

HARMONY TRUST: THE PROPOSED CONSTRUCTION OF THE NEW TOEKA DAM

ON THE REMAINDER OF FARM HOUDENBEK NO. 415 (MORESTER LANDGOED), CERES

REVISED PRE-APPLICATION SCOPING REPORT AND PLAN OF STUDY FOR COMMENT



DEADP reference number:

16/3/3/6/7/1/B5/2/1366/17

JULY 2019

PREPARED FOR:

Harmony Trust

P.O. Box 20
Kouebokkeveld
6836
Tel: 023 316 1198

PREPARED BY:

EnviroAfrica

P.O. Box 5367
Helderberg
7135
Tel: 021 – 851 1616
Fax: 086 – 512 0154

INDEPENDENCE & CONDITIONS

EnviroAfrica is an independent consulting firm that has no interest in the proposed activity other than fair remuneration for services rendered. Remuneration for services is not linked to approval by decision making authorities and EnviroAfrica has no interest in secondary or downstream development as a result of this project. There are no circumstances that compromise the objectivity of this Scoping Report. The findings, results, observations and recommendations given here are based on the author's best scientific and professional knowledge and available information. EnviroAfrica reserves the right to modify aspects of this report, including the recommendations if new information becomes available which may have a significant impact on the findings of this report.

RELEVANT QUALIFICATIONS & EXPERIENCE OF THE EAP

This Scoping Report was prepared by Inge Erasmus who has a BA Honours in Geography and Environmental Studies from Stellenbosch University. Before completing her honours degree Inge gained practical experience as a junior environmental consultant at Hatch Goba in Johannesburg from 2014 until 2015. Inge acted as an environmental control officer on a variety of projects in the Northern Cape, conducting environmental compliance audits, as well as being part of a project team working on a major resettlement project for Kumba Iron ore. Inge joined Enviro Africa in February 2017, generally performing duties as an environmental assessment practitioner with regards to NEMA EIA applications. The entire process and report was supervised by Bernard De Witt who has more than 10 years experience in environmental management and environmental impact assessments.

Please refer to **Appendix 11** for the CV's of the EAPs.

CONTENTS

INDEPENDENCE & CONDITIONS	3
RELEVANT QUALITIFICATIONS & EXPERIENCE OF THE EAP	3
1. INTRODUCTION	6
1.1 BACKGROUND	6
1.2 DESCRIPTION OF THE PROPOSED ACTIVITY	8
2. NEED AND DESIRABILITY	10
2.1 NEED	10
2.2 DESIRABILITY	10
2.2.1 LOCATION AND ACCESSIBILITY	10
2.2.2 COMPATIBILITY WITH THE SURROUNDING AREA	10
3. SITE DESCRIPTION	12
3.1 LOCATION	12
3.2 VEGETATION	12
3.3 CRITICAL BIODIVERSITY AREAS AND ECOLOGICAL SUPPORT AREAS	13
3.4 FRESHWATER	14
3.5 CLIMATE	14
3.6 SOCIO-ECONOMIC CONTEXT	15
3.7 HERITAGE FEATURES	15
4. LEGAL REQUIREMENTS	16
4.1 THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA	16
4.2 NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998)	16
4.3 NATIONAL HERITAGE RESOURCES ACT	18
4.4 EIA GUIDELINE AND INFORMATION DOCUMENT SERIES	18
4.5 NATIONAL WATER ACT	19
4.6 NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT	19
4.7 MOUNTAIN CATCHMENT AREAS ACT NO. 63 OF 1970	19
5. ALTERNATIVES	20
5.1 SITE ALTERNATIVES FOR THE PROPOSED DAM	20
5.2 ACTIVITY ALTERNATIVES	22
5.3 NO-GO ALTERNATIVE	22
6. ENVIRONMENTAL IMPACT ASSESSMENT, SIGNIFICANCE AND MITIGATION METHODOLOGY	23
6.1 ENVIRONMENTAL SIGNIFICANCE RISK RATING	25
7. ENVIRONMENTAL ISSUES AND POTENTIAL IMPACTS	26
7.1 BIODIVERSITY	26
7.1.1 TERMS OF REFERENCE - BOTANICAL IMPACT ASSESSMENT:	26
7.1.2 SUMMARY - BOTANICAL SPECIALIST FINDINGS:	27
7.2 FRESHWATER	28
7.2.1 TERMS OF REFERENCE - FRESHWATER IMPACT ASSESSMENT:	29
7.2.2 THE TERMS OF REFERENCE – RIVER MAINTENANCE MANAGEMENT:	29
7.2.3 SUMMARY - FRESHWATER IMPACT REPORT:	30
7.3 HERITAGE	32
7.3.1 TERMS OF REFERENCE - HERITAGE IMPACT ASSESSMENT:	32
7.3.2 SUMMARY HERITAGE IMPACT REPORT (NOT UPDATED):	33
7.4 VISUAL IMPACT	33
7.5 SAFETY	33
7.6 LOSS OF AGRICULTURAL LAND	33
7.7 SOCIO-ECONOMIC IMPACT	33
7.8 OTHER ISSUES IDENTIFIED	34
8. PLAN OF STUDY FOR THE EIA	35
8.1 PRE-APPLICATION PHASE	35
8.2 APPLICATION PHASE	35
8.3 PUBLIC PARTICIPATION AND INTERESTED AND AFFECTED PARTIES	37
8.3.1 DETAILS OF THE PUBLIC PARTICIPATION PROCESS UNDERTAKEN	38

9. CONCLUSION AND RECOMMENDATIONS	40
10. OATH OF AFFIRMATION BY THE EAP	42

APPENDICES

APPENDIX 1:	LOCALITY MAPS
APPENDIX 2:	PRELIMINARY DESIGN DRAWINGS
APPENDIX 3:	SITE PHOTOGRAPHS
APPENDIX 4:	SENSITIVITY MAPS
APPENDIX 5:	PUBLIC PARTICIPATION
APPENDIX 6:	CORRESPONDENCE WITH THE DEPARTMENT
APPENDIX 7:	SAREL BESTER INGENIEURS BK PRELIMINARY DESIGN REPORTS
APPENDIX 8:	SPECIALIST REPORTS
APPENDIX 9:	ENVIRONMENTAL RISK ASSESSMENT
APPENDIX 10:	LANDOWNER CONSENT
APPENDIX 11:	EAP CV

ACRONYMS

BGIS	Biodiversity Geographic Information System
CBA	Critical Biodiversity Area
DEA	Department of Environmental Affairs
DEA&DP	Department of Environmental Affairs and Development Planning
DWA	Department of Water Affairs
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
HWC	Heritage Western Cape
I&APs	Interested and Affected Parties
NEMA	National Environmental Management Act (Act No. 107 of 1998)
NEMBA	National Environmental Management: Biodiversity Act (Act No. 10 of 2004)
NHRA	National Heritage Resources Act (Act No. 25 of 1999)
NID	Notice of Intent to Develop
NWA	National Water Act
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

Agriculture forms the backbone of the Cape Winelands District economy. The agricultural sector contributes to 24% of the formal employment opportunities, which makes the sector essential to the livelihoods of the livelihoods of the local residents.

In 2006 the farm Winklehaak RE224 in the Koue Bokkeveld district, also known as Harmony was bought and initiated as a BBBEE farming project, operating independent but alongside their founder partner and mentor Morester Landgoed (MHB Boerdery Pty Ltd).

The Applicant and owner of Winklehaak RE224, also known as Harmony Trust, is a 100% black owned BBEEE farming entity, reference T2213/2003. Harmony Trust have been in the agricultural sector and trading successfully for the past 12 years with their neighbouring partner and mentor, Morester Landgoed (MHB Boerdery Pty Ltd). Harmony Trust, together with Morester Landgoed plan on expanding an existing BBEEE agricultural project by cultivating and irrigating an additional 75ha fruit orchards as well as the design and construction of two proposed instream dams namely Toeka dams (this application) and Harmony (separate application) and for irrigation of the proposed 75ha agricultural expansion. It was decided to do the two dams as two separate applications so the objection against one dam does not impact the other application.

One of the first issues to consider in such a large project expansion would be the dam site possibilities. The concerned BBBEE property, namely Winklehaak RE224, has a rather flat topography and no real natural dam basin of this calibre. However, Morester Landgoed (MHB Boerdery Pty Ltd), the owner of the neighbouring property, Houdenbek RE415 and also mentor of Harmony Trust, has two very suitable dam sites available, from where irrigation can also be done with gravitational advantages in the proposed land allocated for the fruit expansion.

Since the available and suitable land for both the dam sites as well as the proposed fruit orchards are on the neighbouring farm, the idea would be at first that Harmony Trust would rent the land from Morester Landgoed (MHB Boerdery Pty Ltd), with a long-term vision of subdividing the land, giving Harmony Trust the opportunity to buy the land. Please refer to Figure 1 below. The two owners are in an agreement the necessary legal documents pertaining to land owner consent is included as **Appendix 10**.



Figure 1: Map indicating the proposed Harmony and Toeka dam locations on Houdenbek RE415 belonging to Morester Landgoed in relation to Winkelhaak RE224 belonging to Harmony Trust. The pink polygon indicates the proposed subdivision.

The two dams will have a combined provisional storage capacity of 2 250 000m³ and are proposed to be constructed on the Farm Houdenbek 415 belonging to Morester Lndgoed (MHB Boerdery Pty Ltd) The proposed 75ha agricultural expansion is also proposed in Farm Houdenbek 415 on previously disturbed land.

The proposed Toeka dam is an instream dam and would will have a storage capacity of 2 000 000m³ and will store and supply water for approximately 66ha out of the total 75ha. The proposed dam will be filled primarily with water being pumped from the Houdenbeks River from the existing Houdenbek-Bo dam with a very small portion of runoff coming from its own catchment. In order to ensure that only winter surplus water would be abstracted, the existing Houdenbek-Bo dam will be utilised as a buffer dam within the river during flood periods while water will be pumped at a lower rate over a longer period.

Although fully based on “new takings” according to the Water Use License Application (WULA), none of the existing downstream uses will be affected negatively since regulatory mechanisms would ensure that only surplus winter water would be abstracted from the larger Houdenbek catchment.

Sarel Bester Engineers has been appointed as the project engineer coordinating and overseeing the various actions and components regarding the design of the dam and handling the WULA. Please refer to **Appendix 7.2** for the WULA Report 1733WULA-W2 form Sarel Bester Ingenieurs.

The applicant is Harmony Trust who will undertake the activity should it be approved. EnviroAfrica CC has been appointed as the independent environmental assessment practitioner (EAP) responsible for undertaking the relevant EIA and the Public Participation Process required in terms of the National Environmental Management Act 107 of 1998, as amended (NEMA).

This Scoping Report, which will be submitted to the Department of Environmental Affairs and Development Planning (DEA&DP) for consideration, forms part of the EIA process.

The purpose of this Post-Application Environmental Scoping Report (for comment) is to describe the proposed project, the process followed to date, to present alternatives and to list issues identified for further study and comment by specialists.

Should the EIA process be authorised by DEA&DP, the Specialist Studies (noted in Section 5) will be undertaken and the significant issues (noted in Section 6) will be investigated and assessed during the next phase of this application.

1.2 DESCRIPTION OF THE PROPOSED ACTIVITY

The proposed site location is within the Koue Bokkeveld district about 15km east from the town, Op-die-berg as the crow flies. This application is for the construction of the proposed Toeka Dam on the Remaining Extent of Farm Houdenberg 415. Water will be used for irrigation of a proposed 75ha BBEEE agricultural expansion (66ha of the proposed 75ha). The proposed 75ha agricultural expansion will be on Remaining Extent of Farm Houdenberg 415 on previously ploughed land. No virgin soil will be disturbed. Please refer to **Appendix 1** for Locality Maps. The two owners are in an agreement the necessary legal documents pertaining to land owner consent is available in **Appendix 10**.

The proposed Toeka dam will have a storage capacity of 2 000 000m³ which will primarily be filled with water being pumped from the Houdenbeks River from the existing Houdenberg-Bo dam with a very small portion of runoff coming from its own catchment.. Sarel Bester Engineers applied for the 'new taking' of 627 000m³ water and 'storing' of 2 000 000m³ of water for this application in the WULA. Although fully based on "new takings" according to the Water Use License Application (WULA), none of the existing downstream users will be affected negatively since regulatory mechanisms would ensure that only surplus winter water would be abstracted from the larger Houdenberg catchment. Please refer to **Appendix 7.1** for *Preliminary Design Report 1619DOV-S2 from Sarel Bester Engineers* for the investigation of the water availability & **Appendix 7.2** for the WULA Report 1733WULA-W2.

A pipeline of approximately 1,2km and a ø 360mm is proposed, which will connect to the existing pump station in the existing Houdenbeks-Bo dam to feed the proposed Toeka dam with a very small portion of runoff coming from its own catchment. The pipeline will follow an existing road and no vegetation will be lost. Please refer to **Appendix 1** for layout plans. Irrigation pipelines thresholds will not trigger Listed Activities in terms of NEMA and will be located on ploughed land and road reserves.. Please refer to **Appendix 1** Figure 7 for a map showing the proposed layout for irrigation pipelines.

The proposed maximum wall high for the dam would be 14 m with a crest length of 650m. The total earthworks would constitute to 192 700m³ with a nett storage capacity of ±2 000 000m³. the total footprint/ flooded area would constitute 36.9 ha. Please see **Appendix 2** for Design Plans.

Max wall height	14 m
Cres length	650 m
Total earthworks	192 700m ³
Nett storage capacity	±2 000 000 m ³

Flooded area	36.9 ha
Storage: Earthworks	1.6 ha
Estimated Cost	±R13.34mil

The proposed Toeka dam on RE Farm Houdenbek 415, will have the storage capacity of 2 000 000m³ and will store and supply water for ±66ha out of the total 75ha (or 66ha / 75ha @ 9500m³/ha/a). According to the *Preliminary Design Report 161DOV-S2 from Sarel Bester Engineers Appendix 7*, the layout of the proposed Toeka dam is planned as a straight aligned earth filled embankment across the valley.

Sarel Bester Engineers submitted a dam safety and classification application to the Dam Safety Office. Toeka was classified on 30 January 2018 as a medium size Category II dam with a Low Hazard potential rating (Appendix D *Preliminary Design Report 161DOV-S2 from Sarel Bester Engineers Appendix 7*).

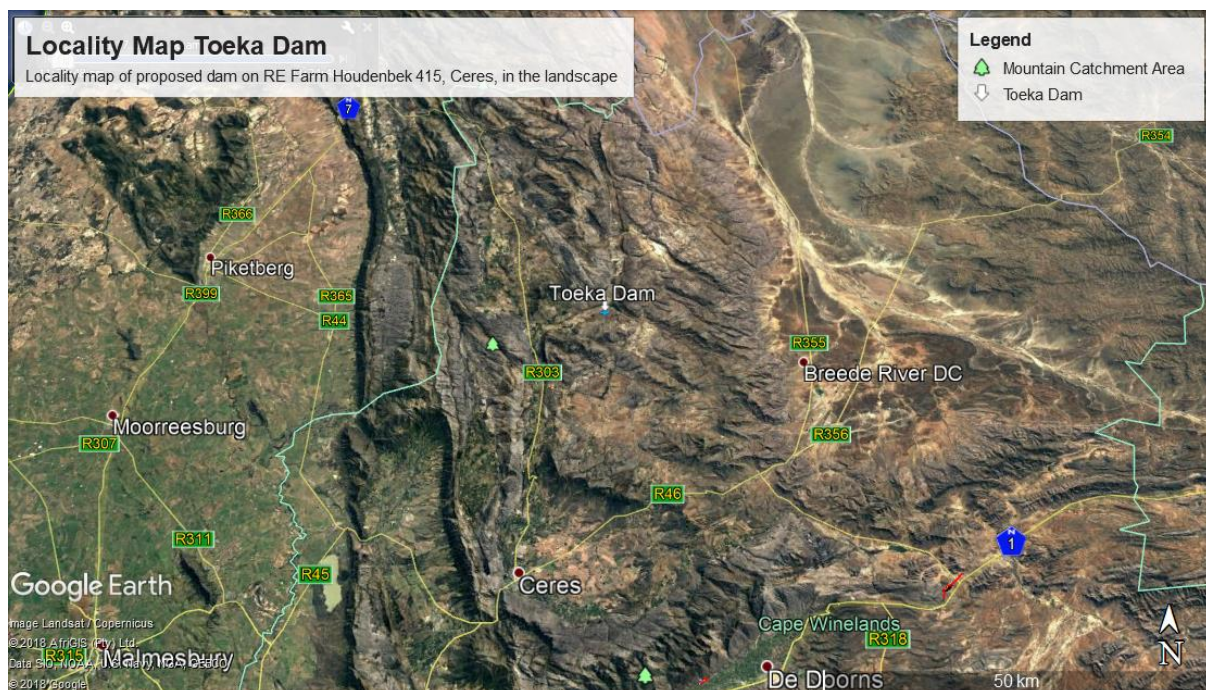


Figure 2: Locality map of proposed Toeka dam in the landscape

2. NEED AND DESIRABILITY

In terms of the National Environmental Management Act, and EIA 2014 regulations, as amended, the Scoping/EIA report must provide a description of 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* to *place* – i.e. is this the right time and is it the right place for locating the type of land-use/activity being proposed? Need and desirability can be equated to *wise use of land* – i.e. the question of what is the most sustainable use of land.

2.1 NEED

The applicant, Harmony Trust is planning to further develop an existing 100% black-owned BBEEE farming entity, reference T2213/2003. Harmony Trust have been in the agricultural sector and trading successfully for the past 12 years with their neighbouring partner and mentor, Morester Landgoed.

The plan is to grow and irrigate an additional 75ha of fruit orchards and there for the development of a dam for irrigation purposes is required to ensure the long term economic viability and sustainability of this project. The success of this project is expected to create a number of permanent jobs within the agricultural industry.

2.2 DESIRABILITY

The following factors determine the desirability of the area for the proposed Toeka dam.

2.2.1 LOCATION AND ACCESSIBILITY

The proposed location of the dam site is considered ideally suited for the construction of the dam.

From an engineering point of view, the location was chosen to ensure the project life cycle costs are minimised. The decisive factors are normally the basin characteristics with reference to available capacity versus demand, optimal costing of works, risk, etc. The location is preferred based on the available runoff, cost effectiveness and storage capacity in relation to the sacrifice of potential production land as well as sealing problems of the basin of the other alternative dam site (Droe dam – Alternative B).

Access to the farm will be off the R303 and access to the proposed dam site will be via existing farm roads,

Locality maps are included in in **Appendix 1**, Design Layout Plans **Appendix 2**, with site photographs in **Appendix 3**.

2.2.2 COMPATIBILITY WITH THE SURROUNDING AREA

The site is largely surrounded by agricultural activities (**Appendix 4.4** for Crop Census Map and site photographs in **Appendix 3**).

The proposed activity will therefore not be “out of character” with the surrounding land use and is expected to have a negligible impact on the visual character of the area.

3. SITE DESCRIPTION

3.1 LOCATION

The preferred dam, Toeka dam (Alternative A) is proposed on RE Farm Houdenbek 415, Ceres. The preferred site is located within the Koue Bokkeveld district about 15km east from the town, Op-die-Berg as the crow flies.

The site coordinates for proposed Toeka dam is: S 32° 59'33.21", E19° 26'30.21".

The SG code for the proposed site is: C019 0000 00000415 00000

Access to the farm is from the R303, the site can be accessed via existing farm roads on the property.

Pease refer to **Appendix 1** for Locality maps.



Figure 3: Locality map of proposed Toeka Dam, pipeline, pump station, 75ha Agri on RE Farm Houdenbek 415, Ceres.

3.2 VEGETATION

According to the vegetation map from Cape Farm Mapper (**Appendix 4.1** & the figure below) the vegetation that can be expected at the preferred Toeka dam site is Kouebokkeveld Shale Fynbos. Kouebokkeveld Shale Fynbos is classified as Vulnerable in the Western Cape in terms of *NEMBA National list of Ecosystems that are threatened and in need of protection*. Arial images from Google Earth (**Locality Maps, Appendix 1**) indicate that the site is partially located on previously disturbed land due to agricultural activities. This will be confirmed with specialist findings.

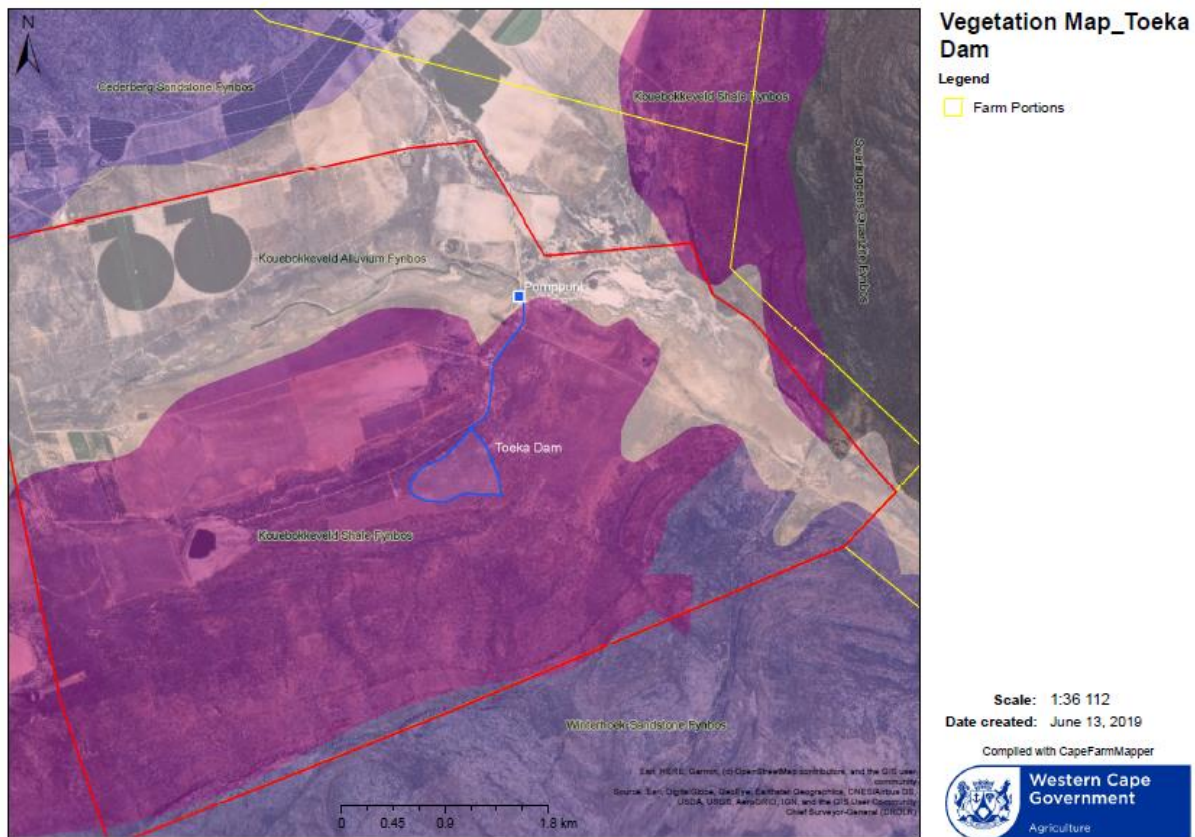


Figure 4: Vegetation Map, Cape Farm Mapper

3.3 CRITICAL BIODIVERSITY AREAS AND ECOLOGICAL SUPPORT AREAS

According to the Biodiversity Overlay Maps from Cape Farm Mapper (**Appendix 4.2** & the figure below) the proposed Toeka dam does not fall within a Critical Biodiversity Area (CBA) but does fall within an Ecological Support Area 2 (ESA2). Category 2 ESAs are areas that are likely severely degraded or have no natural cover remaining and therefore require restoration. These areas are not essential for meeting biodiversity targets but play an important role in supporting the functioning of Critical Biodiversity Areas (CBAs) or protected areas, and are often vital for delivering ecosystem services. The management objectives for Category 2 ESAs is to restore or manage the features to minimize impacts on ecological processes and ecological infrastructure functioning, especially soil and water related services, and to allow for faunal movement. It is therefore necessary that that good environmental control measures be implemented during construction and operations of the dam. Properly design and managed farm dams can attract a variety of birds, insects and animals to the area which can contribute to the conservation of biodiversity.

As described in the project description, water will be pumped from an existing pump the Houdenbeks river from the existing Houdenbek-Bo dam.. The map indicates that the proposed pipeline feeding the dam will not impact on CBA's or ESA's.

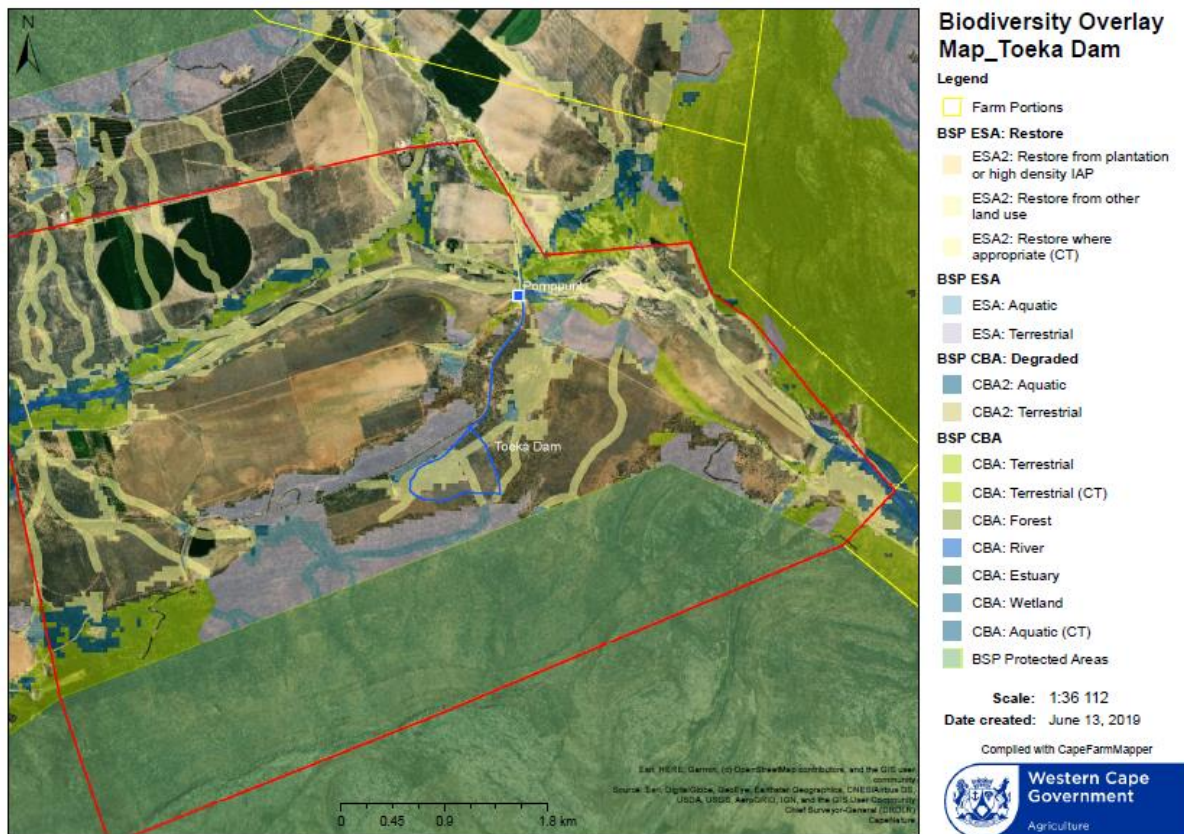


Figure 5: Biodiversity Overlay Map, Cape Farm Mapper

3.4 FRESHWATER

According to the Freshwater Resources Map from Cape Farm Mapper (**Appendix 4.3** & the figure below) the proposed Toeka dam will intercept non-perennial streams.

The following information was taken from the *Preliminary Design Report 1619DOV-S2* from Sarel Bester Engineers **Appendix 7**. The proposed Toeka dam will be located along a small tributary within the larger Houdenberg River Catchment area upstream of the confluence of the Winkelhaak River into the Riet River which forms part of the larger Doring River, a tributary to Olifants River system. Water to the dam will purely be based on surplus winter water from the Houdenberg catchment. Regulatory mechanism will be implemented to ensure that only winter surplus water be abstracted to not negatively impact existing downstream users. Please refer to the Comments & Response Report, **Appendix 5.1.6** Point 7 for an explanation from the engineers on a proposed monitoring plan & measurement mechanisms to be installed both up and down stream to ensure that only surplus water will be stored and that water is not cut off to downstream users. Existing Water Users will have been protected.

Sarel Bester Engineers BK is in the process of conducting the Water Use License Application for the taking and storing of water.

3.5 CLIMATE

In Op die Berg, the climate is warm and temperate. The winter months are much rainier than the summer months in Op die Berg. In Op die Berg, the average annual temperature is 13.5 °C. In a year,

the average rainfall is 432 mm. The driest month is January. There is 6 mm of precipitation in January. Most of the precipitation here falls in May, averaging 79 mm. With an average of 19.8 °C, January is the warmest month. July is the coldest month, with temperatures averaging 7.6 °C. The precipitation varies 73 mm between the driest month and the wettest month. Throughout the year, temperatures vary by 12.2 °C. (<https://en.climate-data.org/location/27253/>)

3.6 SOCIO-ECONOMIC CONTEXT

According to the Witzenberg Local Municipality(WLM) IDP 2018 the Agric-economic environmental has indicated a positive growth over the next five years and it is necessary that the municipality provides sufficient bulk and network infrastructure to support investment and job creation opportunities.

The most prominent places in the WLM area are Tulbagh, Wolseley and Ceres, with Prince Alfred's Hamlet and Op-die-Berg two northern outposts. Activities around these settlements are essentially agriculture based, with the towns being "agricultural service centres", with some agri-processing related to wine, fruit, vegetables and other niche products. The region is also well-known for its fruit and wine products, as well as producing other agriculturally linked products such as olive and grain producing areas, beef and pork products. Horse and cattle stud farms are also found within the municipality.

The municipality has made tremendous progress in mobilising and harnessing the energies and expertise of the business sector in developing effective economic development strategies and programmes. This is articulated in its new economic vision as adopted in 2011, namely:

"To strategically partner with the private sector, other spheres of government and its agencies, development institutions and donor agencies and in concert develop sizable commercial projects which encompasses the imperatives of employment creation and broad-based black economic empowerment and contributing to the general expansion of the economic base of Witzenberg."

The sectors that employed the most residents included the agriculture, forestry and fishing sector at 22,2%. Agriculture employs the largest proportion of the population. The districts main produce is grapes, deciduous fruits and vegetables.

This proposed application is part of a larger projects for the further development of an existing 100% black-owned BBEEE farming entity, namely Harmony Trust, reference T2213/2003. They have been in the agricultural sector and trading successfully for the past 12 years with their neighbouring partner and mentor, Morester Landgoed. The plan is to grow and irrigate 75ha of fruit orchards in addition to the existing 40ha of vegetable pastures. This would benefit the existing BBEE entity and more importantly also the broader economy by creating work opportunities for the previously disadvantaged groups.

3.7 HERITAGE FEATURES

The National Heritage Resources Act requires relevant authorities to be notified regarding this proposed development, as the following activities are relevant:

- *any development or other activity which will change the character of a site exceeding 5 000 m² in extent;*

A heritage screener was conducted by CTS Heritage and a Notice of Intend to Develop (NID) was submitted to Heritage Western Cape (**Appendix 8.3**).

4. LEGAL REQUIREMENTS

The current assessment is being undertaken in terms of the National Environmental Management Act (Act 107 of 1998, NEMA), to be read with section 24 (5): NEMA EIA Regulations 2017, as amended. However, the provisions of various other Acts must also be considered within this EIA.

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

4.1 THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA

The Constitution of the Republic of South Africa (Act 108 of 1996) states that everyone has a right to a non-threatening environment and that reasonable measures are applied to protect the environment. This includes preventing pollution and promoting conservation and environmentally sustainable development, while promoting justifiable social and economic development.

4.2 NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998)

The National Environmental Management Act (Act 107 of 1998) (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 relevant authorities based on the findings of an environmental assessment. NEMA is a national act, which is enforced by the Department of Environmental Affairs (DEA). These powers are delegated in the Western Cape to the Department of Environmental Affairs and Development Planning (DEA&DP).

On the 4 December 2014 the Minister of Environmental Affairs promulgated regulations in terms of environmental impact assessments, under sections 24(5) and 44 of NEMA, namely the EIA Regulations 2014 (GN No. R 326) these regulations were amended in April 2017, and include:

- GN No. R. 327 (Listing Notice 1);
- GN No. R. 325 (Listing Notice 2); and
- GN No. R. 324 (Listing Notice 3).

Listing Notice 1 and 3 are for a Basic Assessment and Listing Notice 2 for a full Environmental Impact Assessment.

According to the 2014 EIA regulations, as amended in 2017, the following potentially listed activities may be triggered (refer to Table 1)

Table 1: Summary of 2014 EIA regulations triggered

GN R327	Short description of relevant Activity(ies) in terms of Listing Notice 1	Description of specific portion of the development that might trigger the listed activity.
9	The development of infrastructure exceeding 1000m in length for the bulk transportation of water or stormwater – (i) with an internal diameter of 0,36m or more; or (ii) with a peak throughput of 120 litres per second or more	The proposed pipeline from the existing pump station in the Houdenberg-Bo dam to the dam will have a length of ±1,2km and ø360mm.
12	The development of (iv) dams, where the dam, including infrastructure and water surface area, exceeds 100 m ² in size (a) within a watercourse	The proposed instream dam will have a total footprint of ±36.9ha and is proposed within a watercourse.
19	The infilling or depositing of any material of more than 10m ³ into, or the dredging, excavation, removal or moving of soil, sand shells grit, pebbles or rock of more than 10m ³ from (i) a watercourse	The proposed instream dam will have a total footprint of ±36.9ha with a watercourse
GN R325	Short description of relevant Activity(ies) in terms of Listing Notice 2	Description of specific portion of the development that might trigger the listed activity.
15	The clearance of an area of 20ha or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for – (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	Vegetation clearing of ±36.9ha is expected for the proposed construction of the dam
16	Development of a dam, where the highest part of the dam wall, measured from the outside toe of the wall to the highest part of the wall, is 5m or higher or where the highwater mark of the dam covers an area of 10ha or more	The proposed dam wall is ±14m.
GN R324	Short description of relevant Activity(ies) in terms of Listing Notice 3	Description of specific portion of the development that might trigger the listed activity.
N/A		

An Application Form will be submitted to DEA&DP. This Post-Application Scoping Process is undertaken to identify potential issues.

The principles of environmental management as set out in section 2 of NEMA have been taken into account. The principles pertinent to this activity include:

- People and their needs will 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 providing additional employment and economic development opportunities.*
- 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 EMP.*

- 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 on 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.

4.3 NATIONAL HERITAGE RESOURCES ACT

The protection and management of South Africa's heritage resources are controlled by the National Heritage Resources Act (Act No. 25 of 1999). South African National Heritage Resources Agency (SAHRA) is the enforcing authority and in the Western Cape, SAHRA have, in most cases, delegated this authority to Heritage Western Cape (HWC).

In terms of Section 38 of the National Heritage Resources Act, SAHRA and/or HWC will require a Heritage Impact Assessment (HIA) where certain categories of development are proposed. Section 38(8) also makes provision for the assessment of heritage impacts as part of an EIA process and indicates that if such an assessment is found to be adequate, a separate HIA is not required.

The National Heritage Resources Act requires relevant authorities to be notified regarding this proposed development, as the following activities are relevant:

- *any development or other activity which will change the character of a site exceeding 5 000 m² in extent;*

Furthermore, in terms of Section 34(1), no person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the SAHRA, or the responsible resources authority. Nor may anyone destroy, damage, alter, exhume or remove from its original position, or otherwise disturb, any grave or burial ground older than 60 years, which is situated outside a formal cemetery administered by a local authority, without a permit issued by the SAHRA, or a provincial heritage authority, in terms of Section 36 (3). In terms of Section 35 (4), no person may destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object, without a permit issued by the SAHRA, or the responsible resources authority.

4.4 EIA GUIDELINE AND INFORMATION DOCUMENT SERIES

The following are the latest guidelines that form part of the DEA&DP's *Environmental Impact Assessment Guideline and Information Document Series (Dated: October 2011)*:

- ✓ *Guideline on Transitional Arrangements*
- ✓ *Guideline on Alternatives*
- ✓ *Guideline on Public Participation*
- ✓ *Guideline on Exemption Applications*
- ✓ *Guideline on Appeals*
- ✓ *Guideline on Need and Desirability*
- ✓ *Information Document on the Interpretation of the Listed Activities*

4.5 NATIONAL WATER ACT

Besides the provisions of NEMA for this EIA process, the proposed dam also requires authorizations under the National Water Act (Act N0. 36 of 1998). The Department of Water Affairs, who administer that Act, will be a leading role-player in the EIA.

Existing water extraction rights of 40 ha (240 000 m³) from the Eksteenskloof will be used. Additional water rights might have to be obtained for which a WULA application process will be launched.

Sarel Bester Ingenieurs is conducting a Water Use License Application. Activities triggering Section 21 of the National Water Act include:

- S21 (a) Taking of water
- S21 (b) Storing of water
- S21 (c) Impeding or diverting the flow of the water course
- S21 (i) Altering the bed, bank, course or characteristics of a watercourse

Please refer to Appendix 7.2 for the Water Use License Application Report 1733WULA-W2

In terms of Chapter 12 of the National Water Act, the proposed dam is considered a dam with a safety risk. The dam therefore requires a permit to construct from the Dam Safety Office of the Department of Water Affairs. The design and construction must conform to the conditions of the Dam Safety Regulations as set out in Government Notice R139 in Government Gazette No. 35062 of 24 February 2012. Regulations 10 and 15 will be applicable to the proposed dam. A licence to construct application will only be submitted after an application for the safety classification of the proposed dam has been submitted, and only after the NEMA process has been concluded.

4.6 NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT

The National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA) is part of a suite of legislation falling under NEMA, which includes the Protected Areas Act, the Air Quality Act, the Integrated Coastal Management Act and the Waste Act. Chapter 4 of 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*).

4.7 MOUNTAIN CATCHMENT AREAS ACT NO. 63 OF 1970

The Mountain Catchment Areas Act, encourages conservation, use, management and control of mountain catchment areas. The management of mountain catchment areas will maintain sustained yields of quality streamflow, nature conservation, fire hazard reduction, afforestation, grazing, tourism and recreational opportunity. The owner of the designated land must manage that land through prevention of soil erosion, removal of exotic vegetation and fire protection.

5. ALTERNATIVES

Alternatives have been considered during the Scoping phase and these are described below.

5.1 SITE ALTERNATIVES FOR THE PROPOSED DAM

As previously described, the concern with such a large project expansion is site possibilities. Winkelhaak RE224 (owned by Harmony Trust) has no viable dam site options as it has a rather flat topography and no real natural basin. Therefore, the only available land for both dam sites as well as the proposed fruit orchards is on the neighbouring farm, RE Houdenbek Farm 415 (owned by Moreser Landgoed). The idea would be at first that Harmony Trust would rent the land from Moreser Landgoed (MHB Boerdery Pty Ltd), with a long-term vision of subdividing the land, giving Harmony Trust the opportunity to buy the land. Please refer to Figure 1 above indicating the proposed future subdivision.

Sarel Bester Engineers together with Van Breda & Associates conducted the investigation of two dam site alternatives referred to as Toeka dam and Droë dam on RE Houdenbek Farm 415. The Droë dam site entailed raising an existing dam wall while the Toeka dam site is a new proposed instream site. A land survey of Toeka dam was done at a later stage by Boland Opmetings (Appendix B available on request in *Preliminary Design Report 1619DOV-S2 from Sarel Bester Engineers Appendix 7.1*,).

The distinctive factors when looking at alternatives are normally the basin characteristics with reference to available capacity versus demand, optimal costing of the works, risk factors etc.

Two site locations for the proposed dam have been considered and investigated. Two locations were identified as possible locations, and referred to as:

- Alternative A referred to as Toeka dam (Preferred site alternative)
- Alternative B, referred to as Droë dam (Not-viable site alternative)

These are indicated in Figure 4 below.



Figure 6: Locations Alternatives – Toeka dam (Alt A – Preferred) and Droë dam (Alt B – Not viable) both on RE Houdenbek 415) (Sarel Bester Engineers Prelim design report)

Alternative B Droë dam (Not viable site alternative):

Droë dam RE Houdenbek 415 (Alternative B, not viable) is not considered feasible as it will not be cost effective. The reason this dam is not in use anymore can be attributed to leakage of the dam basin and sealing problems are predicted. Due to the topography of the site the dam does not have enough storage capacity to accommodate for 2 000 000m³ of water and thus more earth moving, and a higher wall will be required.

Alternative A, Toeka Dam (Preferred site alternative):

Toeka dam (Alternative A, preferred) on RE Houdenbek 415 is considered the preferred site alternative based on its cost effectiveness and storage capacity in relation to the sacrifice of potential production land over the foreseen sealing problems of the basin of Droë dam site. Even though the preferred Toeka dam will have a larger footprint when compared to Droë dam (Alternative B, not viable). Toeka dam (Alternative A, preferred) would have lower wall heights requiring less earthmoving and disturbance resulting in more efficient storage rations and overall better economics.

From Cape Farm Mapper it can be concluded that Toeka dam (Alt A – preferred) does not fall within a Critical Biodiversity Area (CBA) but falls within an Ecological Support Area (ESA). The proposed Toeka dam also falls within Kouebokkeveld Shale Fynbos (considered vulnerable in terms of NEMBA) but from Google images it seems as if the site has been previously disturbed. These findings will be confirmed by the specialist and discussed in specialist findings.

It is for these reasons that Alternative B, Droë dam is not considered economically viable and therefore will not be investigated further as a viable site alternative. The proposed new Toeka dam, Alternative A is considered the only viable, preferred alternative.

5.2 ACTIVITY ALTERNATIVES

The purpose of the proposed dam is to provide the Harmony Trust with enough water for its irrigation requirements. No activity alternatives were considered.

5.3 NO-GO ALTERNATIVE

This is the option of not developing the proposed dam. Although this might result in no potential negative environmental impacts, the direct and indirect socio-economic benefits of not constructing the storage dam will not be realised. As described in *Section 2.1*, it is of critical importance to the success and feasibility of the business proposal for the proposed agricultural expansion on the farm, which is expected to create jobs in the area, that there be sufficient supply and storage of irrigation water.

6. ENVIRONMENTAL IMPACT ASSESSMENT, SIGNIFICANCE AND MITIGATION METHODOLOGY

The following impact rating approach used by EnviroAfrica CC is a basic exponential rating system to assess actual and potential negative environmental impacts of viable alternatives by the EAP.

Positive environmental impacts are not listed. All positive impacts need to be enhanced or increased where possible but positive impacts are not rated or given a score since the rating is based on risks.

Environmental activities or aspects are identified, based on:

- the phases of the project,
- the nature (or description) of the actual and potential impacts of the activities.

For every project activity or aspect, various environmental impacts are listed. Every negative impact is allocated a value – as per each of the following criteria:

- Probability (Likelihood)
- Extent
- Duration (Frequency)
- Consequence (Receiving Environment)
- Magnitude (Intensity/severity)

Every negative impact is allocated a (-)value as per each of the following criteria:

- Probability (Likelihood)
- Extent
- Duration (Frequency)
- Magnitude (Intensity/severity)

Once a value is allocated for each of the criterion, the scores are averaged to determine the final impact rating see Table 5 below.

EnviroAfrica then further assesses environmental significance, based on the nature of the impact, as per the score and colour key which forms part of the table below. This results in impacts having either a low (indicated in green), medium (indicated in yellow) or high (indicated in orange and red) negative significance.

Note: i. As a baseline, impact rating values/scores are allocated taking the **worst case** scenario into account i.e. with no mitigation. The baseline rating is compared with those after mitigation has been taken into account i.e. the post-mitigation rating. Post mitigation rating is used for the actual impact assessment.

SIGNIFICANCE CRITERIA	Very High	High	Medium	Low	Negligible (very-low)	Score
Value	16	8	4	2	1	
Probability (likelihood) (P)	Definite. Impact will definitely occur.	Highly probable. Very likely for impact to occur.	Probable. Impact may likely occur.	Improbable. Impact may occur. Distinct Possibility	Improbable. Low likelihood/unlikely for impact to occur.	
Extent (E)	Impact potentially reaches beyond national boundaries	Impact has definite provincial/potential national consequences	Impact confined to regional area/ town	Impact confined to local region and impact on neighbouring properties	Impact confined to project property / site	
Duration (D)	Permanent	Long-Term	Medium-term	Short-term	Very short/ temporary	
Magnitude (Intensity/ Severity) (M)	It is expected that the activity will have a very severe to permanent impact on the surrounding environment. Functioning irreversibly impaired. Rehabilitation often impossible or unfeasible	It is expected that the activity will have a severe impact on the surrounding environment. Functioning may be severely impaired and may be temporarily cease. Rehabilitation will be needed to restore system integrity	It is expected that the activity will have an impact on the surrounding environment, but it will maintain its function, even if moderately modified (overall integrity not compromised). Rehabilitation easily achieved	It is expected that the activity will have a perceptible impact on the surrounding environment, but it will maintain its function, even if slightly modified (overall integrity not compromised). Rehabilitation easily achieved	It is expected that the impact will have little or no effect on the integrity of the surrounding environment	
Receiving environment (Consequence): (RE)	Very sensitive, pristine area – protected site or species permanently or seasonally present	Unused area containing only indigenous fauna / flora species	Unused area containing indigenous and alien fauna / flora species	Semi-disturbed area already rehabilitated / recovered from prior impact, or with moderate alien vegetation	Disturbed area/ transformed/ heavy alien vegetation	
FINAL RATING (average score)						

ENVIRONMENTAL RATING SIGNIFICANCE KEY:

Negative Impacts

SIGNIFICANCE	RATING	Final rating score / value range
Very Significant	Very High	-12 to -16
Significant	High	-9 to <-12
Increasing Significance	Medium	-6 to <-9
Insignificant	Low	-3 to <-6
	Very Low	-1 to <-3

6.1 ENVIRONMENTAL SIGNIFIGANCE RISK RATING

Please refer to **Appendix 9** for the Environmental Impact Risk rating matrix. The matrix aims to identify potential impacts of the proposed development on the receiving environment, based on a desktop study. The following table is a summary of all the potential impacts assessed. Please note that specialist findings were not considered in this risk assessment.

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/should be applied. Specialist recommendations and mitigation measures will be included. A more detailed assessment will be carried out in the EIR phase taking specialist findings into consideration.

Aspect	Impact	Significance No mitigation	Significance With Mitigation
Botanical	Potential Loss of Kouebokkeveld Shale Fynbos	Low Significance	Low Significance
	Loss of ESAs	Medium Significance	Low Significance
	Soil Contamination	Low Significance	Very Low Significance
Water	Loss of Riparian Habitat	Low Significance	Very Low Significance
	Alternation of hydrology/ flow of the drainage line	Medium Significance	Very Low Significance
	Surface water & ground water contamination	Very Low Significance	Very Low Significance
	Erosion & Sedimentation	Very Low Significance	Very Low Significance
Heritage	Loss of Heritage Resources	Very Low Significance	Very Low Significance
Dust	Dust from site topsoil removal; construction, rehabilitation	Very Low Significance	Very Low Significance
Visual	Negative visual impact of the proposed development	Very Low Significance	Very Low Significance

7. ENVIRONMENTAL ISSUES AND POTENTIAL IMPACTS

Environmental issues were raised through informal discussions with the project team, specialists and authorities. Based on a baseline assessment and these informal discussions, specialist were appointed to conduct assessments of the proposed dam development on the environment. Specialist findings and recommendations will be addressed in detail in the Environmental Impact Report.

The following specialist were appointed:

- Botanical specialist
- Freshwater specialist
- Heritage specialist

The following potential issues have been identified from a baseline assessment:

7.1 BIODIVERSITY

The proposed Toeka dam falls within Kouebokkeveld Shale Fynbos, this vegetation type is classified as Vulnerable in the Western Cape in terms of *NEMBA National list of Ecosystems that are threatened and in need of protection*. Google images indicate that the dam falls partly on previously disturbed dam. Please see **Appendix 1** for Locality Maps and **Appendix 4.2** for Vegetation Maps.

The proposed Toeka dam does not fall within a CBA but does fall within an ESA2 and is not located within the proclaimed Kouebokkeveld Mountain Catchment Area. Please see **Appendix 4.1** for Biodiversity Overlay Maps. ESAs are not essential for meeting biodiversity targets, but play a role in supporting the functioning of CBAs. And are often vital for delivery ecosystems services. The objective is to restore and/or manage to minimize impact on ecological processes and ecological infrastructure functioning, especially soil and water-related services, and to allow for faunal movement. Properly design and managed farm dams can attract a variety of birds, insects and animals to the area which can contribute to the conservation of biodiversity.

Because of the proximity to intensive cultivated areas it is not expected that the proposed dam location will have a significant impact on fauna species. Avi-fauna (water species) may even benefit from the dam. The impact on reptiles and amphibian will be much localised and may result in species being displaced (snakes and lizards) but not significant permanent impact on species is expected. Properly design and managed farm dams can attract a variety of birds, insects and animals to the area which can contribute to the conservation of biodiversity.

It was anticipated that a more detailed full botanical assessment, in addition to the high level desktop study will need to be undertaken. Therefore, a site-based assessment by a specialist was conducted to ground-truth the initial desktop assessment and determine if there is any sensitive or endangered vegetation on the proposed site, findings will be discussed in detail in the EIR but are summarised below for ease of reference.

7.1.1 TERMS OF REFERENCE - BOTANICAL IMPACT ASSESSMENT:

- Take cognizance of, and comply with, the substantive content requirements outlined within Appendix 6 of GN R982, as amended, which outlines the legal minimum content requirements for specialist studies in terms of the 2014 NEMA EIA Regulations;
- The local and regional context of the vegetation communities and plant species within the affected areas, taking cognizance of the relevant biodiversity plans, bioregional planning documents, Environmental Management Frameworks etc.

- The ecosystem status and conservation value of the vegetation communities, including whether the potentially affected areas comprise critically endangered or endangered ecosystem(s) listed in terms of section 52 of the NEMBA;
- Any rare or endangered species encountered or likely to be or have been present;
- The presence of and proximity of the proposed site to protected area(s) identified in terms of NEMPAA and proximity to a Biosphere Reserve (where relevant).
- Confirm the approximate area (m²) of indigenous vegetation (as defined in the NEMA EIA Regulations) that would be cleared for the proposed project.
- A description of the direct, indirect, residual and cumulative botanical impacts (both before and after mitigation) and an assessment of the significance of the impacts (on a nominal scale of Neutral/ Negligible, Very Low, Low, Medium, High) by evaluating: (a) nature of the impacts (positive/ negative), (b) extent of the impacts (zero/ site specific/local/ regional/ national/ international), (c) magnitude of the impacts (zero/ Very Low/Low/ Medium/ High), (d) duration of the impacts (none/ short/ medium/ long term) and (e) probability of occurrence of the impacts (none/ unlikely/ possible/ definite). In addition, (f) the level of confidence in findings relating to potential impacts, (g) reversibility of potential impacts (i.e. the degree to which the impact can be reversed); and (h) the degree to which the impact may cause irreplaceable loss of resources.
- An indication of the degree (very low/ low/ medium/ high) to which the impacts can be avoided, managed and mitigated, a description of the measures to mitigate any impacts, and an indication of whether or not the measures (if implemented) would change the significance of the impact, for the construction and operational phases of the project;
- Delineate the vegetation communities and sensitive areas from a floristic perspective and overlay onto aerial photography and /or site map (i.e. create a vegetation sensitivity map of the project area);
- Take cognizance of the Department of Environmental Affairs (DEA) and Department of Environmental Affairs and Development Planning (DEA&DP) Guideline for Involving Biodiversity Specialists in the EIA Process and the requirements of the Botanical Society of South Africa (BotSoc) in developing an approach to the botanical investigation.

7.1.2 SUMMARY - BOTANICAL SPECIALIST FINDINGS:

The Botanical Impact Assessment Report is available as in **Appendix 8.1** and findings and recommendations will be discussed in detail in the EIR. The specialist findings is summaries below.

The direct impacts of the proposed Toeka dam can be attributed to the loss of vegetation type, habitat, which include the loss of plant species and ecological process, due to the construction and operations of the proposed Toeka dam.

The Botanical Specialist stated that the area selected for the proposed Toeka, historically would have supported Kouebokkeveld Shale Fynbos, classified as least threatened. There is currently none of that vegetation type remaining and the habitat is transformed and support secondary vegetation. the ESA2 rating of the area has some ecological value. The specialist states that the impact of the Toeka dam site would be Low Negative from a terrestrial botanical perspective. The table below indicates the impact and significant rating for the loss of natural vegetation and habitat during construction and operations of the proposed Toeka dam.

CRITERIA	'NO GO' ALTERNATIVE		PREFERRED ALTERNATIVE	
Nature of direct impact (local scale)	Loss of degraded Kouebokkeveld Shale Fynbos			
	WITHOUT MITIGATION	WITH MITIGATION	WITHOUT MITIGATION	WITH MITIGATION
Extent	Local	Local	Local	Local
Duration	Long-term	Long-term	Long-term	Long-term

Intensity	Low	Low	Low	Low
Probability of occurrence	Probable	Probable	Probable	Probable
Confidence	High	High	High	High
Significance	Negligible	Negligible	Low negative	Low negative
Nature of Cumulative impact	Loss of Kouebokkeveld Shale Fynbos			
Cumulative impact prior to mitigation	Low negative			
Degree to which impact can be reversed	Not reversible			
Degree to which impact may cause irreplaceable loss of resources	Very low			
Degree to which impact can be mitigated	Not required			
Proposed mitigation	None			
Cumulative impact post mitigation	Low negative			
Significance of cumulative impact (broad scale) after mitigation	Negligible			

The botanical specialist further states that indirect impacts occur away from the 'action source' i.e. away from the development site. The impact assessed here is specifically how the proposed dams would have an indirect impact on vegetation and flora away from the development site. No indirect impacts for terrestrial vegetation and flora were identified.

7.2 FRESHWATER

A freshwater impact assessment is proposed. This is due to the fact that the dam is considered an instream dam which is likely contain remaining elements of riparian vegetation.

The following information was taken from the *Preliminary Design Report 1619DOV-S2 from Sarel Bester Engineers Appendix 7.1*. The proposed Toeka dam will be located along a small tributary within the larger Houdenberg River Catchment area upstream of the confluence of the Winkelhaak River into the Riet River which forms part of the larger Doring River, a tributary to Olifants River system. Water to the dam will purely be based on surplus winter water from the Houdenberg catchment.

May downstream water users expressed their concerns with regards to the proposed dam restricting the flow of water downstream into the Rietriver. Sarel Bester Engineers explains in the Comments & Response Report (**Appendix F1.5.6**) that regulatory mechanism will be implemented to ensure that only winter surplus water be abstracted to not negatively impact existing downstream users. A monitoring plan & measurement mechanisms is proposed to be installed both up and down stream to ensure that only surplus water will be stored and that water is not cut off to downstream users. This should be made a condition of the Environmental Authorisation and well as the Water Use License, should the authorisations be granted.

Sarel Bester Engineers is conducting a Water Use License Application. Activities triggering Section 21 of the National Water Act include:

- S21 (a) Taking of water
- S21 (b) Storing of water
- S21 (c) Impeding or diverting the flow of the water course
- S21 (i) Altering the bed, bank, course or characteristics of a watercourse

The Water Use Licence Application report 1733WULA-W2 (**Appendix 7.2**) explains the Houdenberg catchment is one of five upstream catchment areas that contribute to the total run-off of the Riet River

catchment. Houdenbek River Catchment, one of the tributaries to the Riet river, contribute about 30% of the total of the annual Riet River run-off. This particular Water Use Application is for the taking of about 3% of the Houdenbeks River run-off, AFTER the ELU's (Existing water users) and IFR (in flow requirements) have been protected, which is 30% of the total Riet River run-off. Therefore we are applying for only 0,9% of the total of Riet river run-off (after ELU's).

7.2.1 TERMS OF REFERENCE - FRESHWATER IMPACT ASSESSMENT:

- A description of the area, its climate, rainfall, catchment and aquatic habitat.
- A description of the project
- The legal framework, as it pertains to the project.
- Assessment of the Water Quality, if there is any water in the water courses at the time of field visits. This entails analytical water quality testing in a SANAS accredited laboratory and SASS5 biomonitoring.
- The Present Ecological State of the affected aquatic habitat, as outlined by Kleinhans (1999) and as has been described in various DWS publications. This applies to both the instream and riparian habitat.
- The Ecological Importance of the affected aquatic habitat must be established.
- The Ecological Sensitivity must be determined.
- The possible impacts of the farm dams on the aquatic habitat must be described.
- Mitigation Measures must be added.
- This is followed by an Impact Assessment. This is a measurement of the envisaged success of the mitigation measures. The Mitigation Measures and Impact Assessment are specifically to satisfy the WULA requirements..
- A Risk Matrix is required, as published on the DWS webpage. This is specifically to assess the environmental risks of the envisaged project. This methodology is specifically a tool to decide if a General Authorisation or a License is required for these two dams.
- The Resource Economics, or the environmental goods and services of the aquatic habitat must be assessed, according to the methodology of Kotze, G., G. Marneweck, A. Batchelor, D. Lindley & Nacelle Collins. 2009. A technique for rapidly assessing ecosystem services supplied by wetlands. Water Research Commission, Pretoria.
- The drivers of the aquatic systems must be described and how these pertain to the envisaged project, according to the methodology outlined in various DWS documents.
- The Fresh Water Report should contain adequate information to aid DWS decision-makers if a letter of consent, a General Authorisation or a License is required

DEADP also requested in their comments (**Appendix 5.6.31**) that a River Maintenance Management Plan (MMP) be conducted for the proposed Toeka dam development.

7.2.2 THE TERMS OF REFERENCE – RIVER MAINTENANCE MANAGEMENT:

- Provide a map (at an appropriate scale) of the watercourse or stretch of watercourse being applied for within the stretch where maintenance activities will take place being clearly defined – consideration must be made to mapped features relating to Critical Biodiversity Areas (CBAs) and National Freshwater Ecosystem Priority Areas (NFEPAs).
- GPS coordinates must be provided for all site(s) at which maintenance activities will take place and included on the map which defines the stretch of watercourse. Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94 WGS84 co-ordinate system. Where numerous properties/sites are involved (e.g. linear activities), you may attach a list of property descriptions and co-ordinates to this form.

- Specialist assessment to be undertaken to determine (NOTE: information relating to the specifications and Terms of Reference used for the appointment of all specialist inputs must be provided).
- Hydrological (incl. flood hydrological data etc.) and geomorphological assessment of watercourse functioning.
- The relevant Present Ecological Status (PES) of the stretch of watercourse in question, if not available an assessment is to be done to determine PES in accordance with the Department of Water and Sanitation (DWS) guidelines.
- What is the reason/cause for the maintenance activities based on an ecological and hydrological assessment of the watercourse within the context of the larger catchment.
- What are the drivers of system functioning within the watercourse and what is the ecological objective – based on historical condition and PES.
- What is the management objective given the ecological status of the watercourse based on historical and PES data; as set out in agreement with the person(s) responsible for undertaking the maintenance activities.
- What is the impact on the watercourse/river system (resource quality characteristics: flow regime, geomorphology, water quality, habitat and biota) for a minimum of 500m both up and downstream of the proposed maintenance activities, with the mitigation measures included;
- An appropriate assessment for risk for each of the proposed types of maintenance activities and linked management actions in terms of the risk matrix for General Authorisations (GA) of Section 21 (c) and (i) by the DWS (GN 509 of 2016) or where applicable.
- Mapped biodiversity features such as Critical Biodiversity Area, Ecological Support Area, National Freshwater Ecosystem Priority Area (NFEPA), and the National list of Ecosystems that are threatened and in need of protection (2011) gazetted in terms of Section 52 of the National Environmental Management: Biodiversity Act (Act No. 10 of 2004) (NEMBA), the Western Cape Biodiversity Spatial Plan 2017, as well as relevant provincial specific plans and classifications etc. Please consult the website www.bgis.sanbi.org.za to determine mapped features.
- Include a description of existing or previous protection measures or reinforcements (eg. gabions or groynes etc.) and infrastructure. Describe any evidence of erosion and/or siltation at the various sites and outlining possible causal factors and maintenance practices.
- Provide historical maps and data (images/flow/water quality/land use) of the river channel (if available) in order to assess the natural to changing flow patterns of the watercourse to determine cause of maintenance and possible impact of the maintenance activities, to inform mitigation measures.
- Provide a photographic record for the condition of the riparian habitat around maintenance sites, with the presence of important and/or sensitive habitat/species noted.
- For sites prone to flood damage, a description regarding the history and effect of past floods and include dates of most recent events must be provided. This must inform the process to understand what actions are required along the stretch of the watercourse to reduce such impacts to the resource quality characteristics.
- Explain the risks associated with the no-go option for the MMP i.e. the risk of not undertaking the maintenance activities as stated in the MMP.

7.2.3 SUMMARY- FRESHWATER IMPACT REPORT:

The Freshwater Impact Assessment Report is available in **Appendix 8.2** and findings and recommendations will be discussed in detail in the EIR. The specialist findings is summaries below.

Impact of the proposed Toeka dam on receiving environment:

The proposed Toeka dam is situated within a faint drainage line about 2.1km from the Houdenbek River. There are numerous drainage lines from the mountain to the river, most of which are much bigger than the Toeka drainage line. During high winter rains, the entire area at the dam site is flooded and resembles a wetland rather than a stream. This does not happen every winter, rainfall is erratic and variable. Wetness only lasts for a few short weeks and the area is entirely dry again. The

specialist states that most of the proposed dam is on ploughed land and that no sign of any wetland or riparian vegetation was observed.

The table below indicates the impact and significant rating during construction and operations of the proposed Toeka dam.

Possible Impact		Extent	Duration	Intensity	Significance	Probability	Confidence
Clearing of the dam sites	Without mitigation	Regional	Long term	Medium	Medium	Probable	High
	With mitigation	Local	Short term	Low	Low	Low	High
Collecting construction material from dam sites	Without mitigation	Regional	Medium term	Medium	Medium	Probable	High
	With mitigation	Local	Short term	Low	Low	Low	High
Construction of the dams	Without mitigation	Regional	Short term	Medium	High	Probable	High
	With mitigation	Local	Short term	Low	Low	Low	High
Clearing of dam sites	Without mitigation	Regional	Long term	Medium	Medium	Probable	High
	With mitigation	Regional	Long term	Low	Low	Low	Medium
Stabilisation of the new dam walls	Without mitigation	Regional	Long term	Medium	Medium	Probable	High
	With mitigation	Local	Short term	Low	Low	Low	High
Operation of the dam	Without mitigation	Regional	Long term	Medium	Medium	Probable	Medium
	With mitigation	Regional	Long term	Low	Low	Probable	Medium

The specialist further states that with small and medium sized dam walls, downstream impacts can be readily mitigated. The significance of the impact is rated as low. This support the view that the flood plain is readily impacted upon agriculture and the construction of the dam would not represent a significant loss of aquatic habitat.

Water demand:

The proposed Toeka dam cannot be filled with water from the runoff of its own catchment. The Toeka catchment can only produce 160 000m³ on average per year after the 25% IFR has been accounted for. The water demand for the proposed 75ha agricultural development amounts to 712 500m³ per year. Therefore the shortfall of water on an annual basis will have to be sources form the Houdenbek River. Please refer to the explanation and motivation for the taking and storing of water in the Sarel Bester Engineers Water Use Licence Application report 1733WULA-W2 (**Appendix 7.2.**).

The freshwater specialist stated that the direct long terms impact of the water storage and the flow reduction down the drainage lines and eventually down the Houdenbek river have not been assessed.

The impact on the entire river system is the domain of a qualified and experienced hydrologist. How much more abstraction can be allowed to approach or exceeds the Ecological Reserve rests with the Department of Water and Sanitation. These issues are very much beyond the scope of a WULA and its budget.

However, the freshwater specialist did assess the possible impact on the proposed new abstraction in the Houdenberg River. A WULA is required for the 712 500m³ from the Houdenberg River and the Toeka and Harmony Catchments. The impact from this new water was assessed on the Houdenberg river close to and downstream from the confluence of the Harmony drainage line with the Houdenberg river.

According to the Freshwater report the main impact of the proposed abstraction of water from the Houdenberg sampling point downstream of the Harmony confluence, but rather downstream in the Riet River & eventually in the Doring River. The Doring River is already stressed because of water abstraction in the upper catchment. This is causing a shortened hydroperiod and lowering the water level. More water abstraction from the pumping of water from the Houdenberg River as well the proposed damming of the Toeka and Harmony catchments, will contribute to existing impacts. The specialist then goes on to explain that the impact could be minimised if the additional water abstraction is affected only when the river is in flood and at its peak flow. The impact will be limited when the abstraction is not allowed during base and drought flow. Shortening of the hydroperiod would be least noticeable, if at all, if water would be taken only during peak flow.

Concluding remarks from the specialist is that the destruction of aquatic habitat because of the construction of the proposed dam is not deemed significant. The impact receptor would be downstream in the Doring River which is already water stressed. However the impact on the Doring River can be significantly reduced if water abstraction is only allowed during peak flows.

7.3 HERITAGE

The possible impact on heritage resources has been identified as a possible environmental impact because of the construction of the dam. The dam with associated infrastructure is expected to have a footprint of approximately 36.9 ha.

A Heritage Screener was conducted by CTS Heritage as a baseline assessment (**Appendix 8.3**) A heritage NID was submitted to Heritage Western Cape (HWC). HWC provided comments requesting that the further studies, specifically Archaeological and Paleontological Impact Assessment, have to be conducted (**Appendix 5.6.33**). The Heritage Screener suggested that the proposed dams might impact on rock art sites. CTS Heritage suggested that an Archaeological assessment first be conducted. Findings were captured in a Heritage Impact Report (**Appendix 8.3.1**) and submitted the report to HWC for comments. HWC proceeded to request a Paleontological assessment be conducted. The Paleontological assessment still needs to be conducted. The updated Heritage Impact report will include the assessments on archaeological as well as palaeontological Heritage resources and will be submitted with the Post-App Scoping report.

7.3.1 TERMS OF REFERENCE - HERITAGE IMPACT ASSESSMENT:

- An archaeological and palaeontological field assessment of the area proposed for development to ensure that any archaeological or palaeontological resources that may be impacted are identified and impacts mitigated. The results of these field assessments are integrated into a Heritage Impact Assessment with an integrated set of recommendations pertaining to impacts to heritage resources.

- To identify and map heritage sites/remains that might be impacted by the proposed development;
- To assess the sensitivity and conservation significance of archaeological sites/remains in the inundation area;
- To assess the status and significance of any impacts resulting from the proposed development;
- To identify measures to protect any valuable heritage sites/remains that may exist within the estimated inundation area.

7.3.2 SUMMARY HERITAGE IMPACT REPORT (NOT UPDATED):

The Heritage Impact Assessment Report is available in **Appendix 8.3.1** and the Archaeological Impact Report is available in **Appendix 8.3.2**. The specialist findings concluded that the proposed Toeka dam site is not considered a sensitive archaeological landscape. No archaeological resources were found on site which is an old apple orchard and have been extensively cultivated in the past.

7.4 VISUAL IMPACT

The potential impact on the sense of place of the proposed dam has also been considered. The surrounding area is characterised by agricultural activities, as well as a number of farm dams in the local area, and the proposed dam will therefore not be uncharacteristic for the area.

The sense of place is not expected to be altered by the proposed dam, and no further studies are suggested.

7.5 SAFETY

Sarel Bester Engineers submitted a dam safety and classification application to the Dam Safety Office. Harmony was classified on 30 January 2018 as a medium size Category II dam with a Low Hazard potential rating (Appendix D of *Preliminary Design Report 1619DOV-S2 from Sarel Bester Engineers Appendix 7.1*).

7.6 LOSS OF AGRICULTURAL LAND

The success of the proposed Toeka dam is of critical importance to the to the successful expansion of the planned 75ha agricultural development, a BBBEE farming initiative. The success of this project is expected to create a number of permanent jobs within the agricultural industry.

7.7 SOCIO-ECONOMIC IMPACT

Although the construction of the proposed dam will create jobs during the construction phase of the activity, the dam will indirectly secure additional jobs during the operational phase. As indicated in *Section 2.1*, the proposed dam is of critical importance to the success to establish fruit orchards, which is expected to create permanent job opportunities in the agricultural sector.

This proposed application is part of a larger projects for the further development of an existing 100% black-owned BBEEE farming entity, namely Harmony Trust, reference T2213/2003. They have been in the agricultural sector and trading successfully for the past 12 years with their neighbouring partner and mentor, Morester Langoed The plan is to grow and irrigate 75ha of fruit. This would benefit the existing BBBEE entity and more importantly also the broader economy by creating work opportunities for the previously disadvantaged groups.

7.8 OTHER ISSUES IDENTIFIED

Any further issues raised during the public participation process or by the Competent Authority not mentioned in this section, will be dealt with during the EIA phase.

8. PLAN OF STUDY FOR THE EIA

To adequately address the environmental issues raised and highlighted above the following plan of study will be employed:

8.1 PRE-APPLICATION PHASE

In terms of the 2014 EIA requirements, this application is now in what is termed the “Pre-Application Phase”, which included the following steps:

- Project preparation, site visits and meetings with client;
- Preparation of draft background information document;
- The Preparation of the “Notification of Intend” (**Appendix 6.1** for Proof of submission)
- Pre-application meeting was scheduled with the DEADP & DWS (**Appendix 6.2** for the Pre-App Meeting register)
- Initial public participation was done (Refer to **Appendix 5**);
- Register of interested and affected parties was compiled (Refer to **Appendix 5.5**):
- A comments and response report was established (**Appendix 5.6**):
- Specialist were appointed;
- Preparation of Pre-App Scoping Report for comment, October 2018.

The Pre-App Scoping Report was made available for 30-day comment period. Comments were captured and addressed in the Comments & Response Report (**Appendix 5.6**) original comments were also included. Comments received during the Public Participation Process will be incorporated into the Draft Environmental Impact Report.

8.2 APPLICATION PHASE

The process will now enter the formal application process. The NEMA EIA (2014) as amended, process prescribes the following tasks:

Table 3: Summary of the NEMA EIA (2014) process that will be followed

TASKS	NUMBER OF DAYS	PROJECTED DATES
1. PRE-APPLICATION PHASE	90	
• <i>Notice of Intent (NoI): Prepare & Submit</i>		9 June 2017
• Appoint Specialists – Botanical, Freshwater, Heritage		9 June 2017
• PPP (1 st round): Advertisement, Posters, mail drops, Register I&AP's	30	9 June 2017
• Submit Pre-Application Scoping report to competent authority & I&APs for comment	30	1 October 2018 & July 2019
<i>NB: Post-App SR: Prepare for comment + update EMP and C&R report</i>		
2. APPLICATION PHASE	43	
2.1. Application document: Prepare & Submit to competent authority (CA have 10 days to respond)		September 2019
2.2. Submit <i>Post-App SR</i> to CA + IAP's for comments	30	September 2019
2.3. Submit <i>Post-App SR</i> to CA for approval	43	November 2019
3. IMPACT REPORT (Timeframe start on decision from CA on SR)	106	
3.1. Submit IR to CA & IAP's for comment (PPP on IR)	30	Dec 2019
3.2. Submit <i>Final IR</i> to CA for approval	20	January 2020
CA to provide decision within 107 days		
Total for NON-SUBSTANTIVE EIA Application (90 + 43 + 44 + 106 + 107 days)		

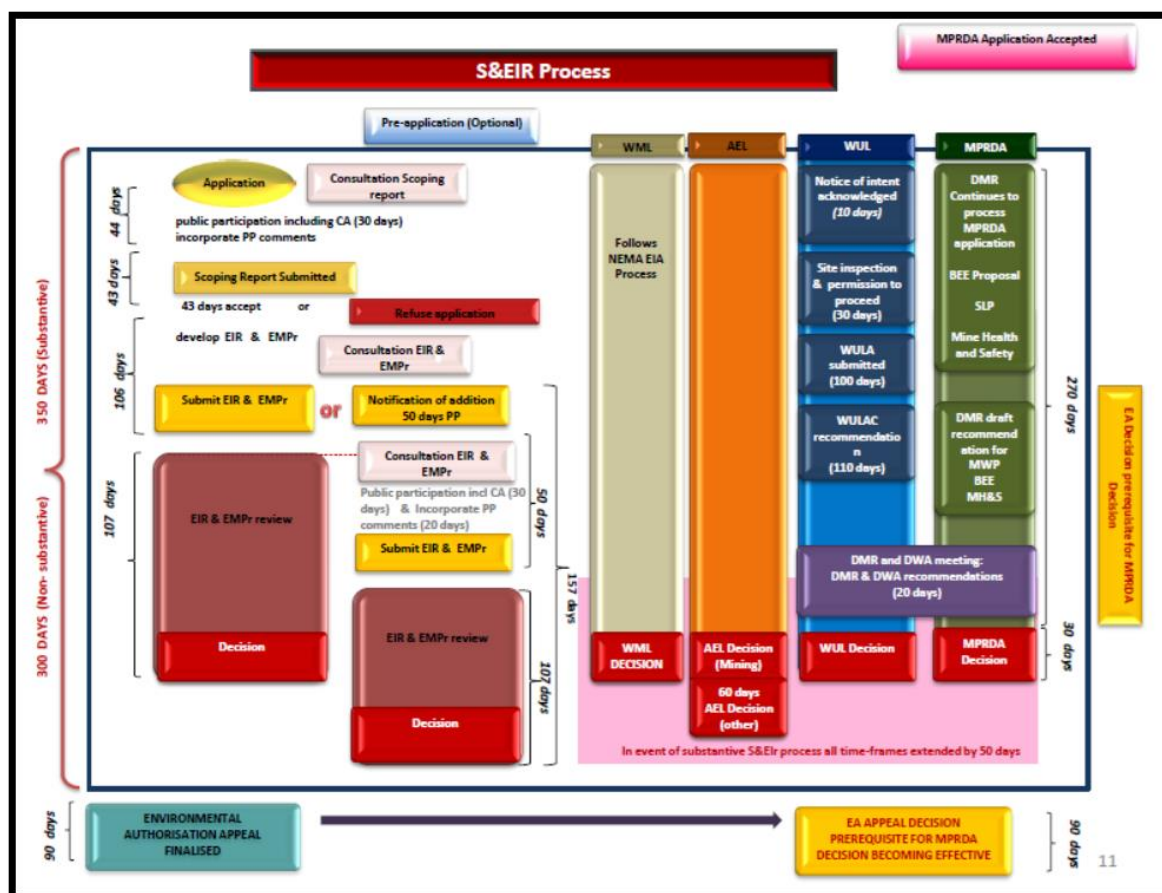


Figure 7: Summary of the Scoping and EIA 2014 Process

8.3 PUBLIC PARTICIPATION AND INTERESTED AND AFFECTED PARTIES

Please refer to Figure 7 to see where the public participation process is present in the environmental impact assessment. The Interested and Affected Parties will have a chance to view and comment on all the reports that are submitted. The figures also indicated what timeframes are applicable to what stage in the process. If required, meetings with key stakeholders will be held.

At the end of the comment period, the Scoping report (for comment) will be revised in response to feedback received from I&APs. All comments received and responses to the comments will be incorporated into Scoping report for decision (this report). This report will be sent to DEA&DP for decision. The Department will then have 44 days to either accept or reject the Scoping Report. Once the Scoping report has been accepted by the Department, the Environmental Impact Report will be compiled. This report will include all the outstanding specialist report as well as further comments from DEA&DP. The Environmental Impact Report (for comment) will then be sent out to I&APs for comment. After the 30 days commenting period, comments from I&APs and state organisations will be included, with responses, in the Environmental Impact Report. This report can then be viewed as the final impact report and will be submitted to DEA&DP for final decision.

Correspondence with I&APs will be via post, telephone, email and newspaper advertisements.

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

8.3.1 DETAILS OF THE PUBLIC PARTICIPATION PROCESS UNDERTAKEN

Interested and Affected Parties (I&APs) were identified throughout the process. Landowners adjacent to the proposed site, relevant organs of state, organizations, ward councillors and the Local and District Municipality were added to this database. A complete list of organisations and individual groups identified to date is shown in **Appendix 5**.

Public Participation was conducted for this proposed dam in accordance with the requirements outlined in Regulation 41, 42, 43 and 44 of the NEMA EIA Regulations 2014 as amended, as well as the Department of Environmental Affairs and Development Planning's guideline on Public Participation 2011. The issues and concerns raised during the scoping phase will be dealt with in the EIA phase of this application.

As such each subsection of Regulation 54 contained in Chapter 6 of the NEMA EIA Regulations will be addressed separately to thereby demonstrate that all potential Interested and Affected Parties (I&AP's) were notified of the proposed development.

Table 2: Summary of the public participation process

R41	Posters, Advertisement & Notification letters
<u>(2) (a) (i)</u>	<p><u>Posters were displayed</u> on Farm Houdenbek 514 and Winkelhaak 224</p> <p>Posters were also placed on the notice boards at Op die Berg Spar, Witzenberg Local Municipality and Op die Berg Agrimark.</p> <p>Please see Appendix 5.1</p>
<u>(ii)</u>	<u>N/A No feasible alternative site</u>
<u>(2) (b) (iii)</u>	<p><u>Notification letters were sent to the municipal ward councilor at the</u> Witzenberg <u>Municipality</u>.</p> <p>Please see Appendix 5.2</p>
<u>(iv)</u>	<p><u>Notification letters were sent to</u> Cape Winelands <u>District Municipality and</u> Witzenberg <u>Local Municipality</u>.</p> <p>Please see Appendix 5.2</p>
<u>(v)</u>	<p><u>Notification letters were sent to the following organs of state:</u></p> <ul style="list-style-type: none"> • <u>Department of Environment and Development Planning</u> • <u>BGCMA – future of the reports (including this one) will be sent to DWS as they are the commenting authority</u> • <u>Cape Nature</u> • <u>Heritage Western Cape</u> • <u>WC Department of Agriculture and Land Use Management</u> <p>Please see Appendix 5.2</p>
<u>(vi)</u>	<p><u>Notification letters were sent to neighbours</u></p> <p>Please see Appendix 5.3</p>
<u>(2) (c) (i)</u>	<p><u>An advert was placed in the</u> Witzenberg Herland <u>on July 2017</u></p> <p>Please see Appendix 5.4</p>

<u>R42 & 34</u>	<u>Register of I&AP</u>
<u>(a), (b), (c), (d)</u>	<u>A register of interested and affected parties was opened and maintained and is available to any person requesting access to the register in writing</u> Please see Appendix 5..5
<u>R43</u>	<u>Registered I&AP entitled to comments</u>
<u>3</u>	<u>I&AP were given 30 days for comments during the initial public participation phase</u>
<u>R44</u>	<u>I&AP to be recorded</u>
	<u>A summary of issues raised by I&AP are addressed in the Comments and Response Report (C&RR).</u> Please see Appendix 5.6 for the C&RR as well as comments received.

9. CONCLUSION AND RECOMMENDATIONS

A scoping exercise is being undertaken to present the proposed activities to the I&APs and to identify environmental issues discussed in this report and concerns raised as a result of the proposed development alternatives to date. The issues and concerns were raised by I&APs, authorities, the project team as well as specialist input, based on baseline studies undertaken.

This Draft Scoping Report, being undertaken in terms of NEMA, summarises the process undertaken, the alternatives presented and the issues and concerns raised. Positive and negative impacts of the proposed dam development can be summarised:

Positive:

- Morester Landgoed (MHB Trust), Harmony Trust's founder partner and mentor, has both land available as well as suitable dam sites for the proposed expansion of the existing neighbouring BBBEE farming entity. Since the enlargement consists of 75ha of permanent fruit crops, this application, should it be granted, would ensure that Harmony Trust (100% Black Owned) would become an independent and economically viable entity.
- This application forms part of the larger Witzenberg PALS project whose primary goal is to support, mentor and enable black farmers to become successful commercial farmers. See Witzenberg PALS, Partnerships in Agri Land Solutions, Project Leader: Gerrit van Vuuren, CEO: Lennox Plaatjies, Copy available on request.
- This is not only another mere envisioned BBBEE project, but this expansion is based on an already stable and successful BBBEE farming entity, namely Harmony Trust which has the infrastructure in place for the proposed expansion.
- About 90 permanent and sustainable jobs will be created in the long term farming of 75ha of fruit orchards, refer Ceres Kernvrugte Studie, Frudata SA, 2017, available on request.
- The expansion of Harmony Trust together with Witzenberg PALS project, will be implemented on the Houdenberg RE415 property that stand to-be-subdivided and transferred to Harmony Trust in future. The project currently entails a ±75ha fruit development that will be under irrigation.
- The Koue Bokkeveld Water User Association under whose auspices the concerned area & WUL Application falls, approves of the application for taking & storing. **Please refer to Appendix 7.2 for the Water Use License Application 1733WULA-W2 from Sarel Bester Engineers**, Appendix 9, available on request.

Negative:

- Potential further loss of Kouebokkeveld Shale Fynbos.
- Further degradation of an ESA2
- Potential alteration of the hydrology of the drainage line/ non-perennial stream
- Loss of Agricultural land for the establishment of the dam

As a result of the above, the need for the following specialist studies, have been identified:

- Botanical Assessment
- Freshwater Assessment
- Heritage Assessment

Any further issues raised as a result of the Public Participation Process will be dealt with during the EIA phase.

The significance of the impacts associated with the alternatives proposed will be assessed in these specialist studies, as part of the EIA. Details of specialist studies will be summarised in the Environmental Impact Report (EIR), which integrates the findings of the assessment phase of the EIA.

Based on the significance of the issues raised during the ongoing Public Participation Process and Scoping Phase, it is evident that an Environmental Impact Assessment (EIA) is required. ***It is therefore recommended that authorisation for the commencement of an EIA for the proposed development is granted.*** Should the EIA process be authorised, the significant issues raised in the process to date will be addressed and the specialist studies noted in this report, will be undertaken.

10. OATH OF AFFIRMATION BY THE EAP

THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, as the appointed EAP hereby declare/affirm:

- the correctness of the information provided as part of this Report;
- that all the comments and inputs from stakeholders and I&APs have been included in this Report;
- that all the inputs and recommendations from the specialist reports, if specialist reports were produced, have been included in this Report;
- any information provided by me to I&APs and any responses by me to the comments or inputs made by I&APs;
- that I have maintained my independence throughout this EIA process, or if not independent, that the review EAP has reviewed my work (Note: a declaration by the review EAP must be submitted);
- that I have throughout this EIA process met all of the general requirements of EAPs as set out in Regulation 13;
- I have throughout this EIA process disclosed to the applicant, the specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared as part of the application;
- have ensured that information containing all relevant facts in respect of the application was distributed or was made available to I&APs and that participation by I&APs was facilitated in such a manner that all I&APs were provided with a reasonable opportunity to participate and to provide comments;
- have ensured that the comments of all I&APs were considered, recorded and submitted to the Department in respect of the application;
- have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, if specialist inputs and recommendations were produced;
- have kept a register of all I&APs that participated during the PPP; and
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

Signature of the EAP: _____

Name of Company: _____

Date: _____

(-----END-----)