LORNAY
ENVIRONMENTAL CONSULTING

Environmental Management Programme

Prepared for:

Portion 2 of Farm Annex Klein Zout Rivier No. 39

13 March 2026

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DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

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1. INTRODUCTION

Lornay Environmental Consulting was appointed by Danie, herein referred to as an applicant, to compile this Environmental Management Programme (EMPr) which will be used to promote and ensure environmental monitoring and control during all phases (construction, operation and possible decommissioning) associated with the clearing of vegetation for the development of crop orchards such on Portion 2 of the Farm Annex Klein Rivier No. 39 in Napier.

The applicant commenced with clearance of approximately 7.4 hectares of indigenous vegetation with the aim of planting dryland crops. The property in question is located within agricultural zoned land, approximately 10 km north of the town of Napier.

These activities required an Environmental Authorisation (EA) in terms of NEMA before they may proceed, and the process being followed in terms of the National Environmental Management Act (NEMA, Act 107 of 1998) is a 24G Rectification process.

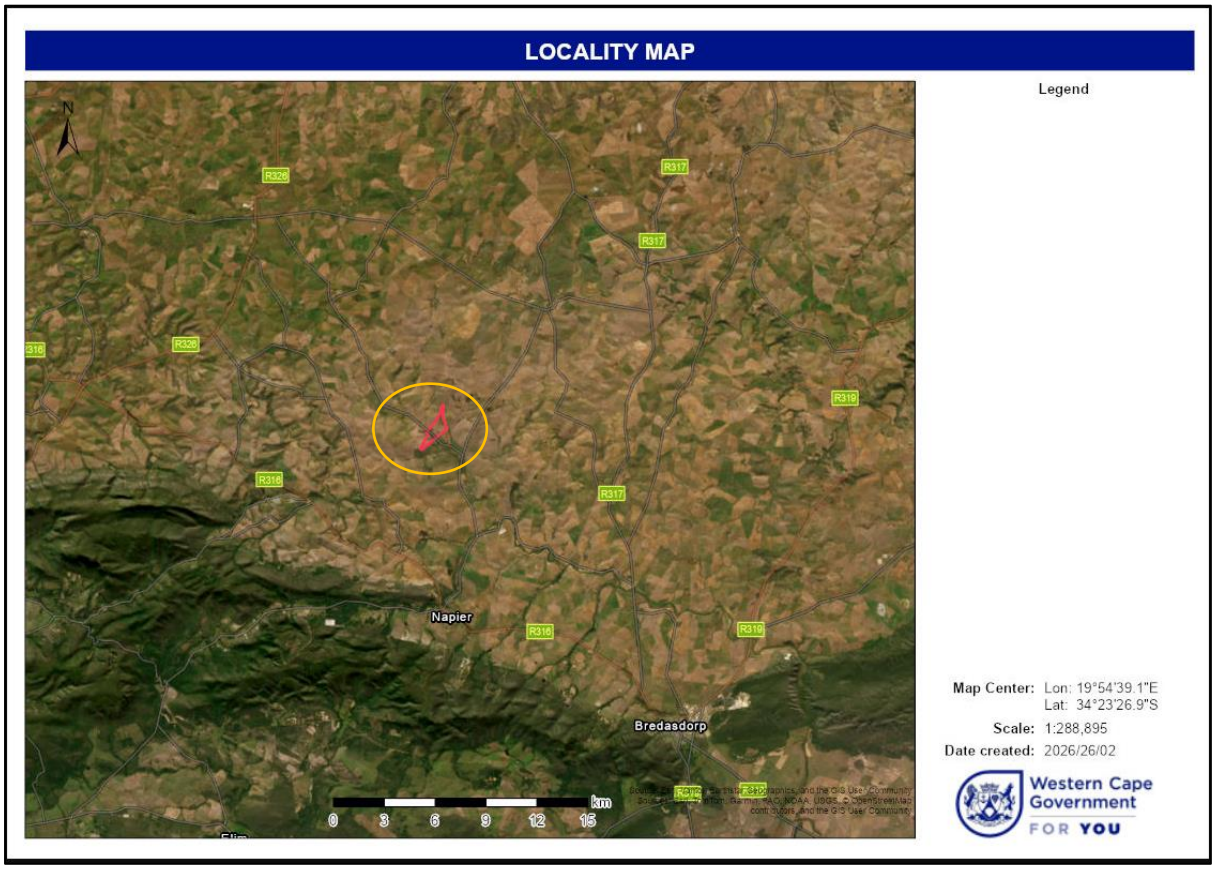

Figure 1-1. Location of the subject property.

This Environmental Management Programme (EMPr) serves as a guideline document for the operational phase of the agricultural activities on Portion 2 of the Farm Annex Klein Zout Rivier No. 39, located near Napier in the Cape Agulhas Municipality.

This EMPr describes mitigation measures and is prescriptive in nature, identifying specific individuals or organisations responsible for undertaking defined tasks during the agricultural operations. The primary objective

of the EMPr is to ensure that potential impacts on the environment during the operational phase are avoided, minimised, or appropriately managed.

The EMPr is intended to be a living document and may require updating from time to time as farming practices, site conditions, or legal requirements evolve. This EMPr has been compiled as part of the Section 24G Application submitted to the Competent Authority in terms of the National Environmental Management Act and is legally binding upon the landowner and operator.

2. Activity Description

The 7.4 ha area on Portion 2 of the Farm Annex Klein Zout Rivier No. 39 consists of land that was historically cleared and previously utilised for agricultural purposes. The area was last actively cultivated in approximately 2003 and thereafter remained fallow for an extended period of more than ten (10) years, during which natural regrowth occurred.

In February and March 2023, the previously cleared area was cleared of regrowth using an excavator. Similar agricultural preparation was undertaken in April 2024, when the area was ploughed and seeded with a cover crop. These activities were undertaken within the historically transformed footprint and did not extend beyond the previously cleared area.

Since May 2024, no further agricultural activities, including ploughing, planting, spraying, or soil preparation, or installation of the irrigation system have taken place within the area. The land has remained fallow pending the completion of the Section 24G Application.

The operational phase addressed in this EMPr relates to the ongoing management and cultivation of dryland crops within the cleared 7.4 ha footprint. All operational activities will be undertaken in accordance with the mitigation and management measures contained in this EMPr to ensure the protection of the surrounding environment and responsible agricultural practices.

Figure 1-2: Site plan.

3. OPERATIONAL ACTIVITIES

Portion 2 of the Farm Annex Klein Zout Rivier No. 39 is a well-established agricultural property situated within a predominantly agricultural landscape, with surrounding properties also utilised for crop production and related farming activities. Existing agricultural operations are currently undertaken within historically transformed and cultivated areas on the farm.

The operational phase will involve the continued cultivation and management of approximately 7.4 hectares of dryland crops within the previously cleared footprint. Dryland crop production relies on natural rainfall rather than irrigation and is consistent with the established agricultural practices in the area.

Operational activities associated with the dryland crop production will include:

- → Seasonal soil preparation, including tilling where necessary;
- → Planting of dryland crops in accordance with seasonal rainfall patterns;
- → Implementation of integrated pest and weed management practices;
- → Routine monitoring and maintenance of crop health;
- → Harvesting of crops using appropriate agricultural equipment; and
- → General maintenance of existing farm infrastructure supporting agricultural activities.

No expansion of cultivation beyond the assessed 7.4 ha footprint will occur, and all operational activities will remain confined to previously transformed areas. No irrigation infrastructure is required as the crops are dependent on natural rainfall.

3. KEY TERMS AND ABBREVIATIONS

24G	Section 24G for the correction of wrongful activities
CARA	Conservation of Agricultural Resources Act (Act No. 43 of 1983)
DEA&DP	Department of Environmental Affairs and Development Planning (Western Cape)
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECA	Environment Conservation Act (Act No. 73 of 1989)
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
NEMA	National Environmental Management Act (Act No. 107 of 1998)
NEM:BA	National Environmental Management Biodiversity Act (Act No. 10 of 2004)
NEM:WA	National Environmental Management Waste Act (Act No. 59 of 2008)
PPE	Personal Protective Equipment
SDS	Safety Data Sheets
SHE	Safety Health and Environmental

Competent authority - The Department of Environmental Affairs and Development Planning (DEA&DP)

Environmental Control Officer (ECO) - a suitably qualified person to be appointed by the Developer / Applicant, to oversee the implementation of the EMPr and environmental authorisation through the operational phase and into decommissioning (if applicable)

Environmental Management Programme (EMPr) - this document, approved by the competent authority, to control the implementation of the works on the site in such a way as to ensure that they do not result in undue or reasonably adverse impacts on the environment

General waste - Waste that does not pose an immediate hazard or threat to health or to the environment, and includes domestic waste, building and demolition waste, business waste and inert waste

Hazardous waste - Any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste, have a detrimental impact on health and the environment. Infectious mortalities are also considered hazardous

Project manager - Overall responsible and accountable person for the site during the construction, operation and decommissioning of the facility.

Project Management team - The responsibility of the EMPr implementation resides with this team. This team includes a Project Manager and appointed contractors and consultants.

Safety, Health and Environmental Officer (SHE Representative) - A representative from each contractor, appointed as a Safety Health and Environmental Officer, assisting the construction manager on Safety, Health and Environmental aspects of the project on the construction site.

Site Manager **–** the employee of the applicant responsible for the day-to-day control of all activities and operation on site, if applicable. In this instance the site manager is the erf owner.

4. ENVIRONMENTAL CONTROL ON SITE

4.1. Approach

The Table below illustrates the various approaches to be undertaken to manage potential scenarios as a result of the operation of the activity on site:

Table 1: Impact management

Avoidance	Avoiding activities that could result in adverse impacts and/or resources or areas considered sensitive.
Prevention	Preventing the occurrence of negative environmental impacts and/or preventing such an occurrence having negative impacts.
Preservation	Preventing any future actions that might adversely affect an environmental resource.
Minimisation	Limiting or reducing the degree, extent, magnitude or duration of adverse impacts through scaling down, relocating, redesigning and/or realigning elements of the project.
Mitigation	Measures taken to minimise adverse impacts on the environment.
Enhancement	Magnifying and/or improving the positive effects or benefits of a project.

Rehabilitation	Repairing affected resources, such as natural habitats or water resources.
Restoration	Restoring affected resources to an earlier (possibly more stable and productive) state, typically, 'background' or 'pristine' condition. These resources may include soils and biodiversity
Compensation	Compensating for lost resources, and where possible, the creation, enhancement or protection of the same type of resource at another suitable and acceptable location.

4.2. Organisational Structure and Responsibilities

The farm and subsequent operations are managed by the landowner.

Environmental Control Officer

The agricultural activities are already established and active. However, an Environmental Control Officer (ECO) may be required by the Competent Authority to conduct environmental audits, at a stipulated frequency, to determine the compliance with the conditions of the retrospective Environmental Authorisation and this document. This person can be in house.

5. ENVIRONMENTAL AWARENESS PLAN

It is important to ensure that any contractors and employees, new owners, managers or operators associated with the operation of the proposed activity receive the appropriate level of training and awareness to ensure that continual environmental due diligence and conservation is applied at all levels of operation. Employees, contractors and sub-contractors as well as the operator, must be made aware of their responsibilities in terms of relevant legislation, guidelines, as well as this EMPr and EA.

5.1. Aim of the Environmental Awareness Plan

→ Promote environmental education and conservation on site
→ Inform employees and any new contractors on the applicable environmental procedures and plans
→ Communicate mitigation and management measures which are to be implemented

5.2. Environmental Awareness Training and content

→ All personnel should undergo induction, which as a minimum should include Safety, Health and Environmental awareness.
→ All attendees should sign an acknowledgement register upon receiving and understanding the induction
→ Staff should be trained on the implementation of emergency procedures where applicable
→ Definitions as used in this EMPr should be provided
→ How and why environmental protection is necessary, should be explained
→ Management measures required to prevent environmental impacts should be outlined
→ Awareness should be made of emergency and spills response procedures

In this particular scenario, a general brief regarding general environmental principles such as reduce, reuse and recycle, as well as protection of flora and fauna, is beneficial. Identification of the required mitigation and management measures should also be communicated. Employees must be aware of areas to be farmed and

areas which must not be disturbed. Attention should be applied to possible fringe effects and impacts and caution must be applied to the edges of farmed areas, to prevent slow sprawl into new areas.

Environmental awareness should be implemented immediately and repeated at regular intervals and as required.

6. LEGISLATIVE REQUIREMENTS

A Section 24G process was applicable in terms of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) and the Environmental Impact Assessment (EIA) regulations (2014) (as amended). Appendix 4 of the NEMA EIA Regulations (GN. R982) sets out the minimum requirements for the drafting of an Environmental Management Programme (EMPr). This EMPr has been created in fulfilment of these prescribed requirements for the construction phase of the activity. The implementation of this EMPr will be a condition of approval of the Environmental Authorisation (EA). Failure by the applicant, to comply with this EMPr, will therefore constitute an offence, and the applicant and / or the appointed contractors can be held liable for penalties and / or legal action. It is therefore important that a copy of this EMPr be issued to each contractor, preferably at the appointment stage, in order to allow for the costs of implementing the EMPr, to be included in cost proposals. This will also ensure that the contractor is aware of his responsibilities prior to appointment and commencement. Each appointed contractor involved in the project, as well as the project manager (as applicable), will be required to sign for and thereby acknowledge contents of, the approved EMPr and therefore abide by the specifications of the document and any amendments thereto.

Other applicable legislation

The Constitution of The Republic of South Africa (Act 108 of 1996)

The Constitution of the Republic of South Africa states that everyone has a right to a non-threatening environment and that reasonable measures are applied to protect the environment. This includes preventing pollution and promoting conservation and environmentally sustainable development, while promoting justifiable social and economic development.

National Environmental Management Act (Act 107 of 1998)

The National Environmental Management Act (NEMA), as amended, makes provision for the identification and assessment of activities that are potentially detrimental to the environment and which require authorisation from the relevant competent authorities. NEMA is a National Act, which is enforced by the Department of Environmental Affairs (DEA). These powers are delegated in the Western Cape to the Department of Environmental Affairs and Development Planning (DEA&DP).

National Environmental Management: Biodiversity Act (Act 10 of 2004)

Chapter 4 of the National Environmental Management: Biodiversity Act, 2004 (NEMBA) deals with threatened and protected ecosystems and species. The need to protect listed ecosystems is addressed (Section 54). Section 73 deals with Duty of Care relating to invasive species, while Section 76(2) calls for development of invasive species monitoring, control and eradication plans by all organs of state in all spheres of government, as part of environmental management plans required in terms of Section 11 of NEMA.

National Environmental Management: Waste Act (Act No. 59 of 2008)

The National Environmental Management: Waste Act (NEM:WA) provides for specific waste management measures (disposal and storage) and the remediation of contaminated land.

National Environmental Management: Air Quality Act (Act No. 39 of 2004)

Section 32 provides provision for the control of dust, section 34 provides provision for the control of noise and section 35 provides provision for the control of offensive odours, all which may be experienced during the construction or operation of an applicable development.

Environment Conservation Act (Act No. 73 of 1989)

The Environment Conservation Act (ECA) provides provision for the prevention of littering by employees and subcontractors during construction and the maintenance phases of development.

Occupational Health and Safety Act (Act No. 85 of 1993)

Section 8 outlines the general duties of employers to their employees and section 9 outlines the general duties of employers and self-employed persons, to persons other than their employees.

Hazardous Substances Act (Act No. 5 of 1973)

This Act provides for the definition, classification, use, operation, modification, disposal or dumping of hazardous substances.

Conservation of Agricultural Resources Act (Act 43 of 1983)

The CARA aims to provide for the conservation of natural agricultural resources by maintaining the production potential of land, combating and preventing erosion and weakening or destruction of water resources, protecting vegetation and combating weeds and invader plant species. As with NEM:BA, alien invasive plant / weed species listed in terms of CARA must be controlled and/or removed. In the case of the operation of the development, the conservation of soil and water resources is applicable, in the sense that measures must be in place to avoid the pollution or degradation of these resources within the open space areas of the property.

7. Environmental Impacts and Mitigation measures

7.1. Terrestrial Biodiversity Impact Assessment

The vegetation type of the property is mapped as Central Ruens Shale Renosterveld, as per the National Vegetation Map (2024). This vegetation type is listed as Critically Endangered in terms of the Revised National List of Threatened Terrestrial Ecosystems (2022), due to extensive historical transformation for agricultural purposes within the Overberg region.

However, based on the findings of the specialist Terrestrial Biodiversity Impact Assessment, the vegetation present within the 7.4 ha cultivated area does not represent intact Central Ruens Shale Renosterveld. The specialist identified the vegetation within the cleared footprint as natural and secondary floodplain vegetation. The area has been previously cleared and cultivated, and as a result, the ecological integrity and conservation value of the vegetation within the cultivated footprint are considered to be low. The site is therefore considered to be ecologically transformed, and no intact remnants of natural Critically Endangered Renosterveld vegetation were confirmed within the actively cultivated footprint.

The specialist further identified No-Go areas within the property, based on habitat type and ecological sensitivity (**Figure 4).** These areas include:

- All remaining patches of Central Ruens Shale Renosterveld;
- Riparian vegetation and a 5 m buffer along the edges of rivers or streams.

Operational activities are restricted to previously transformed areas, while No-Go areas must remain undisturbed. By limiting agricultural activities to the approved footprint, the potential impacts on terrestrial biodiversity are minimised.

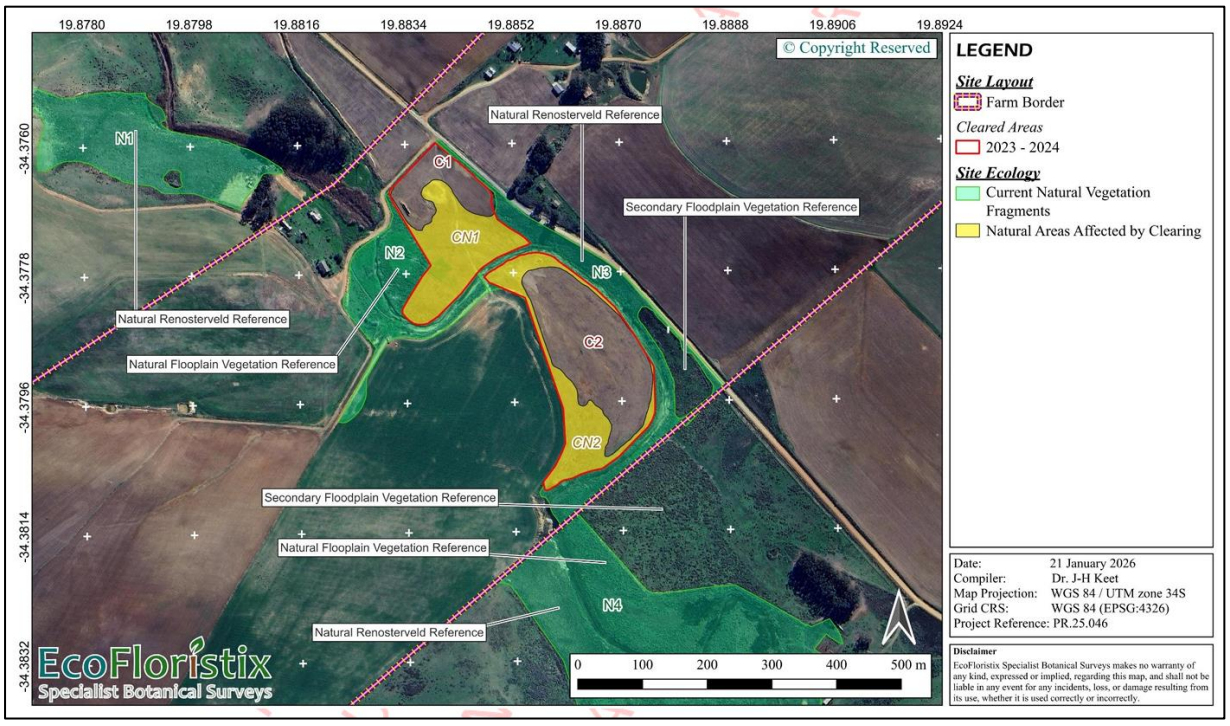

Figure 2: Natural vegetation fragments that occurred on-site at the time of surveying. These are areas that not at all been ploughed in the past based on satellite imagery. Also indicated are the specific reference areas (used as proxies and for comparison) as well as natural areas that were affected by the clearing activities. ***Source;*** (Keet, 2026).

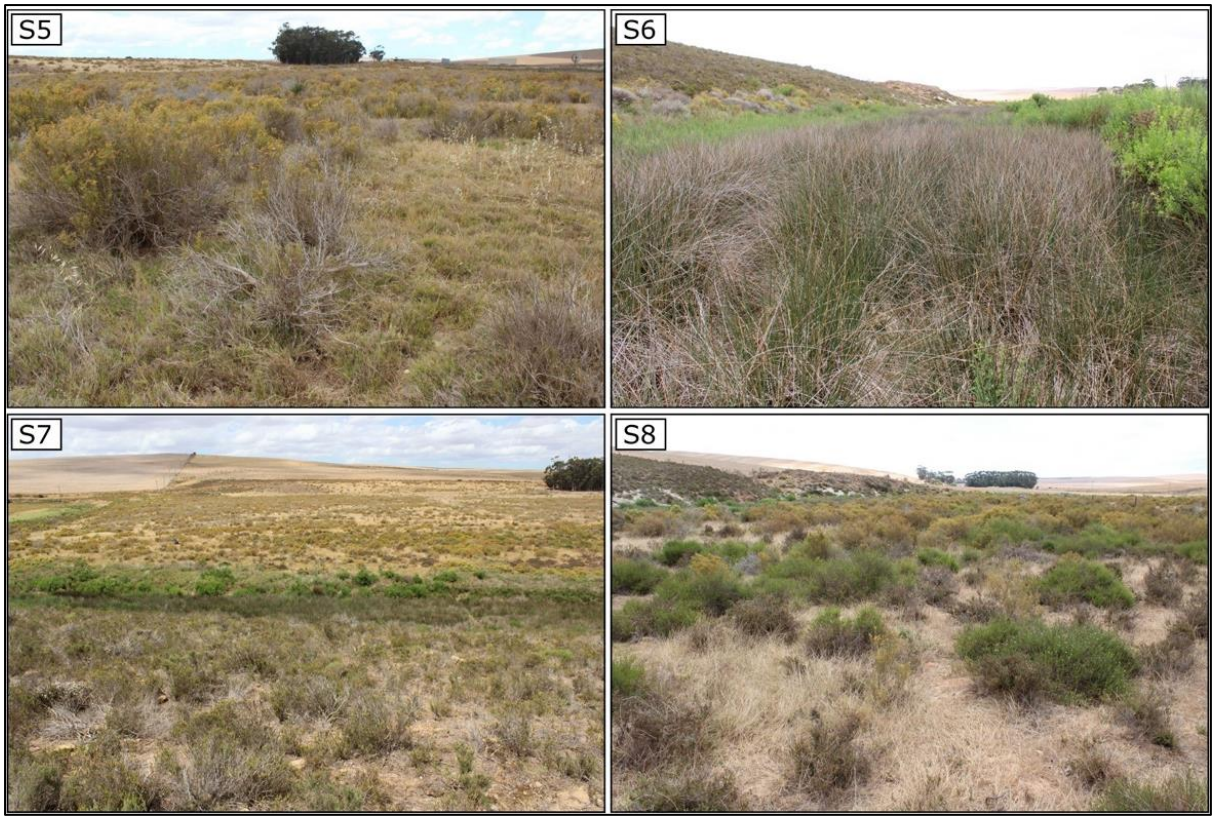

Figure 3: S5) Secondary floodplain vegetation. S6) Riparian vegetation (showing the dominance of Juncus krausii, the grey-green shrub in the centre). S7) View from a natural renosterveld patch (visible in the foreground) looking toward the riparian, natural, and secondary floodplain vegetation. S8) Natural floodplain vegetation. ***Source;*** (Keet, 2026).

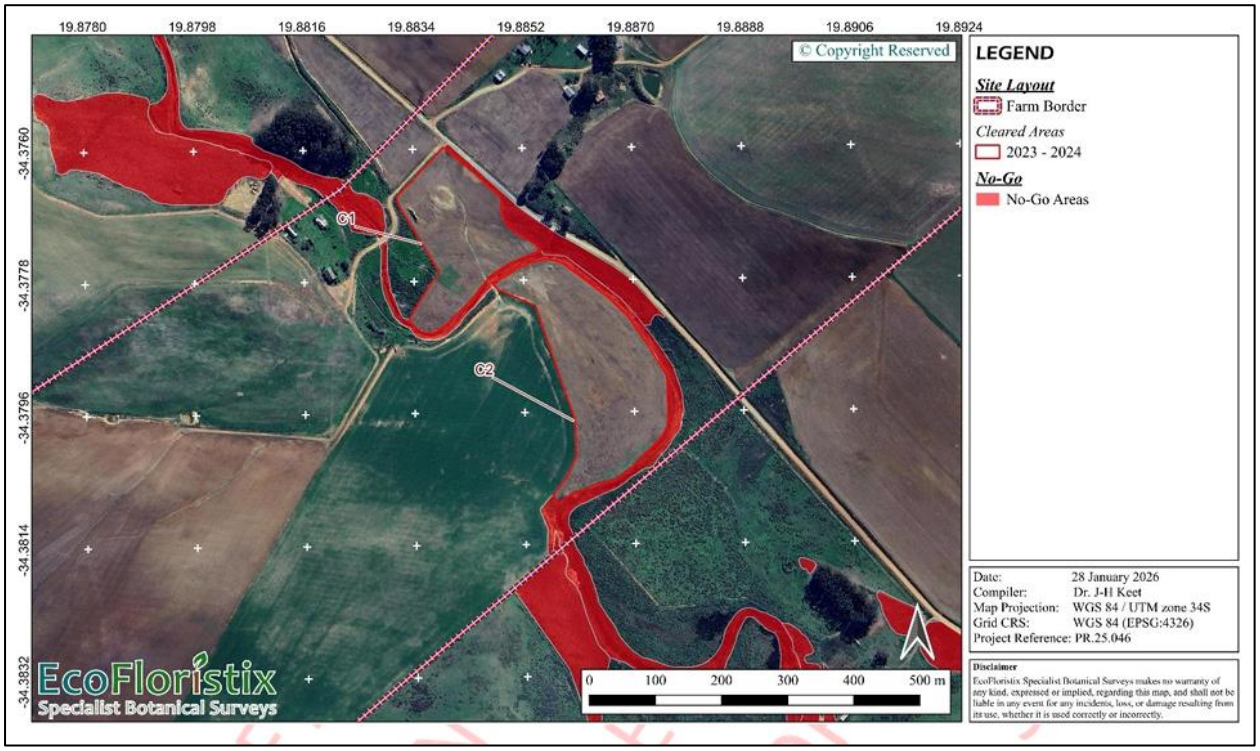

Figure 4: No-Go areas identified within the study area. ***Source;*** (Keet, 2026).

7.2. Terrestrial Impacts identified and mitigation measures

Potential impacts on plant communities, and SCC and/or protected plant species.

- → Any landowners must adhere to their legal obligations to actively eradicate and manage alien vegetation infestations present on the applicable and surrounding properties.
- → SCC and/or protected plant species should be avoided wherever possible. If individuals cannot be avoided, then a permit for their destruction must be obtained from the relevant local authority.
- → No plant species, whether native or exotic, should be brought into, or removed from, the study area, to prevent the spread of exotic or invasive species or the illegal collection of plants.
- → No plants may be translocated or otherwise uprooted or disturbed for rehabilitation or other purposes without express permission from the Contractor's EO or without the relevant permits.
- → Blanket clearing of vegetation must be limited to the proposed footprint, and only where necessary; no clearing outside of permitted areas may take place.
- → Clearing of vegetation should be minimized and avoided where possible.
- → Immediately rehabilitate all areas outside of the proposed development site that were disturbed and implement mitigation measures to prevent associated impacts from re-occurring.

Spread and/or establishment of alien and/or invasive species.

- ➢ IAPs, wherever present, must be cleared as per NEM:BA requirements where applicable and must not be allowed to spread.
- ➢ Clearing methods should aim to keep disturbance to a minimum and must be undertaken in accordance with relevant guidelines.
- ➢ Any area that is cleared of IAPs must receive regular follow-up treatments (preferably at least three follow-ups) to ensure that populations do not re-establish after such initial clearing efforts.
- ➢ Any chemicals/herbicides used during clearing efforts must strictly be used only in accordance with the manufactures guidelines.
- ➢ No planting or importing of any alien species to the site for landscaping, rehabilitation, or any other purpose should be allowed.

Reduced ability to meet conservation obligations and targets and Impacts on broad scale ecological processes.

- ➢ Avoid unnecessary damage to vegetation wherever possible.
- ➢ Any signs of erosion resulting from the project activities must be rectified immediately and monitored thereafter to ensure that there is no re-occurrence.
- ➢ All affected areas resulting from the proposed activities, and that are not part of the proposed activities, should be re-vegetated with locally occurring native species to bind the soil and limit erosion potential.
- ➢ Avoid No-Go areas wherever possible.

8. OPERATIONAL PHASE CONSIDERATIONS

The Operational Phase of this EMPr refers to the daily management activities that are required to ensure sustainability and the achievement of the principles and objectives of the development. The requirements are applicable to the proponent, all employees and all visitors to the property.

8.2. Botanical Management

Operational activities on Portion 2 of the Farm Annex Klein Zout Rivier No. 39 will primarily be confined to the 7.4 ha cleared footprint for dryland crop production. However, management of non-disturbed areas on the property is a critical component of protecting terrestrial biodiversity during the operational phase.

These non-disturbed areas are indicated as "No-Go" areas in **Figure 4** of this EMPr. They include zones mapped as high and very high sensitivity areas based on the on-site botanical assessment and mapping. These areas must be maintained in their natural state and must not be cleared, ploughed, grazed, or otherwise disturbed.

Mitigation Measures

Potential impacts on plant communities, and SCC and/or protected plant species.

- → Any landowners must adhere to their legal obligations to actively eradicate and manage alien vegetation infestations present on the applicable and surrounding properties.
- → SCC and/or protected plant species should be avoided wherever possible. If individuals cannot be avoided, then a permit for their destruction must be obtained from the relevant local authority.
- → No plant species, whether native or exotic, should be brought into, or removed from, the study area, to prevent the spread of exotic or invasive species or the illegal collection of plants.
- → No plants may be translocated or otherwise uprooted or disturbed for rehabilitation or other purposes without express permission from the Contractor's EO or without the relevant permits.
- → Blanket clearing of vegetation must be limited to the proposed footprint, and only where necessary; no clearing outside of permitted areas may take place.
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- → Immediately rehabilitate all areas outside of the proposed development site that were disturbed and implement mitigation measures to prevent associated impacts from re-occurring.

Spread and/or establishment of alien and/or invasive species.

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- ➢ Any chemicals/herbicides used during clearing efforts must strictly be used only in accordance with the manufacture's guidelines.
- ➢ No planting or importing of any alien species to the site for landscaping, rehabilitation, or any other purpose should be allowed.

Reduced ability to meet conservation obligations and targets and Impacts on broad scale ecological processes.

- ➢ Avoid unnecessary damage to vegetation wherever possible.
- ➢ Any signs of erosion resulting from the project activities must be rectified immediately and monitored thereafter to ensure that there is no re-occurrence.
- ➢ All affected areas resulting from the proposed activities, and that are not part of the proposed activities, should be re-vegetated with locally occurring native species to bind the soil and limit erosion potential.
- ➢ Avoid No-Go areas wherever possible**.**

Table 2. Activity specific impacts and mitigations

IMPACT	DESCRIPTION	MITIGATION	MONITORING	RESPONSIBILITY
Botanical Impact	Potential impacts on plant communities, and SCC and/or protected plant species.	- Any landowners must adhere to their legal obligations to actively eradicate and manage alien vegetation infestations present on the applicable and surrounding properties. - SCC and/or protected plant species should be avoided wherever possible. If individuals cannot be avoided, then a permit for their destruction must be obtained from the relevant local authority. - No plant species, whether native or exotic, should be brought into, or removed from, the study area, to prevent the spread of exotic or invasive species or the illegal collection of plants. - No plants may be translocated or otherwise uprooted or disturbed for rehabilitation or other purposes without express permission from the Contractor's EO or without the relevant permits. - Blanket clearing of vegetation must be limited to the proposed footprint, and only where necessary; no clearing outside of permitted areas may take place. - Clearing of vegetation should be minimized and avoided where possible. - Immediately rehabilitate all areas outside of the proposed development site that were disturbed and implement mitigation measures to prevent associated impacts from re-occurring.	→ Responsible site manager / foreman is to check areas on a regular basis for adhoc clearing of indigenous areas or sprawl into indigenous areas.	Applicant ECO Site Manager
	Spread and/or establishment of alien and/or invasive species.	- IAPs, wherever present, must be cleared as per NEM:BA requirements where applicable and must not be allowed to spread.	→ Responsible site manager / foreman is to check areas on a regular basis for adhoc clearing	Applicant ECO Site Manager

		- Clearing methods should aim to keep disturbance to a minimum and must be undertaken in accordance with relevant guidelines. - Any area that is cleared of IAPs must receive regular follow-up treatments (preferably at least three follow-ups) to ensure that populations do not re-establish after such initial clearing efforts. - Any chemicals/herbicides used during clearing efforts must strictly be used only in accordance with the manufacture's guidelines. - No planting or importing of any alien species to the site for landscaping, rehabilitation, or any other purpose should be allowed.	of indigenous areas or sprawl into indigenous areas.	
	Reduced ability to meet conservation obligations and targets and Impacts on broad scale ecological processes.	- Avoid unnecessary damage to vegetation wherever possible. - Any signs of erosion resulting from the project activities must be rectified immediately and monitored thereafter to ensure that there is no re-occurrence. - All affected areas resulting from the proposed activities, and that are not part of the proposed activities, should be re-vegetated with locally occurring native species to bind the soil and limit erosion potential. - Avoid No-Go areas wherever possible. -	→ Responsible site manager / foreman is to check areas on a regular basis for adhoc clearing of indigenous areas or sprawl into indigenous areas.	Applicant ECO Site Manager
Impact on Non-perennnial drainage line	A non-perennial drainage line traverses between the cleared portions of the site, and this drainage line include a 5m buffer from its edge is identified as a No-go area and	- Maintain a minimum 5 m buffer from the edge of the drainage line. - No ploughing, planting, dumping, storage, or vehicle access within the buffer area. - Prevent runoff, sedimentation, and pollution into the drainage line.	→ Monitor for erosion, encroachment, or disturbance.	Applicant ECO Site Manager

	therefore must not be impacts upon.	- Maintain natural vegetation within the buffer area. - Implement erosion control measures where necessary.		
Soil degradation and erosion	Soil erosion and degradation due to agricultural activities, particularly during heavy rainfall or improper soil management	- Avoid ploughing during high erosion risk periods. - Maintain vegetation cover where possible. - Implement contour ploughing where appropriate. - Immediately rehabilitate eroded areas.	→ Monitor soil condition during operational phase. → Inspect for erosion after rainfall events.	Applicant Site Manager
Impact on surrounding biodiversity due to operational activities	Disturbance to surrounding fauna and flora, watercourses due to noise, vehicles, and human activity.	- Restrict vehicle movement to designated access routes. - Prevent unnecessary disturbance of surrounding natural areas. - Prohibit hunting, trapping, or harming wildlife on site. - Educate workers regarding environmental sensitivity.	→ Monitor site activities regularly. → Record and address incidents of non-compliance.	Applicant Site Manager
Socio-economic Impact – Job creation and skills development	Job creation and skills transfer during operation Risk – labour not sourced locally, therefore local benefit and skills transfer is limited	-Ensure labour and contractors are sourced locally as far as possible -Encourage educational opportunities to employees **TIMEFRAME:** Actions to be implemented immediately	-Ensure employees are sourced locally as far as possible by checking staff appointments -Encourage the use of local service providers as far as possible	Applicant Site Manager

7.2. General operational impacts and requirements

7.2.1. Health and Safety
Responsibility – Owner / operator

Correct Personal Protective Equipment (PPE) must be worn at all times by the personnel on site. Personnel must be trained on the use of PPE. Each contractor should employ their own Safety Officer to monitor the safety conditions during the operations. Suitable warning and information signage should be erected. The handling of hazardous materials should only be done by trained personnel. Safety Data Sheets (SDSs) must be readily available for all hazardous substances on site and employees should be aware of the risks associated with any hazardous materials used. All provisions of the Occupational Health and Safety Act (Act No. 85 of 1993) must be complied with. In the event of an emergency relating to a hazardous substance, procedure details in the SDSs should be immediately implemented.

7.2.2. Fire risk management
Responsibility - Owner / operator
A Fire Officer should be identified, who shall be responsible for ensuring immediate and appropriate actions in the event of a fire and shall ensure that employees are aware of the procedure to be followed. The Fire Officer shall ensure that there is basic fire-fighting equipment available on site at all times. Any fires should be reported to the fire officer immediately. Smoking is not permitted on site.

7.2.3. Fuels and hazardous materials
Responsibility - Owner / operator

Fuels and flammable materials are to be suitably stored, inside the contractor's camp or as appropriate. Impervious materials are to be used in these storage areas to prevent contamination of the ground in the event of spillages or leaks. Quantities of fuels and hazardous materials stored on site should be appropriate to the requirement for these substances on site.

Bulk fuel depots, if required, should be placed within bunded areas to prevent soil contamination in the event of leaks of spills. Bunded area are to have a holding capacity equal to 110% of the largest fuel container. The relevant Health and Safety requirements for the hazardous materials and fuels should be kept on site in the event of an emergency.

7.245. Emergencies protocol
Responsibility - Owner / operator

Fire: The fire officer should be notified of any fires. Employees should be aware of the procedure to be followed in the event of a fire.

Hydrocarbon (fuel & oil) leaks and spillages: Employees should be aware of the procedure to be followed for dealing with spills and leaks, which shall include notifying the project manager / contractor. All vehicles leaking fuel or other liquids should immediately be removed to the maintenance area and repaired. In the event of a hydrocarbon spillage, the soil must be excavated and treated and adequately disposed. The necessary materials and equipment for dealing with spills and leaks are present on site at all times. The clean-up of sewerage spills and any damage caused by the spill or leak shall be for the applicant's account. The applicant shall ensure that the Health and Safety officer is available for the duration of the construction period.

Raw Sewerage spills (from emptying of sewage tank / package plant if required): Employees are to be aware of the procedure to be followed for dealing with spills and leaks. All the necessary materials and equipment for

dealing with spills and leaks are present on site at all times. The clean-up of sewerage spills and any damage caused by the spill or leak shall be for the Applicant's account or contractor collecting the raw sewage.

7.2.5. Equipment maintenance
Responsibility - Owner / operator

All mechanical equipment and work vehicles which are present on site, are to be stored, serviced and refuelled only at designated areas. Within these areas drip trays and other impervious materials, for example plastic or metal sheeting, must be used to prevent contamination of the ground in any way.

7.2.6. Erosion Control
Responsibility - Owner / operator

Action should be taken to prevent erosion of soils on site. Should any erosion be detected on site, the cause of such erosion should be identified, and appropriate remedial action must be immediately implemented.

7.2.7. Architecture / Design
Responsibility - Owner / operator

Dwellings and infrastructure to comply with bylaws. Owners should aim to ensure buildings are in line with architectural norms for the area and do not have a negative contribution to the area as a whole. No expansions should be permitted without the required approvals.

7.2.8. Water Use
Responsibility – Owner / operator

The following water saving principles are recommended for the site and can be implemented over time or as and when current infrastructure requires replacing:

- Rainwater storage tanks can be installed to collect runoff rainwater. Rainwater tanks should be installed in such a way as to prevent visual or landscape intrusion
- Shower and wash basin taps should be fitted with flow reduction devices, aerators and motion sensors to maximise water conservation and reduce wastage
- All internal and external taps on site should be regularly inspected and maintained to prevent water wastage through drips and leaks
- All new toilets should be fitted with a dual flush system, reduced flow should be implemented on existing infrastructure if dual flush is not possible
- Grey water from showers, baths, basins and washing machines, should be collected or redirected for reuse (gardening, outside washing etc.)
- Endemic and indigenous plants should be used for gardens and landscaping to minimize water demand i.e. water wise landscaping
- Should irrigation be required, these should be on timed systems and active at low evaporation hours (early morning, late evening)
- Drains should be fitted with grease traps which remove oils and solids from waste water, to improve the quality of the effluent waste water for reuse
- Dry brushing and / or sweeping should be used in preference to water cleaning, where possible (cleaning pathways, machinery etc.)
- Alien invasive vegetation should be removed from the property to promote healthy and functioning rivers, ground water and wetlands, where applicable
- Efficient water use habits should be encouraged across the property

- Sewerage systems should be regularly monitored and maintained to prevent leaks and pollution of groundwater

7.2.9. Electricity

The following electrical saving principles are recommended:

- Regular light bulbs to be replaced with energy saving bulbs in all structures
- The use of solar power should be maximised as far as possible
- Energy saving geysers should be installed
- Solar water heaters should be installed
- Proper insulation should be used on all new structures and renovations, in order to reduce the need for heating and cooling of dwellings
- Programmed lighting should be implemented to prevent lights being left on unnecessarily

7.2.10. Sewerage

All three effluent discharge pipelines should be removed. Effluent from the package plants should be tested on a regular basis to ensure that it meets the Department of Water and Sanitation (DWS) standards.

7.2.11. General waste and refuse

General waste is transferred to the municipal waste site as required. Waste minimisation strategies should be implemented through avoidance, reduction, reuse, recycling, recovery, treatment or responsible disposal. On site bins should be animal and weatherproof. Refuse areas should be secure and screened to avoid visual impacts. Refuse areas should provide for waste sorting (tins, glass, paper etc.). No waste should be stored or disposed of on site.

7.2.12. Site maintenance and repairs

Renovations and maintenance should be conducted in line with a maintenance schedule to ensure that renovations are done effectively with reduced wastage. When using paints, cleaners and other solvents for maintenance, preference should be made for environmentally friendly products, water-based paints and avoidance of harsh chemicals. No building materials or products used during renovations should be disposed of on site.

7.2.13. Alien vegetation management

Alien vegetation management and clearing must take place as currently and as per the site-specific alien vegetation management plan. Follow up clearing must take place on a regular basis.

7.2.14. Internal roads and footpaths

No new roads are permitted without the necessary approvals.

7.2.15. *Fauna*

All wild fauna on site must be protected. No feeding of wild animals should be allowed, and edible refuse should be appropriately disposed of. No poisons or traps should be used as far as possible. Professional help, such as Cape Nature, should be sort for 'problem' animals.

8. NON-COMPLIANCE

The Environmental Authorisation (EA) stipulates that, *"Non-compliance with a condition of this Environmental Authorisation and the EMPr may render the holder liable to criminal prosecution."* It is therefore important that the conditions are adhered to as outlined in the EA and EMPr. A Penalties scheme can be used during construction for transgressions. A retrospective Environmental Authorisation will be applicable to this case.

Transgressions relate to actions by the contractor whereby damage or harm is inflicted upon the environment or any feature thereof and where any of the conditions or specifications of the EMPr and EA have been infringed upon. In the instance of environmental damage, the damage is to be repaired and rehabilitated using appropriate measures, as far as possible and as directed by appropriate specialists, if required. These remedial actions are for the account of the contractor or other guilty party as identified by the Project Manager, applicant or ECO. Where non-repairable damage is inflicted upon the environment or non-compliance with any of the EMPr / EA obligations is registered, the Contractor may face a monetary penalty to an amount specified by the Project manager / ECO. The Project manager / ECO reserves the right to implement a first offence warning.

If excessive infringement with regard to any of the specifications is registered, the applicant / project manager, reserves the right to terminate the contractor's contract.

9. MONITORING

The monitoring of works on site is necessary to demonstrate compliance with the specifications of the EMPr and EA and to allow for problems or issues of non-compliance to be identified and remedial actions implemented.

Monitoring should include visual checks by the operator / management on a daily basis or at a frequency considered appropriate. The implementation of regular monitoring will ensure that environmental impacts can be detected early and remedial action implemented.

10. ENVIRONMENTAL AUDITS

The purpose of auditing is to determine and monitor compliance with the EMPr and EA and measure its effectiveness in mitigating environmental impacts. In terms of Regulation 34 of the NEMA EIA Regulations, 2014, the holder of the EA must conduct environmental audits in order to determine compliance with the conditions of the EA and EMPr. Environmental Audit Reports should be submitted to the Competent Authority as stipulated in the EA. The audit reports should be prepared by an independent person. The audit report should also provide recommendations regarding the need to amend the EMPr.

The objective of the environmental audit report is to:

- → Report on the level of compliance with the conditions of the EA and the EMPr
- → Report on the extent to which the avoidance, management and mitigation measures outlined in the EMP, achieve the objectives and outcomes of the EMPr
- → Identify and assess any new impacts and risks as a result of the activity
- → Evaluate the effectiveness of the EMPr
- → Identify shortcomings in the EMPr
- → Identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr

An environmental audit report should contain the following:

- → Details and expertise of the independent person who prepared the environmental audit report

- → A declaration that the auditor is independent
- → An indication of the scope of, and the purpose for which, the environmental audit report was prepared
- → A description of the methodology adopted in preparing the environmental audit report
- → An indication of the ability of the EMPr to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity as well as to ensure compliance with the provisions of environmental authorisation and EMPr.
- → A description of any assumptions made, and any uncertainties or gaps in knowledge
- → A description of any consultation process that was undertaken during the course of carrying out the environmental audit report, if required
- → A summary and copies of any comments that were received during any consultation process
- → Any other information requested by the competent authority.

Environmental audits are not likely to be undertaken for the current operational activities due to the nature of the activity.

11. CONCLUSION

An EMPr has been developed as part of the 24G process to ensure that mitigation and management measures are enforced during the operational phase of the activity, and that the conditions of the EA are upheld. The EMPr should guide all phases of the project to minimize possible negative impacts and assign responsibility for environmental controls. The EMPr provides a tool to recognise the needs of the environment and is intended to be utilised in conjunction with the Environmental Authorisation.

12. DECLARATION OF ACCEPTANCE

I, _____ (name), representing _____ (company name), have read and understood the above Environmental Management Programme and hereby acknowledge its contents and requirements as a framework for my company's environmental performance during the applicable development.

Signed: _____ Date: _____