THE PROPOSED DEVELOPMENT OF THE TOEKA INSTREAM DAM AND ASSOCIATED AGRICULTURAL AREA ON THE REMAINDER OF THE FARM HOUDENBEK NO. 415 NEAR DIE DORP OP DIE BERG, WITZENBERG LOCAL MUNICIPALITY, WESTERN CAPE

PRE-APPLICATION SCOPING REPORT AND PLAN OF STUDY

WC DEADP: 16/3/3/6/7/2/B5/2/1477/23

April 2025

HARMONY TRUST

EnviroAfrica
Environmental Management and Impact Assessment
Omgewingsbestuur en Impakbeoordeling

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.

PRE-APPLICATION SCOPING REPORT

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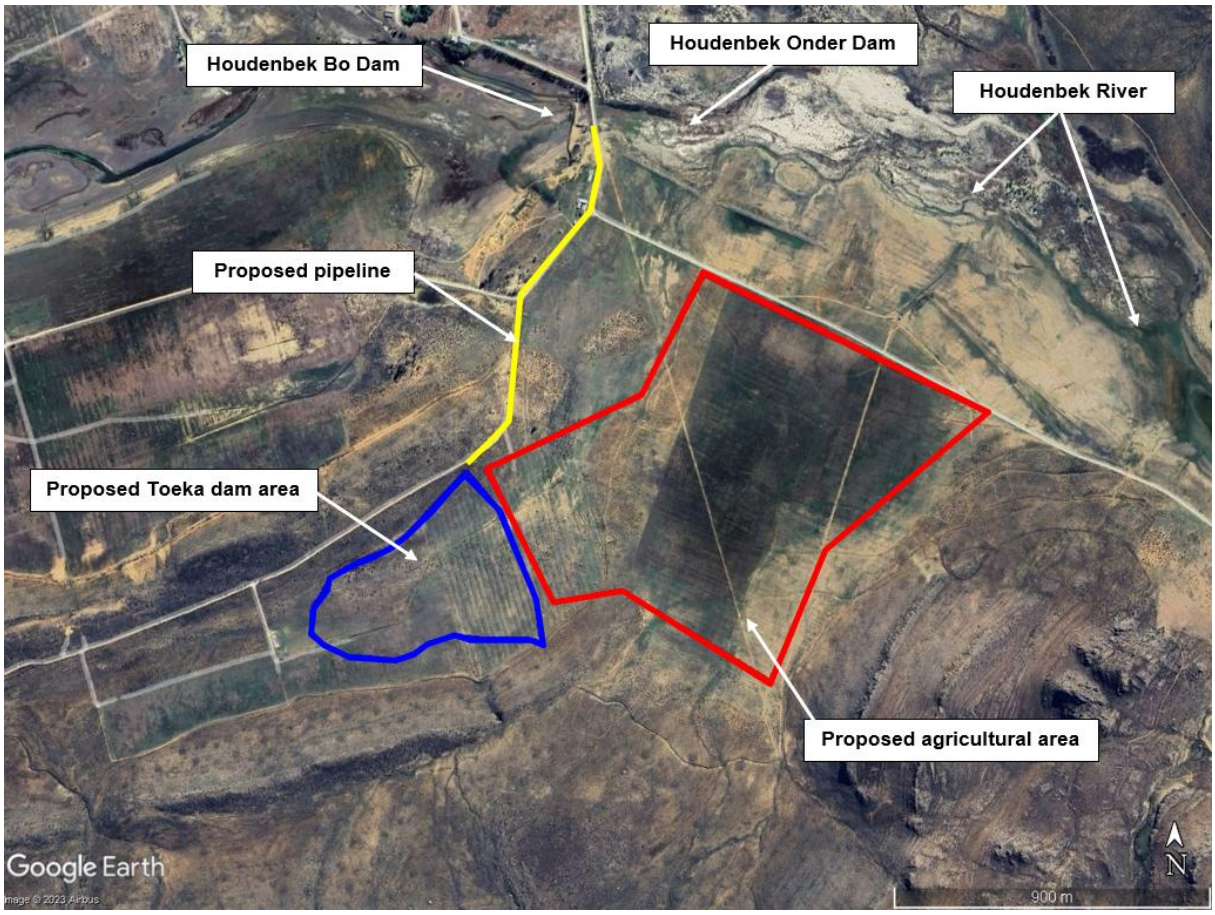
EXECUTIVE SUMMARY

Harmony Trust is proposing the development of an instream dam and an associated agricultural area, the Remaining Extent of Farm Houdenbek 415, near Op-Die-Berg in the Witzenberg Local Municipality, Western Cape.

The proposed development involves the construction of an instream dam (hereafter referred to as Toeka Instream Dam), which will have a storage capacity of 2 000 000 m³, a dam wall height of approximately 14 m, and a dam wall length of around 600 m. The dam's primary function will be to store and supply water for irrigation purposes, supporting the proposed associated agricultural area of approximately 70 hectares (ha).

The estimated inundation area or full supply level of the dam will cover approximately 40 ha on the lower slopes of the Houdenbeks Mountains. The dam will be supplied with water pumped via a proposed ± 1200m long pipeline, from the existing Houdenbek-Bo Dam situated in the Houdenbeks River, and additionally with water from runoff within the catchment area. The primary source of water for the new dam will be surplus water from the winter months.

Site coordinates (approximate central point): S32°59'35.40''; E19°26'21.20''.



The applicant – Harmony Trust, who will undertake the proposed development, and associated activities should it be approved, appointed EnviroAfrica cc as the independent Environmental Assessment Practitioner (EAP) to undertake the relevant EIA and the Public Participation Process required in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA).

A Scoping exercise is being conducted to present the proposed development and associated activities to the Competent and Commenting Authorities, as well as Interested and Affected Parties (I&APs). This

Pre-application Scoping Report identifies environmental issues and concerns related to the proposed development, raised by I&APs, authorities, the project team, and specialists based on baseline studies.

The following specialist studies have been identified:

- Biodiversity Assessment
- Freshwater Assessment
- Heritage Assessment
- Agricultural Assessment

Specialist studies are at various stages of completion—some are ongoing, others have been conducted, and some have been concluded. Findings from certain studies have already been included in this report. However, all studies will be finalised, and their findings incorporated during the Environmental Impact Assessment (EIA) phase, should the Competent Authority (i.e., the Department of Environmental Affairs and Development Planning) grant authorisation for the EIA process to proceed.

Should authorisation for the commencement of an EIA process be granted, any further issues raised during subsequent Public Participation Processes will be addressed during the EIA phase. The significance of the impacts associated with the proposed development will be assessed through specialist studies conducted as part of the EIA. Once all these studies have been completed, their findings will be summarized in an Environmental Impact Report (EIR), which integrates the results of the EIA's assessment phase.

An initial 30-day public commenting period was conducted in August and September 2024. During this period, the Competent and Commenting Authorities and I&APs) were notified and invited to provide feedback as part of the Public Participation Process.

Based on the significance of the issues raised during the Public Participation Process and Scoping exercise conducted thus far, it is evident that an EIA is required. ***It is therefore recommended that authorisation be granted for the commencement of the EIA process for the proposed development.*** If authorised, the issues raised to date will be addressed, and the specialist studies outlined in this report will be concluded.

DOCUMENT CONTROL

Version	Name	Role / Responsibility	Date
AA			
BB			
CC			
DD			
EE			
Final			

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FIGURES

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APPENDICES

ACRONYMS

BGIS	Biodiversity Geographic Information System
CBA	Critical Biodiversity Area
DFFE	Department of Forestry, Fisheries and the Environment
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

ESA	Ecological Support Area
EWR	Environmental Water Requirements
HIA	Heritage Impact Assessment
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
VIA	Visual Impact Assessment
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 likelihoods 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 independently but alongside their founder partner and mentor, Morester Landgoed (MHB Boerdery Pty Ltd).

The Applicant and owner of Winklehaak RE224, 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 years with their neighbouring partner and mentor, Morester Landgoed (MHB Boerdery Pty Ltd).

Harmony Trust, together with Morester Landgoed plans on expanding an existing BBEEE agricultural project by cultivating and irrigating an additional area of fruit orchards as well as the design and construction of two proposed instream dams, namely Harmony dam (this application) and Toeka Instream Dam (separate application). It was determined that the two dams would be pursued as separate applications in order to ensure that any objections raised against one dam do not adversely affect 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, Winklehaak RE224, has a rather flat topography and no real natural dam basin of this caliber. 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 which 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 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.

1.2 DESCRIPTION OF THE PROPOSED ACTIVITY

For the Toeka Instream Dam & associated agricultural area application with WCDEADP reference number: 16/3/3/6/7/2/B5/2/1477/23

The proposed development includes constructing the Toeka instream dam, designed with a storage capacity of 2,000,000 m³, a dam wall approximately 14 m high, and a wall length of around 600 m. The dam's full supply level will inundate approximately 36.9ha (total dam footprint of approximately 40 ha) on the lower slopes of the Houdenbeks Mountains. Its primary purpose is to store and supply water for irrigation, supporting a 70 ha agricultural area situated below the proposed dam wall. This area consists of historic orchards and agricultural fields previously used for cultivation.

Water will be sourced from the Houdenbek-Bo Dam in the Houdenbeks River via a ±1,200 m pipeline, supplemented by runoff from the catchment area. This pipeline will run through ploughed land and road reserves as far as possible. The primary water supply will be surplus winter water.

While the development will slightly alter the site's character, it aligns with the surrounding agricultural landscape, which includes fruit and vegetable farming along with some grazing activities.

Site coordinates (approximate central point): S32°59'35.40''; E19°26'21.20''.

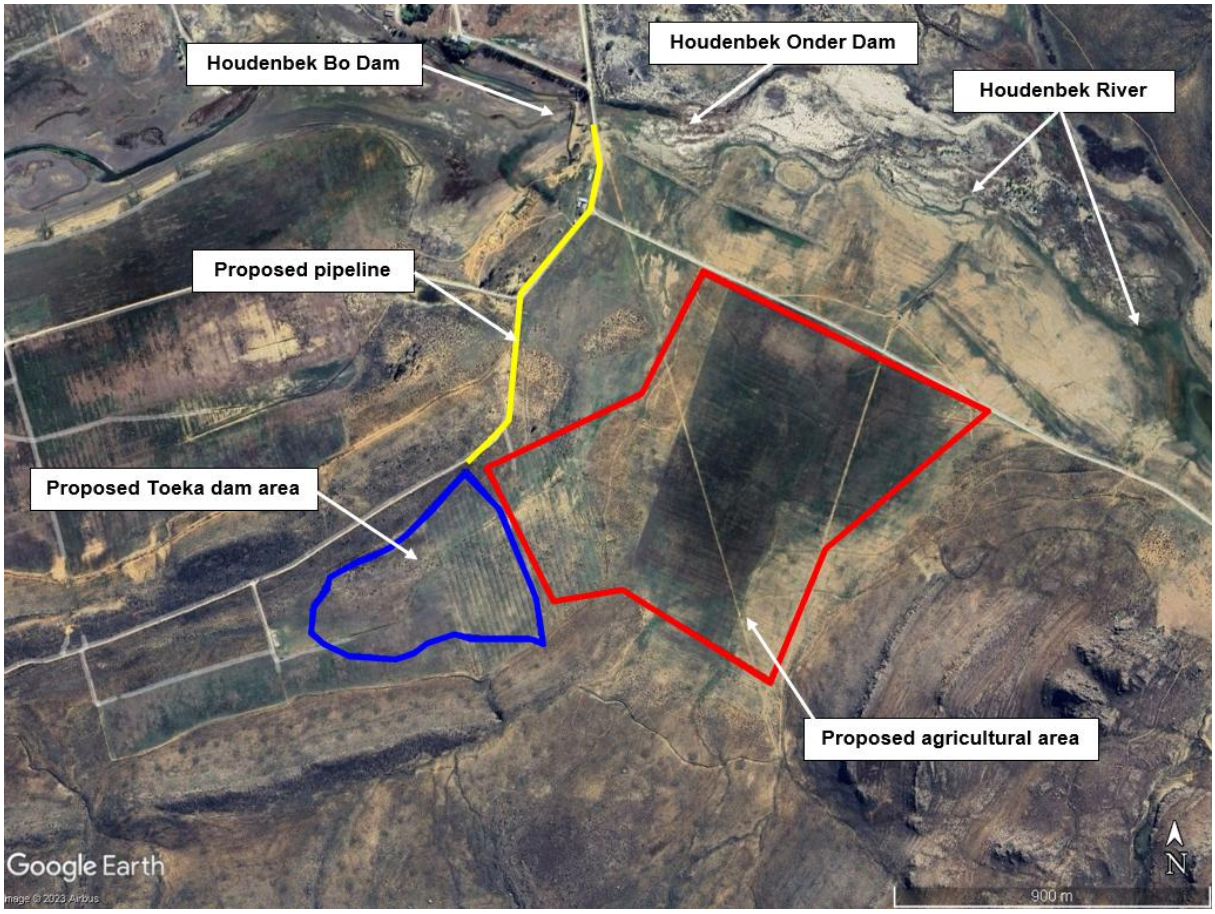


Figure 1: Google Earth image of the proposed property and the development footprint (red polygon)

1.3 WATER USE LICENCE

On January 27, 2023, the Harmony Trust was granted a water use license (No. 01/E21D/AB/9699) by the Department of Water and Sanitation (DWS) for water use activities in the Olifants-Doorn Water Management Area, Western Cape.

The license authorises Harmony Trust to construct:

1. A dam with a storage capacity of 2 million cubic meters (referred to as Toeka Instream Dam) and;
2. A dam with a storage capacity of 250,000 cubic meters (referred to as Harmony dam)

The construction of both dams is proposed on the Remainder of Houdenbek 415, Ceres RD.

The license further permits the Harmony Trust to take 715,000 cubic meters of water annually from the Houdenbek River and 250,000 cubic meters from an unnamed tributary of the river, for storage in the two dams. The water will be used for irrigation to support a BEE farming project associated with the Harmony Trust.

The following water uses have been authorised under the license for Harmony Trust:

1. **Section 21(a) of the Act:** Taking water from a water resource

2. **Section 21(b) of the Act**: Storing water
3. **Section 21(c) of the Act:** Impeding or diverting the flow of water in a watercourse
4. **Section 21(i) of the Act:** Altering the bed, banks, course, or characteristics of a watercourse

2 NEED AND DESIRABILITY

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

The plan is to grow and irrigate an additional area of fruit orchards and therefore, 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.

The proposed Toeka Instream Dam addresses a critical need for increased water security in the agriculturally intensive Koue Bokkeveld region near Ceres. Seasonal water shortages and the unpredictable availability of irrigation water have made it increasingly difficult for local farmers to sustain crop production and maintain agricultural productivity. The dam is intended to store water for use during the dry season, ensuring a reliable and regulated supply that supports the long-term sustainability of farming operations. This water resource infrastructure is therefore essential to maintaining the economic viability of the area's farming activities, which play a significant role in local employment and rural development.

The desirability of the proposed development stems from its potential to support sustainable agricultural growth while avoiding significant long-term environmental or heritage degradation. The environmental and botanical assessments indicate that, although the dam will impact a tributary of the Breë River and some sensitive vegetation types, these impacts are manageable through careful planning, footprint minimisation, and rehabilitation measures. Similarly, the heritage impact assessment identifies cultural features near the site, but none are situated within the direct development footprint, and appropriate mitigation, such as avoidance and heritage permits, can be implemented. The project aligns with regional planning objectives, including rural development and resource resilience, which further supports its desirability.

The proposed Toeka Instream Dam represents both a necessary and beneficial intervention aimed at enhancing water security for agricultural purposes within the region. Although certain environmental and heritage sensitivities have been identified, the project is deemed feasible provided that appropriate mitigation measures are implemented. By augmenting agricultural productivity and fostering rural socio-economic stability, the development represents a balanced approach to fulfilling human requirements while simultaneously upholding commitments to environmental and cultural stewardship.

2.1.1 Location and Accessibility

The proposed location of the Toeka Instream 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. Access to the proposed dam site will be via existing farm roads,

2.1.2 Compatibility with the Surrounding Area

The site of the proposed Toeka Dam is situated within a landscape that is already characterised by extensive agricultural activity, including cultivated fields, orchards, and existing farm dams. As such, the visual setting is rural and agrarian in nature, with infrastructure associated with agricultural production being a common and expected feature of the area. The proposed dam and associated irrigation development will therefore not represent a significant departure from the existing visual character or land use of the region.

Given the prevalence of similar water storage structures in the surrounding area, the introduction of another dam is considered to be consistent with the established visual landscape. The dam is unlikely to become a dominant or visually intrusive feature, particularly as it will be viewed in the context of agricultural expansion and from relatively limited vantage points. Additionally, the natural topography and existing vegetation may provide partial visual screening, further reducing its prominence.

Overall, the proposed development is considered to have a negligible impact on the sense of place and visual character of the region. No sensitive visual receptors or scenic routes are directly impacted, and the project is not expected to diminish the area's visual amenity or rural identity.

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 2014. 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:

2.2 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.

2.3 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 Forestry, Fisheries and the Environment (DFFE). These powers are delegated in the Western Cape to the Department of Environmental Affairs and Development Planning (WCDEADP).

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

According to the regulations of Section 24(5) of NEMA, authorisation is required for the following listed activities for the proposed development, i.e., Harmony dam and associated agricultural area (Table 1):

Table 1: NEMA Listed Activities

No.	Listed Activities as per Listing Notice 1, 2 and 3 (GN R327, R324, R325)	Applicability to the development
Government Notice R327 (Listing Notice 1)		
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 Houdenbek-Bo dam to the dam will have a length of ±1,2km and ø360mm.
12.	The development of; (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres. (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 if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse	The proposed instream dam will have a total footprint of ±40 ha and is proposed within a watercourse.
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 in accordance with 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 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	The proposed instream dam will have a total footprint of ±40 ha within a watercourse.

No.	Listed Activities as per Listing Notice 1, 2 and 3 (GN R327, R324, R325)	Applicability to the development
27.	The clearance of an area of 1 ha or more, but less than 20 ha of indigenous vegetation	The proposed instream dam will have a total footprint of approximately 40 ha, with an associated 70 ha agricultural area. Although this agricultural area is historically cultivated and degraded, some indigenous vegetation has naturally reestablished over the years.
Government Notice R325 (Listing Notice 2)		
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.	The proposed instream dam will have a total footprint of approximately 40 ha, with an associated 70 ha agricultural area. Although this agricultural area is historically cultivated and degraded, some indigenous vegetation has naturally reestablished over the years.
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 pf the wall, is 5m or higher or where the highwater mark of the dam covers an area of 10ha or more	The proposed dam structure is approximately 14 meters in height.
Government Notice R324 (Listing Notice 3)		
12.	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.	More than 300m^2 of indigenous vegetation will be cleared, and the proposed development site may be within 100m of the watercourses identified on site; and the proposed development site falls outside an urban area.

No.	Listed Activities as per Listing Notice 1, 2 and 3 (GN R327, R324, R325)	Applicability to the development
14.	The development of (i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs a) within a watercourse; b) in front of a development setback; or if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.	The proposed instream dam will have a total footprint of approximately 40 ha, with an associated agricultural area of approximately 70 ha. The proposed instream dam situated within a watercourse in the Koue Bokkeveld Mountain Catchment Area.

An application form will be submitted to the Western Cape Department of Environmental Affairs and Development Planning (WCDEADP). On acknowledgment from WCDEADP, the Scoping phase process will be initiated and undertaken to further identify potential issues.

2.4 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).

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.

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.

Section 38(1) of the NHRA of 1999 requires the responsible heritage resources authority to notify the person who intends to undertake a development that fulfils the following criteria to submit an impact assessment report if there is reason to believe that heritage resources will be affected by such event:

- the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- the construction of a bridge or similar structure exceeding 50m in length;
- any development or other activity that will change the character of a site
  - exceeding 5000m² in extent; or
  - involving three or more existing erven or subdivisions thereof; or
  - involving three or more erven or divisions thereof which have been consolidated within the past five years; or
  - the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- the rezoning of a site exceeding 10 000m² in extent; or
- any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority.

2.5 EIA GUIDELINE AND INFORMATION DOCUMENT SERIES

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

- Department of Environmental Affairs and Development Planning's (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*

2.6 NATIONAL WATER ACT

Besides the provisions of NEMA for this EIA process, the proposed development will also require authorizations under the National Water Act (Act No. 36 of 1998) (NWA). The Department of Water and Sanitation (DWS), who administer that Act, will be a leading role-player in the EIA.

On January 27, 2023, the Harmony Trust was granted a water use licence (No. 01/E21D/AB/9699) by the Department of Water and Sanitation (DWS) for water use activities in the Olifants-Doorn Water Management Area, Western Cape.

The license authorises Harmony Trust to construct:

1. A dam with a storage capacity of 2 million cubic meters (referred to as Toeka Instream Dam) and;
2. A dam with a storage capacity of 250,000 cubic meters (referred to as Harmony dam)

The construction of both dams is proposed on the Remainder of Houdenbek 415, Ceres RD.
The license further permits the Harmony Trust to take 715,000 cubic meters of water annually from the Houdenbek River and 250,000 cubic meters from an unnamed tributary of the river, for storage in the two dams. The water will be used for irrigation to support a BEE farming project associated with the Harmony Trust.

2.7 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*).

2.8 MOUNTAIN CATCHMENT AREAS ACT NO. 63 OF 1970

The **Mountain Catchment Areas Act** (Act No. 63 of 1970) in South Africa is legislation designed to protect and manage mountain catchments, which are crucial for water supply, soil conservation, and biodiversity. The Act provides for the declaration of Mountain Catchment Areas (MCAs) to safeguard these environments, regulate land use, and manage activities that could negatively impact water resources and ecosystems within these areas. It places restrictions on certain types of development, particularly in areas with significant hydrological or ecological importance.

The proposed development of an instream dam on the lower slopes of the Houdenbek Mountains is relevant to the Koue Bokkeveld Mountain Catchment Area in terms of both environmental protection and the regulation of water use.

3 ALTERNATIVES

Alternatives to the proposed development are limited and have been considered below:

3.1 LOCATION / SITE ALTERNATIVES

The main constraint with identifying suitable sites for a dam and associated agricultural (albeit not so determinantal as the dam area) is that Winkelhaak RE224, owned by Harmony Trust, lacks viable dam site options due to its flat topography and absence of a natural basin. Consequently, the only available land for both dam sites and the associated agricultural area is on the neighbouring RE Houdenbek Farm 415, owned by Morester Landgoed. Initially, Harmony Trust would rent this land from Morester Landgoed (MHB Boerdery Pty Ltd), with a long-term plan of subdividing the land to provide Harmony Trust the opportunity to purchase it.

3.2 ACTIVITY ALTERNATIVES

The purpose of the proposed dam and associated agricultural area is to ensure sufficient water supply for the irrigation needs of the Harmony Trust's proposed associated agricultural development.

No alternative activities were evaluated for this project. This decision arises from the primary objective of facilitating intensive agricultural production through a reliable water supply, which cannot be effectively achieved through other means within the context of the site. Alternative water augmentation methods, such as groundwater extraction or water transfer from remote catchments, present challenges that render them technically unfeasible, environmentally unsustainable, or economically impractical given the scale of the proposed agricultural operations. Additionally, the chosen site for the dam has been determined to be the most appropriate location based on considerations of topography, proximity to agricultural fields, and the need to minimise environmental and heritage impacts.

As such, the development of a dam was determined to be the only practical activity to meet the water supply needs for the proposed agricultural expansion, and no alternative forms of development were pursued during the planning phase.

3.3 LAYOUT ALTERNATIVES

The preferred site for the proposed dam is the Toeka Instream Dam on RE Houdenbek 415. This location is favoured due to its cost-effectiveness and superior storage capacity, particularly when compared to the sealing issues associated with the other sites that were considered. Although the Toeka Instream Dam will have a larger footprint, it will require a lower dam wall height and less earthmoving, resulting in more efficient storage ratios and overall improved economic feasibility. The maximum wall height for the dam would be ±14m with a crest length of ±600m, a net storage capacity of ± 2 000 000m³ and the total footprint/ flooded area would constitute ±40ha.

Spatial analysis indicates that the proposed Toeka Instream Dam does not fall within a formally designated Critical Biodiversity Area (CBA), but it is situated within an Ecological Support Area (ESA), which plays an important role in supporting the ecological functioning of adjacent CBAs and broader landscape processes. According to the Botanical Assessment, the site falls within the Western Kouebokkeveld Shale Fynbos vegetation type, which is classified as **Vulnerable** under the National Environmental Management: Biodiversity Act (NEMBA). This vegetation type supports endemic and specialist species and contributes to regional biodiversity.

Despite this classification, satellite imagery and on-site observations suggest that the dam footprint and its immediate surroundings have been previously disturbed, likely due to historical agricultural activities and existing infrastructure. The level of existing disturbance reduces the ecological integrity of the immediate area and may limit the extent of additional biodiversity loss resulting from the proposed

development. The Freshwater Assessment similarly acknowledges that while the watercourse to be impacted is moderately to highly sensitive, it is not pristine, and its functioning has already been affected by land use in the catchment.

Given these considerations, the Toeka Instream Dam is identified as the only viable and preferred site for the proposed development.

3.4 NO-GO ALTERNATIVES

The no-go alternative refers to the scenario in which the proposed Toeka Instream Dam is not constructed. While this option would mitigate potential negative environmental impacts associated with dam construction, such as loss of vegetation, alteration of natural watercourses, and disturbance of heritage resources, it would concurrently result in the loss of significant socio-economic benefits anticipated from the project.

As detailed in Section 2.1 of the project proposal, the principal objective of the dam is to provide a reliable and sustainable irrigation water supply, which is critical to the viability of the planned agricultural expansion on the farm. In the absence of the dam, the Harmony Trust's intended agricultural development would encounter substantial limitations due to the seasonal and unreliable nature of water availability in the Koue Bokkeveld region. This limitation would undermine the feasibility of the proposed business model, potentially rendering the agricultural investment economically unviable.

Moreover, the anticipated agricultural development is expected to contribute to local job creation, enhance food production, and stimulate rural economic growth, outcomes that are particularly significant in an area where employment opportunities are constrained. Opting for the no-go alternative would forfeit these direct and indirect benefits. It would also diminish the farm's capacity to adapt to climate variability and water scarcity, both of which are increasingly pressing concerns in the Western Cape.

Therefore, while the no-go alternative avoids specific environmental risks, it does so at the expense of substantial long-term socio-economic advantages and fails to address the urgent need for improved water security to support sustainable agriculture in the region.

3.5 CONCLUSION

During the preliminary planning phases of the project, a variety of dam layout alternatives were thoroughly examined to determine the most viable and sustainable option. These alternatives underwent evaluation based on several criteria, including engineering feasibility, potential environmental repercussions, and sensitivities related to heritage. A number of configurations were deemed unsuitable due to difficult topographical conditions, excessive requirements for earthworks, or unacceptably high impacts on sensitive ecological and cultural heritage features identified in initial assessments.

Consequently, the current dam layout, as outlined in the Development Plan, has been selected as the preferred alternative. This configuration represents a balanced solution that minimises both environmental and heritage impacts while remaining both technically and economically viable. The chosen layout strategically avoids the most ecologically sensitive habitats and culturally significant areas while addressing the irrigation demands of the proposed agricultural development.

Further refinements and comparative evaluations may be undertaken as part of the ongoing Environmental Impact Assessment (EIA) process, thereby ensuring that all reasonable and practical alternatives are continually assessed in accordance with the principles of sustainable development and responsible environmental management.

4 SITE DESCRIPTION

4.1 LOCATION

The proposed Toeka Instream Dam and associated agricultural area will be located on RE Farm Houdenbek 415, near Die Dorp Op Die Berg, Witzenberg Local Municipality, Western Cape.

Site coordinates (approximate central point): S32°59'35.40''; E19°26'21.20''.

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

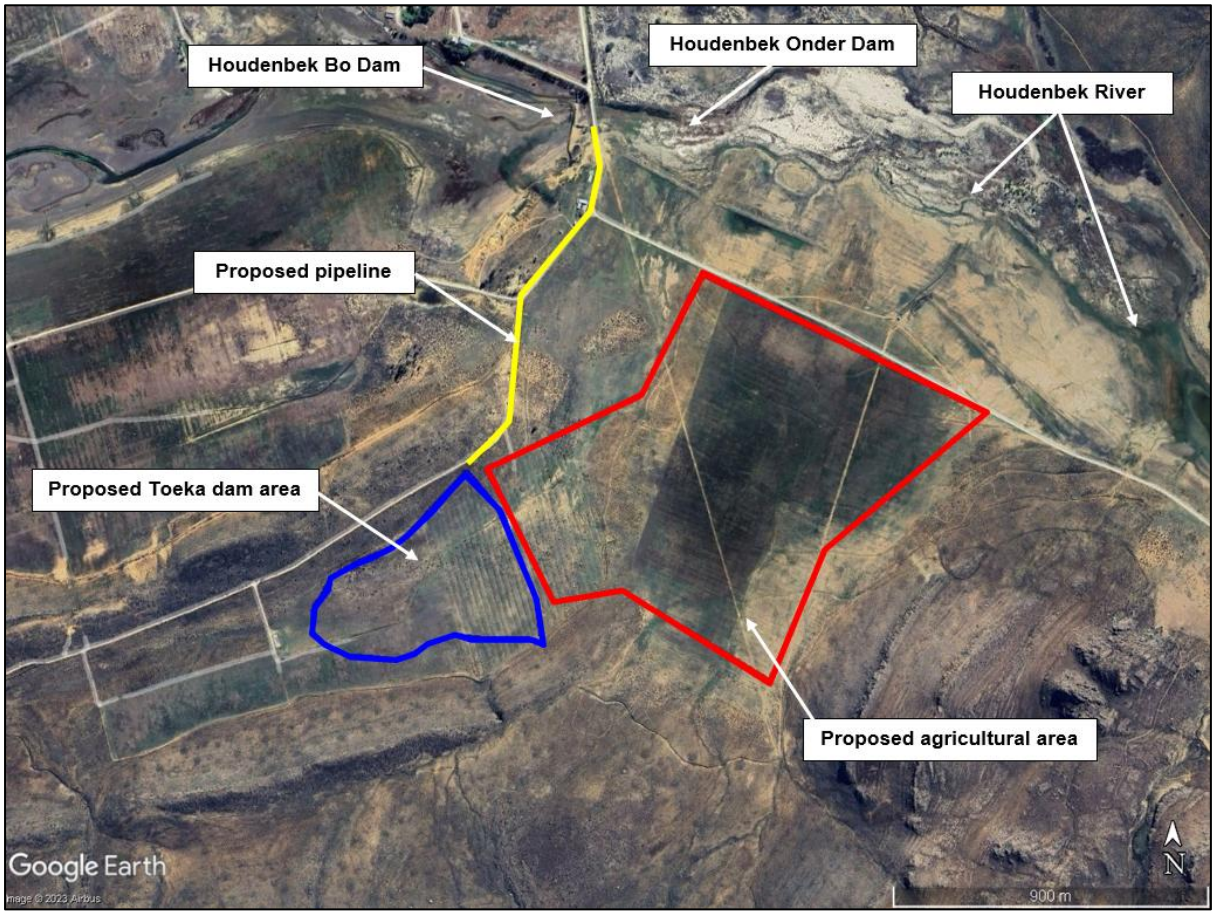


Figure 2: Proposed development site – Development footprint

4.2 CLIMATE

Op-die-Berg experiences a warm and temperate climate. The winter months are significantly wetter than the summer months. The average annual temperature in Op-die-Berg is 13.5°C, and the region receives about 432 mm of rainfall annually. January is the driest month, with only 6 mm of precipitation, while May is the wettest month, receiving an average of 79 mm of rain. January, with an average temperature of 19.8°C, is the warmest month, while July is the coldest, with temperatures averaging 7.6°C. The difference in precipitation between the driest and wettest months is 73 mm, and temperatures fluctuate by 12.2°C throughout the year.

Simulated historical climate & weather data were obtained from meteoblue.com for the town closest to the proposed site – i.e., Op-die-Berg area. The Meteoblue climate diagrams indicated below are based on 30 years of hourly weather model simulations. They give good indications of typical climate patterns and expected conditions (temperature, precipitation, sunshine and wind). The simulated weather data have a spatial resolution of approximately 30 km and may not reproduce all local weather effects, such as thunderstorms, local winds, etc, and local differences as they occur in urban, mountainous, or coastal areas.

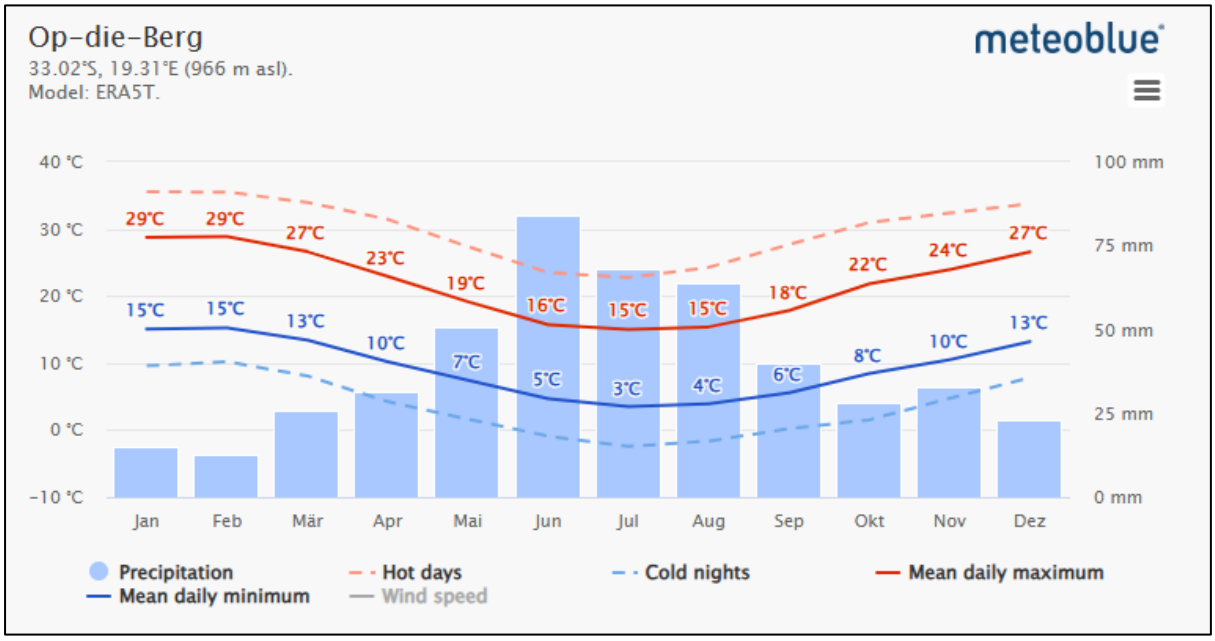


Figure 3: Meteoblue[1] - Simulated historical climate & weather data for the Op-die-Berg area

[1] https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/frere_south-africa_1003654

4.3 BIODIVERSITY

A Terrestrial Biodiversity Assessment has been undertaken, and it will be finalised and the findings included in the Environmental Impact Assessment Report during the EIA phase. A Terrestrial Biodiversity Assessment aims to understand the terrestrial ecology and evaluate the potential impacts of the proposed development on the site. It identifies and assesses biodiversity aspects (fauna and flora and terrestrial ecosystems) associated with the proposed development area and the environmental interactions it imposes.

4.3.1 Vegetation

The vegetation map from Cape Farm Mapper indicates that the proposed Toeka Instream Dam site is expected to support Kouebokkeveld Shale Fynbos, with a small portion of Kouebokkeveld Alluvium Fynbos, which is classified as Vulnerable in the Western Cape under the NEMBA National List of Ecosystems that are threatened and require protection. Aerial images from Google Earth show that the site is partially located on land that has been previously disturbed by historical agricultural activities.

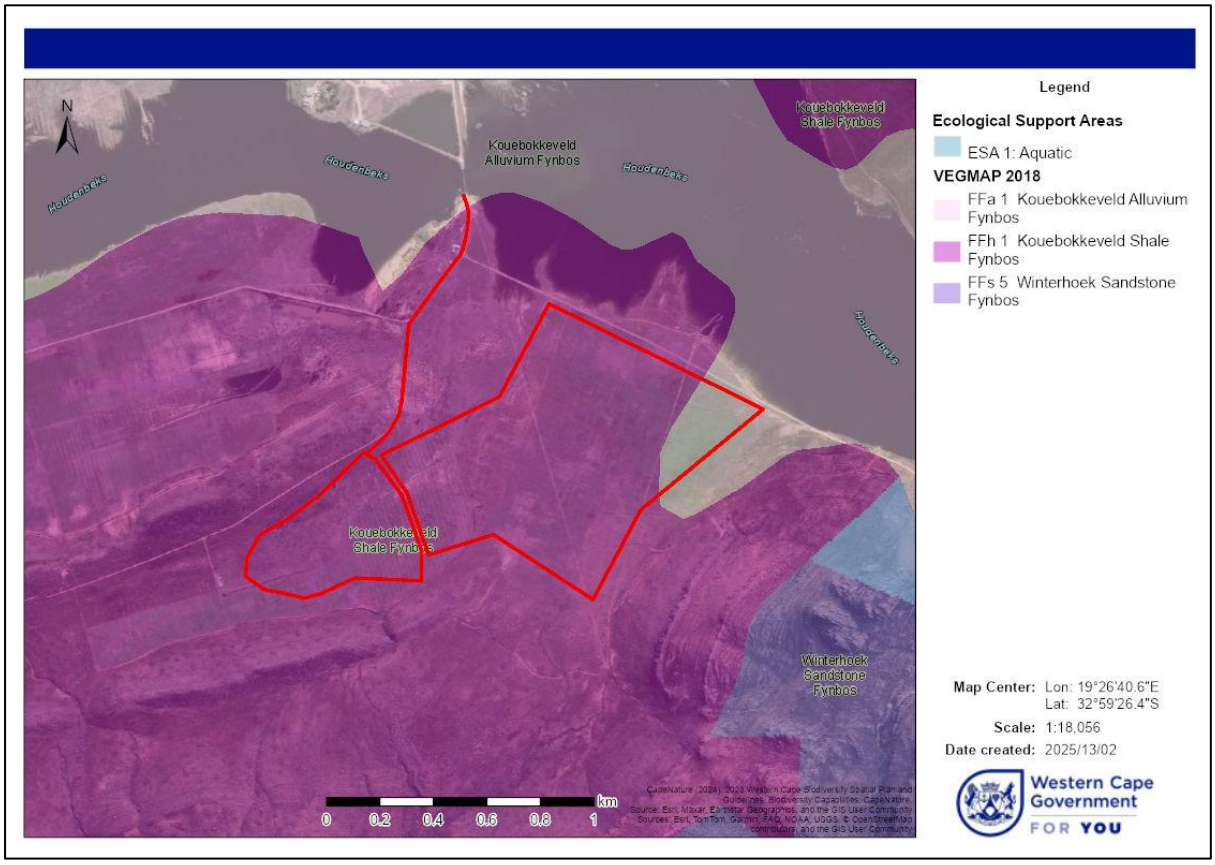


Figure 4: Vegetation Map, Cape Farm Mapper

4.3.2 Critical Biodiversity Areas and Ecological Support Areas

The vegetation map from Cape Farm Mapper indicates that the proposed Toeka Instream Dam site is expected to support Kouebokkeveld Shale Fynbos, with a small portion of Kouebokkeveld Alluvium Fynbos, which is classified as Vulnerable in the Western Cape under the NEMBA National List of Ecosystems that are threatened and require protection. However, the site has been disturbed by historic agricultural practices, although there are signs of indigenous vegetation re-establishment.

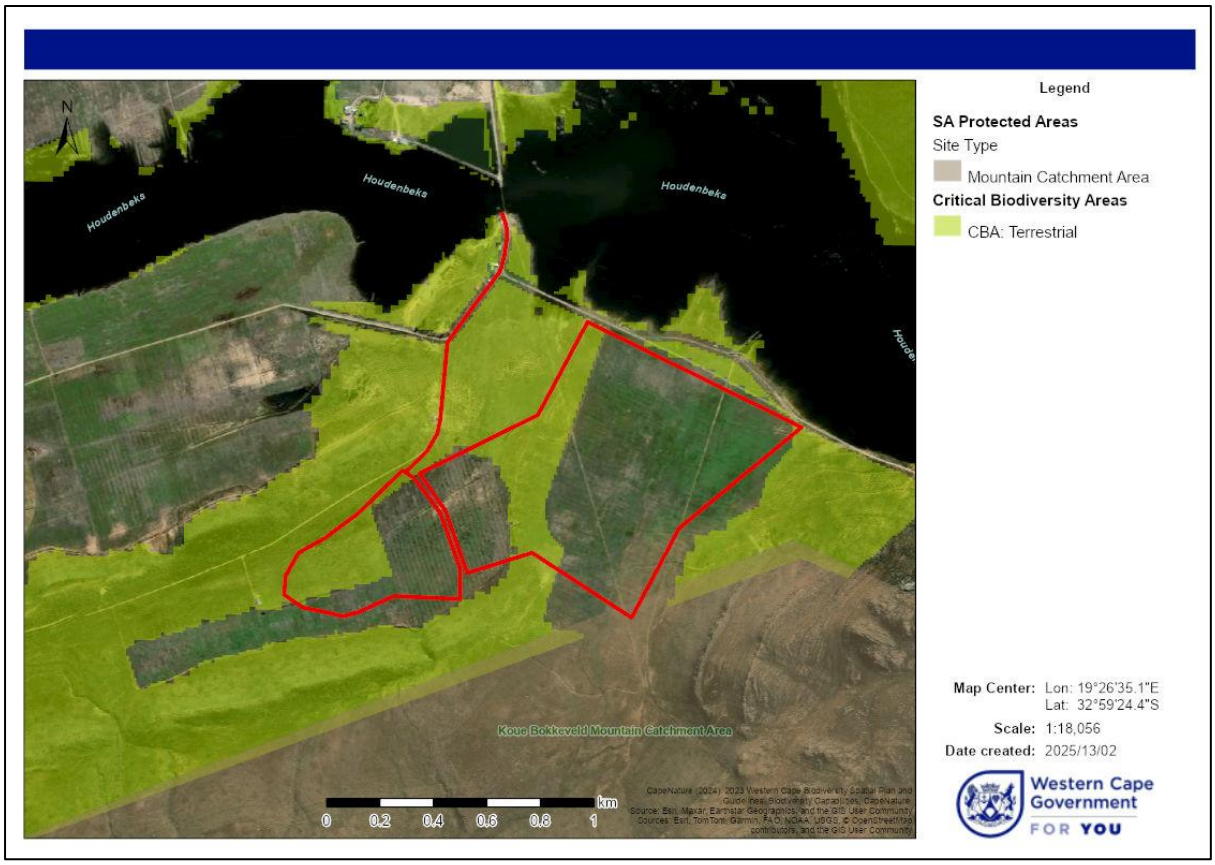


Figure 5: Biodiversity Overlay Map, Cape Farm Mapper

4.4 FRESHWATER

A Freshwater Impact Assessment has been undertaken and it will be finalised and the findings included in the Environmental Impact Assessment Report during the EIA phase.

A Freshwater report serves to evaluate the potential impacts of proposed development on freshwater resources such as watercourses and wetlands. It assesses factors like water quality, quantity, and ecosystem health to inform decision-making and mitigate adverse effects on these ecosystems.

The proposed Toeka Instream Dam and agricultural development are located within the Houdenbek River catchment (E21C quaternary catchment), a key freshwater resource in the Koue Bokkeveld region. The Houdenbek River is a seasonal system, with peak flows during winter rainfall months and significant flow reduction in summer. This catchment plays a crucial role in supporting downstream ecosystems, agricultural irrigation, and groundwater recharge. Several small drainage lines contribute to the river, though many have been altered by historical agricultural activities, impacting their natural flow and ecological function.

The development will interact directly with these freshwater systems through the construction of the Toeka Instream Dam, which will store 2,000,000 m³ of water for irrigation. Water will be sourced from

the Houdenbek-Bo Dam via a 1,200 m pipeline, supplemented by catchment runoff. While this will enhance water security for agriculture, it will also modify natural flow patterns, potentially affecting downstream water availability. Additionally, the establishment of new orchards may contribute to sedimentation, nutrient loading, and changes in infiltration rates, which could influence water quality and hydrological function.

Given that the Houdenbek River is already heavily modified, the additional impacts from this development are expected to be manageable with appropriate mitigation measures. These include controlled ecological flow releases, erosion control through swales and retention ponds, and careful irrigation return flow management to minimize runoff pollution. While some loss of natural vegetation is inevitable, the project incorporates sustainable water use practices aimed at reducing further degradation of the freshwater environment.

The broader catchment area, including the Toeka and Houdenbek-Bo Dam systems, serves as a strategic water resource for downstream agricultural users. Farmers downstream depend on controlled releases from upstream storage systems to sustain irrigation during dry periods. The proposed development will increase water abstraction, which, if not carefully managed, could affect water availability for these users. However, regulatory ecological flow releases and seasonal abstraction restrictions will help mitigate potential negative impacts by ensuring that water is not removed during low-flow or drought conditions.

In response to concerns raised by downstream users about potential flow restrictions into the River, engineering designs have incorporated regulatory mechanisms to ensure that only surplus winter water is abstracted, preventing any negative impact on existing users. A monitoring plan will be implemented, with measurement mechanisms installed upstream and downstream to verify that downstream flow is maintained. This condition should be included in both the Environmental Authorisation and the Water Use License. A Water Use License has already been issued for the proposed Toeka Instream Dam, ensuring that water abstraction and storage adhere to regulatory requirements.

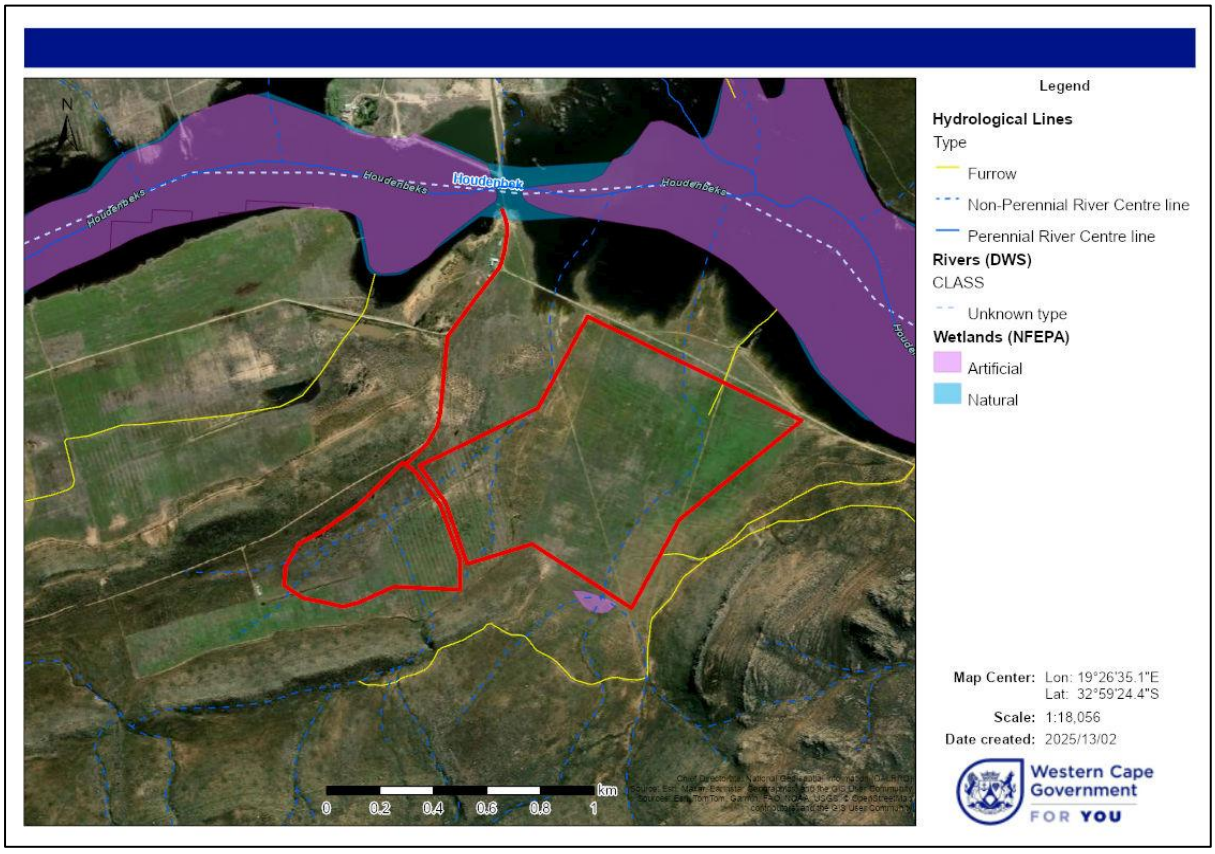


Figure 6: Freshwater Resources Map, Cape Farm Mapper

4.5 HERITAGE / ARCHAEOLOGICAL & PALAEONTOLOGICAL

An initial Heritage / Archaeological Impact Assessment has been undertaken, with the preliminary findings included in the pre-application Scoping Report; however, it will be finalised during the EIA phase.

A Heritage Assessment, like the Heritage Survey conducted for the proposed development, aims to identify and assess the heritage / archaeological and palaeontological themes associated with the proposed development area and the environmental interactions and impacts it imposes.

4.5.1 Heritage & Archaeological findings

No archaeological resources were recorded, and no modified stone was found during a field assessment of the proposed Toeka Instream Dam conducted by ACRM in 2018 (Kaplan 2018). The proposed dam will be located in an area that has previously been heavily cultivated and as such, it is very unlikely that the construction will impact on significant in situ archaeological resources or deposits. No rocky outcrops fall within the inundation area, either. The 40ha inundation area comprises 25-year-old agricultural land (apple orchards).

A field assessment of the proposed 70ha agricultural area took place in August 2024, in which the following archaeological resources were recorded. A highly dispersed scatter of ESA tools, mostly comprising crude quartzite chunks, flaked and modified chunks, a large round core and a few large angular flakes, were recorded among a wide scatter of surface stone in the southeastern corner of the proposed agricultural area. One notable find was a rough, incomplete biface/handaxe.

A Notice of Intent to Develop (NID) has been submitted to the Heritage Authority.

4.5.2 Palaeontological findings

According to Bamford (2024), the proposed Toeka Instream Dam and agricultural area lie on the moderately sensitive Quaternary sands and the potentially very highly sensitive Ceres Subgroup, although no fossils have been recorded from this area.

Bamford (2024:2) notes that there is a very small chance that fossils may occur below the ground surface in the unweathered sandstones and quartzites of the Devonian-aged Ceres Subgroup (Bokkeveld Group, Cape Supergroup)'. On the SAHRIS palaeo-sensitivity map, the Project Area is indicated as very highly sensitive, but according to Bamford (2024), it is already disturbed by previous and present farming activities and is covered with soils. The delicate fossil shells and traces are not likely to have survived the surface weathering or vegetation. It is (therefore) unlikely that any fossils occur on the land surface, but they may occur below the soils in unweathered rocks.

Table 2: Palaeontological sensitivity rating

Colour	Sensitivity	Required action
Red	Very high	Field assessment and protocol for finds is required.
Orange / Yellow	High	Desktop study is required and based on the outcome of the desktop study; a field assessment is likely.
Green	Moderate	Desktop study is required.
Blue	Low	No palaeontological studies are required however a protocol for finds is required.
Grey	Insignificant / Zero	No palaeontological studies are required.
White / Clear	Uknown	These areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

SAHRIS palaeosensitivity map for the site for the proposed Harmony dam (blue outline) and agricultural fields (yellow outline) on Farm Houdenbek 415. Background colours indicate the following degrees of sensitivity: red = very highly sensitive and green = moderate (Bamford 2024)

Figure 7: Palaeontological sensitivity map

4.6 SOCIO-ECONOMIC CONTEXT

4.6.1 Cape Winelands District Municipality

The Cape Winelands District Municipality, located in the Western Cape, is widely recognised for its robust agricultural economy and its strategic focus on sustainable development. As outlined in its Integrated Development Plan (IDP) and other regional policy frameworks, the municipality prioritises initiatives that strengthen the agricultural sector, improve infrastructure, and promote inclusive socio-economic growth. These goals are particularly focused on enhancing the quality of life in rural communities and creating meaningful opportunities for historically disadvantaged individuals through land reform, employment, and enterprise development.

The proposed development of the Toeka Instream Dam and associated agricultural expansion by Harmony Trust aligns closely with these regional objectives. By enabling improved water storage and irrigation capacity, the project directly supports increased agricultural productivity and resilience, key drivers of economic growth in the Cape Winelands region. Additionally, the development is expected to generate employment opportunities, both during the construction and operational phases, contributing to poverty alleviation and improved livelihoods in the surrounding communities.

Through its focus on infrastructure investment and service delivery, the municipality creates an enabling environment for sustainable agricultural enterprises such as this one. The proposed project not only complements existing land use patterns and economic priorities but also reinforces the district's long-term vision of integrated rural development and equitable access to resources. As such, the Harmony Trust development is well-aligned with the Cape Winelands District Municipality's broader planning and policy objectives for inclusive and sustainable regional progress.

Figure 8: Cape Winelands District Municipality[2]

4.6.2 Witzenberg Local Municipality

The Witzenberg Local Municipality (WLM) is situated in the Western Cape and is known for its strong agricultural-based economy. The municipality is home to key towns such as Tulbagh, Wolseley, and Ceres, with Prince Alfred's Hamlet and Op-die-Berg to the north. Agriculture, particularly fruit and wine production, is the driving force of the local economy. The region also supports agri-processing industries focused on niche products like olives, grains, beef, and pork. The area's agricultural sector provides substantial employment.

In addition to its agricultural roots, Witzenberg has made significant strides in developing its economic strategy. The municipality has engaged the private sector, other levels of government, and development agencies to create a collaborative framework for economic growth. The local economic vision focuses on partnership-driven commercial projects that prioritize job creation, broad-based black economic empowerment, and the overall expansion of the municipal economy. Efforts to improve infrastructure,

[2] https://municipalities.co.za/

particularly bulk and network services, remain central to supporting investment and enhancing job opportunities.

Recent updates to the municipality's Integrated Development Plan (IDP) emphasise a continued focus on infrastructure development, sustainable economic growth, and attracting investment. These initiatives are aligned with a broader vision to foster long-term economic sustainability, particularly in agri-processing and related industries. The municipality's emphasis on a balanced approach to development ensures that future growth is supported by adequate services, creating a conducive environment for economic prosperity.

Overall, the socio-economic fabric of Witzenberg is centered around agriculture but also incorporates modern strategies to diversify its economy. The municipality continues to focus on sustainable development, job creation, and broad-based empowerment as critical components of its economic future.

Harmony Trust's proposed expansion into fruit orchards is strategically aligned with the broader socio-economic objectives of the Witzenberg Local Municipality. As highlighted in the municipality's development plan, agriculture plays a crucial role in driving the local economy, particularly through fruit and wine production. Harmony Trust's growth, which includes the cultivation of an additional approximately 30 hectares of fruit orchards, directly supports the municipality's focus on agricultural development and job creation, particularly for previously disadvantaged groups.

Moreover, the expansion aligns with Witzenberg's strategy to foster economic sustainability through collaborative commercial projects. By expanding its operations, Harmony Trust will contribute to the region's goal of broad-based black economic empowerment, enhancing local employment opportunities and supporting the municipality's infrastructure development initiatives. This development not only strengthens the agricultural sector but also positions Harmony Trust as a key player in the municipality's long-term economic growth, ensuring that the region remains competitive and resilient.

5 ENVIRONMENTAL ISSUES AND POTENTIAL IMPACTS

Environmental issues were raised through desktop analysis, site visits, informal discussions with the project team, specialists and authorities, and by Interested and Affected Parties through the initial public participation period. All issues raised will be assessed in the specialist reports and will form part of the Environmental Impact Report. Additional issues raised during the public participation will be listed in the Final Scoping Report.

The following potential issues have been identified:

5.1 BIODIVERSITY IMPACT

The Botanical Specialist stated that the area selected for the proposed Toeka Instream Dam historically would have supported Kouebokkeveld Shale Fynbos, a vegetation type classified as Least Threatened. However, none of this vegetation type remains, as the habitat is transformed and supports secondary vegetation. The ESA2 rating of the area indicates some ecological value.

The construction and operation of the proposed Toeka Instream Dam and associated agricultural areas will result in biodiversity impacts, primarily due to the loss of habitat. Although the area has been historically cultivated and degraded, some indigenous vegetation has naturally reestablished over the years. The inundation of land by the dam will lead to the permanent loss of plant species and ecological processes within the affected area. However, from a terrestrial botanical perspective, the specialist has determined that the impact of the Toeka Instream Dam site would be Low Negative.

The full findings of the biodiversity impact assessment will be presented in the EIA phase of the EIA process.

5.2 FRESHWATER IMPACT

The proposed Toeka Instream Dam agricultural development will affect freshwater resources by altering the natural flow regime of the Houdenbek River, which contributes to the Riet and Doring River systems. One of the primary concerns raised by downstream stakeholders is the potential reduction in water availability, which may negatively impact both ecological integrity and agricultural activities downstream. To mitigate this, the project will restrict abstraction to surplus winter water during peak flow periods, as stipulated in the issued Water Use License (WUL). Additionally, flow monitoring systems will be installed upstream and downstream to ensure compliance with abstraction thresholds and to safeguard against unintended downstream impacts.

The Freshwater Impact Assessment concluded that the direct alteration of instream aquatic habitat at the dam site is limited, as the affected area is largely transformed from prior agricultural use. Wetland indicators are present only intermittently following substantial rainfall, and no permanent wetlands were identified. However, the broader concern lies in the cumulative impacts of water abstraction on the Doring River system, which is already subject to significant hydrological stress from upstream withdrawals.

To address this, the freshwater specialist recommends strict abstraction timing aligned with natural flood cycles to minimize disruption of the river's hydroperiod. Further hydrological assessments are advised to evaluate the long-term sustainability of proposed abstraction volumes in relation to the Ecological Reserve. A River Maintenance Management Plan (MMP) has also been requested to guide any future in-river activities and maintain ecological functioning. Compliance with these requirements, along with ongoing environmental monitoring, will be essential to ensuring that the Toeka Instream Dam operates sustainably without causing significant harm to downstream freshwater ecosystems or users.

The full findings and additional specialist input will be detailed in the EIA phase. The existing Water Use License provides a regulatory framework ensuring that water abstraction and storage occur within legal and sustainable limits.

5.3 HERITAGE / ARCHAEOLOGICAL IMPACT

The HIA has shown that the proposed construction of the Toeka Instream Dam and agricultural land on the Remainder of the Farm Houdenbek No. 415 near Ceres will not impact important local archaeological and palaeontological heritage resources. No impacts on important archaeological resources are anticipated.

Construction of the Toeka Instream Dam and development is not expected to impact local archaeological heritage resources. A dispersed scatter of ESA resources (mostly outside) the amended footprint of the proposed agricultural area has been graded as Not Conservation Worthy.

5.4 PALAEONTOLOGICAL IMPACT

According to Bamford (2024), `there is a very small chance that fossils may occur below the ground surface in the unweathered sandstones and quartzites of the Devonian-aged Ceres Subgroup (Bokkeveld Group, Cape Supergroup)'. As far as the palaeontology is concerned, `the impact on palaeontological heritage would be low, so the project should be authorised' (Bamford 2024).

However, a Fossil Chance Find Protocol should be added to the EMPr (Bamford 2024). If fossils are found by the environmental control officer, or other responsible person once excavations for the dam wall or ploughing of the fields have commenced then HWC must be notified, the fossils should be rescued, and a palaeontologist called to assess and collect a representative sample.

5.5 LANDSCAPE / VISUAL IMPACT

From a visual and aesthetic perspective, the proposed Toeka Instream Dam and associated agricultural development are not expected to significantly alter the local sense of place. The site is located within a predominantly agricultural landscape, characterised by cultivated fields, orchards, farm infrastructure, and a number of existing farm dams in the surrounding area. These elements collectively define the visual identity of the region, which is shaped by its long-standing use for intensive farming and water storage.

The addition of the Toeka Instream Dam, in both form and function, is visually consistent with the surrounding land uses and infrastructural typologies. Its scale, design, and materials will be similar to other dams in the area, ensuring that it integrates seamlessly into the broader visual character of the Kouebokkeveld rural environment. There are no prominent tourism or heritage landscapes in the immediate vicinity that would be visually or culturally disrupted by the proposed development.

Due to the relatively low elevation of the dam wall and its location within a modified landscape, viewshed impacts are limited. Visibility from public roads or key viewpoints is minimal, and where visible, the dam is expected to appear as a natural extension of existing agricultural practices. The uniformity of the surrounding land use means the project will likely be perceived as a logical and non-intrusive component of the landscape.

As such, the proposed development is unlikely to result in any negative visual intrusion or loss of landscape cohesion. The sense of place, defined by the interaction of landscape, land use, and human experience, is anticipated to remain intact. Therefore, no further visual impact or landscape character assessments have been deemed necessary.

5.6 AGRICULTURAL IMPACT

The proposed Toeka Instream Dam and its associated agricultural development will have both beneficial and adverse implications for agricultural resources in the area. On the positive side, the project is anticipated to significantly enhance irrigation capacity, thereby enabling the expansion and intensification of high-value crops within the proposed agricultural zones. This is aligned with regional

development priorities and supports increased agricultural productivity, job creation, and economic resilience for the farm and the broader community.

Conversely, the development will also result in the permanent loss of a portion of currently usable or potentially arable agricultural land, particularly within the footprint of the dam basin, where inundation will occur. Although this area is considered to have a medium agricultural sensitivity, the trade-off is seen as necessary to support the long-term sustainability and reliability of irrigation water supply across a larger farming operation.

An agricultural assessment is currently underway to provide a more detailed analysis of land capability, soil conditions, historic cultivation practices, and the overall suitability of the area for further agricultural development. This assessment will also evaluate the degree to which the proposed dam may alter land use patterns, affect existing or previously cultivated areas, and potentially displace any viable agricultural zones.

While the dam will alter the physical landscape in certain localized areas, it is not expected to have a significant adverse impact on the surrounding productive farmland, as most of the effects are spatially confined to the reservoir area. The assessment findings will inform mitigation strategies to minimize the loss of arable land and ensure that the development is integrated with existing farming operations in a manner that maintains the overall agricultural integrity of the region.

Overall, the project is expected to yield a net agricultural benefit, with short-term land loss outweighed by long-term gains in water security, crop diversification potential, and agricultural output. The final agricultural assessment will provide guidance to optimize this balance and support informed decision-making during the environmental authorisation process.

5.7 SOCIO-ECONOMIC IMPACT

The construction of the proposed dam and development of the associated agricultural area will generate jobs during the construction phase, and its operational phase will further contribute by indirectly creating additional employment opportunities. The proposed dam plays a critical role in the establishment of the associated agricultural area where fruit orchards are being proposed, which is expected to result in permanent job creation within the agricultural sector.

This application is part of a larger initiative aimed at the continued development of an existing 100% black-owned BBBEE farming entity, Harmony Trust. Harmony Trust has been successfully operating in the agricultural sector for many years in collaboration with their neighbouring partner and mentor, Morester Langoed. The proposed agricultural area will not only benefit the BBBEE entity but also provide significant economic opportunities for previously disadvantaged communities by creating sustainable employment in the region.

6 DETAILS OF THE PUBLIC PARTICIPATION PROCESS

Interested and Affected Parties (I&APs) are identified throughout the on-going Public Participations process. Landowners adjacent to the proposed site, relevant organs of state, organisations, 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 4.

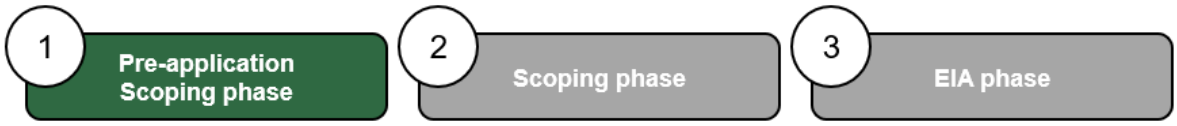
A Public Participation Process (PPP) will be conducted for the proposed development in accordance with the requirements outlined in Regulation 41 of the NEMA EIA Regulations 2014. The issues and concerns raised during the Scoping phase will be dealt with in the EIA phase of this application.

As such, each subsection of Regulation 41 contained in Chapter 6 of the NEMA EIA Regulations 2014 will be addressed separately to demonstrate that all potential Interested and Affected Parties (I&APs) were notified of the proposed development.

The I&APs 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 EIR will be revised in response to feedback received from I&APs. All comments received and responses to the comments will be incorporated into the Final Environmental Impact Report (EIR). The Final EIR will then be submitted to WCDEADP for consideration and decision-making.

Correspondence with I&APs will be via post, fax, telephone, email, and/or 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. WCDEADP will be informed of any changes in the process.



This ***Pre-application Scoping Report*** falls within the Pre-application Scoping phase as depicted above, which will be submitted to the Department of Environmental Affairs and Development Planning (WCDEADP)(Western Cape) for consideration, and forms part of the Scoping & EIA process. The purpose of this pre-application Scoping Report 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.

Table 3: Public participation process Regulations as per NEMA EIA Regulations, 2014 (as amended 2021)

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
Regulation 39 - Activity on land owned by person other than proponent		
1.	If the proponent is not the owner or person in control of the land on which the activity is to be undertaken, the proponent must, before applying for an environmental authorisation in respect of such activity, obtain the written consent of the landowner or person in control of the land to undertake such activity on that land.	Written consent of the landowner or person in control of the land to undertake the proposed activities on the land has been obtained through an established agreement.
2.	Subregulation (1) does not apply in respect of— a) linear activities; and	Noted. Not applicable to this proposed development.
	b) strategic integrated projects as contemplated in the Infrastructure Development Act, 2014.	Noted. Not applicable to this proposed development.
Regulation 40 - Purpose of public participation		
1.	The public participation process to which the— a) basic assessment report and EMPr, and the closure plan in the case of a closure activity, submitted in terms of regulation 19; and	As part of the pre-application Scoping phase, a 30-day commenting period occurred between 08 August 2024 to 13 September 2024. All potential or registered Interested and Affected Parties, including the Competent Authority and Commenting Authorities were invited and allowed to submit comments regarding the proposed development.
	b) scoping report submitted in terms of regulation 21, the environmental impact assessment report, EMPr, and the closure plan in the case of a closure activity, submitted in terms of regulation 23; was subjected to must give all potential or registered interested and affected parties, including the competent authority, a period of at least 30 days to submit comments on each of the basic assessment report, EMPr, scoping report and environmental impact assessment report, and the closure plan in the case of a closure activity, as well as the report contemplated in regulation 32, if such reports or plans are submitted at different times.	
2.	The public participation process contemplated in this regulation must provide access to all information that reasonably has or may have the potential to influence any decision with regard to an application unless access to that information is protected by law and must include consultation with — a) the competent authority;	As part of the pre-application Scoping phase, initial notification letter was sent to — a) The Department of Environmental Affairs and Development Planning (WCDEADP) identified as the Competent Authority.
	b) every State department that administers a law relating to a matter affecting the environment relevant to an application for an environmental authorisation;	

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
	c) all organs of state which have jurisdiction in respect of the activity to which the application relates; and	b & c) The following state departments that administers a law relating to a matter affecting the environment relevant to an application and organs of state that have jurisdiction in respect of the activity to which the application relates: − Department of Agriculture − Department of Water and Sanitation − Department of Water and Sanitation: Water Resource Management – Berg/Olifants − Department of Environmental Affairs and Development Planning − Department of Rural Development and Land Reform Spatial Planning − Department of Transport and Public Works − Heritage Western Cape − Cape Nature: Land Use & Conservation Planning − Local Municipality − District Municipality d) All potential, or, where relevant, registered interested and affected parties. These initial notification letters were sent to inform the parties described above about the proposed activity/development and to invite their input.
	d) all potential, or, where relevant, registered interested and affected parties.	

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
3.	Potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but must be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority.	During the pre-application Scoping phase, potential and/or registered Interested and Affected Parties, including the Competent Authority and Commenting Authorities were notified and given the opportunity to comment on the proposed development. However, no reports or plans, as outlined in subregulation (1), were available at that time Nevertheless, an opportunity for potential registered Interested and Affected Parties, including the Competent Authority and Commenting Authorities to comment on such reports and plans will be given once an application has been submitted to the Competent Authority.
Regulation 41 – Public participation process		
1.	This regulation only applies in instances where adherence to the provisions of this regulation is specifically required.	Noted.
2.	The person conducting a public participation process must take into account any relevant guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of an application or proposed application which is subjected to public participation by— a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of — i. the site where the activity to which the application or proposed application relates is or is to be undertaken; and	During the pre-application Scoping phase an English A2 sized notice board was fixed on the boundary / fence of the site where the activity to which the proposed application relates is to be undertaken. Additionally, multiple English A3 sized notice boards were placed at various locations around the site.
	ii. any alternative site	There is no alternative site.
	b) giving written notice, in any of the manners provided for in section 47D of the Act, to— i. the occupiers of the site and, if the proponent or applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken and to any alternative site where the activity is to be undertaken	As part of the pre-application Scoping phase, initial notification letters were sent to occupiers and persons in control of the site via email and/or mail drops conducted during the site visit.

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
	ii. owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken and to any alternative site where the activity is to be undertaken	As part of the pre-application Scoping phase, initial notification letters were sent to identified occupiers of land adjacent to the site via email and/or mail drops conducted during the site visit.
	iii. the municipal councillor of the ward in which the site and alternative site is situated and any organisation of ratepayers that represent the community in the area	As part of the pre-application Scoping phase, an initial notification letter was sent to the relevant municipal ward councillor at the Witzenberg Local Municipality. No ratepayer organisation were identified for the community in the area.
	iv. the municipality which has jurisdiction in the area	As part of the pre-application Scoping phase, an initial notification letter was sent to a representative of the Witzenberg Local Municipality and the Cape Winelands District Municipality.
	v. any organ of state having jurisdiction in respect of any aspect of the activity; and	As part of the pre-application Scoping phase, initial notification letters were sent to the following organs of state having jurisdiction in respect of any aspect of the activity: - Department of Agriculture - Department of Water and Sanitation - Department of Water and Sanitation: Water Resource Management – Berg/Olifants - Department of Environmental Affairs and Development Planning - Department of Rural Development and Land Reform Spatial Planning - Department of Transport and Public Works - Heritage Western Cape - Cape Nature: Land Use & Conservation Planning - Local Municipality - District Municipality
	vi. any other party as required by the competent authority	Noted. Should the competent authority require any other party to receive written notice, then this will be duly carried out.

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
	c) placing an advertisement in— i. one local newspaper; or	An English advertisement was placed in the *Witzenberg Herald*, a local newspaper, on 09 August 2024.
	ii. any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;	Noted. Not applicable to this proposed development.
	d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official Gazette referred to in paragraph (c) (ii); and	Noted. Not applicable to this proposed development.
	e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desirous of but unable to participate in the process due to — i. illiteracy;	Noted. In instances where a person desires to participate in the process but is unable to do so due to illiteracy, disability, or any other disadvantage, and make such a desire known to the EAP, then reasonable alternative methods will be used, as agreed upon by the competent authority.
	ii. disability; or	
	iii. any other disadvantage	
3.	A notice, notice board or advertisement referred to in subregulation (2) must— a) give details of the application or proposed application which is subjected to public participation; and	The written notices — specifically, notification letters, notice boards, and advertisements — that form part of the pre-application Scoping phase's 30-day commenting period, contain details of the proposed application, which is subject to public participation. Please refer to Appendix 4 for proof of the written notices.
	b) state — i. whether basic assessment or S&EIR procedures are being applied to the application;	
	ii. the nature and location of the activity to which the application relates;	
	iii. where further information on the application or proposed application can be obtained; and	
	iv. the manner in which and the person to whom representations in respect of the application or proposed application may be made.	

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
4.	A notice board referred to in subregulation (2) must— a) be of a size of at least 60cm by 42cm; and	The notice boards measured 60cm by 42cm in size and displayed the required information in a legible format. Please refer to Appendix 4 for proof of the notice boards.
	b) display the required information in lettering and in a format as may be determined by the competent authority.	
5.	Where public participation is conducted in terms of this regulation for an application or proposed application, subregulation (2) (a), (b), (c) and (d) need not be complied with again during the additional public participation process contemplated in regulations 19 (1) (b) or 23 (1) (b) or the public participation process contemplated in regulation 21 (2) (d), on condition that— a) such process has been preceded by a public participation process which included compliance with subregulation (2) (a), (b), (c) and (d); and	Noted.
	b) written notice is given to registered interested and affected parties regarding where the— i. revised documents as contemplated in regulation 19 (1) (b);	Noted.
	ii. revised documents as contemplated in regulation 23 (1) (b); or	Noted.
	iii. environmental impact assessment report and documents as contemplated in regulation 21 (2) (d); may be obtained, the manner in which and the person to whom representations on these reports or plans may be made and the date on which such representations are due.	Noted.
6.	When complying with this regulation, the person conducting the public participation process must ensure that— a) information containing all relevant facts in respect of the application or proposed application is made available to potential interested and affected parties; and	Noted.
	b) participation by potential or registered interested and affected parties is facilitated in such a manner that all potential or registered interested and affected parties are provided with a reasonable opportunity to comment on the application or proposed application.	Noted.
7.	Where an environmental authorisation is required in terms of these Regulations and an authorisation, permit or licence is required in terms of a specific environmental management Act, the public participation process contemplated in this Chapter may be combined with any public participation processes prescribed in terms of a specific environmental management Act, on condition that all relevant authorities agree to such combination of processes.	Noted.

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
Regulation 42 - Register of interested and affected parties		
1.	A proponent or applicant must ensure the opening and maintenance of a register of interested and affected parties and submit such a register to the competent authority, which register must contain the names, contact details and addresses of— a) all persons who, as a consequence of the public participation process conducted in respect of that application, have submitted written comments or attended meetings with the proponent, applicant or EAP;	A register of interested and affected parties was opened and is maintained.
	b) all persons who have requested the proponent or applicant, in writing, for their names to be placed on the register; and	
	c) all organs of state which have jurisdiction in respect of the activity to which the application relates.	
Regulation 43 - Registered interested and affected parties entitled to comment on reports and plans		
1.	A registered interested and affected party is entitled to comment, in writing, on all reports or plans submitted to such party during the public participation process contemplated in these Regulations and to bring to the attention of the proponent or applicant any issues which that party believes may be of significance to the consideration of the application, provided that the interested and affected party discloses any direct business, financial, personal or other interest which that party may have in the approval or refusal of the application.	This subregulation is communicated to registered interested and affected parties during the public participation process.
2.	In order to give effect to section 24O of the Act, any State department that administers a law relating to a matter affecting the environment must be requested, subject to regulation 7 (2), to comment within 30 days.	State departments that administer laws relating to environmental matters relevant to the application, as well as organs of state with jurisdiction over the activity, were notified of the proposed application and invited to comment within 30 days. However, should comments not be received within the prescribed timeframes, it would be assumed that no comments are forthcoming.

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
Regulation 44 - Comments of interested and affected parties to be recorded in reports and plans		
1.	The applicant must ensure that the comments of interested and affected parties are recorded in reports and plans and that such written comments, including responses to such comments and records of meetings are attached to the reports and plans that are submitted to the competent authority in terms of these Regulations.	Comments of interested and affected parties are recorded together with the responses in a Comment and Response report (CRR) and where applicable, incorporated into reports and plans.
2.	Where a person desires but is unable to access written comments as contemplated in subregulation due to— a) a lack of skills to read or write; b) disability; or c) any other disadvantage; reasonable alternative methods of recording comments must be provided for.	Noted. Where a person desires to but is unable to access written comments due to illiteracy, disability, or any other disadvantage, and make such a desire known to the EAP, then reasonable alternative methods of recording comments will be provided for.

7 PLAN OF STUDY FOR THE EIA

7.1 TASKS TO BE UNDERTAKEN

Due to the nature of the proposed development, there are a number of activities that will still need to be undertaken during the next phase of the project. The proposed process is described as follows (this follows from a Scoping process to be accepted by the Western Cape Department of Environmental Affairs and Development Planning (WCDEADP):

The NEMA application form will be submitted to WCDEADP along with the Draft Scoping Report, which will also be made available for viewing and comment for a 30-day comment period. Comments received during the Public Participation Process (PPP) will be incorporated into the Final Scoping Report, to be submitted to WCDEADP for a decision. The following is a list of tasks to be performed as part of the EIA Process. Should the process be modified significantly, changes will be copied to WCDEADP.

Table 4: EIA process - Timeline

EIA Process	
Task	**Timeframes**
Notify members of the public through existing Interested and Affected Parties (I&AP) databases, site notices, and a newspaper advertisement about the intention to submit a National Environmental Management Act (NEMA) application for the proposed development as part of the initial Public Participation Process (PPP) phase.	September 2024
Distribute a Pre-application Scoping Report to registered Interested and Affected Parties and Commenting Authorities for their comments.	May 2025
Submit NEMA application and Draft Scoping Report (DSR) and Plan of Study for EIA to WCDEADP and distribute to registered I&APs and Commenting Authorities for comment.	June 2025
Submit Final Scoping Report (FSR) and Plan of Study to WCDEADP for a decision.	July 2025
Receive approval for the FSR and the Plan of Study for EIA.	August 2025
Undertake/further specialist studies (if required) and compile the Draft Environmental Impact Report (EIR) for public comment based on specialist information.	September 2025
Submit Draft EIR for public comment.	October 2025
Receive responses to the Draft EIR.	November 2025
Preparation of a FINAL EIR and submission to WCDEADP.	December 2025

**Timeframes provided are estimates and are subject to change. They serve as a tentative indication and may be adjusted as the process progresses.*

7.2 CRITERIA FOR SPECIALIST ASSESSMENT OF IMPACTS

As a result of the environmental issues and potential impacts identified in Section 6, the need for the following specialist studies has been identified:

- Agricultural Assessment
- Biodiversity Assessment
- Freshwater Assessment
- Heritage / Archaeological & Palaeontological Assessment

Specialist studies are at various stages of completion—some are ongoing, others have been conducted, and some have been concluded. The findings of some of the studies have already been included in this report, however, the studies will be finalised and the findings included during the EIA phase.

The impacts of the proposed activity 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 5. These impacts could either be positive or negative. This includes an assessment of the alternatives, including the option of not proceeding with the proposed development (see Section 4).

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.

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. An 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. Cognisance of the minimum report content requirements of the various specialist assessments as per the Assessment Protocols (Government Notice 320, Government Gazette No. 43110 of 20 March 2020).

Table 5: 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

Criteria	Category
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 *(onsite)* **Small:** restricted to the site's immediate environment within 1 km of the site *(limited)* **Medium:** Within 5 km of the site *(local)* **Large:** Beyond 5 km of the site *(regional)*
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 actually 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) The significance of impacts shall be assessed with and without mitigations. 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:	**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. **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 **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. **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.

Table 6: The stated assessment and information will be determined for each individual issue or related groups of issues and presented in a 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):		

8 CONCLUSION

Harmony Trust is proposing the development of an instream dam and an associated agricultural area on the Remaining Extent of Farm Houdenbek 415, near Op-Die-Berg in the Witzenberg Local Municipality, Western Cape. The proposed development involves the construction of the Toeka Instream Dam, which will have a storage capacity of 2,000,000 m³, a dam wall height of approximately 14 m, and a dam wall length of about 600 m. The primary purpose of the dam will be to store and supply water for irrigation, supporting a 70-hectare agricultural area. The inundation area at full supply level will cover approximately 40 ha on the lower slopes of the Houdenbeks Mountains. Water for the dam will primarily be sourced from surplus winter runoff, with additional supply coming from the catchment area. A proposed ±1200m long pipeline will convey water from the existing Houdenbek-Bo Dam, located in the Houdenbeks River, to the proposed Toeka Instream Dam. The stored water will then be used for the irrigation of the proposed agricultural area, which will consist of fruit orchards. Given the location and scale of the development, environmental considerations such as biodiversity, freshwater resources, heritage, and agricultural land use have been identified as key aspects requiring further assessment.

The Scoping exercise and initial Public Participation process have highlighted environmental concerns and the need for a comprehensive Environmental Impact Assessment (EIA). Specialist studies are in progress, with findings to be finalised and integrated into an Environmental Impact Report (EIR) should the EIA process proceed. Based on the significance of the issues raised, it is recommended that authorisation for the EIA be granted to ensure all potential impacts are thoroughly assessed and mitigated. The EIA phase will provide a comprehensive evaluation of the proposed development's environmental implications, ensuring an informed decision-making process is undertaken.

The following findings have emerged from the Scoping exercise and specialist studies conducted concluded thus far:

Positive Findings/Impacts

- **Agricultural Development** – The project supports agricultural expansion, contributing to food production and economic growth.
- **Job Creation** – Employment opportunities will be generated during both construction and operational phases, benefiting local communities.
- **Economic Empowerment** – The development supports a BBBEE farming entity, enhancing opportunities for historically disadvantaged individuals.
- **Groundwater Recharge** – Some infiltration from the dam may contribute to groundwater recharge, though minimal.
- **Visual Integration** – The dam aligns with the existing agricultural landscape and does not significantly alter the sense of place.
- **Water Security** – The dam will provide a controlled water supply for irrigation, improving agricultural sustainability.
- **The Koue Bokkeveld Water User Association** – The Koue Bokkeveld Water User Association, under whose auspices the concerned area & Water Use Licence falls, approves of the application for taking & storing.
- **Land Use Optimisation** – The project will enable the productive use of currently underutilised or marginal farmland by making irrigation feasible, thereby increasing agricultural output.
- **Climate Resilience** – By ensuring a reliable source of irrigation water, the dam enhances the resilience of agricultural operations to drought and climate variability, which are of growing concern in the region.
- **Infrastructure Investment** – The development will necessitate the upgrading and expansion of farm infrastructure (e.g., roads, monitoring systems), potentially benefiting the broader agricultural community in the area.

- **Support for Regional Planning Goals** – The project aligns with the Cape Winelands District Municipality's planning frameworks that promote sustainable agriculture, rural upliftment, and socio-economic development.
- **Regulatory Compliance and Planning** – The project is being conducted under a valid Water Use Licence, demonstrating alignment with legal and environmental oversight, and ensuring that water resources are managed responsibly.
- **Skills Development and Capacity Building** – The construction and operational phases of the dam offer opportunities for local job training, which could lead to long-term skills development in irrigation management, construction, and farm labour practices.

Negative Findings/Impacts

- **Biodiversity Concerns** – The development may result in further loss of the Kouebokkeveld Shale Fynbos, an important vegetation type, despite the area being largely transformed for agricultural use.
- **Hydrological Impact** – The construction of the dam and irrigation systems may alter the hydrology of nearby drainage lines or non-perennial streams, with potential long-term consequences on local water flow and ecosystem health.
- **Cumulative Water Abstraction** – Combined effects of multiple dams may exacerbate hydrological stress if not properly managed.
- Loss of Agricultural Land – While enabling new agricultural activities, the dam footprint will reduce existing farmland.