives presented, and the issues and concerns raised.

As a result of inter alia, the above, the need for the following specialist studies was identified:

- Terrestrial Biodiversity Compliance Statement
- Aquatic Biodiversity Impact Assessment

Any other issues raised during the Public Participation Process will be dealt with during the application phase.

12. DETAILS AND EXPERTISE OF THE EAP

This Draft Scoping Report was prepared by Bernard de Witt:

Qualifications: BSc in Forestry (Nature Conservation), BA Honours in Public Management, Diploma in Parks and Recreation Management.

Bernard De Witt has more than 30 years of experience in environmental management and environmental impact assessments. Please see the Curriculum Vitae attached hereto

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