



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

Reg No: 2021/318370/07

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

Draft Environmental Management Report

December 2021

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1. OVERVIEW OF THE PROJECT

1.1 Introduction

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

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

1.2 Location

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

Central coordinates of the site:

25°30'21.29"S

31°08'14.91"E

21-digit Surveyor General codes:

- TOJU00000000020100005

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

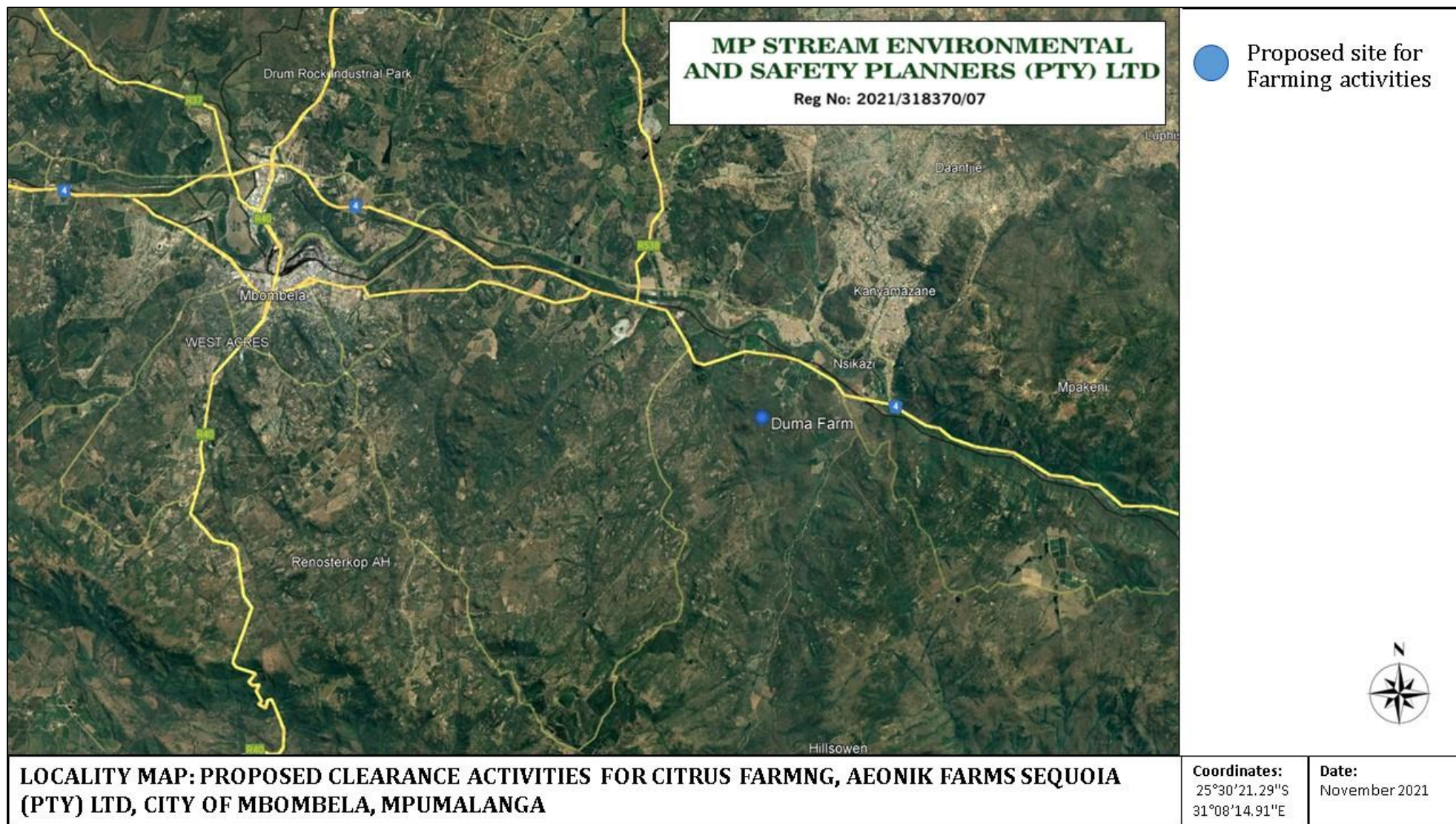


FIGURE 1: LOCALITY MAP PROPOSED PROJECT AREA ON PORTION 5 OF THE FARM DUMA 201

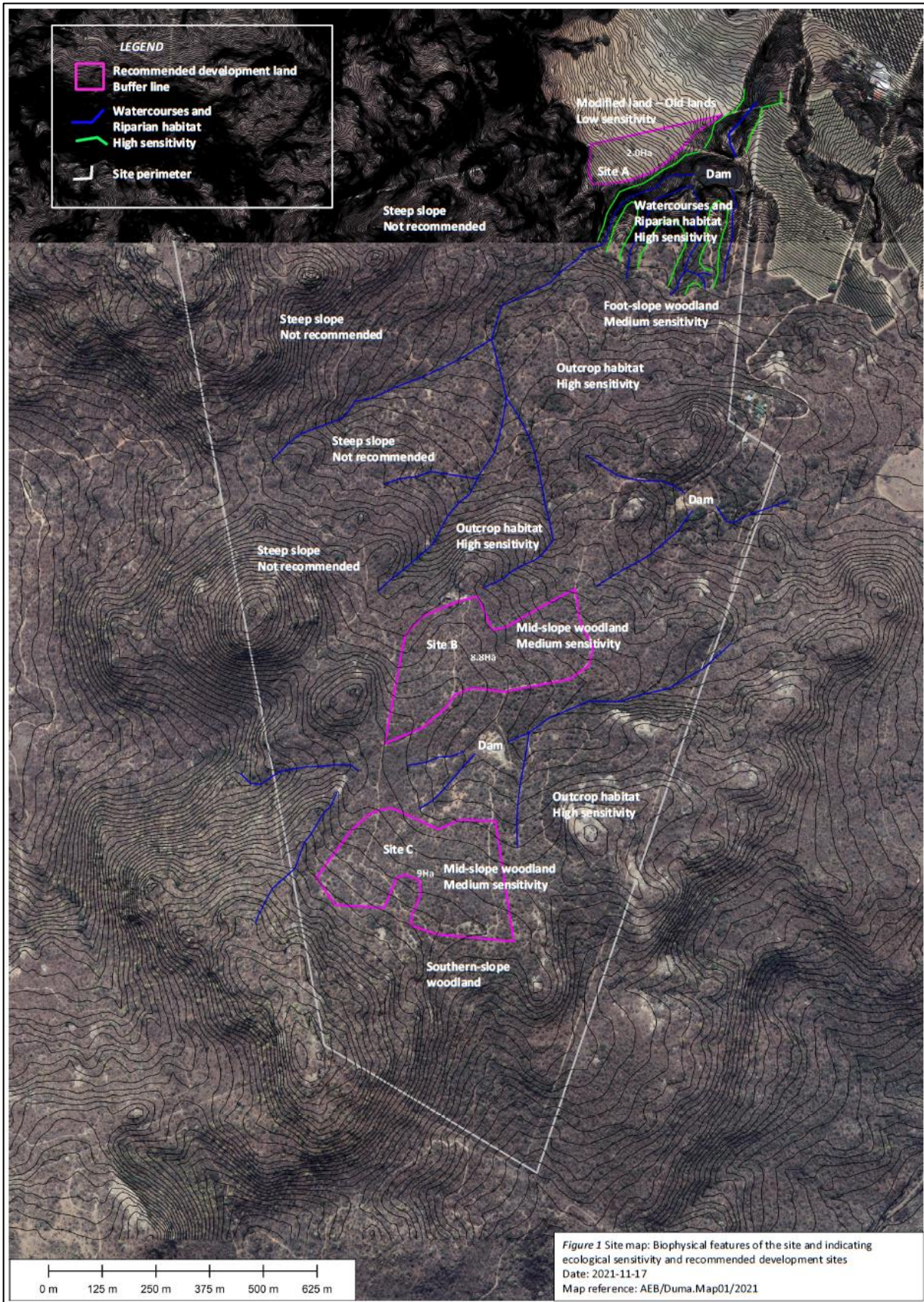


FIGURE 2: LAYOUT MAP OF THE PROPOSED AGRICULTURAL AREAS ON PORTION 5 OF THE FARM DUMA 201 JU.

1.3 Policy Legal and Administrative Framework

TABLE 1: LEGISLATION APPLICABLE TO THE PROJECT

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

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| Occupational Health and Safety Act, 1998 (Act No. 85 of 1998) | <p>The Act provides for the health and safety of people at work and for the health and safety of people using plant and machinery.</p> <p>During establishment, work must be conducted with strict adherence to the Occupational Health and Safety Act 85 of 1998.</p> |
| National Heritage Resources Act, 1999 (Act No 25 of 1999) | <p>This legislation aims to promote good management of the national estate, and to enable and encourage communities to nurture and conserve their legacy so that it may be bequeathed to future generations.</p> <p>According to the South Africa Heritage Resource Act No 25 of 1999, a Heritage Impact Assessment must be conducted when an area larger than 5000m² is proposed to be transformed. A Heritage Specialist was therefore appointed and the assessment and findings form part of the Environmental Impact Assessment investigation.</p> |
| City of Mbombela Integrated Development Plan (IDP). | <p>The primary objectives of the IDP are to foster economic growth that creates jobs and improve infrastructure within the province.</p> <p>Job opportunities will be created by the proposed agricultural activities which supports economic growth within the area.</p> |

1.4 National Environmental Management Act 107 of 1998

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

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

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

1.5 Description of the project

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

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

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

2. DESCRIPTION OF IMPACT MANAGEMENT OUTCOMES

2.1 Impact Management Outcomes

The impact management measures described in this section have been informed by the independent environmental assessment of the activities conducted and to be conducted on the farm. These measures have been proposed to mitigate negative impacts and enhance the positive benefits of the project and to, ultimately, achieve the impact management outcomes:

1. AEONIK FARMS SEQUOIA (Pty) Ltd is operated in an environmentally and socially responsible manner;
2. The EMPr prescribes practical measures for the mitigation of impacts;
3. Roles and responsibilities for the environmental management and monitoring of the proposed activities are defined;
4. All employees and its contractors are aware of the environmental impacts of the activities, thus enabling them to take timeous precautions against environmental damage;
5. Pollution or similar events are mitigated effectively; and
6. Regulatory requirements are complied with throughout.

AEONIK FARMS SEQUOIA (Pty) Ltd has a legal obligation to comply with the EMPr and to ensure compliance by its workers and agents, where applicable.

The EMPr describes mitigation measures designed to minimise or eliminate the significant adverse impacts that may be caused by the operational activities. It shall form the basis for environmental management at the company. This EMPr should be considered dynamic, as it should be amended if conditions change or more information becomes available.

2.2 Management Statement

A commitment is required from the management in that they shall:

- Take into consideration the surrounding environment and neighbours;
- Always behave professionally on and off site;
- Ensure quality in all work done, both technical and environmental;
- Resolve problems and claims arising from damage immediately, to ensure an uninterrupted flow of operations;
- Read and understand this EMPr and use it for the benefit of all involved;
- Preserve the natural environment by limiting destructive actions on site and by using resources efficiently; and
- Continually improve their environmental management strategies.

3. Impact Management

This section forms the core of the EMPr as it provides a description of the proposed impact management actions by identifying the manner in which the impact management outcomes contemplated in section 2 will be achieved. These actions, outlined in Table 2, are shown for the establishment and operational phase throughout. It is the responsibility of the owner of the farm to ensure that adequate resources are allocated to the achievement of these actions. It is the responsibility of the site manager to ensure that these actions are implemented on a day-to-day basis and to verify compliance to the EMPr. The time period for the implementation of the EMPr will be throughout the lifetime of the farming activities, or until such time as the EMPr is amended as a result of an environmental audit or if significant activity-changes take place.

TABLE 2: MITIGATION MEASURES REQUIRED FOR ACTIVITIES ASSOCIATED WITH ESTABLISHMENT AND OPERATIONAL PHASE

| Aspect | Phase | Potential Impact | Activity | Actions to avoid, modify, remedy, control or stop action, activity or process causing pollution or environmental degradation | Recommended Monitoring Method | Frequency of Monitoring | Performance Indicator |
|---------------------|-------------------------------|-------------------------------------|--|--|---|---|--|
| Biodiversity | Establishment and operational | Spreading of invasive plant species | Clearance of vegetation for footprint of the agricultural area | Objective(s): <ul style="list-style-type: none"> • Elimination of invasive plant species. • Protection of indigenous vegetation of surrounding areas • Protection of fauna | Visual Inspection and yearly external environmental audit | On-going, continuous monitoring by farm manager during establishment and operation. | No invasive plant species within the perimeter of the site. |
| | | Clearing additional vegetation | | | | | Target(s): a) Only site A, B and C as indicated within the Layout Map should be considered for development. No other areas may be cleared of vegetation; |
| | | Loss of important species | | | | | |
| | | Loss and fragmentation of habitat | | | | | |

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| | | | | <ul style="list-style-type: none">b) Where possible, large trees must be retained on site;c) Spoil material may not be pushed into the natural habitats, buffer zones or riparian and wetland habitats.d) An Ecological Walkthrough must be undertaken prior to clearance activities and all important and protected species must be relocated commencement.e) Conserve all the natural habitats with high sensitivityf) Workers to be discouraged from killing animals and birds for relish;g) No staff member may be allowed to collect firewood or any other plant resources from surrounding vegetation. Any evidence of this must be followed up with prosecution and penalties levied on the company responsible for the establishment. Trees removed within the footprint of the agricultural area may be sold or donated during the establishment phase.h) Where alien invasive plants occur, they must be uprooted, cut and /or chemically treated. (Use only approved chemicals); | | | |
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| | | | | <ul style="list-style-type: none"> i) Implement an alien vegetation control programme; j) No wild animal may under any circumstance be handled, removed or be interfered with | | | |
| Air Quality | Establishment phase | Dust generation | <p>Clearance of vegetation</p> <p>Disturbance of soil</p> <p>Vehicle movement on and off site</p> | <p>Objectives:</p> <p>To minimise the impact of dust generated, on neighbouring land and road users</p> <p>Targets:</p> <ul style="list-style-type: none"> a) Speed limit must be enforced in all areas to reduce the levels of dust pollution. b) No refuse waste or vegetation are to be burned on the premises or on surrounding premises | Visual inspection and complaints received from neighbouring land users. | On-going, continuous monitoring by farm manager. | <p>No complaints from neighbouring land users</p> <p>No excessive dust generated during establishment activities</p> |
| Water | Establishment and operational phase | <p>Water pollution</p> <p>Irresponsible water use</p> | <p>Clearing of vegetation</p> <p>Use of pesticides</p> <p>Irrigation</p> | <p>Objectives:</p> <p>To minimise the impact on water resources and minimise water consumption</p> <p>Targets:</p> <ul style="list-style-type: none"> a) No activities may take place within the allocated buffer of the riparian and/or wetland area. | Visual inspection and monthly monitoring of water abstraction | Monthly by the farm manager | Water use within the allocation |

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| | | | | <ul style="list-style-type: none"> b) Conserve all the watercourses, riparian habitat and natural habitats with High sensitivity. c) Water use must be monitored and used sparingly. d) Use pesticides and fertilizer with care and according to specifications and prevent such materials from entering the watercourse; e) Ensure that there are no leaking water pipes or taps on the property. f) Provide water to Citrus trees according to their requirements and ensure that it is not exceeded. g) Management activities be focused on maintaining water quantity and quality and the integrity of natural habitat in the sub-catchment | | | |
| Sanitation and waste disposal | Establishment and operational phase | Soil pollution Environmental pollution | Personnel conduct | <p>Objectives:</p> <p>To prevent pollution caused by improper sanitation and waste storage and disposal</p> <p>Targets:</p> <ul style="list-style-type: none"> a) Littering on site and the surroundings areas are prohibited. b) Waste must be disposed, as soon as possible and not be allowed to stand on to decay, resulting in bad odours and attracting vermin. | Visual inspection | Daily by the farm manager | No littering on site or pollution caused by improper storage and disposal of waste |

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| | | | | c) All waste removed from site must be disposed at the municipal/permitted waste disposal site. | | | |
| Soil | Establishment and operational phase | Soil erosion Soil contamination | Heavy rain/storms increasing the possibility of erosion Use of pesticides during establishment and operation | <p>Objective(s):</p> <p>To minimise soil erosion and soil contamination with the use of pesticides.</p> <p>Target(s):</p> <p>a) Measures must be taken to prevent soil erosion. This can be achieved by means of using sandbags as a temporary measure or gabions on areas prone to erosion during the operational phase;</p> <p>b) Clearance of vegetation must be limited to the footprint of the agricultural area only. Areas cleared of vegetation must be rehabilitated immediately after the establishment phase is complete</p> <p>c) Measures to reduce the velocity of water, must be taken on areas prone to erosion</p> <p>d) Access roads used during the removal of vegetation, must be adequately rehabilitated after the establishment phase;</p> <p>e) Alternatives for the management of pests must be investigated. Only</p> | Visual inspections | Continuous site inspections, especially after heavy rainfall. | No erosion and soil contamination present on site |

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| | | | | approved pesticides and herbicides may be used for the management of pests | | | |
| All environmental aspects Health and safety | Establishment | Various environmental, Health and safety impacts. | Personnel conduct | Objective: <ul style="list-style-type: none"> • To ensure that personnel adhere to EMPr requirements • To ensure the health and safety of employees and surrounding landowners Target: <ol style="list-style-type: none"> a) Ensure that inductions are conducted, and all personnel have records that are up to date; b) Ensure that all training includes requirements of the EMPr. c) Take adequate precautions to ensure that fires are not started as a result of works on site. d) Do not permit any fires or open flames, especially during the dry season. e) Ensure that the site is equipped with adequate firefighting equipment. Take immediate steps to extinguish any fire, which may break out. f) No open trenches are permitted without the use of demarcation tape. | Visual inspection and inspection of records | On-going, continuous monitoring by farm manager. | No incidents recorded or reported. |

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| | | | | <p>g) Secure storage of materials on site particularly hazardous material e.g. chemicals and fuels.</p> <p>h) Do not store any fuel or chemicals under trees.</p> <p>i) Do not permit any smoking within 3m of any fuel or chemical storage area, or refuelling area.</p> | | | |
| Heritage | Establishment phase | Disturbance of heritage resources or artefacts | Possible excavation activities | <p>Objective: Protection of heritage resources</p> <p>Target:</p> <p>a) In the unlikely event that fossils are uncovered during construction then construction must cease within the immediate vicinity, a buffer of 30 m must be established, and a palaeontologist called in to inspect the finds. The palaeontologist must obtain a section 35(4) permit in terms of NHRA and Chapter IV NHRA Regulations, before any fossils are collected.</p> <p>b) If there are any new heritages resources are discovered during construction and operation phases of the proposed development, then a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to</p> | Visual inspection during excavation | Prior and during excavation | Protection of heritage resources if any is observed |

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| | | | | <p>inspect the findings at the expense of the developer.</p> <p>c) If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required at the expense of the developer. Mitigation will only be carried out after the archaeologist or palaeontologist obtains a permit in terms of section 35 of the NHRA (Act 25 of 1999).</p> | | | |
| Social | Establishment and operational phase | Employment | Employment opportunities | <p>Objectives:</p> <p>To ensure that employment opportunities and social benefits are maximised.</p> <p>Targets:</p> <p>a) Unskilled job opportunities should be afforded to local communities where feasible.</p> <p>b) Payment should comply with applicable labour legislation in terms of minimum wages.</p> | As and when basis. | Whenever new labour is hired. | Job and contracting opportunities are afforded where feasible. |