



**MP STREAM ENVIRONMENTAL  
AND SAFETY PLANNERS (PTY) LTD**

Reg No: 2021/318370/07

**Proposed Citrus Plantation on Portion 5 of the farm Duma  
201-JU, City of Mbombela, Mpumalanga Province**

**Draft Basic Assessment Report**

**December 2021**

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# Summary

**AEONIK FARMS SEQUOIA (Pty) Ltd** is proposing to clear indigenous vegetation for a citrus plantation. The proposed project seeks to clear less than 20 hectares (19.9ha) within a total extent of approximately 220 hectares. The applicant will refurbish and repair the depilated infrastructure that entail repairing the existing access road, re-trenching the existing chalets, replacing the old deck, upgrading the staff house, and establishing firebreaks. Except for the clearance of indigenous vegetation, no other activity constitutes any listed activity in terms the National Environmental Management Act 107 of 1998 (NEMA 107, 1998). Environmental Authorisation is however required in accordance with the National Environmental Management Act 107 of 1998, GNR 983 of 2014 (as amended in 2017), before the any clearance activities may commence.

**AEONIK FARMS SEQUOIA (Pty) Ltd** appointed **MP Stream Environmental and Safety Planners (Pty) Ltd** to apply for the EA by means of conducting a Basic Environmental Authorisation process as regulated within General Notice Regulation 982, 2014 (as amended in 2017).

The establishment and operation of the agricultural area are likely to result in environmental and socio-economic impacts. The identified impacts are listed below and discussed thereafter:

- *Impact on biodiversity*
- *Generation of dust;*
- *Impact on soil;*
- *Impact on water resources;*
- *Impact on Heritage resources*
- *Socio-economic impact.*

The table below summarises the impacts identified and assessed for the establishment and operational phases of the project:

IMPACT	SIGNIFICANCE BEFORE MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION MEASURES
<b>Establishment and Operational Impacts</b>		
Impact on biodiversity	Medium	Low
Generation of dust	Low	Very Low
Erosion	Medium	Low
Soil Pollution	Low	Very Low
Impact on water resources	Medium	Low
Impact on Heritage	Low	Very Low
Socio-economic Impact	Low (+)	Medium (+)
<b>Operational Phase Impacts</b>		
Impact on biodiversity (Alien invasive species)	Medium	Low
Loss of habitat for fauna	Medium	Low

Erosion	Medium	Low
Soil contamination	Medium	Low
Impact on water resource	High	Medium
Socio-economic Impact	Low	Medium (+)

The assessment of the possible impacts associated with the establishment and operational activities, concluded that the impact on the surrounding environment is of **medium to low significance**. Recommendations have however been made to address the impacts which could affect the biophysical and socio-economic environment. It is recommended that pro-active measures are taken to minimise the spread of alien invasive vegetation. Recommendations for the mitigation of impact are included within Section 6 and also the Draft Environmental Management Plan attached.

It is the opinion of the EAP that the EA for this project should be granted, and the proposed mitigation included as the conditions of the authorisation

# **1. OVERVIEW OF THE PROJECT**

## **1.1 Introduction**

**AEONIK FARMS SEQUOIA (Pty) Ltd** is proposing to clear indigenous vegetation for a citrus plantation. The proposed project seeks to clear less than 20 hectares (19.9ha) within a total extent of approximately 220 hectares. The applicant will refurbish and repair the depilated infrastructure which entails repairing the existing access road, re-trenching the existing chalets, replacing the old deck, upgrading the staff house, and establishing firebreaks. Except for the clearance of indigenous vegetation, no other activity constitutes any listed activity in terms of the National Environmental Management Act 107 of 1998 (NEMA 107, 1998). Environmental Authorisation is however required in accordance with the National Environmental Management Act 107 of 1998, GNR 983 of 2014 (as amended in 2017), before any clearance activities may commence.

**AEONIK FARMS SEQUOIA (Pty) Ltd** appointed **MP Stream Environmental and Safety Planners (Pty) Ltd** to apply for the EA by means of conducting a Basic Environmental Authorisation process as regulated within General Notice Regulation 982, 2014 (as amended in 2017).

## **1.2 Location**

The proposed site is located on portion 5 of the farm Duma 201-JU, Mpumalanga Province

Central coordinates of the site:

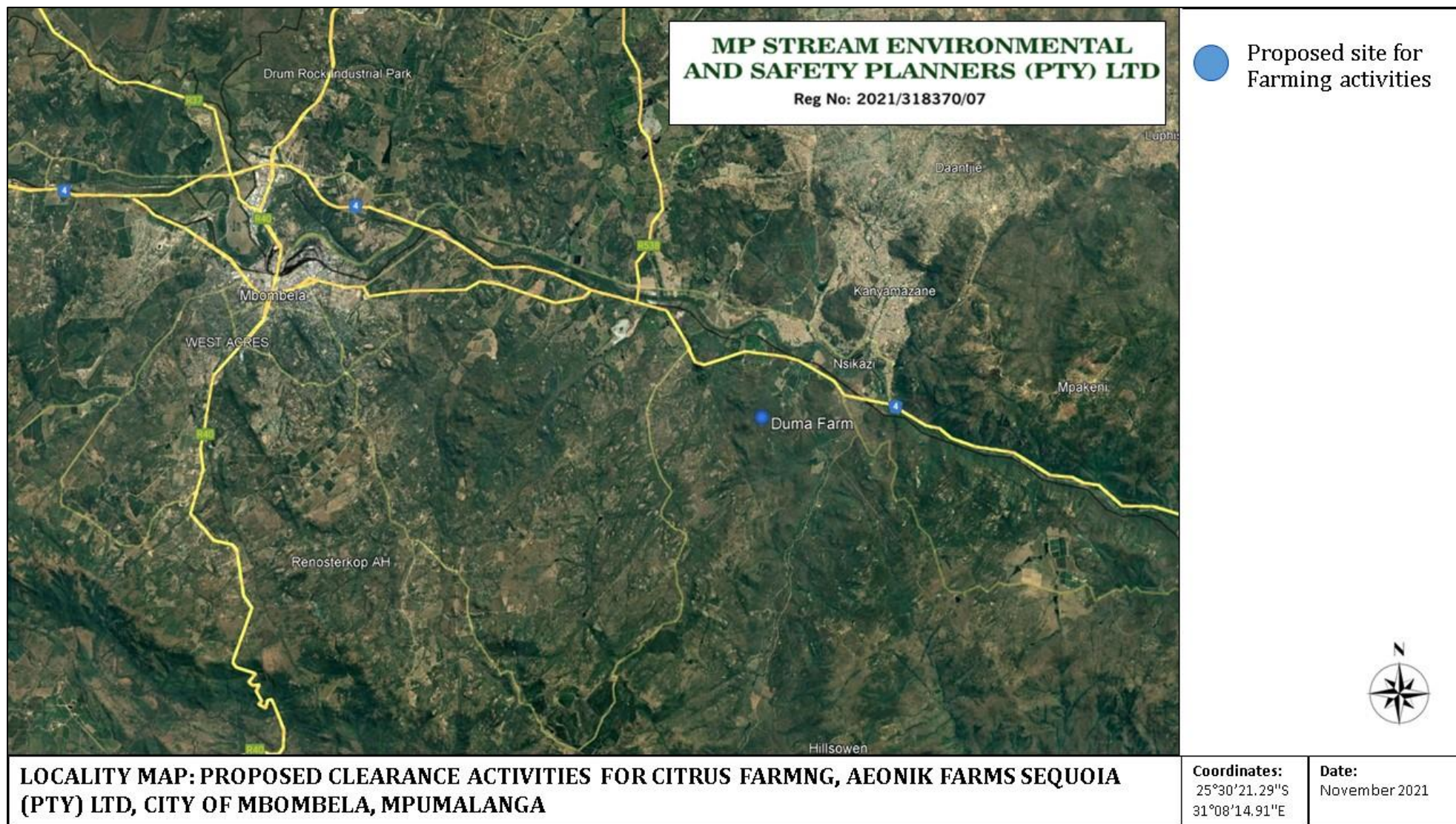
25°30'21.29"S

31°08'14.91"E

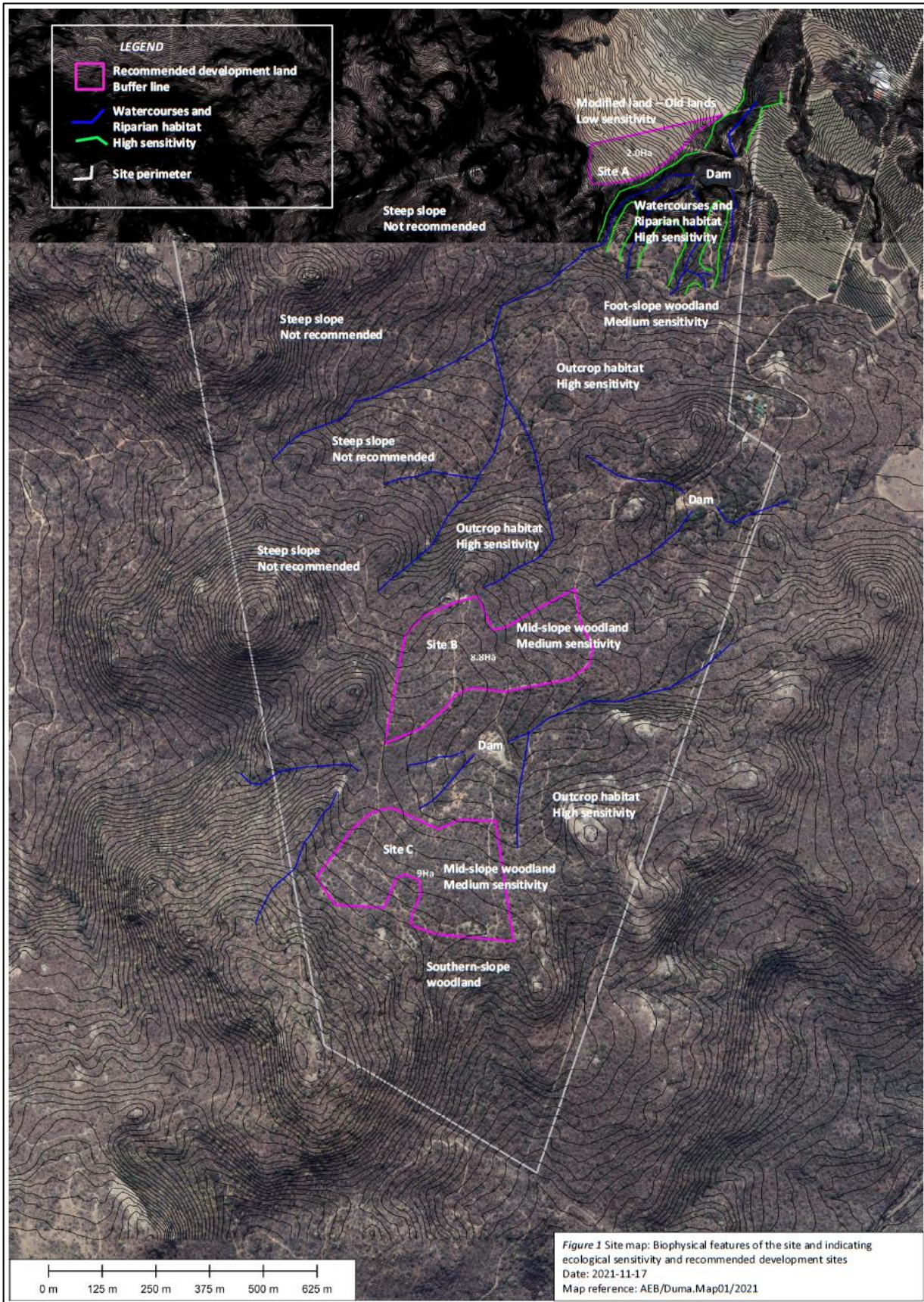
21-digit Surveyor General codes:

- TOJU00000000020100005

Please refer to the locality map below, Figure 1 and 2.



**FIGURE 1: LOCALITY MAP PROPOSED PROJECT AREA ON PORTION 5 OF THE FARM DUMA 201**



**FIGURE 2: LAYOUT MAP OF THE PROPOSED AGRICULTURAL AREAS ON PORTION 5 OF THE FARM DUMA 201 JU.**



### 1.3 Policy Legal and Administrative Framework

TABLE 1: LEGISLATION APPLICABLE TO THE PROJECT

Applicable legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments considered	Project application and type (permit / licence / authorisation / comment)
The Constitution of South Africa, Act No. 108 of 1996	<p><b>AEONIK FARMS SEQUOIA (Pty) Ltd</b> will be required to adhere to the Environmental Management Programme (EMPr) requirements to ensure that social and environmental management considerations are considered and implemented.</p> <p>As per Section 25 the Constitution, a public participation process (PPP) will be undertaken, as this is an essential mechanism for informing stakeholders of their rights and obligations in terms of the project.</p>
National Environmental Management Act, 1998 (Act No. 107 of 1998)	Environmental Authorisation will subsequently be applied for by means of conducting a Basic Assessment process as regulated within GNR982 of 2014 (as amended in 2017).
National Biodiversity Act, 2004 (Act No. 10 of 2004)	<p>The act provides for the management and conservation of South Africa's biodiversity within the framework of the National Environmental Management Act, 1998; the protection of species and ecosystems that warrant national protection; the sustainable use of indigenous biological resources, the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resource; the establishment and functions of a South African National Biodiversity Institute; and for matters connected therewith.</p> <p>The National Biodiversity Act, 2004, must therefore be considered prior to the clearance of vegetation to minimise the impact on the terrestrial biodiversity.</p>

Occupational Health and Safety Act, 1998 (Act No. 85 of 1998)	<p>The Act provides for the health and safety of people at work and for the health and safety of people using plant and machinery.</p> <p>During establishment, work must be conducted with strict adherence to the Occupational Health and Safety Act 85 of 1998.</p>
National Heritage Resources Act, 1999 (Act No 25 of 1999)	<p>This legislation aims to promote good management of the national estate, and to enable and encourage communities to nurture and conserve their legacy so that it may be bequeathed to future generations.</p> <p>According to the South Africa Heritage Resource Act No 25 of 1999, a Heritage Impact Assessment must be conducted when an area larger than 5000m<sup>2</sup> is proposed to be transformed. A Heritage Specialist was therefore appointed and the assessment and findings form part of the Environmental Impact Assessment investigation.</p>
City of Mbombela Integrated Development Plan (IDP).	<p>The primary objectives of the IDP are to foster economic growth that creates jobs and improve infrastructure within the province.</p> <p>Job opportunities will be created by the proposed agricultural activities which supports economic growth within the area.</p>

#### **1.4 National Environmental Management Act 107 of 1998**

In accordance with the National Environmental Management Act 107, of 1998, the following listed activities will be triggered by the proposed development and will require approval prior to commencement:

GNR 983, 2014 (as amended), Activity 27:

*The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for – (i) the undertaking of a linear activity.*

## **1.5 Description of the project**

**AEONIK FARMS SEQUOIA (Pty) Ltd** is proposing to clear less than 20 hectares (19.9ha) of indigenous vegetation for citrus plantation. The total extent of the farm is approximately 220 hectares.

The applicant will refurbish and repair the depilated infrastructure that entail repairing the existing access road, re-trenching the existing chalets, replacing the old deck, upgrading the staff house, and establishing firebreaks. These activities do however not constitute a listed activity in terms of NEMA.

Environmental Authorisation is required in accordance with the National Environmental Management Act 107 of 1998, GNR 983 of 2014 (as amended in 2017), before the any clearance activities may commence.

## **1.6 Need and Desirability**

Based on production volumes, citrus fruit is the largest fruit industry in South Africa and is largely focussed on the export market. The South African citrus industry is the largest citrus exporter in the Southern Hemisphere and accounts for more than 60% of the Southern Hemisphere citrus exports. South Africa is the second biggest citrus exporting country, after Spain.

South Africa has grown into one of the major role players in the global citrus market. More than 88 000ha are currently grown and new plantings are on a steep incline. In 1919, roughly 51 000 boxes of citrus were exported, growing to more than 247 000 in 1922. In 1925, SA exported over a million cartons for the first time (roughly 15 000 tons). By 2018, South Africa has been exporting close to 2 million tons, valued at almost R11 billion.

Citrus fruits are highly nutritious and is recommended for a balanced diet. The fruit is also used in food and beverages, it is pressed for fruit juice. Citrus extracts are also used for medicine and cosmetic purposes.

## 2. PUBLIC PARTICIPATION PROCESS

The purpose of this chapter is to provide an outline of the public participation process (PPP) to date and the way forward with respect to the Environmental Impact Assessment process.

Consultation with the public forms an integral component of the EA process. This process enables Interested and Affected Parties (I&APs) (e.g. directly affected landowners, national-, provincial- and local authorities, and local communities etc.) to raise their issues and concerns regarding the proposed activities, which they feel should be addressed in the BA process. The PPP has thus been structured such as to provide I&APs with an opportunity to gain more knowledge about the proposed project, to provide input through the review of documents/reports, and to voice any issues or concerns at various stages throughout the EA process.

I&APs were identified during the public participation phase of the project. All the parties identified as an I&AP (surrounding landowners, relevant departments, stakeholders, local and district authorities) have automatically been registered in the I&APs database for the project. The registered I&AP list is attached as **Annexure C.1**.

In effort to engage potential stakeholders, different communication methods were used to inform them about the project and how to get involved in the EA process. These methods include:

- Distributing English Background Information Documents (BIDs) to all registered I&APs, 5 November 2021, proof of which is attached in **Annexure C.2**;
- Placement of media advert in a local newspaper (The Lowvelder) on 21 October (see **Annexure C.3**).
- Placing of a notice at the proposed site took place on 15 October 2021 (see **Annexure C.4**);

To date the following comments have been received:

Interested and Affected Party / Organ of State	Comment	Response
<b>Mr JJ Terblanche</b>  <b>Director: Terblanche Orange (Pty) Ltd</b>	<u>Comments:</u>  Please find below some concerns raised by Terblanche Orange (Pty) Ltd on the intended clearing of portion 5 of the Farm Duma 201 JU: <ul style="list-style-type: none"> <li>• The current usage of the farm is for wildlife.</li> <li>• The plan is clearing the farm for citrus and macadamia production</li> <li>• The supply of water to Portion 5 of the Farm Duma 201 JU is limited: There is only a small dam on the farm, the dam is full for the first</li> </ul>	<u>Response from EAP:</u>  Thank you for the comments received regarding the proposed activities.  Only 19.9 Ha of the 220 Ha are proposed to be cleared for Citrus production.  Groundwater resources will be used for the irrigation of the 19Ha of cultivation.

	<p>time in 15 years after some good rain in the region.</p> <p>There are limited water rights (6Ha) from the Crocodile river.</p> <ul style="list-style-type: none"><li>• Access to the Farm Duma 201 JU is also limited to an Eskom servitude road which will be problematic when they start transporting the harvest.</li></ul>	<p>This comment is noted and for this reason the applicant is proposing to repair the existing access road.</p>
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## **3. CONSIDERATION OF ALTERNATIVES**

The EIA process requires the developer to identify and investigate/assess feasible and reasonable alternatives. The project alternatives range from the location where the activity is proposed, type of activity to be undertaken, design of activity, technology to be used in the activity to the option of not implementing the activity (No-Go Alternative).

The assessment of the alternatives is a complicated and multi-faceted issue, which is essential to the success of this application and ultimately to the proper, responsible and sustainable operation of the proposed project.

### **3.1 Alternative Selection**

#### **3.1.1 Location Alternatives**

There have been no alternative properties identified for the proposed project as the proposed portion applied for is the only available land owned by the applicant. It would not be economically feasible for the business to find or purchase a new property. It must be noted that the 220Ha farm property was investigated to find the areas which are the most suitable for agricultural purposes, by taking bio-physical and social aspects into consideration.

#### **3.1.2 Layout Alternatives**

An Ecological and Heritage Impact Assessment was conducted as part of the Environmental Impact Assessment process, to identify any sensitivities within the project area to be of ecological or heritage significance. Sensitivities identified within the specialist reports was therefore taken into consideration when determining the preferred layout/areas to be cultivated

#### **3.1.3 No-Go Alternatives**

The no-go alternative would be to not authorise the application for the proposed agricultural activities. Should this alternative be favourable, the project area will not be used for cultivation and will remain as is, however, as the entire farm is approximately 220Ha, and the least sensitive areas where identified for agriculture (approximately 19,8Ha), the impacts were not found to be so severe for the no-go alternative to be the preferred option.

## **4. DESCRIPTION OF THE AFFECTED ENVIRONMENT**

The description of the affected environment below draws on existing knowledge from published data, previous studies, specialist investigations, site visits to the area and is used to understand the possible effects of the proposed project on the environment.

### **4.1 Topography**

The study area is located within the Malelane Mountain Bushveld Bioregion to the south of the N4 National Road on the foothills of Crocodile Gorge Mountains. The topography of the proposed project area is approximately 565 - 826 meters above mean sea level. The mountainous terrain, rocky geology and steep slopes over most of the site will be a challenge for any development of the land. However, within the 220Ha property, the areas found to be suitable for development, was relatively flat.

### **4.2 Climate**

Mpumalanga is a province where the climate varies due to its topography. The proposed project area is located on the Lowveld Region and has a tropical climate with warm sub-tropical temperatures and experiences high summer rainfalls. The study area experiences hot weather during summer seasons. The climatic trends of the area suggest summer season precipitation and dryer periods during winter. The area receives an average of about 353 mm of rain over 12 months. It is dry for about 215 days a year with an average humidity of 52% and a UV index of 5.

### **4.3 Ecology**

Terrestrial Ecology: The study area is classified as Lowveld (A10), according to Acocks (1988). The project area falls within the Savannah Biome. The Savanna Biome is the largest Biome in southern Africa, occupying 46% of its area, and over one-third the area of South Africa. It is well developed over the lowveld and Kalahari region of South Africa. It is characterized by a grassy ground layer and a distinct upper layer of woody plants. The vegetation type is classified as the **Malelane Mountain Bushveld**.

**Malelane Mountain Bushveld** is found on the mountains and hills to the east of Nelspruit in an area known as the Krokodilpoort Mountains. It consists of open to closed savannah depending on the altitude and measure of protection. This veld type is characterized by the trees *Pterocarpus angolensis* and *Dombeya rotundifolia* and under natural conditions it occurs with few shrubs present. It is related to Legogote Sour Bushveld. It is well protected (45% formally protected) and 4% is transformed and as such is rated as *Least threatened*.

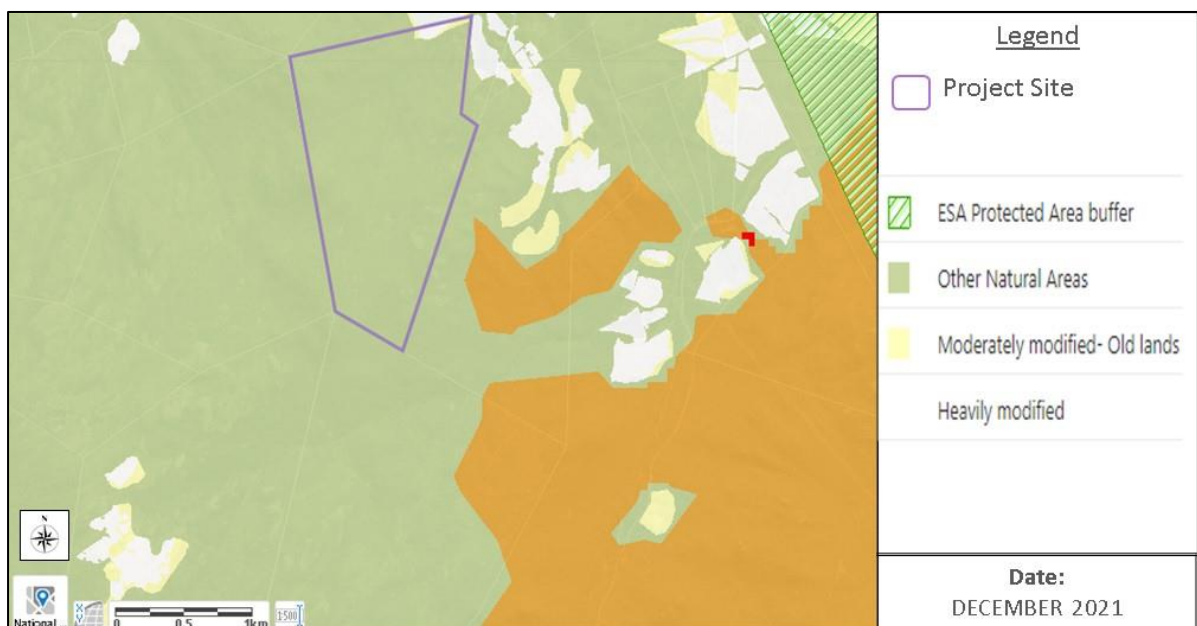
According to the Mpumalanga Biodiversity Sector Plan, 2014, most of the terrestrial ecosystems within the study area, is classified as Other Natural Areas and Heavily or Moderately Modified Areas.

Other Natural Areas: refer to areas that have not been identified as a priority in the current systematic biodiversity plan but retain most of their natural character, while performing a range of biodiversity and ecological functions. Other Natural Areas offer much more flexibility in terms of permissible land uses, but the desired management objective should be to minimise habitat and species loss and ensure ecosystem functionality through strategic landscape planning.

Heavily - Moderately modified: Moderately Modified - Old Lands (sometimes called 'old fields' in other documents) are those areas that were used for cultivation or mining in the past (within the last 80 years), but are no longer used for these purposes and have been left to re-vegetate. These old lands are areas where biodiversity pattern and ecological function have been seriously compromised in the past, but they may still play an important role in the provision of ecosystem services, or may provide important habitats for certain animal species. For example, old lands can provide important feeding grounds for birds such as blue cranes, and disused mine shafts can provide suitable habitats for certain bats.

Heavily modified areas are those preferred for intensive land-uses such as the construction of settlements, industrial development and other land-uses that have a high impact. These land-uses should still be located and managed in ways that maintain any residual ecological functionality, and that does not impact negatively on species for which these modified sites may be important. In some cases, restoration may be advisable.

A small section of approximately 3Ha in the extreme northern corner conforms to the abovementioned classification.



**FIGURE 3: TERRESTRIAL ECOLOGY ACCORDING TO THE MPUMALANGA BIODIVERSITY SECTOR PLAN, 2014**

Freshwater Ecology:

According to the Mpumalanga Biodiversity Sector Plan, 2014, Most of the freshwater ecosystems within the study area is classified as an Ecological Support area: Important sub catchment.

The area is classified as an Ecological Support Area (Important Sub catchment). The MTPA requirements for an Ecological Support Area (important sub catchment) are quoted as follows: This



sub-category includes National Freshwater Ecosystems Priority Areas (FEPA) sub-catchments and Fish Support Areas. Fish Support area, fish species *Opsaridium peringueyi*, Southern barred minnow found in Mozambique South Africa and Swaziland. Inhabits clear flowing water in rapids or in stream pools of rivers. A river FEPA is the river reach that is required for meeting biodiversity targets for river ecosystems and threatened fish species. In managing the condition of a river FEPA, it is important to manage not only the river itself, but also the network of streams and wetlands as well as land-based activities in the sub-catchment that supports the river FEPA. A proportion of tributaries and wetlands need to remain healthy and functional in order for the river FEPA to be kept in a good ecological condition. This requires that management activities are focused on maintaining water quantity and quality and the integrity of natural habitat in the sub-catchment



**FIGURE 4:FRESHWATER ECOLOGY ACCORDING TO THE MPUMALANGA BIODIVERSITY SECTOR PLAN, 2014**

#### 4.4 Surface and Groundwater

As the topography is mountainous, several drainage lines are situated on the slopes and follow the contours in the valleys. These are mostly first order ephemeral watercourses that drain surface water from the higher lying land in the south to the main drainage channel in the north. These drainage lines form relatively deep channels in places with very steep banks and well-defined channels.

A relatively large irrigation dam is present in the northern section as well as in the central area of the property, resulting in a total loss of riparian vegetation and permanent inundation. These watercourses and associated riparian zones provide an important refuge and corridor for fauna and flora and have a **High** ecological sensitivity rating. These areas are not recommended for development and must be protected from potential development impacts.

#### **4.5 Land Use**

The proposed site is located on portion 5 of the farm Duma 201-JU, within the City of Mbombela, Mpumalanga Province.

The area to the north of the property is being used for citrus production. The topography of the property is rather mountainous and rugged with small to large granite outcrops present across the site and the vegetation on these outcrops is largely natural as it has been protected on the property for many years from negative external drivers.

The proposed area also falls within the Crocodile River Mountain Conservation Area which is classified as a Group 3/Unsecured Protected Area according to the Mpumalanga Conservation Biodiversity Handbook (MCBH) (*Tony A. Ferrar and Mervyn C. Lotter*). A Conservancy is a registered, voluntary association between land users/landowners who co-operatively wish to manage their natural resources in an environmentally friendly manner without necessarily changing the land use of their properties. In a conservancy, people are considered key species of the ecosystem or agroecosystem and have to learn to rub shoulders with other life forms in such a manner that most can continue to exist. According to the MCBH, the Crocodile River Mountain Conservancy has a Conservation Importance (CI) value of 0.238. This is a score between 0 and 1 calculated for each Protected Area, based on the Conservation Plans' irreplaceability

#### **4.6 Geology and Soil**

The general geology of the area consists of granite and gneiss, mostly of the Nelspruit suite, forming hills with large boulders. Soils are shallow, coarse lithosols, comprised of Glenrosa or Mispah soil types.

#### **4.7 Heritage**

A Heritage Impact Assessment was conducted on the site to identify any artefacts or sensitivities which could be of historical or cultural significance. According to the Heritage Impact Assessment Report, the proposed study area revealed no archaeological or historical features of significance within the study areas. A small burial site is situated to the south-east of Site A, and several undecorated clay potsherds were observed on the eastern border, but these features fall outside of the project site. All the structures on the property are of a recent nature, and are not older than 60 years.

The clay potsherds are of no significance as they were observed next to the eastern border fence, within a disturbed (cleared) section next to the fence line. The burial site, although not within the study area, is regarded as of high significance by SAHRA, and mitigation measures are proposed

No archaeological or historical features were observed within the study areas. Archaeological material or human remains may only be revealed during de-bushing operations and it is recommended that when earthmoving activities commence, it be monitored by a qualified archaeologist which will assess any finds should it be necessary.

Based on the survey and the findings within the Heritage Impact Assessment report, Adansonia Heritage Consultants state that there are no compelling reasons which may prevent the proposed agricultural development, to continue

#### **4.8 Socio-Economic Environment**

The project area is located within the City of Mbombela. The larger portion of the 695 913 individuals within the Mbombela Local Municipality, lives in peri-urban and rural areas. Approximately 75% of the people live within communal areas on the eastern axis of the city which is far from the city.

The City of Mbombela currently has an unemployment rate of 28% with 50% of the people living below the poverty line. The levels of skill and qualifications of the population is also fairly low which is problematic for future economic development. The socio-economic context of the surrounding environment can therefore be described as a community with a low percentage of education and high unemployment rate

## **5.SPECIALIST ASSESSMENT REQUIREMENTS AS IDENTIFIED IN THE SCREENING REPORT**

The following specialist assessments were identified within the Department of Environmental Affairs Screening Report to be conducted as part of the Basic Environmental Impact Assessment:

- Visual Impact Assessment

The proposed area is currently zoned for agricultural purposes. The project area is not visible to any surrounding land owner or road user and for this reason, no visual impact assessment was conducted.

- Heritage and Paleontological Impact Assessment

A Heritage Impact Assessment was conducted on the approximately 20-hectare property to identify any possible artefacts or structures which could be of heritage or cultural significance. The findings of the investigation are discussed in Section 4.8 above and the Heritage Impact Assessment is attached as Appendix D.

- Terrestrial Biodiversity Assessment / Plant and Animal Species Assessment

The Screening Report indicated that the Terrestrial Biodiversity Theme is of very high significance and for this reason a Biodiversity Assessment was conducted. The biodiversity assessment concludes that most of the site is largely in a natural state and of significant biological and ecological importance. However, specific areas may be considered for development where potential impacts on the natural environment can be managed to an acceptable level. Alien invasive vegetation control will be a crucial part of mitigation during the entire lifespan of the project. Please refer to Appendix D for more detail on the findings made by the Biodiversity Specialist

- Avian Impact Assessment

The site is relatively unused and human traffic is very low due to the inaccessibility of the larger site area. For this reason, the bird assemblage in the local area can be assumed to be diverse and representative of the atlas area. The Biodiversity Specialist addressed the Avian Impact in Section 5.3 of the Ecological Assessment Report.

- Socio-economic Assessment

The proposed project will not have any negative impact on the socio-economic environment. Contrary to this, additional job opportunities will be created during the operational phase of the project, which will impact the surrounding community positively. As no negative socio-economic impact is expected with the proposed project, it is the opinion of the EAP that no Socio-Economic Impact Assessment is required.

## 6.METHODOLOGY OF ASSESSING THE SIGNIFICANCE OF IMPACTS

This section outlines the method used for assessing the significance of the potential environmental impacts during the construction/establishment, operational and decommissioning phases.

For each impact, the EXTENT (spatial scale), MAGNITUDE and DURATION (time scale) would be described, as shown in **Table 2: Assessment criteria for the evaluation of impacts 2**. These criteria are then used to determine the SIGNIFICANCE of the impact, firstly in the case of no mitigation and then with the most effective mitigation measure(s) in place. The mitigation described in the Report represents the full range of plausible and pragmatic measures but does not necessarily imply that they would be implemented.

The following tables show the scale used to assess these variables and defines each of the rating categories.

**TABLE 2: ASSESSMENT CRITERIA FOR THE EVALUATION OF IMPACTS**

Criteria	Category	Description
Extent or spatial influence of impact	<b>Regional</b>	Beyond a 30km radius of the candidate site.
	<b>Local</b>	Within a 30km radius of the candidate site.
	<b>Site-specific</b>	On site or within 100 m of the candidate site.
Magnitude of impact (at the indicated spatial scale)	<b>High</b>	Natural and/ or social functions and/ or processes are <i>severely</i> altered
	<b>Medium</b>	Natural and/ or social functions and/ or processes are <i>notably</i> altered
	<b>Low</b>	Natural and/ or social functions and/ or processes are <i>slightly</i> altered
	<b>Very low</b>	Natural and/ or social functions and/ or processes are <i>negligibly</i> altered
	<b>Zero</b>	Natural and/ or social functions and/ or processes remain <i>unaltered</i>
Duration of impact	<b>Long-term</b>	More than 10 years after construction
	<b>Medium-term</b>	Up to 5 years after construction
	<b>Construction-term</b>	Up to 3 years

The SIGNIFICANCE of an impact is derived by taking into account magnitude, duration and extent of each impact. The criteria employed in arriving at the different significance ratings is shown in **Error! Reference source not found.3**.

**TABLE 3: DEFINITION OF SIGNIFICANCE RATINGS**

Significance ratings	Level of criteria required
High	<ul style="list-style-type: none"> <li>• High magnitude with a regional extent and long-term duration</li> <li>• High magnitude with either a regional extent and medium-term duration or a local extent and long-term duration</li> <li>• Medium magnitude with a regional extent and long-term duration</li> </ul>
Medium	<ul style="list-style-type: none"> <li>• High magnitude with a local extent and medium-term duration</li> <li>• High magnitude with a regional extent and construction period or a site-specific extent and long-term duration</li> <li>• High magnitude with either a local extent and construction period duration or a site-specific extent and medium-term duration</li> <li>• Medium magnitude with any combination of extent and duration except site specific and construction period or regional and long term</li> <li>• Low magnitude with a regional extent and long-term duration</li> </ul>
Low	<ul style="list-style-type: none"> <li>• High magnitude with a site-specific extent and construction period duration</li> <li>• Medium magnitude with a site-specific extent and construction period duration</li> <li>• Low magnitude with any combination of extent and duration except site specific and construction period or regional and long term</li> <li>• Very low magnitude with a regional extent and long-term duration</li> </ul>
Very low	<ul style="list-style-type: none"> <li>• Low magnitude with a site-specific extent and construction period duration</li> <li>• Very low magnitude with any combination of extent and duration except regional and long term</li> </ul>
Neutral	<ul style="list-style-type: none"> <li>• Zero magnitude with any combination of extent and duration</li> </ul>

Once the significance of an impact has been determined, the **PROBABILITY** and **CONFIDENCE** of this impact are determined using the rating systems outlined in **Error! Reference source not found. 4** and **Table 5**. The significance of an impact should always be considered in concert with the probability of that impact occurring. Lastly, the **REVERSIBILITY** of the impact is estimated using the rating system outlined in **Error! Reference source not found. 6**.

**TABLE 4: DEFINITION OF PROBABILITY RATINGS**

<b>Probability ratings</b>	<b>Criteria</b>
Definite	Estimated greater than 95 % chance of the impact occurring.
Probable	Estimated 5 to 95 % chance of the impact occurring.
Unlikely	Estimated less than 5 % chance of the impact occurring.

**TABLE 5: DEFINITION OF CONFIDENCE RATINGS**

<b>Confidence ratings</b>	<b>Criteria</b>
Certain	Wealth of information on and sound understanding of the environmental factors potentially influencing the impact.
Sure	Reasonable amount of useful information on and relatively sound understanding of the environmental factors potentially influencing the impact.
Unsure	Limited useful information on and understanding of the environmental factors potentially influencing this impact.

**TABLE 6: DEFINITION OF REVERSIBILITY RATINGS**

<b>Reversibility ratings</b>	<b>Criteria</b>
<b>Irreversible</b>	The activity will lead to an impact that is in all practical terms permanent.
<b>Reversible</b>	The impact is reversible within 2 years after the cause of the impact is removed.

## **7.ENVIRONMENTAL IMPACT ASSESSMENT**

The biophysical and social environment will be impacted during the establishment and operational phases of the agricultural activities. For this reason, the impacts below are assessed for both phases.

### **7.1 Impacts during establishment of the agricultural area**

The establishment of the agricultural area is likely to result in environmental and socio-economic impacts. The identified impacts are listed below and discussed thereafter:

- *Impact on biodiversity*
- *Generation of dust;*
- *Impact on soil;*
- *Impact on water resources;*
- *Impact on heritage resources*
- *Socio-economic impact.*

#### **7.1.1. Impact on biodiversity**

##### **Description of the potential impact**

During the establishment of the agricultural area, vegetation within the footprint of the site must be cleared and the single most important impact on biodiversity as consequence of transforming virgin land to agriculture is the loss of vegetation and loss and fragmentation of natural habitats and consequently the loss of fauna.

##### **Significance of the impact**

According to the Mpumalanga Biodiversity Sector Plan, 2014, most of the terrestrial ecosystems within the study area, is classified as Other Natural Areas and Heavily or Moderately Modified Areas. The sensitivity zoning for the different ecological communities is summarised as follows:

**Site A:** Old land is present on the extreme northern corner of the site and is approximately 2Ha in size. This area has not been cultivated in recent years and the natural vegetation is recovering and being colonized by woody vegetation and will provide limited habitat and refuge for fauna. Several large indigenous trees are present alongside the land that must be considered for conservation. A small section of land has been modified to accommodate small corrugated steel structures near to the entrance on the northern section. Due to these changes the sensitivity for biodiversity maintenance and ecological importance of these areas are low (fallow lands). Development Site A is situated within this community and is recommended for the activity.

##### **Site B and C:**

Mid-slope woodland is present on the central, eastern slopes leading to higher lying, western section. It is a closed woodland community and is dominated by *Terminalia sericia*, which forms vast stands in places. Grasses present varies from *Hyperthelia dissoluta*, *Eragrostis spp*, *Melinis repens*, *Heteropogon contortus* and *Loudetia simplex*. Shrubs to medium sized trees present are *Diospyros lycioides*, *Dichrostachys cinerea*, *Searsia leptodictya*, *Searsia rehmanniana*, *Terminalia sericia*, *Grewia bicolor*,



*Euclea crispa*, *Combretum apiculatum* and *Combretum collinum*. Tree size is medium (3-8m in height), although solitary large trees (>8m) are present. Large trees include specimens of *Peltophorum africanum*, *Sclerocarya birrea* and *Kirkia wilmsii*. Development Site B and C is situated within this community and is recommended for the activity.

The biodiversity assessment concludes that most of the site is largely in a natural state and of significant biological and ecological importance. However, specific areas may be considered for development where potential impacts on the natural environment can be managed to an acceptable level. Alien invasive vegetation control will be a crucial part of mitigation during the entire lifespan of the project.

**TABLE 7: SIGNIFICANCE OF BIODIVERSITY IMPACT**

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Significance	Probability	Confidence	Reversibility	Impact Rating	Impact Rating
Impact on biodiversity [NEGATIVE]	High	Definite	Sure	Reversible	Medium	Low

#### Mitigation measures

- Conserve solitary large indigenous trees where possible within the development land
- Implement an alien invader vegetation control program;
- Spoil material may not be pushed into natural habitats.
- Permits will have to be obtained from the Department of Forestry, and/or the Mpumalanga Tourism and Parks Agency, if legally protected trees or plant species are to be removed or destroyed.
- Conserve all the natural habitats with High sensitivity.
- Protect the high sensitivity habitat by applying the calculated buffer lines as delineated.
- Conserve all the watercourses, riparian habitat and natural habitats with High sensitivity.
- Eroded areas should be rehabilitated in order to prevent siltation and erosion.
- Stipulations of the Environmental Management Program (EMPr) should be adhered to during the establishment and operational phases of the project.

#### 7.1.2. Generation of dust

##### Description of the potential impact

Vegetation will be removed, and soil will be disturbed during the establishment of the agricultural area. Heavy moving vehicles used for the clearance of vegetation on site, could generate dust affecting adjacent owners and road users

### Significance of the impact

Besides the houses on the farm property there are properties north and east to the property. The N4 is located approximately 1.2 kilometers North of the project area. The impacts associated with the generation of dust is also of short duration and therefore the significance of the impact is low. Mitigation measures must however be implemented to minimise the possibility of the impact occurring.

**TABLE 8:DUST GENERATION**

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Significance	Probability	Confidence	Reversibility	Impact Rating	Impact Rating
Dust generation [NEGATIVE]	Low	Probable	Sure	Reversible	Low	Very Low

### Mitigation measures

- Areas may not be disturbed and left for unattended for long periods of time.
- Heavy moving vehicles and other vehicles must adhere to a speed limit of 40km/h.
- Recommendations included within the Environmental Management Plan must be adhered to.

### 7.1.3 Impact on soil

#### Description of the potential impact

Removal of vegetation will disturb the soil surface and increase the possibility of soil erosion. The mountainous terrain, rocky geology and steep slopes over most of the site will be a challenge for any development of the land, therefore the possibility of erosion occurring during the establishment phase is possible. Mitigation measures to minimise the possibility of erosion is however imperative.

Other activities which could have an impact on soil, include the uncontrolled use of hazardous substances and/or heavy machinery. Hazardous substances such as oil, diesel etc., could be spilled while refuelling or using machinery, leading to the pollution of soil which can alter microbial processes and be toxic to soil organisms.

### Significance of the impact

During establishment, soil could be impacted by the following:

- Erosion; and
- Contamination with the use and possible spillage of hazardous substances.

The slope of the proposed project area is elevated and for this reason the possibility of erosion occurring is possible. The impact is subsequently classified to be of medium significance prior to the implementation of mitigation measures.

Another factor impacting soil would be the possible spillage of hazardous substances. This impact is of medium magnitude, site specific and short duration and for this reason the impact is of also of low significance prior to the implementation of mitigation measures.

**TABLE 9:IMPACT ON SOIL**

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Significance	Probability	Confidence	Reversibility	Impact Rating	Impact Rating
Erosion [NEGATIVE]	Medium	Likely	Sure	Reversible	Medium	Low
Soil pollution [NEGATIVE]	Medium	Unlikely	Sure	Reversible	Low	Very Low

**Mitigation measures**

- To minimise the possibility of erosion, it is recommended that no disturbed areas be left unattended. Disturbance must be restricted to the proposed footprint.
- Measures to reduce the velocity of water, must be taken on areas prone to erosion.
- Should there be any spillage of hazardous substances during the establishment phase, soil must be removed up to a depth of 300mm and be disposed of at a registered hazardous waste disposal facility. Proof of such disposal must be kept on file.
- Eroded areas should be rehabilitated in order to prevent siltation and erosion.

**7.1.4 Impact on water resources**

**Description of the potential impact**

According to the Mpumalanga Biodiversity Sector Plan, 2014, most of the freshwater ecosystems within the study area is classified as an Ecological Support Area (important sub catchment) and sub-categories includes Fish Support Areas. This requires that management activities be focused on maintaining water quantity and quality and the integrity of natural habitat in the sub-catchment.

As the topography is mountainous, several drainage lines are situated on the slopes and follow the contours in the valleys. These are mostly first order ephemeral watercourses that drain surface water from the higher lying land in the south to the main drainage channel in the north. These drainage lines form relatively deep channels in places with very steep banks and well-defined channels. Indigenous riparian vegetation is present and varies from solitary trees to thickets.

A relatively large irrigation dam is present in the northern section as well as in the central area of the property.

Water resources could be impacted by the following during the establishment phase:

- Removal of riparian vegetation;
- Activities within the identified seepage wetland area; and
- Pollution of water resources.

### Significance of the impact

These watercourses and associated riparian zones provide an important refuge and corridor for fauna and flora and have a **High** ecological sensitivity rating. These areas are not recommended for development and must be protected from potential development impacts.

If any activities were to take place within the river and the delineated wetland areas, water resources would be impacted negatively. Buffer zones will be implemented to protect the dams and wetland areas within the project area. The possibility of impacting the water resource during the proposed clearance activities are of high significance prior to the implementation of mitigation measures.

**TABLE 10: IMPACT ON WATER RESOURCES**

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Significance	Probability	Confidence	Reversibility	Impact Rating	Impact Rating
Impact on water resources [NEGATIVE]	High	Unlikely	Sure	Reversible	Medium	Low

### Mitigation measures

- Management activities be focused on maintaining water quantity and quality and the integrity of natural habitat in the sub-catchment.
- No activities may take place within the allocated buffer of the riparian and/or wetland area.
- Conserve all the watercourses, riparian habitat and natural habitats with High sensitivity.
- Water use must be monitored and used sparingly.
- The use of pesticides and herbicides must be managed to prevent any substances from entering the watercourse.
- Protect the high sensitivity habitat by applying the calculated buffer lines as delineated.
- The recommended footprints are indicated in the layout maps

### 7.1.5 Heritage Impact

#### Description of the potential impact

A Heritage Impact Assessment was conducted and the survey revealed:

Site A: This section was historically disturbed by cultivation since at least 2004. No archaeological or historical features were observed within or in the direct vicinity of Site A.

A small burial site, a few undecorated clay potsherds, as well as a recent retaining wall, were observed to the south-east of this section near the access entrance of the property. These fall outside of the study area and will not be affected by the proposed development.

Sites B & C: consisted of natural mid-slope woodland vegetation, with a shrub and tree cover. A few recent buildings were observed, but these are not older than 60 years. The visibility in these sections was fair as the vegetation cover was fairly sparse and open. Sections where the soil was disturbed (at the recent houses) were investigated for any signs of an archaeological or historical nature, but nothing was observed.

### Significance of the impacts

Seeing that no structures or artefacts of historical or cultural significance were found within the proposed footprint, the significance of the impact on heritage resources is of low significance.

**TABLE 11:HERITAGE RESOURCES**

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Significance	Probability	Confidence	Reversibility	Impact Rating	Impact Rating
Impact on heritage resources [NEGATIVE]	Medium	Unlikely	Sure	Reversible	Low	Very Low

### Mitigation measures

- Distinct archaeological material or human remains may only be revealed during the development of the proposed agricultural operations. In such instance, a qualified archaeologist must be contacted to monitor the activities and make recommendations.

### 7.1.6 Socio-economic Impact

#### Description of the potential impact

During establishment, various temporary job opportunities will be created for the clearance and preparation of the agricultural area.

In terms of safety and security, there is always risk associated when working with machinery and therefore it is essential that all workers comply with the Health and Safety Act 85 of 1993.

### Significance of the impacts

Based on the methodology detailed in **Section 5**, the following ratings have been assigned to the ‘employment opportunities’ and impact associated with health and safety of employees respectively.

The job opportunities during the establishment is short-lived and therefore the impact is only of medium (+) significance. In terms of the health and safety aspects of workforce, the significance of the impact has been rated to be of low significance due to the short construction timeframe. Mitigation measures must however be adhered to.

**TABLE 12: SOCIO-ECONOMIC IMPACT**

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Significance	Probability	Confidence	Reversibility	Impact Rating	Impact Rating
Job opportunities [POSITIVE]	Medium	Definite	Sure	Reversible	Low	Medium (+)
Health and Safety [NEGATIVE]	Medium	Probable	Sure	Reversible	Low	Very Low

### Mitigation measures

The applicant and/or farm manager must ensure that local residents receive preference for job opportunities where local labour might be required.

It is imperative that all personnel adhere to the Occupational Health and Safety Act 85 of 1998 and that no personnel enter any other surrounding properties.

### 7.2 Operational Phase Impacts

During operation, the agricultural activities are likely to result in the following environmental and socio-economic impacts:

- *Impact on biodiversity*
- *Impact on soil;*
- *Impact on water resources;*
- *Socio-economic*

### 7.2.1 Impact on biodiversity

#### **Description of the potential impact**

During operation, vegetation will be permanently lost and fragmented.

The spread of alien invasive species must be managed and mitigated. Invasive plant species within the perimeter will impact the biodiversity of the surrounding areas.

#### **Significance of the impact**

##### Invasion of alien invasive species and use of pesticides and herbicides:

When natural vegetation is removed and activities are undertaken, the opportunity for invasive plant species within the perimeter of the site will increase and will be problematic if not adequately removed or managed. Alien vegetation is normally removed mechanically or chemically. Using harmful chemicals would kill all pest and alien vegetation but also affect other insects and mammals which must be protected. Mechanical removal or removal of alien vegetation by hand is therefore preferred above the chemical treatment thereof. Studies have shown that crop damage is increased when birds and bats are excluded from orchards. Efforts to retain bat populations through using safe pesticides or retaining natural vegetation corridors and bat houses, is therefore encouraged. Biological pest control is preferred above chemical pest control.

The impact of alien vegetation and the control thereof is therefore of medium significance prior to the implementation of mitigation measures.

##### Loss of habitat for fauna:

As vegetation on the project site will be removed it will have an impact on the fauna as natural habitats will be lost and fragmented, this impact can to some extent be mitigated by making use of bees as pollinators and this also encourages biological pest control by using bats and birds. At least two colonies of bees are required to pollinate one hectare of Citrus trees. Thus, by adding beehives to the plantations, the farmer will be attracting bee-eating birds, mammals, reptiles, and other insects, while preserving and aiding in saving the bee population which has been declining rapidly.

Pollinators provide an essential ecosystem service that result in the out-crossing and sexual reproduction of many plants. They benefit society by increasing food security in agricultural and natural ecosystem and they play an important role in conserving biological biodiversity (Eardly et al. 2006). Pollinator diversity includes an immense range of fauna, ranging from the tiniest invertebrates to relatively large vertebrates. Often, pollinators form part of a highly specific niche in pollinator-plant relationships and the ecosystem integrity as a whole.

Taking into consideration the sensitivity of the site in accordance with the MBCP, 2014, the impact associated with the loss of fauna is of medium significance prior to the implementation of mitigation measures.

**TABLE 13: IMPACT ON BIODIVERSITY**

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Significance	Probability	Confidence	Reversibility	Impact Rating	Impact Rating
Impact on biodiversity (Alien invasive species) [NEGATIVE]	Medium	Definite	Sure	Reversible	Medium	Low
Loss of habitat for fauna [NEGATIVE]	Medium	Definite	sure	Reversible	Medium	Low

**Mitigation measures**

- An Invasive Species Management Programme must be compiled and complied with during the operational phase of the project;
- Stipulations of the Environmental Management Program (EMPr) should be adhered to during the establishment and operational phases of the project.
- Introducing beehives into the orchards are recommended and would be beneficial to both the farmer and surrounding area;
- Biological pest control must receive preference over chemical pest control. Attracting bats and birds by introducing fragrant flowers, herbs and night blooming plants;

**7.2.2 Impact on soil**

**Description of the potential impact**

Due to the topography of the site, the possibility of erosion occurring on site is of medium magnitude. Mitigation measures to minimise the possibility of erosion is therefore imperative.

During operation, pesticides and herbicides are applied to agricultural land to control pests that disrupt crop production. Soil become contaminated when pesticides persist and accumulate in soils, which can alter microbial processes and are toxic to soil organisms.

**Significance of the impact**

During operation, soil could be impacted by the following:

- Erosion; and
- Contamination by means of the use of pesticides.

The slope of the area on which cultivation is proposed is elevated and due to some of the slopes within the project area, the magnitude of erosion is of medium magnitude, while the impact would be of



local extent and long duration. For this reason, the impact is classified to be of medium significance prior to the implementation of mitigation measures.

Another factor impacting soil would be the use of pesticides and herbicides which could accumulate in soil, altering the microbial process. This impact is however of medium magnitude, local extent and long duration and for this reason the impact is of medium significance prior to the implementation of mitigation measures.

**TABLE 14: IMPACT ON SOIL**

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Significance	Probability	Confidence	Reversibility	Impact Rating	Impact Rating
Erosion [NEGATIVE]	Medium	Unlikely	Sure	Reversible	Medium	Low
Soil contamination [NEGATIVE]	Medium	Unlikely	Sure	Reversible	Medium	Low

#### Mitigation measures

- It is recommended that alternatives for the management of pests are investigated. Only approved pesticides and herbicides may be used for the management of pests.
- Permanent measures must be taken on areas prone to erosion. These measures can include gabions or revegetation with indigenous plant species.

#### 7.2.3 Impact on water resources

##### Description of the potential impact

Citrus trees are generally classified as “salt-intolerant” with high water needs. Especially during summer. During the first 6 months the trees should be irrigated twice a week and thereafter every 7 days. Water scarcity negatively affects plant growth and impairs cell metabolism, affecting the overall tree growth and the quality of produced fruit .

No activities are proposed within the watercourse and wetland areas delineated; however, water will be required for irrigation purposes and will be abstracted from boreholes located on the property over utilisation of the water resource, could have a significant negative impact on the water resource.

Although no activities are planned within any watercourse or wetland area, water resources could be impacted by the following:

- Excessive water use;
- Removal of riparian vegetation;

- Activities within the delineated wetland area; and
- Pollution of water resources if pesticides accumulate in soil and enters the watercourse.

### Significance of the impact

Water is a scarce resource in South Africa and therefore unsustainable abstraction from rivers can change the natural flow regime which will result in lower flows and reduced water table levels. The applicant does however not intend on extracting more than what is required and available. As water is a scarce commodity, the impact is however of medium significance and appropriate measures must be adhered to ensure proper management of water use.

The wetland and watercourse could also be affected negatively if activities were to take place within these areas (i.e removal of wetland or riparian vegetation). The impact is therefore of medium significance if the recommended buffer zones are not adhered to.

Pesticides could enter the watercourses and wetlands located within the study area. This could lead to surface water being polluted if not mitigated properly.

**TABLE 15: IMPACT ON WATER RESOURCES**

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Significance	Probability	Confidence	Reversibility	Impact Rating	Impact Rating
Water resource use [NEGATIVE]	High	Definite	Sure	Reversible	High	Medium

### Mitigation Measures

- Stipulations of the Environmental Management Program (EMPr) should be adhered to during the operational phase of the project.
- Water abstraction must be regulated and monitored
- No activities may take place within delineated buffer zones
- The use of pesticides and herbicides must be managed to prevent any substances from entering the watercourse.
- It is recommended that alternatives for the management of pests are investigated. Only approved pesticides and herbicides may be used for the management of pests.

### 7.2.4 Socio-economic Impact

#### Description of the potential impact

Although the agricultural activities will not have a significant socio-economic impact on the local community, the agricultural activities will however provide additional permanent job opportunities

for previously disadvantaged individuals and seasonally, the farming activities will be providing even more job opportunities on a temporary basis

**Significance of the impacts**

Based on the methodology detailed in **Section 5**, the following ratings have been assigned to the ‘employment opportunities’ impact before and after mitigation. As job opportunities are limited, the impact is of medium (+) significance.

**TABLE 16: SOCIO-ECONOMIC IMPACT**

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Significance	Probability	Confidence	Reversibility	Impact Rating	Impact Rating
Job opportunities [POSITIVE]	Medium	Definite	Sure	Reversible	Low	Medium (+)

**Mitigation measures**

Creating jobs and business opportunities for the local community will have a positive impact. No mitigation measures would be required to further enhance this impact; however, the applicant must ensure that local residents receive preference for job opportunities.

### 7.3 Environmental Impact Statement

The table below summarises the impacts identified and assessed for the establishment and operational phases of the project:

**TABLE 17: ENVIRONMENTAL IMPACT STATEMENT**

IMPACT	SIGNIFICANCE BEFORE MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION MEASURES
<b>Establishment and Operational Impacts</b>		
Impact on biodiversity	Medium	Low
Generation of dust	Low	Very Low
Erosion	Medium	Low
Soil Pollution	Low	Very Low
Impact on water resources	Medium	Low
Impact on Heritage	Low	Very Low
Socio-economic Impact	Low (+)	Medium (+)
<b>Operational Phase Impacts</b>		
Impact on biodiversity (Alien invasive species)	Medium	Low
Loss of habitat for fauna	Medium	Low
Erosion	Medium	Low
Soil contamination	Medium	Low
Impact on water resource	High	Medium
Socio-economic Impact	Low	Medium (+)

## 8.CONCLUSION AND WAY FORWARD

### 8.1 Assumptions and Limitations

In undertaking this investigation and compiling the Draft Basic Assessment Report, the following has been assumed:

- The information provided by the proponent is accurate and unbiased, and no information that could change the outcome of the Environmental Authorisation process has been withheld.
- The scope of this investigation is limited to assessing the environmental impacts associated with the establishment and operation of the agricultural area.
- The conclusion and recommendations proposed are based solely on the information, scope of works as agreed with the proponent.

### 8.2 Conclusion

The essence of all environmental assessment processes is aimed at ensuring informed decision-making and environmental accountability. Furthermore, it assists in achieving environmentally sound and sustainable development. The impact assessment for this project has been undertaken in line with the requirements prescribed in the NEMA regulations.

The assessment of the possible impacts associated with the establishment and operational activities, concluded that the impact on the surrounding environment is of **medium to low significance**. Recommendations have however been made to address the impacts which could affect the biophysical and socio-economic environment. It is recommended that pro-active measures are taken to minimise the spread of alien invasive vegetation. Recommendations for the mitigation of impact are included within Section 6 and also the Draft Environmental Management Plan attached.

The significance of the potential environmental (biophysical and social) impacts associated with the proposed project are discussed in detail under **Section 6**

It is the opinion of the EAP that the EA for this project should be granted, and the proposed mitigation included as the conditions of the authorisation.

### 8.3 Way Forward

The next steps for the Basic Assessment process will be to distribute the Draft Basic Assessment Report and make it available to the public (including the registered I&APs) and Organs of State for a period of 30 days, during which the Competent Authority (DARDLEA) will also be given the opportunity to provide comments on the report. After the 30-day comment period, all comments will be addressed by the EAP and incorporated within the Final Basic Assessment Report to be submitted to the DARDLEA for decision making. All registered I&APs will be notified of the decision and will be given an opportunity to appeal as per the NEMA requirements.

## **9.RESOURCES**

*National Environmental Management Act 107 of 1998 (NEMA 107, 1998)*

*General Notice Regulation 982, 983, 984 and 985 of 2014 (as amended in 2017)*

*Mpumalanga Biodiversity Conservation Plan, 2014*

*National Water Act 36, 1998]*

*Phase 1 Archaeological / Heritage Impact Assessment for a proposed citrus plantation on portion 5 of the farm Duma 201 JU, November 2021, C van Wyk Rowe*

*Ecological investigation for clearing of indigenous vegetation for cultivation on portion 5 of the farm Duma 201 JU for AEONIK FARMS SEQUOIA (Pty) Ltd, October 2021, D van der Walt*