

MP STREAM ENVIRONMENTAL AND SAFETY PLANNERS (PTY) LTD

Reg No: 2021/318370/07

# Proposed clearance of approximately 55Ha of indigenous vegetation for agricultural purposes on portion 5 of the farm Duma 201-JU, City of Mbombela, Mpumalanga Province

**Draft Scoping Report** 

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Cell: 073 173 3894 Email: mpstreamenviro@gmail.com

Address: No 41 Tshokwane Street, Sonheuwel Ext 8, Nelspruit, Mpumalanga 1200 P.O.Box 313 Kanyamazane 1214 1

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## **1. OVERVIEW OF THE PROJECT**

## **1.1 Introduction**

**AEONIK FARMS SEQUOIA (Pty) Ltd** is proposing to clear approximately 55Ha of indigenous vegetation for agricultural purposes on portion 5 of the farm Duma 201-JU. The total farm area is approximately 220HA of which 19.8HA is already being cultivated. In accordance with the National Environmental Management Act 107 of 1998 (NEMA 107, 1998), Environmental Authorisation is required in accordance with GNR 984 of 2014 (as amended in 2017), before the any clearance activities may commence.

Portion 5 of the farm Duma 201-JU also have two dams located on the property and the applicant is proposing to undertake some maintenance activities for these dams by means of desilting these dams. In accordance with the National Environmental Management Act 107 of 1998 (NEMA 107, 1998), Environmental Authorisation is also required before any desilting activities may be undertaken.

**AEONIK FARMS SEQUOIA (Pty) Ltd** appointed **MP Stream Environmental and Safety Planners (Pty) Ltd** to apply for the EA by means of conducting a Scoping and Environmental Impact Assessment 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:

• T0JU0000000020100005

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

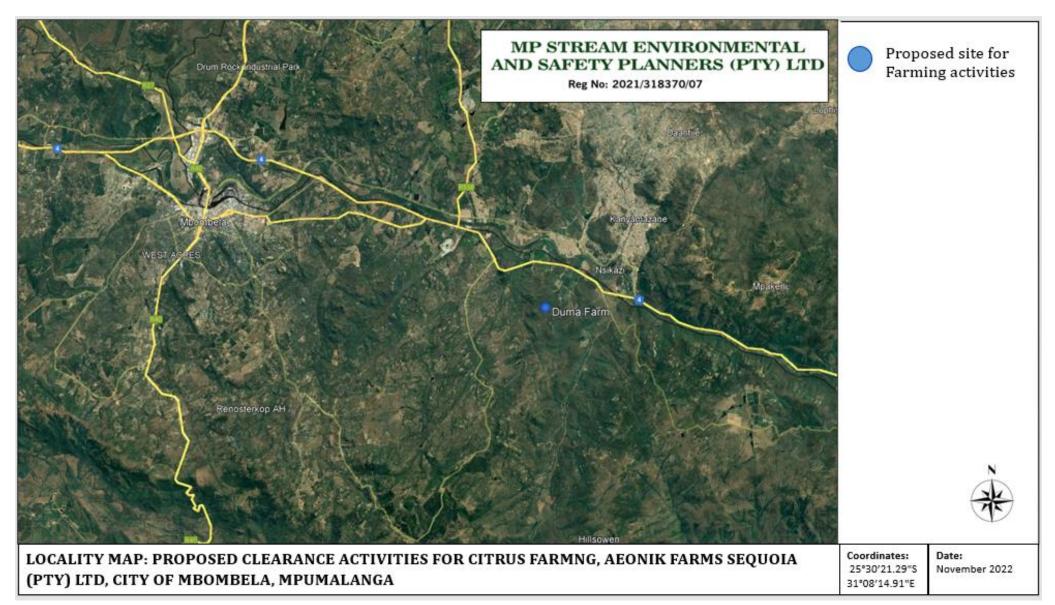


FIGURE 1: LOCALITY MAP PROPOSED CLEARANCE OF INDIGENOUS VEGETATION OF AGRICULTURAL PURPOSES ON PORTION 5 OF THE FARM DUMA 201-JU, CITY OF MBOMBELA, MPUMALANGA PROVINCE

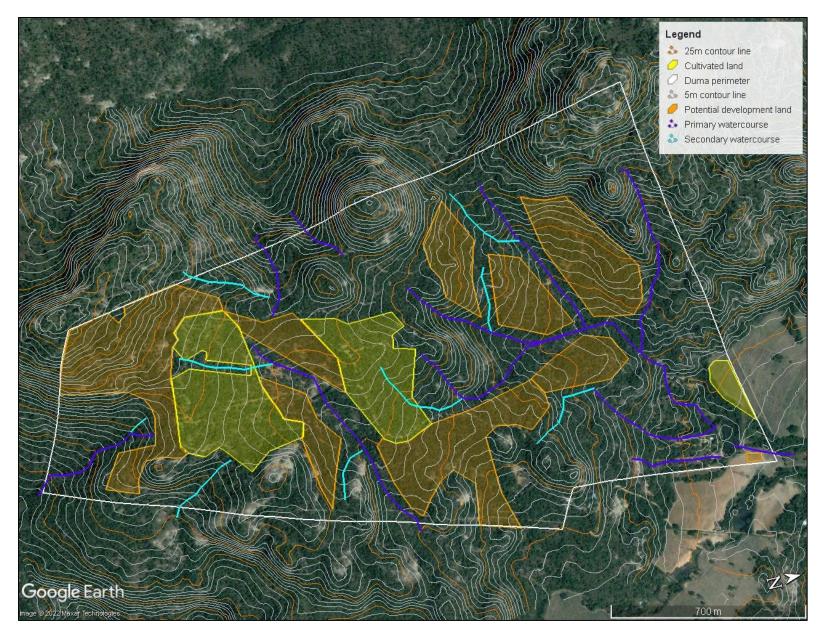


FIGURE 2: AREAS PROPOSED FOR CLEARANCE OF INDIGENOUS VEGETATION ON PORTION 5 OF THE FARM DUMA 201-JU, CITY OF MBOMBELA, MPUMALANGA PROVINCE (HIGHLIGHTED IN ORANGE)

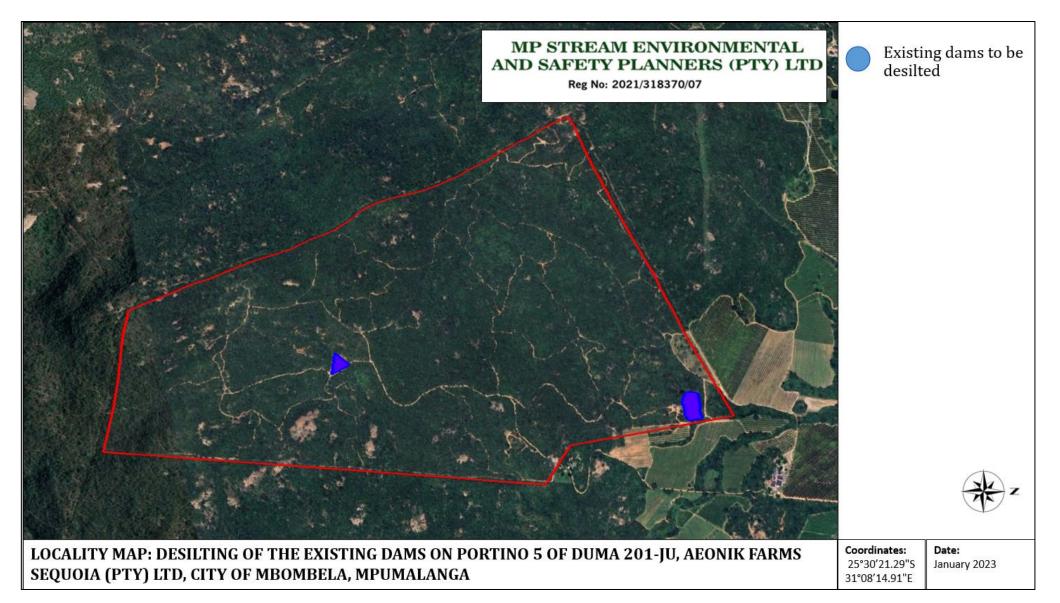


FIGURE 3: LOCATION OF EXISTING DAMS TO BE DESILTED ON PORTION 5 OF THE FARM DUMA 201-JU, CITY OF MBOMBELA, MPUMALANGA PROVINCE

## **1.3 Policy Legal and Administrative Framework**

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	AEONIK FARMS SEQUOIA (Pty) Ltd will be required to adhere to the Environmental Management Programme (EMPr) requirements to ensure that social and environmental management considerations are considered and implemented. 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.
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 Water Act, 1998 (Act No. 36 of 1998)	The desilting of the dams is seen as a water use in terms of Section 21 of the National Water Act 36 of 1998. For this reason, a Water Use License is also required for the proposed desilting activities and must be applied for.
National Biodiversity Act, 2004 (Act No. 10 of 2004)	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. The National Biodiversity Act, 2004, must therefore be considered prior to the clearance of

#### TABLE 1: POLICY LEGAL AND ADMINISTRATIVE FRAMEWORK

	vegetation to minimise the impact on the terrestrial biodiversity.
Occupational Health and Safety Act, 1998 (Act No. 85 of 1998)	The Act provides for the health and safety of people at work and for the health and safety of people using plant and machinery. During establishment, work must be conducted with strict adherence to the Occupational Health and Safety Act 85 of 1998.
National Heritage Resources Act, 1999 (Act No 25 of 1999)	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. 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.
City of Mbombela Integrated Development Plan (IDP).	The primary objectives of the IDP are to foster economic growth that creates jobs and improve infrastructure within the province. Job opportunities will be created by the proposed agricultural activities which supports economic growth within the area.

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

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

Government Notice R984 (as amended) Activity No.	Describe the relevant Activity in writing as per Listing Notice 2 (GN No. R984, as amended)	Describe the portion of the development as per the project description that relates to the applicable listed activity
15	The clearance of an area of 20 hectares or more of indigenous vegetation.	The area proposed for the clearance of indigenous

		vegetation totals approximately 55Ha.
Government Notice R984 (as amended) Activity No.	Describe the relevant Activity in writing as per Listing Notice 1 (GN No. R983, as amended)	Describe the portion of the development as per the project description that relates to the applicable listed activity
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 (i) a watercourse	The applicant is proposing to undertake some maintenance on the two existing dams on the property by means of desilting the dams. Dam 1 location: 25°30'37.55"S 31° 8'17.15"E Dam 2 location: 25°29'54.67"S 31° 8'34.83"E

According to the triggered activities, the Applicant is required to conduct a Scoping and Environmental Impact Assessment (Scoping and EIA) for the activity proposed as per the process described below.

### **1.5 Scoping Phase**

The objective of a scoping phase is to, through a consultative process:

- (a) Identify the relevant policies and legislation relevant to the activity;
- (b) Motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
- (c) Identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;
- (d) Identify and confirm the preferred site through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focussing on the geographical, physical, biological, social, economic and cultural aspects of the environment;
- (e) Identify the key issues to be addressed in the assessment phase;
- (f) Agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks and activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent,

duration and probability of the impact to inform the location of the development footprint within the preferred site; and

(g) Identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be manged and monitored

## 1.7 EIA Phase

The objective of the environmental impact assessment process is to, through a consultative process

- (a) Determine the policy and legislative context within which the activity is located and document how the proposed activity complies with and responds to the policy and legislative context;
- (b) Describe the need and desirability of the proposed activity, including the need and desirability of the proposed activity in the context of the preferred location;
- (c) Identify the location of the development footprint within the preferred site based on an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified development footprint alternatives focusing on the geographical, physical, biological, social, economic and cultural aspects of the environment;
- (d) Determine the
  - i. Nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives;
  - ii. Degree to which these impacts -
    - 1.can be reversed;
    - 2.may cause irreplaceable loss of resources, and
    - 3.can be avoided, managed or mitigated;
- (e) identify the most ideal location for the activity within the preferred site based on the lowest level of environmental sensitivity identified during the assessment;
- (f) identify, assess and rank the impact the activity will impose on the preferred location through the life of the activity;
- (g) identify suitable measures to avoid, manage or mitigate identified impact; and
- (h) identify residual risks that need to be managed and monitored

## **1.8 Description of the project**

AEONIK Farms (Pty) Ltd is proposing to clear approximately 60Ha of indigenous vegetation for agricultural purposes on portion 5 of the farm Duma 201-JU, near Mbombela in Mpumalanga Province. The applicant applied for Environmental Authorisation for the clearance of 19.8 Ha in 2021 for agricultural purposes and obtain Environmental Authorisation from the Department of Agriculture, Rural Development, Land and Environmental Affairs (DARDLEA) on 15 February 2022. Following the commencement of the farming activities, the client identified the need to increase its current agricultural area and therefore and application is submitted for the clearance of approximately 55Ha of indigenous vegetation.

In terms of water use and the availability of water, the following is noted:

The applicant currently has 48 000m<sup>3</sup> of water rights per annum of which only 11 232m<sup>3</sup> per annum is being used for irrigation. Most of the orchards are planted on a semi-dry principle where most of the irrigation is being done from March – September. Sufficient rainfall is received from October to February and therefore orchards are not irrigated during this period. At present, the applicant is only

irrigating for 4 months during the year which results to 2 808m<sup>3</sup> per irrigation month, and 11 232m<sup>3</sup> per annum.

Based on this irrigation principle, Aeonik Farms still have 36 768m<sup>3</sup> per annum available for irrigation. It is also noted that macadamia trees have a water withholding period during in May/June for the trees to hibernate from four years onwards. With most of the orchards planted on a semi-dry principle and the correct implementation of water management measures, sufficient water would be available for the expansion of the orchards as proposed.

## 1.9 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. 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.

Due to the increase in demand, the client would like to expand its farming operation and therefore an application for the clearance of more indigenous vegetation is being submitted to the DARDLEA.

## **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, 10 October 2022, proof of which is attached in **Annexure C.2**;
- Placement of media advert in a local newspaper (The Lowvelder) on 6 October 2022 (see **Annexure C.3**).
- Placing of a notice at the proposed site took place on 5 October 2022 (see Annexure C.4);

COMMENT	RESPONSE
Formal Letter: 17 October 2022	Formal Letter 16 January 2023:
Terblanche Orange (Pty) Ltd commented on the first EIA process that was conducted during 2021 and 2022 which received environmental authorisation on 15 February 2022.	With this letter we acknowledge receipt of your comments received on 17 October 2022 and confirm that your comments have been included within the Draft Scoping Report which will be distributed for
We are directly adjacent the proposed site and we are directly affected by the access to the farm Portion 5 Duma 201-JU as it runs over our property.	public review and comment during the course of January 2023.
The newly lodged application is of concern to us as it follows only 8 months after authorisation was received for the first application.	With regards to the concerns raised, a meeting was undertaken with the applicant in order to provide response to some of the concerns raised. Please see below response to the formal correspondence received:
Please refer to our previous comment dated 27 January 2022 on the first EIA process:	
"Upon meeting our neighbour we understood that he had plans to develop a much larger area what is currently applied for in the environmental application.	

To date, the following comment has been received:

Our concerns are therefore on what is currently on the table but also includes consideration of phased development that will be larger and have long term impacts on us". This is now exactly what is happening. The applicant is now applying to clear an area of 60 hectares. Our concerns are as follows:

#### Access:

A servitude road provides access over our property to the said application site. We also farm on a small to medium scale on our property and are directly affected by the plans of our neighbour. The servitude road was previously only used for residential access and now will be changed to commercial access. This will result in a few challenges for our own operation. We commented on the expected traffic associated with the 19.8 Ha of macadamias. With the large areas now proposed for cultivation, our concern is raised again. The heavy moving vehicles will create dust on the current dirt road which is detrimental to the fruits of our trees as well as health conditions of our orchard. Dust is a major problem in harvesting/winter time. In the winter and harvesting times (From March to August/September) we wet the road one or twice a day depending on the dust. We use our irrigation water for these purposes. We will need a written commitment from the applicant to meet us halfway and come up with a feasible solution.

#### Safety and Security:

Safety is still a main concern and we put systems in place for safety of all the residence on our own property that will now be overruled with more people and vehicles travelling in and out of the applicant farm and our own property without control. The safekeeping of our harvest is also a concern as theft is a major risk to any farmer as the fruit can be carried out in bags. Several bags can result in a huge impact on our profit. On the point of safety and security we also require written communication on a a way forward as the impact will increase with the increase in activity on the applicant farm.

With the previous EIA process, we requested a legal agreement and we now want to reiterate the importance of such to protect all parties involved.

#### Water:

Please provide proof of a sustainable water source for the 60 ha area that is proposed to be cultivated. You mentioned in the response to our letter dated 27 January 2022 that the applicant has 48 000m<sup>3</sup> of water rights per annum for portion 5 of the farm Duma 201-JU. The final BAR for that project stated: *Although the applicant only has 6ha of water rights, 198,8 ha of Macadamia / Citrus trees require 0.18m<sup>3</sup> of water per week for each mature tree. Approximately 250 trees will be planted per hectare on this portion (19.8 ha will be cultivated) which totals a current water use of 46 332m<sup>3</sup> per annum. The applicant will therefore have sufficient water available for the proposed cultivation activities.* 

#### Access:

The applicant confirmed that the servitude road exists over your property in order to access Portion 5 of Duma 201-JU and it was confirmed that a meeting was held between Terblanche Orange (Pty) Ltd and Aeonik Farms Sequoia (Pty) Ltd to discuss and resolve the concerns. Aeonik Farms Sequoia (Pty) Ltd agreed to assist with the maintenance of the access road from the house upwards. The applicant also indicated that the harvesting of nuts would only be taking place three – five years from today which will result to increased traffic on the access road for which there is a servitude. Aeonik Farms then indicated that further agreement for more frequent maintenance will then be undertaken.

#### Safety and Security:

Your concern regarding safety and security is duly noted and Aeonik Farm is in agreement that safety and security is of high importance. Aeonik Farms indicated that brief discussions were held with Terblanche Orange (Pty) Ltd and confirmed that the same Security Company will be appointed for Portion 5 of Duma 201-JU, which is currently appointed for Terblanche Orange. This appointment will be undertaken within the next year and camaras will also be extended. Aeonik Farms also indicated that ID Cards for all staff have been issued to confirm employment by the company. The applicant indicated that the company is currently at the start of their development and is in the process of taking active steps to improve the safety and security for <u>all</u>.

#### Water:

The applicant currently has 48 000m<sup>3</sup> of water rights per annum and indicated that with the current cultivated areas, only 11 232m<sup>3</sup> per annum is being used for irrigation. It was noted that most of the orchards were planted on a semi-dry principle where most of the irrigation is being done from March – September. Sufficient rainfall is received from October to February and therefore orchards are not irrigated during this period. At present, the applicant is only irrigating for 4 months during the year which results to 2 808m<sup>3</sup> per irrigation month, and 11 232m<sup>3</sup> per annum. Based on this irrigation principle, Aeonik Farms still have 36 768m<sup>3</sup> per annum available for irrigation. It must also be noted that macadamia trees have a water withholding during in May/June for This would have resulted in a balance of 1 668m<sup>3</sup>. Where will the additional water come from. If ground water is being considered we need proof that the aquifers will be able to handle it and that ourselves and other in the catchment will not suffer as a result.

We also request proof of licence application that will need to be submitted to the Department of Water and Sanitation (presented by IUCMA in this region) for water uses under the National Water Act, 36 of 1998. We also again ask proof of registration of the irrigation dam on the farm.

#### Ecology:

With reference to the Ecologicla Investigation by Afrika & Biology dated October 2021 most of the area is not suitable for agriculture (Appendix A2, Final BAR, February 2021 which we suppose should be 2022). The biodiversity assessment concludes that most of the site is largely in a natural state and of significant biological and ecological importance. Refer to the map included in this letter after the points of concern.

#### Soil:

According to the soil survey that was available to us for the farm Portion 5 Duma in the final BAR for the site, only an area of 13,76ha was surveyed at the top northern corner of the site out of the total 224,6ha farm. The report does not offer any information on the soil qualities of the rest of the farm. Two sites with little information have already been approved outside of the 13,76ha. We request more detail in terms of the suitability of proposed site that will bring the cultivation on the farm to 60Ha.

Once the applicant provides proof that he can sustainably farm 60ha, we would appreciate it if agreements with regards to the other issues can be reached prior to the authorisation of the NEMA activities as applied and that it be recorded in the final submission to the DARDLEA. the trees to hibernate from 4 years onwards. With most of the orchards planted on a semi-dry principle and the correct implementation of water management measures, sufficient water would be available for the expansion of the orchards as proposed.

#### Ecology:

An Ecological Assessment was undertaken as part of the Scoping and Environmental Impact Assessment currently being undertaken and this report will form part of the Draft Environmental Impact Assessment Report which will be shared for public comment during the month of March 2023. This Ecological Assessment led to the identification of specific areas within the proposed development area, which could be considered for agricultural purposes. Aeonik Farms also confirmed that the remainder of the 140Ha of land will be rehabilitated for wildlife and game and all alien invasive species will be removed and maintained for this purpose.

#### Soil:

As part of the Scoping and Environmental Impact Assessment Process, an application was submitted to the Department of Agriculture, Land Reform and Rural Development for the cultivation of virgin soil on the areas proposed for agriculture. The DALRD issued an approval for the cultivation of the areas proposed as the DALRD found the soil slope of the specified areas to be suitable for agricultural purposes. Confirmation of the statement above will be included within the Draft Environmental Impact Assessment Report.

## **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 the 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 biophysical and social aspects into consideration.

### 3.1.2 Layout Alternatives

An Ecological and Heritage Impact Assessment as well as a Soil Survey will be 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 will subsequently be 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 additional proposed area will not be used for cultivation and will remain as is. This alternative will be investigated as part of the Environmental Impact Assessment process.

## **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 the most suitable for agriculture, will be investigated as part of the process.

## 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

<u>Terrestrial Ecology</u>: 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.

<u>Other Natural Areas</u>: 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.

<u>Heavily - Moderately modified:</u> 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 4: 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 5: 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 and at present approximately 19,8Ha of the 220Ha is being used for agricultural purposes.

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 as part of the previous EA Application submitted for the 19,8Ha of indigenous vegetation clearing in order 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 of 19,8Ha revealed no archaeological or historical features of significance within the study areas. A small burial site was identified, 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.

A Heritage Impact Assessment will again be undertaken to investigate the additional areas to be cultivated and the findings of this assessment will be included within the Draft Environmental Impact Assessment Report.

#### 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.

# 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. 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.

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

#### TABLE 3: DEFINITION OF SIGNIFICANCE RATING

Significance ratings	Level of criteria required
High	High magnitude with a regional extent and long-term duration
	• High magnitude with either a regional extent and medium-term duration or a local extent and long-term duration
	Medium magnitude with a regional extent and long-term duration
Medium	High magnitude with a local extent and medium-term duration
	• High magnitude with a regional extent and construction period or a site- specific extent and long-term duration
	• High magnitude with either a local extent and construction period duration or a site-specific extent and medium-term duration
	• Medium magnitude with any combination of extent and duration except site specific and construction period or regional and long term
	Low magnitude with a regional extent and long-term duration
Low	High magnitude with a site-specific extent and construction period duration
	• Medium magnitude with a site-specific extent and construction period duration
	• Low magnitude with any combination of extent and duration except site specific and construction period or regional and long term
	• Very low magnitude with a regional extent and long-term duration
Very low	• Low magnitude with a site-specific extent and construction period duration
	• Very low magnitude with any combination of extent and duration except regional and long term
Neutral	Zero magnitude with any combination of extent and duration

Once the significance of an impact has been determined, the **PROBABILITY** and **CONFIDENCE** of this impact are determined using the rating systems outlined in Table 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 Table 6.

### TABLE 4: DEFINITION OF PROBABILITY RATINGS

Probability ratings	Criteria
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

Confidence ratings	Criteria
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

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

## 7.IMPACTS AND RISKS

Within this section, the impacts and risks to be assessed during the Environmental Impact Assessment Phase, is identified. The table below identifies all aspects to be assessed during the EIA phase of the project:

	Impact / Risk	Nature	Extent	Duration	Probability	Significance	Degree to v	which impact:	
							Can be reversed	May cause irreplaceable loss of resources	Can be avoided, managed or mitigated
Alternative 1 (Preferred	alternative)								
Site Clearance and establishment activities	Floral habitat and diversity. Impact through vegetation clearance	Medium to High - negative	Site- specific	Long- term	Definite	Medium (-)	Unlikely	Probable	Maybe – Sensitive areas will be demarcated
	Fragmentation and destruction of habitats	High - negative	Local	Long term	Highly Probable	High (-)	Unlikely	Definite	No – permanent impact on habitat
	Increase in establishment of alien invasive plant species	Medium - negative	Site- specific	Long- term	Probable	Medium (-)	Yes	Improbable	Yes - mitigated

TABLE 7: IMPACTS AND RISKS TO BE ASSESSED

	Soil erosion and storm water management	Medium - negative	Site specific	Short term	Probable	Medium	Yes	Improbable	Yes - mitigated
	Dust generation	Moderate - negative	Site- specific	Short- term	Probable	Low (-)	Yes	Improbable	Yes – managed and mitigated
	Surface and groundwater pollution	Medium - negative	Site Specific	Short- term	Probable	Medium (-)	Yes	Improbable	Yes- managed and mitigated
	Impact Heritage sites	Medium - negative	Site Specific	Long- term	Unlikely	High (-)	No	Improbable	Yes – sensitive areas will be demarcated
Operational activities	Increase in establishment of alien invasive plant species	Medium - negative	Site specific	Long term	Probable	Medium (-)	Yes	Probable	Yes – managed and mitigated
	Ground and surface water pollution	Medium - negative	Local	Long- term	Unlikely	Medium (-)	Yes	Improbable	Yes – avoided
	Soil contamination	Moderate - negative	Site- specific	Short- term	Unlikely	Low (-)	Yes	Improbable	Yes – avoided, mitigated
	Erosion and storm water management	Moderate - negative	Site- specific	Short term	Probable	Low (-)	Yes	Probable	Yes, managed, mitigated
	Visual Impact	Medium - negative	Local	Long- term	Definite	Medium (-)	No	Probable	Yes, can be mitigated to reduce the impact

	Impact Heritage sites	Medium - negative	Site Specific	Long- term	Unlikely	Medium (-)	No	Improbable	Yes – sensitive areas will be demarcated
	Impact on the livelihood of community	High - positive	Local	Long term	Definite	High (+)	Yes	Improbable	Yes – mitigated
No-go alternative									
Associated Impacts if the proposed agricultural activities are not approved	Socio-economic impact Loss of job opportunities	High - negative	Local	Long term	Definite	Neutral (no possible positive impact)	Yes	Improbable	Yes (if application is approved)

## **8.MITIGATION MEASURES**

#### TABLE 8: MITIGATION MEASURES

Impact/Risk	Mitigation Measure	Level of residual Risk
Impact on floral habitat and diversity through removal of indigenous vegetation and spreading of alien vegetation	<ul> <li>Implement alien vegetation control;</li> <li>Keep vegetation clearing to the development area and exclude any sensitivities from the proposed area;</li> <li>Ensure that no fauna located on site are harmed;</li> </ul>	High
Dust generation during clearance of vegetation	<ul> <li>Clearance of vegetation must be done in phases as areas are being cultivated;</li> <li>Areas may not be disturbed and left for unattended for long periods of time;</li> <li>Heavy moving vehicles and other vehicles must adhere to a speed limit of 40km/h;</li> </ul>	Low
Surface and groundwater contamination	<ul> <li>Employee training and awareness;</li> <li>Spillages of any potentially hazardous materials should be cleaned immediately to avoid contamination of runoff;</li> <li>Water abstraction must be regulated and monitored in accordance with the Water Use License issued;</li> <li>Riparian vegetation must be maintained and not be to distrubed.</li> </ul>	Medium
Soil erosion due to areas disturbed	<ul> <li>Erosion abatement measures should be installed in areas prone to erosion</li> </ul>	Low
Impact on Heritage Sites	<ul> <li>Avoid any disturbance with identified heritage sites within the perimeter of the site. All important heritage sites must be protected from any activity proposed to be conducted</li> </ul>	Medium

Socio-economic impact	• Local labour and products must be	Medium
	used as far as possible during construction to reduce the	
	possibility of social unrest.	
	possibility of social unlest.	

## 9.PLAN OF STUDY

This Plan of Study for Environmental Impact Assessment (PoS for EIA) has been compiled in terms of the content requirements listed in Appendix 2 to the EIA Regulations of 2014 (Government Notice No. R 982 of 2014) under the National Environmental Management Act (Act No. 107 of 1998) (NEMA). The detailed PoS is provided in Table 9.

#### TABLE 9: PLAN OF STUDY

#### Content as required by NEMA

A plan of study for undertaking the environmental impact assessment process to be undertaken, including:

(i) A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity;

An Ecological Assessment, Aquatic Assessment and Heritage Impact Assessment is currently in the process of being undertaken as part of the Environmental Impact Assessment process, to identify any environmental and/or cultural sensitivities within the proposed project area. The proposed layout will therefore be amended once the sensitivities have been identified in order to ensure that all environmental and cultural sensitivities are protected from the proposed development.

The no-go alternative would be to not authorise the application for the proposed agricultural activities. Should this alternative be favourable, the additional proposed area will not be used for cultivation and will remain as is. This alternative will be investigated as part of the Environmental Impact Assessment process.

The respective impacts of each of the alternatives will be assessed in detail in the Environmental Impact Assessment phase.

(ii) A description of the aspects to be assessed as part of the environmental impact assessment process;

During the screening process various potential impacts on the biophysical and socio-economic environment were identified by the EAP. These include:

- Impact on terrestrial biodiversity, comprising fauna and flora;
- Impact on the nearby water resources (ground and surface water);
- Impact on heritage resources
- Visual impacts;
- Impact on soil (pollution, erosion and stormwater);
- Social impacts; and
- Dust impacts.

(iii) Aspects to be assessed by specialists;

An Ecological Assessment and Wetland Delineation will be conducted and will include the following:

- Assessment of the terrestrial ecology of the 60Ha proposed for agricultural activities;
- Delineating all wetlands within the proposed project site;
- Identifying the ecological sensitivity of the proposed area;
- Providing recommendations and mitigation measures for the development activities proposed;

A Heritage assessment will also be conducted by a Heritage Specialist to assess the following:

- Assessment of the 60 hectares proposed for the agricultural area;
- Identifying any possible heritage or archaeological sensitivities and providing recommendations with regards to the preservation of any possible findings

#### Soil Survey:

• Assessment of the viability of the soil for agricultural purposes on the areas identified for agriculture.

(iv) A description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists;

#### The methodology used to assess the impacts is summarised below.

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 the Table below. 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.

ASSESSMENT CRITERIA FOR THE EVALUATION OF IMPACTS

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

### (v) A description of the proposed method of assessing duration and significance;

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 the Table below.

DEFINITION OF SIGNIFICANCE RATINGS	
Significance ratings	Level of criteria required
High	<ul> <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> <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 Very low	<ul> <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> <li>Low magnitude with a site-specific extent and construction period duration</li> </ul>
Neutral	<ul> <li>Very low magnitude with any combination of extent and duration except regional and long term</li> <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 the tables below. **Error! Reference source not found.** 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.

#### DEFINITION OF PROBABILITY RATINGS

Confidence ratings	Criteria
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.

#### **DEFINITION OF CONFIDENCE RATINGS**

Probability ratings	Criteria
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.

#### DEFINITION OF REVERSIBILITY RATINGS

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

(vi) An indication of the stages at which the competent authority will be consulted;

Consultation with Competent Authority:

*Comment on DSR:* The MDARDLEA will be requested to provide comments on the Draft Scoping Report (DSR) in terms of Regulation 7(5) of GN R982 of 2014 (as amended in 2017), when the DSR is made available for public comment. This is to ensure that the Final Scoping Report (FSR) contains sufficient information for the MDARDLEA to make an informed decision and to ensure these reports satisfy the content requirements listed in the 2014 EIA Regulations. In terms of these regulations, the MDARDLEA is required to submit comments within 30 days of the request for comment.

Once the 30-day PPP of the DSR has been completed, a Comment and Response Report (CRR) will be compiled and will incorporate any comments received and responses thereto. The DSR will be finalised, taking cognisance of any comments received. The FSR, including the CRR, will be submitted to the MDARDLEA for review. This CRR will be continuously updated throughout the project, until the Final EIR is submitted.

*Comment and decision on FSR:* In terms of Regulation 22 of GN R 982, the Competent Authority (DEA) must, within 43 days of receipt of the FSR, consider it, and in writing – Accept the report and advise the EAP to proceed with the tasks contemplated in the Plan of Study for EIA. Refuse Environmental Authorisation if the proposed activity is in conflict with a prohibition contained in legislation. Or if the Scoping Report does not substantially comply with the objectives and content requirements for scoping reports in terms of the 2014 EIA Regulations and the applicant cannot ensure compliance with these regulations within the prescribed timeframe.

*Comment on Draft EIR:* Should the FSR and Plan of Study for the EIA phase be accepted by the competent authority, the Draft EIR will be compiled. The MDARDLEA will be requested to provide comments on the Draft EIR in terms of Regulation 7(5) of GN R982 of 2014 (as amended in 2017) when it is made available for public comment. This is to ensure that the Final EIR contains sufficient information for the MDARDLEA to make an informed decision and to ensure these reports satisfy the content requirements listed in the 2014 EIA Regulations. The MDARDLEA will be required to submit comments within 30 days of the request for comment.

*Comment and decision on the Final EIR:* In terms of Regulation 24 of GN R982 (as amended in 2017), the MDARDLEA must within 107 days of receipt of the EIR and EMPr, in writing – Grant environmental authorisation in respect of all or part of the activity applied for. Or refuse environmental authorisation.

The above consultation opportunities with the MDARDLEA are based on the requirements of the EIA Regulations. However, additional consultation with the MDARDLEA may be required, depending on the outcome of the PPP.

(vii) Particulars of the public participation process that will be conducted during the environmental impact assessment process; and

In total three opportunities for public participation during the EIA process have been and will be provided, namely:

*Initial comment period:* Background Information Documents (BIDs) and notification letters were provided to affected and neighbouring landowners and other stakeholders. A site notice was placed on the site perimeter on 4 October 2022, and a newspaper advertisement was placed in the Lowvelder on 10 October 2022.

*Scoping Phase comment period (30 days):* The DSR will be released for comment for an official 30-day public comment period. I&APs will be given the opportunity to submit comments on the DSR and the Plan of Study for EIA.

*EIA Phase comment period (30 days):* Similar to the DSR, the Draft EIR will be subjected to a 30-day public comment period, during which all I&APs will be offered an opportunity to comment on the proposed project

Throughout the EIA process, I&APs have the opportunity to contact the EAP to discuss the project and raise any issues or concerns they might have.

(viii) A description of the tasks that will be undertaken as part of the environmental impact assessment process;

The following tasks are proposed to be undertaken during the EIA Process:

Appointment of specialists: Should additional specialist studies be required as a result of comments and information received from I&APs, organs of state, commenting authorities and/or the Competent Authority, the relevant specialists will be appointed to undertake these studies.

*Compilation of Draft EIR:* The compilation of the Draft EIR will take cognisance of any comments received from I&APs, organs of state, commenting authorities, and/or the Competent Authority during the Scoping Phase. The Draft EIR will incorporate these comments and the necessary changes will be made to the report, where applicable. The Draft EIR will also incorporate the findings from any additional specialist assessments undertaken.

All comments received during public comment period on the Draft EIR will be compiled into a CRR. Responses to comments received will also be included.

A Draft EMPr will incorporate mitigation measures identified and obtained during the Scoping and EIA Phases, with the proviso that non-feasible mitigation measures will be discussed but will be clearly identified as being non-feasible. The EMPr will be used to enforce the mitigation measures and ensure that the impacts of all phases of the proposed project are properly managed and addressed. The EMPr will meet all the requirements of Appendix 4 of GN R982 of 2014.

*30-day PPP on the Draft EIR:* As mentioned in (viii) above, the Draft EIR will be subjected to a 30-day public comment period, during which all registered I&APs will be offered an opportunity to comment on the proposed project.

*Compilation of Final EIR for submission:* The compilation of the Final EIR will take cognisance of any comments received from interested and affected parties, organs of state, commenting authorities, and/or the Competent Authority. The Final EIR will incorporate these comments and the necessary changes (if any) will be made to the report. All comments received will be compiled into a CRR.

The Draft EMPr will be finalised to include any comments received during the PPP and submitted to the Competent Authority for consideration and decision.

(ix) Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

Suitable mitigation measures that can be adopted to reduce or avoid negative impacts and improve positive impacts for the project will be identified in detail during the EIA-phase. These mitigation measures will be included in the EIR and will be incorporated into the EMPr during the EIA Phase. Some high-level mitigation measures have been identified in the Scoping phase:

#### 1. Impact on Fauna and Flora

It must be ensured that vegetation removal is restricted to the proposed development area. Operational activities shall be restricted to the development footprint. An alien and invasive vegetation control plan should be developed and implemented to inhibit alien plant establishment and proliferation. Vegetation removed may not be pushed into drainage lines or watercourses.

Care should be taken with the choice of herbicide to ensure that no additional impact and loss of indigenous plant species occurs due to the herbicide used; and footprint areas should be kept as small as possible when removing alien plant species. Should any protected plant species be encountered within the subject property in the future, the following should be ensured: ensure effective relocation of individuals to suitable offset areas; and all rescue and relocation plans should be overseen by a suitably qualified specialist. Ensure that operational related activities are kept strictly within the footprint area.

#### 2. Impact on Surface Water

Any area where active erosion is observed must be immediately rehabilitated in such a way as to ensure that the hydrology of the area is re-instated to conditions which are as natural as possible. Ensure that operational activities do not affect watercourses on the site. Wetland areas must be protected, and a buffer area must be imposed on such areas. Water consumption are to be regulated as per their current water rights.

#### 3. Social Impacts

Continue to recruit local labour and contractors as far as feasible. Employ labour-intensive methods where feasible.

#### 4. Dust Impacts

Dust will mostly be generated during the removal of vegetation and therefore measures must be taken to reduce this impact during this phase of development.

## **10.CONSLUSION**

A number of potentially significant environmental impacts have been identified as requiring some indepth investigation and the identification of detailed mitigation measures. Although some of the impacts identified are of a potentially significant nature, they would not prohibit the project from continuing at this stage of the process. For this reason, a detailed Environmental Impact Assessment is required to be undertaken in order to provide an assessment of these potential impacts and recommend appropriate mitigation measures, where required.

To date, the following processes have been completed or have commenced:

- The respective specialists were appointed to undertake the respective assessments as indicated within the report;
- The initial public consultation process has been finalised; however, it must be noted that the public participation process is an ongoing process and will continue throughout the duration of the Environmental Impact Assessment.

The Draft Scoping Report will be distributed to all Stakeholders and Interested and Affected Parties as well as the DARLDEA for a period of 30-days, between January and February 2023. Following this 30-day comment and review period, all comments received will be incorporated in the Final Scoping Report which will be submitted to the DARDLEA for consideration. The specialist assessments undertaken will form part of the Draft Environmental Impact Assessment Report to be drafted.

## **11. 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