

# FINAL SCOPING REPORT

ALTERATION OF NATURAL LAND AND TRANSFORMED LAND (PLANTATIONS)  
FOR AGRICULTURAL USE AND CLEARANCE OF AN AREA OF 80 HA AND THE  
CONSTRUCTION OF A LOW-LEVEL CROSSING ON THE FARM: KROKODILSPRUIT  
248 JT: WHITE RIVER AREA, MPUMALANGA.  
PROJECT NR.:1/3/1/16/1E-405

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## **1. EXECUTIVE SUMMARY**

This initial phase of the **Environmental Investigation Process** was conducted over a period of three months in the White River area. The proposed debushing of natural and transformed land will allow the applicant the opportunity to maintain his farming enterprise and ensure a long-term sustainable approach to his business activities.

The existing Environmental Authorisation (EA): 1/3/1/16/1e-203 dated October 2019 (See Appendix 4.4) for this property serves as background to this assessment and must be read in conjunction with this report for the following reason:

- **Background**: The EA approved the development/clearing of more than 1300ha of indigenous vegetation for orchards and the construction of two low level crossings.
- As part the conditions of this EA, an environmental control officer (ECO) must audit the approved EA and ensure that the applicant adheres to the conditions listed in the EA.
- During these audit surveys in conjunction with the botanist from the Provincial Conservation Department: Mpumalanga Tourism and Parks Agency (MTPA) **several rare aloe plants** were discovered in certain areas which had been approved for development.
- Following consultations with DARDLEA, MTPA and the development team it was decided to withdraw permission to develop the areas where the aloe is located. These plants are now **protected by a buffer zone** and link up with the proposed nature reserve via an ecological corridor.
- It was also agreed that the applicant may submit a new application (which is now the subject of this scoping- and environmental assessment process) to compensate for the loss of over 50ha to protect the aloe plants.

The public participation process was advertised locally and regionally in the printed media and on site at the entrance gate. The immediate neighbours of the property were contacted specifically via e-mail and requested to attend the Site Meeting.

The **Draft Scoping Report** was made available for comment at the **White River Library, the farm office of the applicant, the White River/Mbombela Municipal representatives and to all individuals and departments that registered and or attended the Public Site Meeting**. Comments are included in the Issues and Responses Report (**See Appendix 2**).

This **study and evaluation** to date has looked at the various aspects that could be affected by the implementation of such a proposal. Experience gleaned from similar projects in the Lowveld was sourced for additional input.

The **evaluation process** did not reveal any fatal flaws at this stage of the Scoping Process and this document is submitted to the **Department of Agriculture, Rural Development, Land and Environmental Affairs (DARDLEA)** for consideration.

The **Environmental Impact Assessment (EIR Phase)** will investigate the **significance** of impacts, **alternative** options and **mitigation** measures where applicable. The EIR will also include a **Construction/Development Environmental Management Programme (EMPr) and Specialist Studies** on the terrestrial- and aquatic ecology of the designated project site and a **Heritage Impact Assessment (HIA)**. A **Soil Specialist** will confirm the suitability of the soils for agriculture.

## **2. ABBREVIATIONS**

ASAP	As Soon As Possible
Asl	Above sea level
cm	centimetre
DAFF	Department of Agriculture, Forestry and Fisheries
DARDLA	Department of Agriculture: Resource Management: Provincial
DARDLEA Affairs	Department of Agriculture, Rural Development, Land and Environmental Affairs
DWS	Department of Water and Sanitation
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EMPr	Environmental Management Programme
ESKOM	Electricity Supply Commission
GPS	Geographical Positioning System
HIA	Heritage Impact Assessment
HIV	Human Immunodeficiency Virus
I&AP's	Interested and Affected Parties
IEM	Integrated Environmental Management
m	metre
mm	millimetre
m/s	metre per second
NA	Not Applicable
NEMA	National Environmental Management Act
MTPA	Mpumalanga Tourism and Parks Agency
OMPr	Operational Management Programme
PDI	Previously Disadvantaged Individual
RES	Rhengu Environmental Services
SABS	South African Bureau of Standards
SAHRA	South African Heritage Resources Agency
sqm	square metre

### **3. APPLICABLE LEGISLATION**

Legislation and guidelines that are being considered for the environmental impact assessment process are as follows:

#### **3.1. Constitution of the Republic of South Africa (No.108, 1996):**

The Constitution is the supreme law of South Africa, against which all other laws are measured. It sets out several fundamental environmental rights, which include:

##### **The Environmental Clause:**

Section 24 of the Constitution outlines the basic framework for all environmental policy and legislation:

It states that everyone has the right to an environment that is not harmful to their health or well-being and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation; promote conservation and secure ecologically sustainable development and use of natural resources while promoting justifiable economic- and social development.

##### **Access to Information:**

Section 32 of the Constitution provides that everyone has the right of access to any information held by the State or another juristic person and that is required for the exercise or protection of any rights.

##### **Fair Administrative Action:**

Section 33 of the Constitution provides for the right to lawful, reasonable and procedurally fair administrative action.

##### **Enforcement of Rights and Administrative Review:**

Section 38 of the Constitution guarantees the right to approach a court of law and to seek legal relief in the case where any of the rights that are entrenched in the Bill of Rights are infringed or threatened.

#### **3.2. National Environmental Management Act (No. 107, 1998):**

The National Environmental Management Act (NEMA) is South Africa's overarching environmental legislation. The Act gives meaning to the right to an environment that is not harmful to health or well-being, entrenched in Section 24 of the Constitution of the Republic of South Africa, Act 108 of 1996. The National Environmental Management Act (NEMA, Act No. 107 of 1998) establishes a set of principles which all authorities (organs of State) have to consider when exercising their powers, for example, during the granting of permits. These include the following:

- Development must be sustainable.
- Pollution must be avoided or minimised and remedied.
- Waste must be avoided or minimised, reused or recycled.
- Negative impacts must be minimised.
- Responsibility for the environmental consequences of a policy, project, product or service applies throughout its life cycle.

NEMA further provides for an equitable access to natural resources, environmental protection and the formulation of environmental management frameworks. The Act is underpinned by the global concept of sustainable development.

The interpretation, administration and application of NEMA are guided by fundamental principles of sustainable development, provided in Chapter 1 of the Act. "Development must be socially, environmentally and economically sustainable" (s 2(3)) and requires the consideration of all relevant factors, which are elaborated by eight sub-principles".

These principles include:

- The polluter pays principle (s 2(4) (p)).
- The public trust doctrine (s2(4)(o)).
- The equitable access to natural resources (s 2(4)(d)).

Section 24 of the Act states that all activities that may significantly affect the environment and require authorisation by law must be assessed prior to their approval.

The Act goes on to list the requirements for an assessment. These include:

- The environment likely to be affected by the activity and viable alternatives.
- Cumulative effects and their potential significance.
- Mitigation measures including the "no go" option.

Section 28(1) states that "every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring".

If such degradation/pollution cannot be prevented, then appropriate measures must be taken to minimise or rectify such pollution. These measures may include:

- Assessing the impact on the environment.
- Informing and educating employees about the environmental risks of their work and ways of minimising these risks.
- Ceasing, modifying or controlling actions which cause pollution/degradation.
- Containing pollutants or preventing movement of pollutants.
- Eliminating the source of pollution.
- Remedying the effects of the pollution.

### **3.3. National Water Act (No. 36, 1998):**

The Act details the management of South Africa's water resources in terms of utilisation and duty of care to prevent water pollution. The act further details the legislation pertaining to the pollution of water reserves (surface and ground water) and the remediation/rehabilitation thereof.

### **3.4. Mpumalanga Nature Conservation Act (No. 10, 1998):**

An Act to consolidate and amend the laws relating to nature conservation within the Province and to provide for matters connected therewith. This Act makes provision with respect to nature conservation in the Mpumalanga Province. It provides for, among other things, protection of wildlife, hunting, fisheries, protection of endangered fauna and flora as listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the control of harmful animals, freshwater pollution and enforcement. The Mpumalanga Parks Board (now MTPA), established by section 2 of the Eastern Transvaal Parks Board Act, 1995, shall be responsible for the administration of the Act.



### **3.5. Conservation of Agricultural Resources Act (No. 43, 1983):**

This Act provides for control over the utilisation of the natural agricultural resources of the Republic in order to promote the conservation of the soil, the water sources and the vegetation and the combatting of weeds and invader plants and for matters connected therewith.

### **3.6. National Environmental Management: Biodiversity Act (No.10, 2004):**

To provide for, inter alia, the management and conservation of South Africa's biodiversity, to protect species and ecosystems. The Act also covers alien- and invasive species and genetically modified organisms that pose a threat to biodiversity.

The objectives of this Act are to within the framework of the National Environmental Management Act provide for:

- The management and conservation of biological diversity within the Republic and of the components of such biological diversity.
- The use of indigenous biological resources in a sustainable manner.
- The fair and equitable sharing among stakeholders of benefits arising.
- To give effect to ratified international agreements relating to biodiversity.
- To provide for co-operative governance in biodiversity management and conservation.
- To provide for a South African National Biodiversity Institute to assist in achieving these objectives of this act.

### **3.7. National Environmental Management: Protected Areas Act (No. 57, 2003) as amended by the National Environmental Management: Protected Areas Amendment Act (No 31 of 2004):**

To provide for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes; for the establishment of a national register of all national, provincial and local protected areas; for the management of those areas in accordance with national norms and standards; for inter-governmental co-operation and public consultation in matters concerning protected areas and for matters in connection therewith.

### **3.8. National Environment Conservation Act (No 73, 1989):**

The purpose of the Act is to provide for the effective protection and controlled utilisation of the environment and for matters incidental thereto. It embodies the concept of control of activities which may have detrimental effects on the environment which may be:

- Land use and transformation.
- Water use and disposal.
- Resource removal, including natural living resources.
- Resource renewal and,
- Agricultural processes.

The Act also provides for the control of Environmental Pollution through:

- Prohibition of littering.
- Removal of litter.
- Waste management.

In addition to the above the Act provides for the regulations regarding waste management such as:

- The classification of different types of waste and the handling, storage, transport and disposal of waste.
- Reduction of waste.
- Utilisation of waste by way of recovery, re-use or processing of waste.
- Location, planning and design of disposal sites and the site used for waste disposal.
- Administrative arrangements for the effective disposal of waste.
- Dissemination of information to the public on effective waste disposal.
- Control over the import and export of waste, etc.

### **3.9. National Heritage Resources Act (No. 25, 1999):**

The protection and management of South Africa's heritage resources are controlled by the National Heritage Resources Act (Act No. 25 of 1999). The enforcing authority for this act is the South African National Heritage Resources Agency (SAHRA). In terms of the Act, historically important features such as graves, trees, archaeology and fossil beds are protected. Similarly, culturally significant symbols, spaces and landscapes are also afforded protection.

In terms of Section 38 of the National Heritage Resources Act, SAHRA can call for a Heritage Impact Assessment (HIA) where certain categories of development are proposed. The Act also makes provision for the assessment of heritage impacts as part of an EIA process and indicates that if such an assessment is deemed adequate, a separate HIA is not required.

According to the National Heritage Resources Act (Section 38(8)), such an assessment has to meet the requirements of the relevant heritage authority. The following requires the approval of SAHRA:

- Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised.
- The construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length.
- Any development or other activity which will change the character of a site - exceeding 5 000 m<sup>2</sup> in extent; or involving three or more erven or divisions thereof which have been consolidated within the past five years.
- The costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority.
- The re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent.
- Any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

### **3.10. Occupational Health and Safety Act (No. 85, 1993):**

To provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establish an advisory council for occupational health and safety and to provide for matters connected therewith.

### **3.11. Promotion of Access to Information Act (No 2, 2000):**

To give effect to the constitutional right of access to any information held by the State and any information that is held by another person and that is required for the exercise or protection of any rights and to provide for matters connected therewith.

### **3.12. National Environment Management: Waste Act, 2008 (No 59 of 2008):**

To reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development.

- To provide for institutional arrangements and planning matters.
- To provide for national norms and standards for regulating the management of waste by all spheres of government.
- To provide for specific waste management measures.
- To provide for the licensing and control of waste management activities.
- To provide for the remediation of contaminated land.
- To provide for the national waste information system.
- To provide for compliance and enforcement.
- To provide for matters connected therewith.

Section 24 of the National Environmental Management Act (1998) requires that activities that require authorisation or permission by law which may significantly affect the environment, must be considered, investigated and assessed prior to their implementation and reported to the organ of state charged by law with authorising, permitting, or otherwise allowing the implementation of an activity. The EIA process is the tool used to apply for authorisation from the regulating authority for the relevant activities identified that may impact on the environment.

### **3.13. National Forests Act, 1998 (Act No. 84 of 1998):**

No person may cut, disturb, damage or destroy any protected tree or possess, collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree or any forest product derived from a protected tree, except under a licence or exemption granted by the Minister to an applicant and subject to such period and conditions as may be stipulated.

### **3.14. ACTIVITY NUMBER LISTED UNDER NEMA**

This assessment considered the following listed activities:

<b>Indicate the number and date of the relevant notice:</b>	<b>Activity No (s) (in terms of the relevant notice):</b>	<b>Describe each listed activity as per the detailed project description:</b>
<b>EIA Regulations R 983: Listing Notice 1 of 2014.</b>	<b>12</b>	The development of one low level river crossing in the Sand River exceeding 100sqm in size, where such development occurs within a water course or within 32m of a water course.
<b>EIA Regulations R 983: Listing Notice 1 of 2014.</b>	<b>19</b>	Infilling will be required to stabilise the all-weather river crossing. This will take place within 32m of a water course.
<b>EIA Regulations R 984: Listing Notice 2 of 2014</b>	<b>15</b>	The clearance of an area of 20 hectares or more of indigenous- and transformed vegetation for the establishment of macadamia orchards.
<b>EIA Regulations R 985: Listing Notice 3 of 2014</b>	<b>12</b>	Indigenous- and transformed vegetation will be cleared to accommodate the new orchards.
<b>EIA Regulations R 985: Listing Notice 3 of 2014</b>	<b>14</b>	The development of one low level river crossing in the Sand River exceeding 100sqm in size, where such development occurs within a water course or within 32m of a water course.

#### **4. NEEDS AND DESIRABILITY OF THE PROPOSED ACTIVITY: ALTERATION OF NATURAL- AND TRANSFORMED LAND FOR AGRICULTURAL USE AND THE CONSTRUCTION OF A LOW-LEVEL CROSSING.**

- **Background**: An existing Environmental Authorisation (EA) 1/3/1/16/1E-203 which was issued by DARDLEA for the development of the farm in October of 2019 is applicable as background information.
- The EA approved the development/clearing of more than 1300ha of indigenous vegetation for orchards and the construction of two low level crossings.
- As part the conditions of this EA, an environmental control officer (ECO) must audit the approved EA and ensure that the applicant adheres to the conditions listed in the EA.
- During these audit surveys in conjunction with the botanist from the Provincial Conservation Department (MTPA) **several rare aloe plants** were discovered in certain areas which had been approved for development.
- Following consultations with DARDLEA, MTPA and the development team it was decided to withdraw permission to develop the areas where the aloe is located. These plants are now **protected by a buffer zone** and link up with the proposed nature reserve via an ecological corridor.
- It was also agreed that the applicant may submit a new application (which is now the subject of this scoping- and environmental assessment process) to compensate for the loss of over 50ha to protect the aloe plants.
- The needs and desirability chapter from 2019 below thus remains applicable.
- **Introduction**: Development proposals should always follow an **integrated approach** to project planning.
- With this in mind, the project must make economic sense, whilst at the same time environmental damage and impact must be kept to a minimum and or mitigated fully. Losing the 50ha as described above affected the economics of the business unit where the aloes were located.
- Also, the needs and aspirations of society must be met with the view to producing the best long-term product for the community (internal- and external community) at large.
- Having said this it must be noted that developers are spending thousands of Rand of hard-earned money to ensure the financial viability of each proposed project.
- Developers, in most cases, think long and hard before they channel money towards a specific project.
- It is not in their interest to embark upon a project without having assessed all the risks involved. They, just as society, are keen to see that the project is a long-term **sustainable** success.
- **Strategic Regional Initiatives**: During the late 90's the Government in conjunction with local businesses and councils implemented the **Maputo Corridor** initiative in the Nkomazi-Mbombela Region of Mpumalanga.
- The Premier of the Province at the time (Mr. Mathews Phosa) went on record in the media and other forums where he encouraged local businesses and developers to embrace this initiative in all its facets.
- The corridor was to become the umbilical cord which linked South Africa to the Port of Maputo and to the economic opportunities of both countries.
- Specific emphasis was placed on the tourism potential; natural resources (e.g., gas); service provision; agricultural markets and the export possibilities via the harbour.
- The **Produce Market** near Nelspruit (Mbombela) is further evidence of the prospective growth envisaged for the agricultural sector in the Province and combined with the advent of the **Nkomazi Special Economic Zone** near Komatipoort all indications are that agriculture has a bright future in the Province.

- Local Councils are thus very supportive of developments associated with the expansion of agriculture and the sustainable land use envisaged by this project proposal under investigation compliments the regional vision that the authorities have for this area.
- **The Proposed Development of Additional Orchards and the Need for more Nuts:** The Farm Krokodilspruit was purchased by the Danroc company. The need for additional macadamia- and avocado fruit world-wide has allowed businessmen and farmers an opportunity to plan ahead and consider expanding their fruit producing enterprises.
- At this stage South Africa produces just over 20% of the worlds macadamia nuts and all indications are that this percentage can be expanded by three times this figure in the years to come. In order for South Africa to capitalise on this need, farmers are encouraged to plan ahead and plant more trees on viable properties.
- Developing the farm to realise its full potential thus makes economic sense.
- Marketing and sales of fruit and other agricultural products will thus continue as per the economic vision described above.
- **Will the new orchards be beneficial to the community at large?** Yes. It will create and maintain a plethora of new jobs and work opportunities presently not possible on the farm in its current state. The development to date has already resulted in the creation of more than 200 employment opportunities.
- **What are the economic benefits of the new orchards?** Development of the new orchards will plough more than R500 million into the local economy with a positive return in 12 years' time.
- **Neighbouring Land Uses and Compatibility:** The project area is surrounded by agriculture and a diversity of similar, compatible farming operations which include macadamia production.
- No objections to the project proposal have to date been submitted by any of the neighbours.
- **Financial Viability and Agricultural Potential of the Property:** The project site (Farm: Krokodilspruit) has been farmed for many years (since the early 1930's) producing crops for the internal agricultural market and more than 1500ha of blue gum plantations have produced timber for the forestry industry. The plantations and some additional natural land will now be replaced by macadamia trees.
- A financial analysis by the Project Team has confirmed that the farm has the potential to meet the demands for new nuts and fruit given the world-wide growth predicted for these products.
- **Land Claims:** The Lowveld Area was subjected to various land claim assessments by the Land Claims Commissioner in the past few years and combined with a recession in the agricultural sector, farmers were until recently reluctant to expand their enterprises under prevailing uncertain conditions.
- The project area is owned by the applicant and although a land claim has been lodged against the property the applicant has engaged with the commissioner in this regard.
- No objections to the proposed improvement of the infrastructure have been lodged with the EAP. **(See Appendix 4.2.)**

- **Industry Growth**: The predicted growth in the need for additional nuts has stimulated the industry to expand.
- The financial model for this property based on crop production is dependent on the expansion of the arable land.
- To this end the proposal then makes economic sense as crop production is a long-term solution and will ensure that production is optimised sustainably into the future.
- This also provides the proponent an opportunity to remain financially competitive in an ever challenging and diverse business market.
- **Social Commitment and Job Creation**: Several business sectors and community members will benefit if this project is successful.
- The proponent and his family will benefit financially in the long term. In the short to medium term however, the development node will require substantial capital (Approximately R500 million) to develop the orchards and replace the plantations.
- Additional infrastructure will be required including storerooms, pack sheds, maintenance centres for vehicles and the installation of irrigation service lines and pump stations.
- The Lowveld Region and outlying rural areas have been classified as one of the poorest in South Africa. Conservative estimates list jobless figures in the region of 35%. HIV infections are just under 40% and many job seeking immigrants from neighbouring countries migrate to this area and add to the challenges faced by rural communities.
- Construction companies and forestry teams will be tasked with building the infrastructure and removing the blue gums. The entire farm boundary is being fenced in to provide for additional security. These projects generate additional income in the community and the projects are labour intensive and ongoing for the foreseeable future.
- This will provide work opportunities (estimate 15-20 persons) for both skilled and unskilled labour (machine operators; bricklayers and labour to clear some of the vegetation).
- Unskilled labour will earn in the region of R 4 200.00 per person per month.
- The opportunities above do not include adding to subsidiary services such as an increase in maintenance of vehicles; retail needs and medical facilities. This development will thus benefit the businesses in White River.
- **Location**: Is this the correct location for the project?
- Yes. Approximately 2000ha were assessed for conversion from natural land to arable farming land. Various options were analysed and the importance of maintaining ecological support areas and corridors played a vital role in decision making.
- See the Project Maps in the appendices for more detail in this regard.
- The project site (farm) is fixed and the proponent does not own similar land elsewhere. In terms of compatibility of land uses this development will fit in with similar developments in the area and neighbouring farms. The location is thus regarded as ideal.
- The project site is surrounded in all wind directions with similar land uses.

- **Environmental (Ecological) Implications/Limitations:** An **initial** assessment of the prevailing fauna and flora has not revealed any threats to species/habitat and or highlighted any critical limitations to the development which can be of ecological significance, or which cannot be mitigated to ensure sustainability of the environment.
- **No rare aloes** were found during the screening phase in the additional project area which is the subject of this assessment process.
- Detail studies have however been commissioned to ensure that impacts on the environment are clearly understood and the results will be included in the specialist reports on biodiversity with the Environmental Impact Assessment Report.
- All indications are however that by **not developing the area set aside for the nature reserve** more of the natural vegetation which is endemic to the area will remain intact and this will ensure that ecological corridors (**as per MTPA policy and requirements**) are maintained on the farm. All rocky outcrops, drainage lines and wetlands will also be demarcated as no go zones, i.e., **no development allowed**. See the **Project Map in Appendix 1**.
- The land with the rare aloes which was withdrawn from development now links up with the proposed nature reserve area.
- **Positive Impacts:** Job creation, i.e., prevention of job losses, is regarded as a significant impact which will spill over into the well-being of several families in the local community.
- Furthermore, the financial viability of the project will translate into economic growth for the investors and the local Mbombela area as a whole, albeit in the medium to long term.
- The growth in agricultural production together with the improvement in the sustainability of the farm will result in higher incomes and ensure food/crop security.
- **Access Road:** The access to the Project Area from the Provincial tar road is functional and does not require any changes or upgrading.
- Construction/harvesting/marketing vehicles and equipment will have unhindered access to the project site.
- **Timing:** Is this the right time to implement such a development?
- The drought (2015-2018) has highlighted the fact countrywide that crop production must plan ahead to remain sustainably competitive.
- Access to reliable water for irrigation within the framework of allocated entitlements is in place on the farm and soil types are suitable for the production of crops. The applicant is planning ahead in an ever-changing market and positioning their business to meet the demands of the future.
- **Integrated Environmental Management:** The objective of integrated environmental management is to balance all interests towards sustainability. For many the word “sustainability” remains a unicorn of environmental management; a myth that is often poorly defined and or understood.
- As participants in environmental management, we can at best evaluate the project for its inherent advantages and disadvantages. With the help and input of the Public, Specialists and Project Consultants we endeavour to draw a clearer picture with which we all can associate and hopefully agree to and support.



- We raise questions which include but are not limited to: Is the proposed activity/development harmful to the environment?; Did we ensure that all perceived impacts were mitigated adequately in favour of maintaining the environmental integrity?; Will the local/regional/national community benefit from this development and or is the development an improvement on an old, outdated concept?; Did we ensure that the general public participated in this project from day of advertisement till submission of documentation? Did we ensure that the economics of the activity were in place prior to project implementation? Is the project feasible? What are the alternatives? Have we taken into account the various Government role players with regards to sharing information and or authorisation requirements of the project? The list goes on, however the team associated with this proposal is confident that we have ticked the right boxes to date and can answer in the positive to the questions listed above. In some cases, we will have to suggest measures of mitigation to soften the impact towards a degree of sustainability.
- **Need and Desirability of the Proposed Project:** In conclusion, it is the opinion of the EAP that the cumulative effect of the factors listed above will result in a positive contribution in the fields of economic benefit and social upliftment in the region, with little or at most manageable impacts in the environmental arena.

## 5. GENERAL INFORMATION

<b>Project Title</b>	Environmental Impact Assessment: Alteration of natural- and transformed land (Plantations) for agricultural use (Approximately 80ha) and the construction of a low-level crossing on the Farm: Krokodilspruit 248 JT: White River Area, Mpumalanga.
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<b>Name of Applicant</b>	Danroc (Pty) Ltd.
<b>Address</b>	P. O. Box 246 White River 1240
<b>Contact Person</b>	Mr. Warren Hearne.
<b>Telephone Number</b>	083 679 9366
<b>E Mail</b>	warren@danroc.co.za

<b>Name of Consultant</b>	Rhengu Environmental Services (RES)
<b>Address</b>	P. O. Box 1046 Malelane 1320
<b>Contact Person</b>	Ralf Kalwa
<b>Telephone Number</b>	082 414 7088
<b>Fax Number</b>	086 685 8003
<b>Date of Report</b>	September 2022

<b>Date of Inspection/s Meetings Persons Present</b>	<b>Site and</b>	<b>Meeting 28 July 2022: Government Officials and General Public:</b> <ul style="list-style-type: none"> <li>• Kenneth Mavhunga DFFE: Forestry Branch.</li> <li>• Johan Enslin IWULA Consultant.</li> <li>• Connor Smith IWULA Consultant.</li> <li>• Mfundo Dlamini IUCMA.</li> <li>• Pierre Cronje DANROC.</li> <li>• Warren Hearne Applicant.</li> <li>• Dr. Andrew Deacon Project Ecologist.</li> <li>• Ralf Kalwa Rhengu Environmental Services: EAP</li> </ul> <b>See Minutes attached in Appendix 2.</b>
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**6. LOCALITY INFORMATION**

<b>Name of Place and Locality.</b>	The development site is found on the Farm: Krokodilspruit 248 JT. This farm is located approximately 8km north of White River on the tar road between White River and Sabie. The farm is bordered in all wind directions by farms practicing agricultural land uses.
<b>Region/District</b>	The property is found in the Mbombela Region of the Lowveld, between the towns of White River and Sabie in Mpumalanga.
<b>Title Deed</b>	See <b><u>Appendix 4.1.</u></b>
<b>Size of Proposed Development</b>	Approximately 80 ha.
<b>Magisterial District</b>	Mbombela Municipality.
<b>Nearest Town</b>	White River.

Type of area where the proposed development will take place (mark all applicable blocks).

CBD		Rural	<b>X</b>	City		Recreational area	<b>X</b>
Commercial		Agricultural	<b>X</b>	Town		Informal Settlement	
Industrial		Staff Housing		Township		Other:	
Tourism		Road	<b>X</b>	In a Building			

## **7. PROJECT DESCRIPTION**

### **Current Status and Infrastructure:**

- The Krokodilspruit Farm is **well serviced** with several access roads and service lines which include potable/irrigation water and power supply (Eskom).
- The farm is equipped with **storage dams** and **pump houses**.
- The property is **game fenced**. Several smaller game species occur naturally on the farm.
- **Access** to the proposed orchards is in place. The farmer has spent a significant amount of time and effort in rehabilitating the road network and installing anti-erosion measures and storm water control and discharge points.
- **Road Access** for purposes of marketing and product sales is in place and functional.
- **Plantations:** Existing blue gum plantations have fallen into disrepair and are derelict. More than 400ha of these plantations have been replaced by macadamia orchards as per the environmental authorisation approved in 2019. This work is currently ongoing.
- Storerooms, maintenance garages, warehouses, pack sheds and a nursery are functional and serve the various business units as per the farming needs.
- **No Site Alternatives:** The land earmarked for development is fixed and is part and parcel of an existing farming enterprise. By virtue of its position, it links into existing agricultural land uses in the surrounding area.
- The project area will replace the development zone that was removed to accommodate the rare aloe species.
- The aloe zone will form part of the ecological corridor and buffer zone associated with the proposed nature reserve.
- No other site is available to be considered for an alternative.
- All existing farming operations will remain the same. The farmer has access to all applicable expertise, equipment and logistics to expand the farming operation.
- Once established, the benefit of these high-value crops can be derived over many years.

### **Planned/Proposed Activity and Project Specifics:**

- The proponent wishes to remove indigenous vegetation/blue gum plantations on approximately 80ha and establish orchards for agricultural use.
- Approximately 73.77ha of indigenous vegetation will be removed.
- The development will include the establishment of orchard roads.
- The construction of one low level river crossing will be required to accommodate equipment and vehicles during harvesting- and general farming operations to the various orchards including the project area.
- Orchard roads will be less than 3.5m wide and will be maintained to allow for a gradual controlled run off of water using mitre drains and speed humps.
- Modern low flow irrigation systems will be installed to each orchard.



	<i>integrifolius</i> and <i>Sphedamnocarpus pruriens</i> .
<b>Conservation Status</b>	<ul style="list-style-type: none"> <li>This land type is considered as endangered and only about 2% is statutorily conserved mainly in the Bosbokrand- and Barberton Nature Reserves. A further 2% is conserved in private reserves including the Mbesan -, Kaapsehoop- and Mondi Cycad Reserves.</li> <li>It has been greatly transformed (50%) mainly by plantations, cultivated areas and urban development. Invasive plant infestations are found along drainage lines and riparian zones.</li> </ul>

Did the applicant undertake a soil feasibility?

Yes	No
X	

Comments:

A Soil Specialist was commissioned to undertake soil suitability studies on all the soils in the project area. This information could then be extrapolated to adjoining natural areas to provide an indication of soil suitability. These results will be included in the Appendices to the Environmental Impact Assessment Reports (EIRs).

Has the applicant proof of sufficient water for the proposed development?

Yes	No
X	

Comments:

Water rights and quantity are available for macadamia production during the **establishment phase** of the project. Once established the dry land farming approach is implemented. The applicant has calculated that his current supply will suffice using the latest irrigation methods and technology available in the market. **See Appendix 4.3.**

<b>Wetlands/Rivers and Watercourses bordering proposed development</b>	<ul style="list-style-type: none"> <li>Several small drainage lines are found on the property including two perennial rivers (Krokodilspruit and Sandspruit). These features will be excluded for development purposes and protected as per legislative requirements. A demarcation of the riparian zones will be included in the Biodiversity Study in the EIR.</li> <li>One low level crossing will be developed at S 25°15'57.59" E 30°55.11'22" on the Sand River. See an example of a typical crossing in <b>Appendix 1.</b></li> </ul>
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Are there any known Red Data biota on or near the proposed development?

Yes	No
	X

Comments:

No rare biota were observed during the site visit to the project area. The Specialist Ecologist that has been appointed for the project will assess this aspect in more detail as part of the Biodiversity- and Ecology Specialist Study.

<b>Fauna Description</b>	<ul style="list-style-type: none"> <li>• The applicant has identified an area suitable for game farming and to serve the functions of a nature reserve.</li> <li>• The application will ensure that the game section is formalised which will allow for a natural corridor and habitat niches for game and other naturalised fauna. Many smaller and larger animals will be allowed to seek refuge in this natural corridor.</li> <li>• The new aloe zone will form part of the ecological corridor and buffer zone associated with the proposed nature reserve.</li> </ul>
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**Are there any known rare bird breeding sites on or near the proposed development?**

Yes	No
	X

Comments

No breeding sites were discovered at or near the project sites. The Specialist Study will however assess this aspect in more detail.

**Are there any known archaeological, cultural- or historical sites on or near the proposed development?**

Yes	No
X	

- A Heritage- and Culture Specialist has been commissioned to assess the potential presence of historical sites and artefacts.
- Should any artefacts or a find be discovered during construction/development, the proponent must engage the services of an accredited archaeologist to deal with the find.
- Should the application be approved, it is recommended that an Environmental Control Officer (ECO) oversee the implementation of the development phase and the handling of finds will be addressed in the Environmental Management Programme (EMPr).

**What general precautionary measures will be taken if an archaeological, cultural- or historical site is discovered?**

- Should any artefact, or historical site be discovered during the removal of vegetation and or installation of irrigation systems as well as in future, all works must cease with immediate effect.
- The find must be reported to the Project Manager/Applicant for the development and the ECO for the project. These representatives will initiate an Action Plan in conjunction with SAHRA to address the management and handling of the find.

## **9. ENVIRONMENTAL ISSUES**

This chapter describes the **issues, concerns and opinions** identified:

- during the **public participation process, i.e., focus group meetings**;
- by **authorities and the applicant/management authority** during consultation- and pre-application meetings and telephonic discussions;
- by the **EAP** based on previous experience in the Lowveld.

### **9.1. Key Issues: See Issues and Responses Report in Appendix 2.**

- The response to the on-site and newspaper advertisements was **poor**. The call for potential Interested and Affected Parties to attend the on-site meeting **did not result** in a significant interest.
- The EAP also had to make a **special effort** to engage the local White River and Mbombela councils to ensure that these important role-players were kept abreast of the progress of all aspects of the project in the White River area.
- The following key **issues/impacts** are listed for consideration:

<b>Environmental Aspects</b>	<ul style="list-style-type: none"> <li>• Specialist Study on Terrestrial Ecology and Biodiversity.</li> <li>• Irrigation Systems and Water Rights.</li> <li>• Protected Tree/Special Plant Species.</li> <li>• Soil Type and Suitability.</li> <li>• Agricultural Potential.</li> </ul>
<b>Economic-Operational Aspects</b>	<ul style="list-style-type: none"> <li>• Job Opportunities.</li> <li>• Economic Sustainability.</li> </ul>
<b>Social Aspects</b>	<ul style="list-style-type: none"> <li>• Cultural Artefacts.</li> <li>• Job Opportunities.</li> <li>• Land Claim.</li> <li>• Needs- and Desirability of Project.</li> </ul>



## 10. PUBLIC PARTICIPATION

- **Legislation**: As per applicable environmental legislation the applicant must submit an application to the local Department of Environmental Affairs (DARDLEA) to obtain authorisation and permission to clear the vegetation, construct the low-level crossing and develop the proposed orchards.
- **Advertisements (Printed Media)**: A newspaper advertisement (The Lowvelder: Local and regional newspaper) was placed in the printed press on **9 June 2022** inviting public participation and involvement.
- **Advertisements On Site and Town**: Site Notices were placed at the entrance/access to the site on the Sabie Road, near the gate entrance on the farm.
- **Neighbours**: Advertisements and invitations were also submitted to direct neighbours of the property.
- **Government Departments**: The Department of Agriculture, South African Heritage Resources Agency; the Department of Rural Development, Land and Environmental Affairs; the Department of Water and Sanitation (IUCMA); the Department of Agriculture, Forestry and Fisheries; Mpumalanga Tourism and Parks Agency and the Municipality of Mbombela/White River were all informed of the project and invited to participate.
- **Public Information Meeting**: An initial information meeting was held on site on **28 July 2022 at 13h00**. Persons that may be affected and or interested in the proposed project were invited to register their interest with the contact person listed below and requested to attend the Public Meeting on 28 July 2022.
- **Issues and Impacts**: Issues and impacts were determined by RES and complimented by those raised during discussions with neighbours and officials from the various departments. Many of these were also gleaned from similar projects in the Lowveld area and from previous experience obtained on projects recently completed in the area.
- **Minutes**: See Appendix 2 for a comprehensive set of minutes and the Issues and Responses Report.
- **Focus Group Meetings**: Where applicable, on-going consultation will be formalised through focus group meetings with each neighbour and or official department as per request and or as the need arises.
- **Reports/Copies of Information**: Copies of the **Reports** generated will be submitted for comments as per the registered list of Interested and Affected Parties. **Hard Copies** will be made available at **Public Venues** and electronic copies will be submitted as requested via post.
- **Specialist Studies Completed**: Ms Christine Rowe (Heritage Specialist) has completed an archaeological evaluation of the Project Site and Dr. Andrew Deacon (Biodiversity Specialist) has undertaken various aquatic- and terrestrial surveys.

Are any organisations or individuals known that objected/raised concerns towards the proposed development?

Yes	No
	X

No objections were raised to date. Concerns and suggestions were noted and addressed in the Issues and Responses Report.

How many organisations or individuals objected/raised concerns/issues towards the proposed development?

None.

Comments:

See Appendix 2 for a detailed copy of the Issues and Responses Report.

Any **social benefits** that will result from this proposed development?

Yes	No
X	

**Comments:**

- The development process will result in significant job- and business opportunities during various stages of the process. As is the current farming activities have had a direct influence and impact on job creation in the area as blue gum trees are removed and replaced by macadamia plants.
- Development labour and expertise will be required to remove the natural vegetation and install the irrigation systems and associated infra-structure. This phase will require input from both informal- and formal sectors of the agricultural industry.
- The status and operations of the property was neglected in all its facets and the farm lay derelict as a going enterprise with the previous owners not interested in improving the business. The applicant purchased the farm and has expressed the wish to optimise the operation in all its facets and fluxes.
- The advent of the proposed project could however see this climb to **40** during the development phase (**temporary jobs**) and more than **1800 job opportunities** in the long term after the project is completed and fully operational. Job opportunities will include but not be limited to: maintenance positions on the irrigation systems and fences; weeding and fertiliser operations; planting and harvesting.
- Unskilled labour will earn in the region of R 4 200.00 per person per month.
- The opportunities above do not include subsidiary services such as an increase in maintenance of vehicles; retail needs and medical facilities. This development will thus benefit the businesses in White River.
- Finally, where applicable, the removal of certain tree species will be made available to the wood carving-, furniture manufacturing and associated industries as recommended by officials from DAFF/DFFE during previous projects in the Lowveld. All removals will take place once DAFF/DFFE have issued the applicable licences authorising such removals.

## **11. DECOMMISSIONING PHASE**

The applicant accepts responsibility for the Cradle to Grave principle. It is unlikely that the proposed development will be decommissioned in the foreseeable future however elements of the site may require a change in land use or have to undergo a process of decommissioning in some form or another. For such an event several **objectives** are submitted for the record and consideration.

### **11.1. Decommissioning Objectives**

The applicant/developer remains responsible for the life cycle of the project and all the decommissioning activities in the project area. The infrastructure will undergo a full and comprehensive decommissioning programme. This programme must be described in a **decommissioning plan**.

It is recommended that an **Independent Environmental Assessment Practitioner (EAP)** is appointed at the time **to compile a detailed decommissioning plan** to address all the aspects of the decommissioning process prevalent at the time.

### **11.2. Decommissioning Approach (Under guidance of an EAP)**

Essentially the following approach must be implemented:

#### **11.2.1. Removable concrete structures**

- All foreign material such as gravel and concrete (Pump Houses/Dams/Sheds?) must be broken up and removed to a designated gravel pit, which will be identified by the local Municipality for purposes of rehabilitation.
- All roads, buildings and service infra-structure must be demolished and removed off site.
- All service lines, where applicable (electrical- and water supply) must be removed and trenches rehabilitated.
- The lie of the land must be returned to fit in with the adjoining land surface.

#### **11.2.2. Reinstatement**

- All foreign material must be removed and disposed of at a borrow pit earmarked for rehabilitation.
- The disturbed area must be levelled off and contoured to fit in with the rest of the landscape.
- The disturbed area must be ripped and fertilised to enhance re-vegetation.
- The exposed soil must be brush packed with brush and grass material from the area, to serve as a seed bank for re-vegetation.
- The reinstated area must be irrigated once a week to promote the re-vegetation process.
- These aspects will require on site monitoring, as the occurrence of natural rainfall will determine the frequency of irrigation required.

## **12. MONITORING AND AUDITING**

It is recommended, that in the event that this proposal/application is approved, that the developer/applicant appoint an independent **Environmental Control Officer (ECO)** to oversee the implementation of the **Environmental Management Programme (EMPr)** and **monitor compliance** of the **Environmental Impact Assessment (EIA)**.

Furthermore, if the proposal is approved, the ECO must ensure that all the **conditions** as set out in the **Environmental Authorisation** issued by the DARDLEA, are met and implemented as stipulated.

The ECO must submit a monthly Audit Report during the development phase to the applicant and DARDLEA for record- and implementation purposes.

The **role of the ECO** and independent audit teams are well defined within the framework of the **Integrated Environmental Management (IEM)**.

### **13. REFERENCES**

**Department of Environmental Affairs and Tourism**, 1998. *Guideline Document, EIA Regulations, implementation of sections 21, 22 & 26 of the Environment Conservation Act*. Government Printer, Pretoria.

**Gertenbach W P D**, 1980. *Rainfall Patterns in the Kruger National Park*. Koedoe 23, National Parks Board, Pp 35 – 43.

**Mucina L. and Rutherford M.C.**, 2006. *The Vegetation of South Africa, Lesotho and Swaziland*.

**Rhengu Environmental Services, 2019**: Environmental Impact Assessment: Alteration of Natural Land and Transformed Land (Plantations) and Clearance of an Area of 1300ha and the Construction of Two Low Level Crossings on the Farm: Krokodilspruit 248 JT: White River Area, Mpumalanga.