

NEW WAVE DAM

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
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 000m³ 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 yet be fully utilised 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 applicant closer to fully utilising the existing lawful water use allocated to the applicant and make the applicant's farming operations less vulnerable to droughts.

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 (m ³)	33 100
Storage capacity (m ³)	±92 000
Water surface area (ha)	±2.3
Embankment footprint (ha)	±1.1

The applicant, 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 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 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.

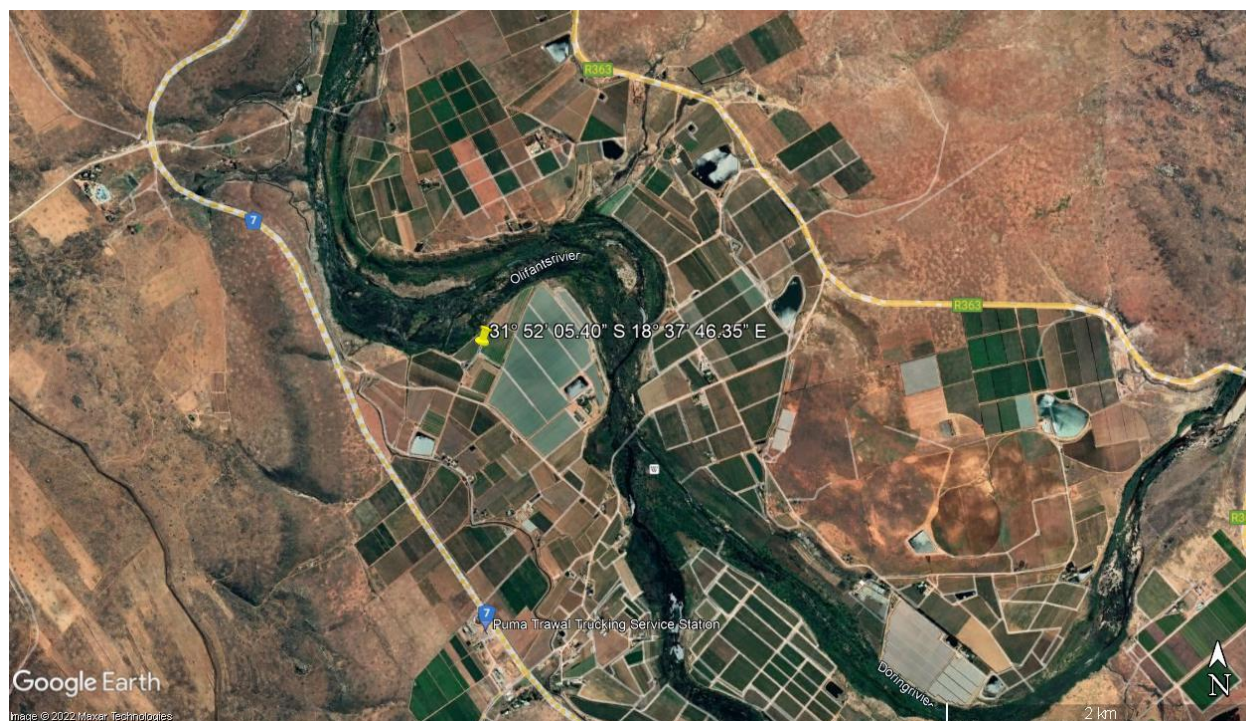


Figure 1. Locality map depicting the proposed site

1.2 DESCRIPTION OF THE PROPOSED ACTIVITY

Cederberg Farming Trawl (Pty) Ltd has proposed to establish a water storage dam of approximately 92 000m³ 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 Trawl 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 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, irrigation is hampered during the dry summer months when irrigation is of utmost importance and irrigation is also hampered when maintenance work is required on the canal. The applicant 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 applicant anticipates that the availability of water for irrigation throughout the dry summers as a result of water that will be stored in the proposed dam will enable cultivation on the farm to be expanded at some point in the future by 5ha to 8ha, thereby strengthening 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 inadequate 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 R. 327 (Listing Notice 1):

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 R. 325 (Listing Notice 2)

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 Draft Scoping Report were 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 evaluated, 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;*

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 more 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 applicant has considered is the establishment of an off-stream dam to store water that will augment the water supply that the applicant uses for irrigation.

The applicant 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 applicant is allowed to use from the canal cannot be used by the applicant, as the applicant 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 applicant to store a higher percentage of the water supplied via the canal and this will provide the applicant 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 applicant and will enable the applicant 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 applicant 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 Reporting 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 2B and 2C of the Scoping Report. 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 on Page 29 to 31 in the Engineering Designs Report attached hereto as Appendix 2C. The alternatives are also described briefly in the table below.

Table 1: Specifications for the different dam design options

	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 (depicted on Page 29 in Appendix 2C) costs only a little less than in the case of Design Alternative No. 2 (depicted on Page 30 in Appendix 2C), but the water storage capacity in the case of Design Alternative No. 2 is significantly higher than in the case of Design Alternative No. 1. 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 (depicted on Page 31 in Appendix 2C) 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 applicant will remain able to only use approximately 112 000m³ of water from the Bulshoek Dam Canal for operations on the farm, whereas the LORWUA has currently granted the applicant a water allocation of 4650m³/ha for the approximately 78.2ha farm (Appendix 2K, refers). The water allocation for the applicant for the 2022/2023 water year is therefore approximately 363 630m³ and so approximately 159 630m³ of the amount of water lawfully allocated to the applicant will still be available for usage.

It is noteworthy that the applicant 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 applicant will unnecessarily continue to face the aforesaid risk every year, even though the LORWUA has granted the applicant 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 be stored in the proposed dam will enable the applicant to consider the possibility of expanding operations on the farm at some point in the future by 5ha to 8ha. 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.

4.5 CONCLUDING STATEMENT ON ALTERNATIVES

The total storage capacity of the existing two dams on the farm is very small compared to the amount of water that the LORWUA has granted to the applicant for usage on the applicant's farm and as a result of this, the applicant faces a risk of crop failure every year. The 'no-go' alternative is therefore highly undesirable for the applicant and the employees that are employed on the applicant's farm and the families that are economically dependent on the farm employees.

The applicant therefore wishes to establish a water storage dam on the farm to reduce the risk of crop failure and three design alternatives for the proposed dam have been compared and contrasted. It is clear that Design Alternative No. 2 is the most desirable from a socio-economic cost-benefit analysis point of view, whilst the environmental impacts associated with all of the dam design alternatives are all comparably low. In light of this, Design Alternative No. 2 is the most desirable dam design alternative.

In light of the above, the competent authority should view Design Alternative No. 2 as the most desirable alternative to consider for an environmental authorisation.

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.

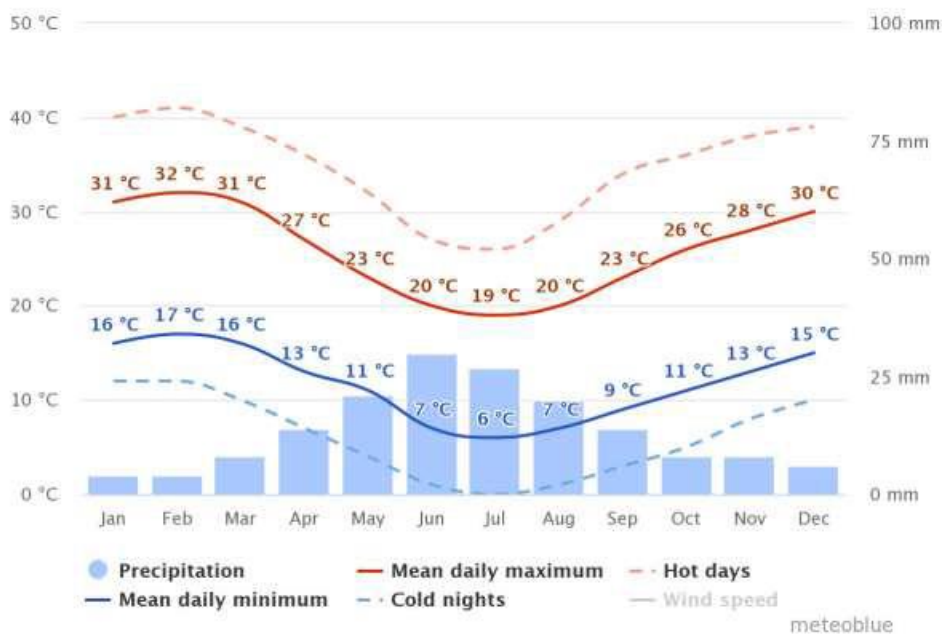


Figure 5: Climate of Vanrhynsdorp

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 of 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 5000m² 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 current 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 020m³ allocation of water that the LORWUA has granted to the applicant. The applicant is currently using only a small percentage of the water allocation, as the applicant currently has only two dams that each store approximately 50 000m³ 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 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 continue to be used to access the proposed site and the farm.

6.4 STORMWATER

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

6.5 SOLID WASTE DISPOSAL

The proposed dam will not result in any change in the situation that currently prevails on the farm regarding solid waste disposal.

6.6 ELECTRICITY

The proposed dam will not result in any increase in the amount of electricity that is currently being used on the farm.

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 5000m² of land on the farm and therefore it is necessary in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) 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 issued a letter responding to the Notification to Develop by deciding that “*no further studies are required...*”. And further confirmed that the comment does not have a time limit. 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. Please refer to Appendix 1D1.

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. CUMULATIVE IMPACTS

The water that will be stored in the proposed dam is water that the applicant is currently abstracting in terms of an existing lawful water use allocation granted to the applicant by the LORWUA and will not be water gravitating from the surrounding catchment. In light of this, the existing lawful abstraction of water from the Bulshoek Canal by the applicant will not introduce any new impacts to the Olifants River. The proposed dam will be located on agricultural fields that have historically been ploughed over and

over and so very little likelihood exists that remnants of natural environment remain on the proposed site that could be significantly be impacted by the proposed dam.

The possible cumulative impacts of the proposed dam are therefore likely to remain negligible when the recommendations contained in the specialist reports are implemented together with other impact avoidance and mitigation measures that will be detailed in the EMPr during the EIR phase of the application.

7.7. OTHER ISSUES IDENTIFIED

Any 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 EI Reporting 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 and occupiers of land adjacent to the proposed site, relevant organs of state, relevant organizations, the Matzikamma Local Municipality and West Coast District Municipality have been added to the database. A list of State Departments and other organs of state 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 on the pre-application Scoping Report have been dealt with and the issues raised on the Draft Scoping Report have been dealt and will continue to be dealt with during the EIR phase of the application. Each subsection of Regulation 41 of the EIA Regulations, 2014 (as amended) will be dealt with separately below to demonstrate that 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 proposed 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. No alternative site was considered.

R41 (2) b):

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

R41 (2) (b) (ii): Written notification was circulated to the landowners and occupiers of land adjacent to/ within proximity to the proposed site.

R41 (2) (b) (iii): Written notification was given to the municipal councillor of the ward where the proposed site is located.

R54 (2) (b) (v): A copy of the Draft Scoping Report was made available for comment to the following State Departments and organs of the state and other 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
- Matzikamma Local Municipality
- West Coast District Municipality

R41 (2) (c) (i): An advertisement was placed in the *Ons Kontrei* local newspaper of 14 April 2023.

R41 (2) (d): N/A

R41 (6):

R41 (6) (a): All relevant facts regarding the application have been made available to potential I&APs and this will continue throughout the application process for environmental authorisation.

R41 (6) (b): I&APs have been 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 been created and will be added to as the application process continues.

All of the PPP steps that were followed during the pre-application process were followed again concerning the Draft Scoping Report. The comments that were received during the pre-application phase and comments concerning the Draft Scoping Report were responded to as indicated in the Comments-Responses table attached to the Scoping Report in Appendix 1E.

9. CRITERIA FOR ASSESSMENT OF IMPACTS

The impacts of the proposed development on the various components of the receiving environment will be evaluated in terms of duration (time scale), extent (spatial scale), magnitude and significance as outlined in Table 1. These impacts can either be positive or negative.

The magnitude of an impact is a judgment value that rests with the individual assessor while the determination of significance rests on a combination of the criteria for duration, extent and magnitude. Significance thus is also a judgment value made by the individual assessor.

Table 1: Criteria used for evaluating impacts

Criteria	Category
Nature of impact	This is an evaluation of the effect that the construction, operation and maintenance of a proposed dam would have on the affected environment. This description should include what is to be affected and how.
Duration (Predict whether the lifetime of the Impact will be temporary (less than 1 year) short term (0 to 5 years); medium term (5 to 15 years); long term (more than 15 years, with the Impact ceasing after full implementation of all development components with mitigations); or permanent.	Temporary: < 1 year (not including construction) Short-term: 1 – 5 years Medium term: 5 – 15 years Long-term: >15 years (Impact will stop after the operational or running life of the activity, either due to natural course or by human interference) Permanent: Impact will be where mitigation or moderation by natural course or by human interference will not occur in a particular means or in a particular time period that the impact can be considered temporary
Extent (Describe whether the impact occurs on a scale limited to the site area; limited to broader area; or on a wider scale)	Site Specific: Expanding only as far as the activity itself (<i>onsite</i>) Small: restricted to the site's immediate environment within 1 km of the site (<i>limited</i>) Medium: Within 5km of the site (<i>local</i>) Large: Beyond 5km of the site (<i>regional</i>)
Intensity (Describe whether the magnitude (scale/size) of the Impact is high; medium; low; or negligible. The specialist study must attempt to quantify the magnitude of impacts, with the rationale used explained)	Very low: Affects the environment in such a way that natural and/or social functions/processes are not affected Low: Natural and/or social functions/processes are slightly altered Medium: Natural and/or social functions/processes are notably altered in a modified way High: Natural and/or social functions/processes are severely altered and may temporarily or permanently cease
Probability of occurrence Describe the probability of the Impact <u>actually</u> occurring as definite (Impact will occur regardless of mitigations)	Improbable: Not at all likely Probable: Distinctive possibility Highly probable: Most likely to happen Definite: Impact will occur regardless of any prevention measures
Status of the Impact Describe whether the Impact is positive, negative (or neutral).	Positive: The activity will have a social/ economical/ environmental benefit Neutral: The activity will have no affect Negative: The activity will be socially/ economically/ environmentally harmful
Degree of Confidence in predictions State the degree of confidence in predictions based on availability of information and specialist knowledge	Unsure/Low: Little confidence regarding information available (<40%) Probable/Med: Moderate confidence regarding information available (40-80%) Definite/High: Great confidence regarding information available (>80%)
Significance (The impact on each component is determined by a combination of the above criteria and defined as follows)	No change: A potential concern which was found to have no impact when evaluated Very low: Impacts will be site specific and temporary with no mitigation necessary.

<p>The significance of impacts shall be assessed <u>with and without mitigations</u>. The significance of identified impacts on components of the affected biophysical or socio-economic environment (and, where relevant, with respect to potential legal requirement/s) shall be described as follows:</p>	<p>Low: The impacts will have a minor influence on the proposed development and/or environment. These impacts require some thought to adjustment of the project design where achievable, or alternative mitigation measures</p> <p>Moderate: Impacts will be experienced in the local and surrounding areas for the life span of the development and may result in long term changes. The impact can be lessened or improved by an amendment in the project design or implementation of effective mitigation measures.</p> <p>High: Impacts have a high magnitude and will be experienced regionally for at least the life span of the development, or will be irreversible. The impacts could have the no-go proposition on portions of the development in spite of any mitigation measures that could be implemented.</p>
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In addition to determining the individual impacts against the various criteria, the element of mitigation, where relevant, will also be brought into the assessment. In such instances the impact will be assessed with a statement on the mitigation measure that could or should be applied. An indication of the likelihood that mitigation will achieve the indicated end result is given on a scale of 1-5 (1 being totally uncertain and 5 being absolutely certain), taking into consideration uncertainties, assumptions and gaps in knowledge.

Table 2: The stated assessment and information will be determined for each individual issue or related groups of issues and presented in descriptive format in the following table example or a close replica thereof.

Impact Statement:		
Mitigation:		
Ratings	Duration	
	Extent	
	Intensity	
	Probability of impact	
	Status of Impact (Positive/negative)	
	Degree of confidence	
Significances	Significance without Mitigation	
	Significance WITH Mitigation	
Indication of the certainty of a mitigation measure considered, achieving the end result to the extent indicated, is given on a scale of 1-5 (1 being totally uncertain and 5 being absolutely certain), taking into consideration uncertainties, assumptions and gaps in knowledge		
Legal Requirements (Identify and list the specific legislation and permit requirements which are relevant to this development):		

Please refer to Appendix 2G for a more detailed description of the impact significance rating methodology that has been used.

10. PLAN OF STUDY FOR THE EIR

10.1 TASKS TO BE UNDERTAKEN

The Application Form was submitted to the competent authority together with the Draft Scoping Report and the Draft Scoping Report was made available for a public commenting period of at least 30 days. The comments received during the PPP have been 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 phase 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 and Appendix 2G and Appendix 2H.
- (iii) *“aspects to be assessed by specialists”*. Please refer to Appendices 2D and 2E 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 and 2H.
- (v) *“a description of the proposed method of assessing duration and significance”*. Please refer to Table 3 and to Appendix 2G for full details.
- (vi) *“an indication of the stages at which the competent authority will be consulted”*. Please refer to Table 3 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 Scoping phase that has been described in Section 8 of this Scoping Report, except for the placing again of an advertisement in the newspaper.
- (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 3. Proposed plan of study and tasks to be undertaken

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"): <ul style="list-style-type: none"> - 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 <i>Ons Kontrei</i> of 01/10/2021 and 14/04/2023 - Notification given to ward councillor - Notification given to HWC Commenting period is always a minimum of 30 days ¹	23/09/2021 and 14/04/2023	
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..	14/04/2023	competent authority has 10 days to acknowledge receipt
13	Make the Draft Scoping Report available to Registered I&APs to comment on for 30 days	14/04/2023	
14	Compile Comments-Responses Table	14/04/2023-16/05/2023	
15	Submit Scoping Report with Plan of Study to competent authority	22/05/2023	44 days from date of submitting application form
16	Receive decision on acceptability of Scoping Report and Plan of Study from competent authority	05/07/2022	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		Depends on date when the competent authority accepts the Scoping Report and Plan of Study for EIR
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:



10.2 CRITERIA FOR ASSESSMENT OF IMPACTS

The impacts of the proposed development on the various components of the receiving environment will be evaluated in terms of duration (time scale), extent (spatial scale), magnitude and significance as outlined in Table 1. These impacts can either be positive or negative.

The magnitude of an impact is a judgment value that rests with the individual assessor while the determination of significance rests on a combination of the criteria for duration, extent and magnitude. Significance thus is also a judgment value made by the individual assessor.

Table 4: Criteria used for evaluating impacts

Criteria	Category
Nature of impact	This is an evaluation of the effect that the construction, operation and maintenance of a proposed dam would have on the affected environment. This description should include what is to be affected and how.
Duration (Predict whether the lifetime of the Impact will be temporary (less than 1 year) short term (0 to 5 years); medium term (5 to 15 years); long term (more than 15 years, with the Impact ceasing after full implementation of all development components with mitigations); or permanent.	Temporary: < 1 year (not including construction) Short-term: 1 – 5 years Medium term: 5 – 15 years Long-term: >15 years (Impact will stop after the operational or running life of the activity, either due to natural course or by human interference) Permanent: Impact will be where mitigation or moderation by natural course or by human interference will not occur in a particular means or in a particular time period that the impact can be considered temporary
Extent (Describe whether the impact occurs on a scale limited to the site area; limited to broader area; or on a wider scale)	Site Specific: Expanding only as far as the activity itself (<i>onsite</i>) Small: restricted to the site's immediate environment within 1 km of the site (<i>limited</i>) Medium: Within 5km of the site (<i>local</i>) Large: Beyond 5km of the site (<i>regional</i>)
Intensity (Describe whether the magnitude (scale/size) of the Impact is high; medium; low; or negligible. The specialist study must attempt to quantify the magnitude of impacts, with the rationale used explained)	Very low: Affects the environment in such a way that natural and/or social functions/processes are not affected Low: Natural and/or social functions/processes are slightly altered Medium: Natural and/or social functions/processes are notably altered in a modified way High: Natural and/or social functions/processes are severely altered and may temporarily or permanently cease
Probability of occurrence Describe the probability of the Impact <u>actually</u> occurring as definite (Impact will occur regardless of mitigations)	Improbable: Not at all likely Probable: Distinctive possibility Highly probable: Most likely to happen Definite: Impact will occur regardless of any prevention measures
Status of the Impact Describe whether the Impact is positive, negative (or neutral).	Positive: The activity will have a social/ economical/ environmental benefit Neutral: The activity will have no affect Negative: The activity will be socially/ economically/ environmentally harmful
Degree of Confidence in predictions State the degree of confidence in predictions based on availability of information and specialist knowledge	Unsure/Low: Little confidence regarding information available (<40%) Probable/Med: Moderate confidence regarding information available (40-80%) Definite/High: Great confidence regarding information available (>80%)
Significance (The impact on each component is determined by a combination of the above criteria and defined as follows)	No change: A potential concern which was found to have no impact when evaluated Very low: Impacts will be site specific and temporary with no mitigation necessary.

<p>The significance of impacts shall be assessed <u>with and without mitigations</u>. The significance of identified impacts on components of the affected biophysical or socio-economic environment (and, where relevant, with respect to potential legal requirement/s) shall be described as follows:</p>	<p>Low: The impacts will have a minor influence on the proposed development and/or environment. These impacts require some thought to adjustment of the project design where achievable, or alternative mitigation measures</p> <p>Moderate: Impacts will be experienced in the local and surrounding areas for the life span of the development and may result in long term changes. The impact can be lessened or improved by an amendment in the project design or implementation of effective mitigation measures.</p> <p>High: Impacts have a high magnitude and will be experienced regionally for at least the life span of the development, or will be irreversible. The impacts could have the no-go proposition on portions of the development in spite of any mitigation measures that could be implemented.</p>
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In addition to determining the individual impacts against the various criteria, the element of mitigation, where relevant, will also be brought into the assessment. In such instances the impact will be assessed with a statement on the mitigation measure that could or should be applied. An indication of the likelihood that mitigation will achieve the indicated end result is given on a scale of 1-5 (1 being totally uncertain and 5 being absolutely certain), taking into consideration uncertainties, assumptions and gaps in knowledge.

Table 5: The stated assessment and information will be determined for each individual issue or related groups of issues and presented in descriptive format in the following table example or a close replica thereof.

Impact Statement:		
Mitigation:		
Ratings	Duration	
	Extent	
	Intensity	
	Probability of impact	
	Status of Impact (Positive/negative)	
	Degree of confidence	
Significances	Significance without Mitigation	
	Significance <u>WITH</u> Mitigation	
Indication of the certainty of a mitigation measure considered, achieving the end result to the extent indicated, is given on a scale of 1-5 (1 being totally uncertain and 5 being absolutely certain), taking into consideration uncertainties, assumptions and gaps in knowledge		
Legal Requirements (Identify and list the specific legislation and permit requirements which are relevant to this development):		

Please refer to Appendix 2G for a more detailed description of the impact significance rating methodology.

10.3 PUBLIC PARTICIPATION AND INTERESTED AND AFFECTED PARTIES

The IAPs were given a chance and will continue be given a chance to view and comment on all Draft 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 I&APs and the competent authority. All comments received and responses to the comments will be incorporated in the Scoping Report and the Environmental Impact Report (EIR).

Correspondence with I&APs will be via post, fax, telephone, electronic mail and newspaper advertisements and delivery by hand where required.

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

11. CONCLUSION AND RECOMMENDATIONS

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

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

As a result of 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 EIR phase.

12. DETAILS AND EXPERTISE OF THE EAP

This Draft Scoping Report was prepared by Bernard de Witt, who has more than 30 years of experience in environmental management and environmental impact assessments.

After qualifying with a B. Sc. in Forestry and a B. A. (Hons) in Public Administration at the University of Stellenbosch, Bernard joined the Department of Forestry as an Indigenous Forest Planner in 1983, going on to become Manager of the Table Mountain Reserve with the Cape Town Council.

He then joined Cape Nature Conservation (CNC) and headed its Conservation Planning Section before taking up the position of District Manager of the Boland area (inc. the Hottentots Holland and Kogelberg). As a Regional Ecologist, he co-ordinated managerial and scientific inputs into Provincial Nature Reserves in the Boland, Overberg and West Coast regions of the Western Cape Province.

For the last four years of his employment, he assessed and evaluated development applications, from an environmental perspective, on behalf of CNC (now Western Cape Department of Environmental Affairs and Development Planning ("DEA&DP")). Since he left DEA&DP, he has been involved in environmental consulting in the private sector as a member of EnviroAfrica.

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