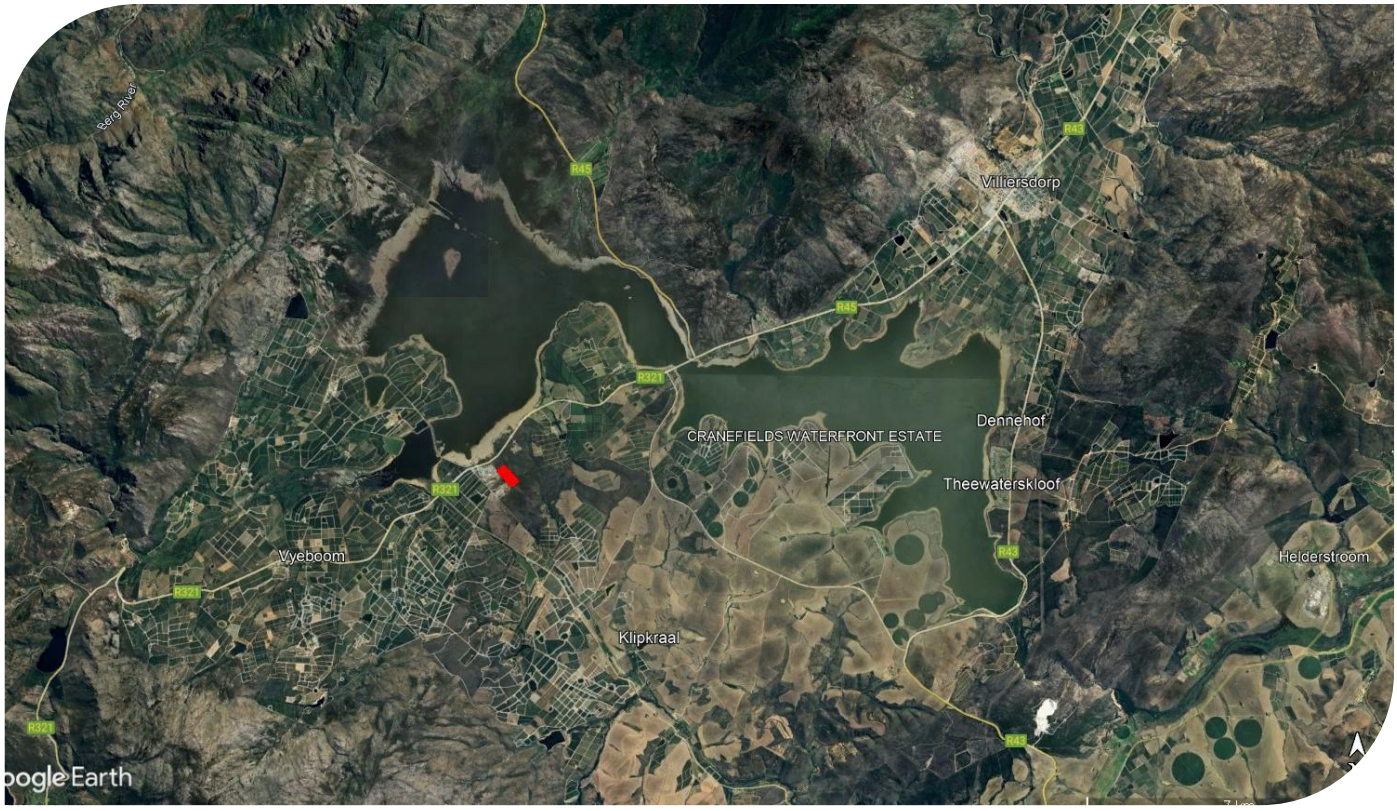
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Environmental Management Programme

UNAUTHORISED CLEARING OF INDIGENOUS VEGETATION ON PORTION 22 OF KLIPFONTEIN FARM 82, VILLIERSDORP



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KEY TERMS AND ABBREVIATIONS

Auditing - A systematic and objective assessment of an organization's activities and services conducted and documented on a periodic basis to a predetermined standard.

Contractor –

(i) the main or specialised contractors as engaged by the Owner from time to time for the execution of the works, including all sub-contractors appointed by the main contractor of his own volition for the execution of parts of the works;

(ii) any other contractor from time to time engaged by the Owner directly in connection with any part of the Works which is not a nominated subcontractor or a subcontractor to the main contractor.

Conservation Stewardship - CapeNature works in partnership with private landowners, communities, agricultural businesses and other stakeholders to ensure biodiversity survives in a changing climate outside protected areas with tangible benefits to the local communities and shareholders. As most of the province's biodiversity is in private ownership, CapeNature initiated the Biodiversity Stewardship programme in 2003. This programme facilitates conservation on privately owned land by setting up agreements between the landowners and CapeNature. Landowners undertake to protect and manage their properties or parts thereof according to sound conservation management principles. CapeNature undertakes to support this management by providing advice, management plans and assistance in planning invasive alien species clearing and fire management schedules. It also allows for the private landowner to benefit more from the biodiversity through ecologically sensitive income-generating avenues such as eco-tourism or green labelling of agricultural produce (e.g. Business and Biodiversity Initiatives).

Council – the local authority, Theewaterskloof Local Municipality, its successors in title or assigns.

Department of Environmental Affairs and Development Planning (DEA&DP)– the provincial authority for sustainable environmental management and integrated development planning.

Developer/ Owner/Applicant – Cropmax Business Trust

Environmental Management Programme (EMPr) an environmental management tool used to ensure that undue or reasonably avoidable adverse impacts of the construction, operation, and decommissioning of a project are managed, and that positive benefit of the projects are enhanced.

Environmental Control Officer (ECO) – a suitably qualified environmental consultant to be appointed by the Owner to oversee the implementation of the EMPr until the completion of works on the site.

National Environmental Management Act (Act 107 of 1998, as amended) (NEMA)– national legislation that provides principles for decision-making on matters that affect the environment.

National Water Act (NWA) – national legislation that provides principles for decision making on matters that relate to watercourse/water use/water bodies.

Property – Portion 22 of Farm Klipfontein NO. 82

Site - Area where the proposed development will take place

Workdays – the days of the week excluding Sundays and public holidays.

SECTION 1: CONTEXTUAL INFORMATION

1.1. Project Background

This report aims to supply an Environmental Management Programme (EMPr) for the undertaken and proposed activities on Portion 22 of Klipfontein Farm 82, Villiersdorp. The property is located 14 km southwest of Villiersdorp, off the R321, within the westernmost section of the Riviersonderend River Valley directly south/southwest of the Theewaterskloof Dam (Figure 1).

In 2017, the previous owner undertook the clearing of an historic trench and the digging of additional trenches to drain a portion of the site. Partial rehabilitation was undertaken on site along the new trenches. The property was subsequently sold in 2023, after which the new owners, *Cropmax*, partially cleared out the remaining trenches that had not rehabilitated and cleared an area of approximately 1.5 ha of indigenous vegetation (Figure 2). Additionally, *Cropmax* commenced with the construction of a 0.25 ha concrete platform on a portion of the cleared area. The hardened surface is to be expanded and will serve as a logistics center for *Cropmax* topark trucks and for the storage of fruit packing pallets during season. The site is ideally located adjacent to the IdeaFruit packing shed and is located off the R321 within the Agricultural hub of Vyeboom.

In terms of historical aerial imagery, the area has been subject to ad hoc disturbances and the steady expansion of agriculture and agricultural supportive services overtime. In 1989 the existing packshed developed to the west and the existing school to the east of the site. A small dam (SE of the application area) was constructed on site which was used by farm workers for subsistence farming post 1989. The site was officially formed in 1992 as a 10-ha subdivision, with a purpose. Much like the similar size portions to the west, that fulfil a supportive role to agriculture.

In 1997 the packshed development to the west is in operation and a road is constructed to the west of the site as a result of construction commenced on the 'hill' for staff housing. An additional road is visible across the property

from east to west. This coincides with an electrical powerline servitude crossing the site as shown as "XY" on the SG Diagram. Furthermore, it is understood that excavations for a water pipeline were undertaken along this line. This is evident in the first colour aerial image (DWS) available which shows the extent of the servitude and the excavations undertaken of what is understood to be a channel for a water pipeline which bisects the site. Several new roads traverse the area during this time as well as a power line servitude. Furthermore, the road and staff housing is formalised and complete to the south (on the hill). A stormwater canal running parallel on both sides of the road from south to north is clearly visible.

It is our understanding that the position of the stormwater canal on site moved over time, initially the stormwater canal was ±25 m from the road on the subject site (note 2004 Aerial Image onwards), in later years a new canal appears much closer to the road (visible from 2012 onwards). Both these canals drained the site and the stormwater from the developed areas (in the west). Water was initially directed along the western side of the road, however, at some point, stormwater was also directed to the eastern side of the road and onto the site, resulting in wetter conditions over the years. This is clearly visible from 2004 onwards on aerial photos where a dark green wet area is visible, in the vicinity of a sump constructed (pre-2009) on the site to facilitate stormwater from the west.



Figure 1: Google Earth satellite image showing the location of the property (red area).

This EMPr describes management and mitigation measures in detail, and is prescriptive, identifying specific individuals or organisations responsible for undertaking specific tasks to ensure that environmental impacts resulting from the operation of the agricultural fields are minimised. This EMPr is an open-ended document and information gained during on-going monitoring of procedures on site could lead to changes in the recommendations and specifications of this document.

This document forms an agreement between the DEA&DP and the Applicant/Landowner that the environmentally sensitive features on the site will be suitably protected during the construction and operation of the development.

Summary of proposed development

Completed (Figure 2):

- Clearing of ±1.5 ha indigenous vegetation;
- Construction of a 2500 m^2 concrete platform;
- Clearing out of two drainage trenches (historic trench 1(west) and trench 2 (central)); and
- Establishment of a primary entrance (with concrete support for electric gate over trench).

To be completed (Figure 3):

- The expansion of the concrete platform by an additional 2500 m^2.
- An area around this platform will be formalised in the form of G5 compaction for the road and truck movement with a ±1.5m buffalo grass buffer around the hardened area to prevent run-off/ erosion;
- Rehabilitation of the Wetlands 50m buffer zone (in accordance with a Rehabilitation Plan);
- Moving the central trench (trench 2) and reconstructing it outside the wetlands 50m buffer zone in the form of a swale;
- Planting buffalo grass along the edge of the swales to prevent edge erosion;
- Upgrading the trench crossing (trench 1) for the primary entrance to ensure the structure will not result in erosion; and
- Constructing a small storm water retention area in the northwestern corner of the property.



Figure 2: The current site layout showing where the completed activities have taken place and the location of the wetland and it's 50 m buffer.

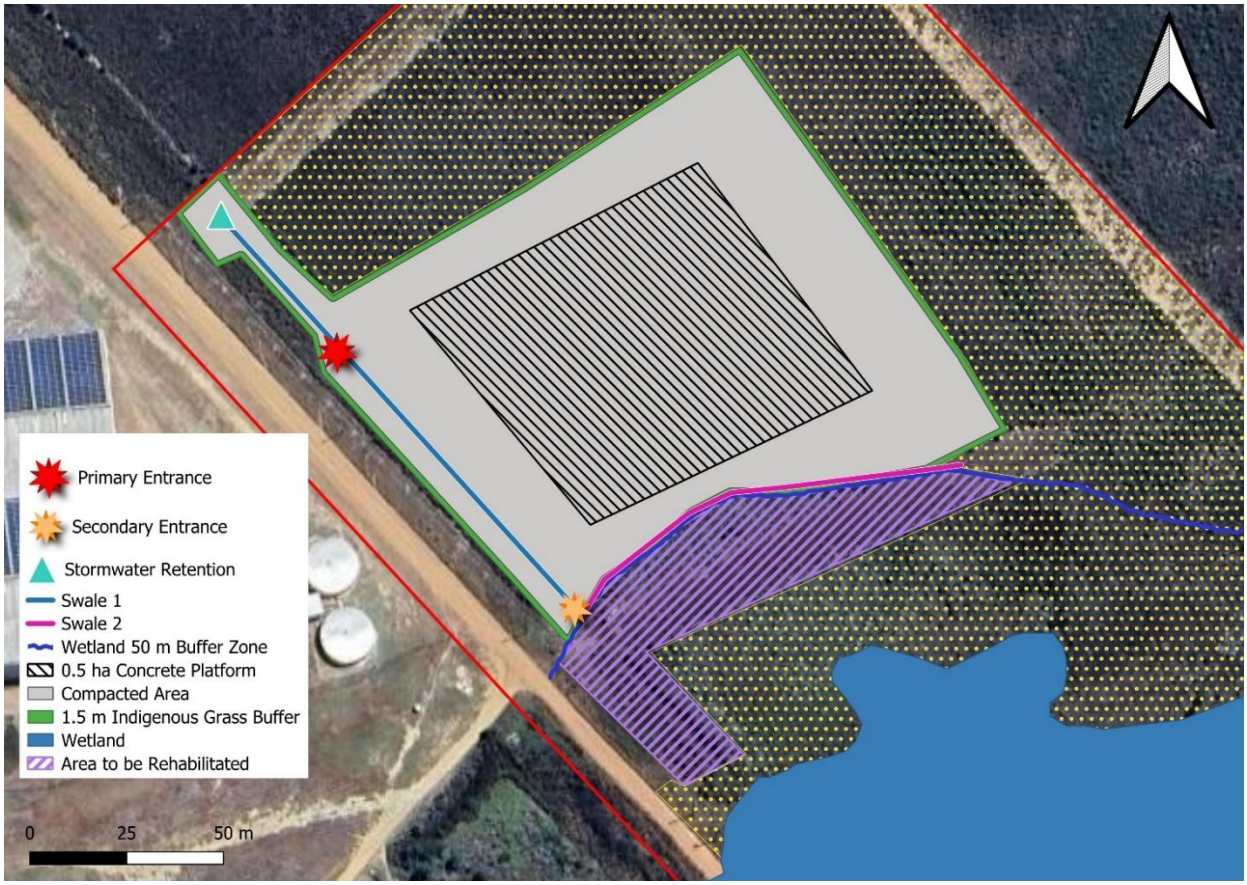


Figure 3: Wetland buffer zone rehabilitation and proposed drainage channels (swales).

1.2. Purpose of the EMPr

The purpose of an EMPr is to ensure that the environmental impacts associated with the proposed activities are managed, mitigated, and kept to a minimum for the entirety of the project life cycle. In general, an EMPr can consist of the following phases: planning & design; pre-construction activities; construction activities; operational activities and rehabilitation &/or decommissioning. However, the need to include all the above phases depends on the scale and scope of each individual project.

The clearing of vegetation, establishment of drainage trenches and the partial establishment of a concrete platform has already taken place on Portion 22 of Klipfontein Farm 82. While the Planning & Design and Construction Phases have been largely completed there are some construction related work still to be undertaken in the form of expanding the hardened platform and realigning the central trench. The current EMPr addressed the construction component and focusses on the operational phase of the development and is intended to guide operational aspects in line with relevant legislative requirements and the recommendations made by the specialist and/or consultant(s) as applicable. In addition, the botanist and freshwater ecologist have recommended mitigating measures to reduce the current negative impact which include rehabilitation of selected areas.

1.3. Status of the EMPr

The EMPr must form part of all contractual documents for this project. The Environmental Authorization ascribes legal status to the EMPr and any subsequent amendments thereto. The EMPr includes all relevant documentation within this report and/or referred to within it. The approval of the EMPr by DEA&DP will require that the applicant/ landowner and all appointed contractors must comply with the requirements therein. Any amendments/ changes/ upgrades to the EMPr will require submission to and approval by DEA&DP.

1.4. Comment to the EMPr

The EMPr forms part of the contract identifying and specifying the procedures to be followed by all contractors and employees of the facility to eliminate or reduce adverse impacts of the works on the environment. Should a contractor or employee persistently fail to observe the provisions of the EMPr, the Environmental Control Officer (ECO) can recommend that the employee be removed from the site. Should the owner or employee persistently fail to observe provisions of the EMPr, the ECO should notify the relevant authority for a compliance audit.

Copies of the EMPr will be made available to all senior personnel on site, who will be required to familiarize themselves with the contents of the document and to follow procedures accordingly.

The EMPr will include goals and objectives set to achieve the required environmental standards. The S24G report identified issues that will have to be addressed in the operational phase to ensure mitigated impact on the environment. The landowner will be responsible for the overall implementation of the EMPr.

NOTE: This EMPr incorporates the findings of the Botanical Impact Assessments (August 2022 and February 2025/ March 2026) and the Aquatic Biodiversity Impact Assessments (June 2022 and February 2025) undertaken for the site. The identified risks have been incorporated into the EMPr, and additional general risks have been included. The EMPr must be implemented in conjunction with conditions contained in the Environmental Authorization. The applicant and ECO must use the above-mentioned documents throughout the operation of the development. The EMPr will also become a condition in the Environmental Authorization.

1.5. Relevant legislation and policies

This EMPr aims to highlight historic design, capacity, management, and use issues and proposes a means to manage these within the framework of environmental best practice, the guiding principles of the National Environmental Management Amendment Act (Act 62 of 2008).

The following is a list of the legislation that may be pertinent to the project and its long-term operational management. All activities on site must ensure compliance with the provisions of the legislation as applicable:

- The Constitution of the Republic of South Africa (Act 108 of 1996)
- National Environmental Management Act (Act 107 of 1998) – NEMA
- Government Notices 327, 325 and 324 in terms of NEMA – EIA Regulations
- National Heritage Resources Act 1999 (Act 25 of 1999) - NHRA
- National Water Act 1998 (Act 36 of 1998) – NWA
- Occupational Health and Safety Act (No. 85 of 1993)
- National Veld and Forest Fire Act, Act 101 of 1998
- Basic Conditions of Employment Act 75 of 1997
- Conservation of Agricultural Resources Act 43 of 1983

1.6. The competent authority

DEA&DP will review the EMPr and on approval they may have the following role to play:

- Review and monitor implementation of the EMPr;
- Review whether there is compliance by the Landowner;
- Perform random control checks;
- Review ECO, incident and audit reports;
- Enforce legal mechanisms for contraventions of the EMPr.

SECTION 2: RESPONSIBILITIES AND ENFORCEMENT OF THE EMPR

2.1. The Landowner/ Applicant

The Landowner is accountable for the potential impacts of the activities that are undertaken and is responsible for managing these impacts. The Landowner has the overall environmental responsibility to ensure that the implementation of the operational requirements complies with the relevant legislation and the conditions of the approved EMPr.

The Landowner must ensure that he/she is fully familiar with the requirements of this EMPr, any relevant Environmental Authorisation, General Authorisation (water use) or any other legally binding documentation. Training on the requirements of the EMPr will be presented to the Landowner by the ECO upon appointment.

Environmental awareness training of all staff/contractors involved in the EMPr work activities will be completed by the Site Manager or ECO on their roles and responsibilities, compliance to the EMPr and required monitoring as outlined in Section 7 of this document. The landowner must ensure that the required training takes place.

2.2. Site Manager

An operations/site manager or similar, must be identified to assume overall responsibility for managing the site, employees, and contractors and for ensuring that the environmental management requirements are met. All decisions regarding environmental procedures and protocol must be approved by the site manager, who also has the authority to stop any activity in contravention of the EMPr.

The site manager will have the following environmental control responsibilities:

- Present environmental awareness training to all contractors/staff in conjunction with the ECO,
- Regularly monitor the site and operation of the facility for potential environmental issues,
- Consult with the ECO, landowner, and all staff/contractors to resolve emerging environmental issues,
- Issue any instructions from the ECO to the management team via an appropriate management tool, and
- Keep a Site Control Register consisting of the following sections:
    - The **Site Control Sheet** in which the findings from weekly site monitoring activities are consolidated until buffers and rehabilitated areas are established
    - The **Environmental Site Instruction Section** will be used to record all general site instructions relating to the protection of the environment and instructions issued by the site manager or ECO for the purpose of facilitating the issuing of the site instruction by the Owner until buffers and rehabilitated areas are established.
    - The **Incidents Reporting Section** will be used to record all incidents pertaining to environmental issues onsite as well as remedial actions steps that were or need to be taken until buffers and rehabilitated areas are established.

- The **Complaints Register** will be used to record all complaints received and responses thereto until buffers and rehabilitated areas are established.

Please note the above list is not exhaustive, the responsibilities of the site manager are adaptive and extent beyond environmental control aspects.

2.3 Conservation Stewardship (NGO)

In terms of a Conservation Stewardship, CapeNature initiated the Biodiversity Stewardship programme which facilitates conservation on privately owned land by setting up agreements between the landowners and CapeNature. Landowners undertake to protect and manage their properties or parts thereof according to sound conservation management principles. CapeNature undertakes to support this management by providing advice, management plans and assistance in planning invasive alien species clearing and fire management schedules. It also allows for the private landowner to benefit more from the biodiversity through ecologically sensitive income-generating avenues such as eco-tourism or green labelling of agricultural produce (e.g. Business and Biodiversity Initiatives).
The type of conservation stewardship and the level of Cape Natures involvement will need to be discussed between Cape Nature and the Landowner/ Applicant. The Applicant is willing to legally protect the remaining ± 8.5 hectares in the form of a Contract Nature Reserve. This will protect approximately 85% of the indigenous vegetation on their land in perpetuity.

2.4. Environmental Control Officer (ECO)

A suitably qualified individual will be designated and appointed by the Landowner to fulfil the role of Environmental Control Officer, to ensure and oversee the implementation of the EMPr onsite in its entirety until buffers and rehabilitated areas are established. The role of the ECO is essentially seen as an interactive one and should include regular site visits.

The responsibilities of the ECO during the life span (until buffers and rehabilitated areas are established) of the project will include:

- To conduct environmental awareness training on the operation of the facility and implementation of the EMPr,
- To review method statements and to determine the most environmentally sensitive options of *modus operandi* for the development tasks,
- To assist the contractor/site manager in finding environmentally responsible solutions to problems,
- To oversee the implementation of environmental procedures set out in this document,
- To report on environmental issues,
- To receive notice and minutes of all site meetings,
- To maintain open and direct communication with the landowner, site manager, contractors, and authorities,

- To monitor contractors, the EMPr and the implementation thereof; followed by reporting to the relevant authorities,
- To take immediate action on site where clearly defined no-go areas/actions are violated, or in danger of being violated, and to inform the landowner and site manager immediately,
- To keep an up-to-date record of works on site, as they relate to environmental issues in the Site Control Register including records of non-compliance incidents,
- To be contactable by the public regarding matters of environmental concern as they relate to the development and,
- To be responsible for auditing.

Reporting and record keeping by the ECO should include 6-monthly monitoring reports until buffers and rehabilitated areas are established. The ECO must keep photographic records of all site visits and records of communication to and from relevant authorities.

SECTION 3: IMPACTS AND MITIGATION

The following possible impacts and associated mitigation measures have been identified within the proposed scope of work for the construction and operational phases of the development:

	Impact	**Proposed mitigation**
1	Loss of previous ecological connectivity across the sites and associated habitat fragmentation,	• No further disturbance or clearing of natural/partly natural vegetation outside of the already cleared area unless authorised via a formal environmental application process. • The development area must be surveyed and fenced off • All invasive alien vegetation on the remaining ±8.5 ha must be removed using appropriate methods. No heavy machinery may be used. This must be done within 6 months of the 24G authorisation being issued. • The untouched, ±8.5 area of Very High sensitivity vegetation must be submitted to CapeNature's Stewardship Program within one year of the 24G authorisation as a candidate for the highest level of formal protection. All costs associated with this application, and of the ongoing ecological management of this area (should be very minor), must be borne by the applicant. • The implementation of all mitigation must be independently audited within 18 months of any authorisation. • Rehabilitation and revegetation of the wetland buffer zone to prohibit any future loss of pristine wetland • Rehabilitation is to be undertaken in accordance with the rehabilitation plan (Annexure D) and be monitored regularly • 50m buffer zone should be applied to the wetland for all future activities. • New drainage channels should be located outside the 50m buffer zone and should be designed as vegetated, shallower, and wider stormwater swales.
2	Hydrology modification and change in aquatic habitat	• No drainage structures should be allowed within the 50m buffer zone. All existing drainage channels within this zone must be rehabilitated and revegetated. Rehabilitation should involve infilling the excavated areas with similar soils, ensuring no soil compaction occurs in the newly filled channels. • New drainage channels should be located outside the 50m buffer zone and should be designed as vegetated, shallower, and wider stormwater swales. • A small, vegetated stormwater retention area should be created at the property's boundary to allow for infiltration and to prevent erosion and sedimentation towards the downstream wetland areas. The existing newly degraded and eroded area outside the property boundary, resulting from previous drainage excavation, shall be backfilled with surrounding topsoil and rehabilitated through appropriate revegetation. • The rehabilitation plan (Annexure D) needs to be implemented.
3	Water quality impairment	• Rehabilitation and reinstatement of the 50m buffer zone; • 50m buffer should be applied to the wetland for all future activities; • A small, vegetated stormwater retention area should be created at the property's boundary to allow for infiltration and to prevent erosion and sedimentation towards the downstream wetland areas. • The rehabilitation plan (Annexure D) needs to be implemented.

SECTION 4: PROJECT PHASES

The clearing of vegetation and establishment of a concrete platform has already begun on Portion 22 of Farm Klipfontein No. 82. As such the Planning & Design Phase has been completed.

4.1. Construction Phase

In 2023 the Applicant unlawfully cleared 1.5 ha of indigenous vegetation (Elgin Shale Fynbos - CR), levelled the area and constructed a 2500 m^2 concrete platform for the purposes of creating a parking space for trucks and the storage of fruit pallets. A new primary entrance was created with concrete supports for an electric gate and a culvert was inserted in the trench and infilled to create the crossing. Furthermore, two open trenches (trench 1 runs along the western boundary and trench 2 runs through the centre of the property) were cleared out.

Furthermore, the Applicant intends to obtain Environmental Authorisation to expand the existing concrete platform, as an approximate area of 5000 m^2 is required. An area around the platform will be formalised for road movement purposes. In addition, as a result of input from the freshwater specialist, the wetland's 50m buffer zone was established which will require rehabilitation in accordance with a rehabilitation plan (Annexure D). This would result in moving the central trench (trench 2) and reconstructing it outside the wetlands 50m buffer zone in the form of a swale and rehabilitating a portion of trench 1. A ±1.5m buffalo grass buffer will be planted around the hardened area to slow down run-off and prevent erosion. Buffalo grass will also be planted along the edge of the swales to prevent edge erosion. The trench crossing (trench 1) for the primary entrance will be upgraded to ensure the structure will not result in erosion. Lastly, a small storm water retention area will be constructed in the northwestern corner to "filter" water as it drains out of the property.

4.2. Rehabilitation Phase

The botanist and freshwater ecologist appointed for the project have recommended mitigating measures to reduce the current negative impacts associated with the development activities. The recommended mitigation measures include rehabilitation.

a) Alien Invasive Vegetation Removal

All alien and invasive woody vegetation should be removed from the undisturbed ±8.5 ha area (see Figure 4) within 6 months of the authorization of the 24G application. These plants must be felled using the appropriate methodology. No machinery may be used, and the plants must be cut as close to ground level as possible. The remaining stumps should be painted (not sprayed) with an appropriate herbicide such as Garlon. This process must be repeated annually.

b) Wetland Rehabilitation

Rehabilitate the cleared areas and trenches that coincide with the delineated wetland's 50 m buffer zone (Figure 2). These drainage channels within this zone must be rehabilitated and revegetated. Rehabilitation should involve infilling the excavated areas with similar soils, ensuring no soil compaction occurs in the newly filled channels. New drainage channels should be located outside the 50 m buffer zone and should preferably be designed as vegetated, shallower, and wider stormwater swales (Figure 3). A small, vegetated stormwater retention area should be created at the property's boundary to allow for infiltration and to prevent erosion and sedimentation towards the downstream wetland areas. The existing newly degraded and eroded area outside the property boundary, resulting from previous drainage excavation, shall be backfilled with surrounding topsoil and rehabilitated through appropriate revegetation.

It is also recommended that all woody alien invasive vegetation is removed from the onsite aquatic systems. This will serve to improve the ecological condition of impacted watercourses.

To ensure successful wetland rehabilitation a comprehensive rehabilitation plan has been drafted by a freshwater specialist (refer to Appendix D).



Figure 4: Areas of the property where mitigation and rehabilitation must take place.

4.3. Operational Phase

The following activities relating to the operation of approximately 10 ha (±1.4 ha project footprint) of land have been identified (after applying the required buffers and rehabilitation actions):

- Conserve and protect sensitive features onsite
    - Maintain buffer areas in a good ecological condition and ensure that sensitive environmental features remain "No-Go" areas throughout the lifecycle of the project.
    - Erect and maintain a fence around the ±1.4 ha footprint area.
- Ongoing alien vegetation management
- Maintain development infrastructure such as swales, trenches and stormwater retention areas in a good functional state.
    - Manage runoff from hardened surfaces such that erosion and polluted run-off is minimized.
- Monitor and maintain all rehabilitated areas for a minimum of two years to ensure vegetation recovery.

No expansion of the development footprint is permitted without prior approval.

SECTION 5: GENERAL MANAGEMENT REQUIREMENTS

The following items must be integrated into the management of the activity whenever relevant:

a) Environmental awareness training

All employees (including seasonal labourers) involved in the operations must be briefed on their obligations towards environmental controls and methodologies. The briefing should take the form of an on-site talk and demonstration by the ECO, Site Manager and/or the Landowner. All environmental impacts and aspects and their mitigating measures must be discussed, explained, and communicated to employees.

The environmental awareness education program should commence with entry onto the site and is likely to be an ongoing process. All personnel must be made aware of the details of the EMPr which will be applicable to them. It must be ensured that staff members who are not proficient in the language of instruction are provided with training in a suitable alternative language.

A regularly updated record must be kept of all personnel attending the Environmental Awareness training sessions until buffers and rehabilitated areas are established.

As a minimum the training must include:

- Explanation of the **reason of complying** with the EMPr;

- Discussion of the potential **environmental impacts** of operational activities;
- Employees' **roles and responsibilities on site**, including emergency preparedness;
- Explanation of the **mitigation measures** that must be implemented when carrying out the activities;
- Explanation of the specifics of this **EMPr** and its specifications (no-go areas, etc.);
- Explanation of the **management structure** of individuals responsible for matters pertaining to the EMPr.

Environmental meetings can be held with management, and selected groups of supervisors and/or employee representatives. The meetings will aid in environmental awareness being generated at all levels, as well as assist in identifying new environmental issues, concerns, or potential pollution sources.

On the job training is an essential tool in environmental awareness. Employees will be suitably trained in order to identify, prevent, minimize or manage actions or behaviours that could potentially result in negative environmental impacts. Employees will be given details of the expected environmental issues and concerns specifically related to their occupation. Employees will be trained in how to respond if an environmental problem or source of environmental pollution arises. The training will be on-going, and all new employees will be provided with the same standard of training as existing employees.

b) Site Communication Procedures

There is to be continual communication between the landowner, contractor (where relevant), site manager, and the ECO. The ECO will advise the Landowner on factors relating to the EMPr and all environmental matters on site until buffers and rehabilitated areas are established. The ECO is allowed to issue a directive for the suspension of any activities or operations that are required to be stopped as a matter of urgency to prevent serious adverse environmental impacts or potential. The ECO shall without delay report any such actions to the Landowner. Any issues and concerns raised should be addressed as far as possible in as short a timeframe as possible.

A digital Site Control Register will be kept for the purposes of recording on-site instructions and as a general record of environmental issues until buffers and rehabilitated areas are established. A photographic record of the site will also be kept for visual reference purposes. The Site Control Register will consist of the following sections:

1. The **Site Control Sheet** in which the findings from weekly site monitoring activities are consolidated until buffers and rehabilitated areas are established
2. The **Environmental Site Instruction Section** will be used to record all general site instructions relating to the protection of the environment and instructions issued by the site manager or ECO for the purpose of facilitating the issuing of the site instruction by the Owner until buffers and rehabilitated areas are established.

3. The **Incidents Reporting Section** will be used to record all incidents pertaining to environmental issues onsite as well as remedial actions steps that were or need to be taken until buffers and rehabilitated areas are established.
4. The **Complaints Register** will be used to record all complaints received and responses thereto until buffers and rehabilitated areas are established.

This register must always remain on site and is to be made available for monitoring purposes by the DEA&DP/ local authority as required.

c) Erosion Control

Care must be taken to prevent erosion of soils within the project footprint area, access road and nearby natural areas. Should any erosion be detected, the ECO or site manager must identify the cause of such erosion and ensure that the most appropriate method of mitigation or stabilisation is employed as soon as possible.

d) Dust Control

The site manager shall take appropriate measures, to the satisfaction of the ECO to minimise the generation of dust nuisance. Watering of roads and exposed soils if required and maintaining a speed limit of 20km/h.

e) Emergency

All accidents and emergency situations are to be reported to the site manager, Landowner and ECO and full details included in environmental audits. Emergency contact numbers for fire department to be kept on site.

f) Fire:

In the case of a fire occurring on site, the site manager, and safety steward, landowner and adjacent landowners are to be notified immediately. If localised and posing a threat to humans, or infrastructure, effort should be made to extinguish the fire immediately, and if required, the assistance of the local fire department should be sought by the safety steward.

g) First Aid:

The site manager must provide and maintain a suitable first aid kit on site, with a member of staff suitably qualified in first aid on site during working hours, in accordance with the Occupational Health and Safety Act.

h) Vegetation Management

No further disturbance or clearing of natural/partly natural vegetation outside of the already cleared area unless authorised via a formal environmental application process.

The development area (1.4ha) must be surveyed and fenced off.

The untouched, ±8.5 area of Very High sensitivity vegetation must be submitted to CapeNature's Stewardship Program within one year of the 24G authorisation as a candidate for the highest level of formal protection. All costs associated with this application, and of the ongoing ecological management of this area, must be borne by the Applicant.

Alien invasive vegetation is imported/ non-indigenous plant material that can out-compete indigenous vegetation and must be removed from the site on an ongoing basis to conserve indigenous vegetation. Furthermore, alien invasive vegetation poses a fire risk as it increases the fuel load and fire intensity and may result in frequent and intense fires. Clearing of alien invasive vegetation from the site must be undertaken as outlined in Section 4.2 of this document with regular maintenance clearing undertaken throughout the operational phase of the development.

All invasive alien vegetation on the remaining ±8.5 ha must be removed using appropriate methods. No heavy machinery may be used. This must be done within 6 months of the 24G authorisation being issued.

SECTION 6: REQUIEREMENTS AND OPERATIONAL GOALS

The S24G report identified several impacts and concerns that were addressed through the process. Many of the issues need to be mitigated by management procedures and therefore goals need to be set to ensure implementation of these measures. Management activities are described to achieve the objectives together with monitoring and target criteria.

6.1. Components of Operational Management

- Goals: The key environmental goals are set for the operation of the property.
- Objectives: These are set to meet the goals.
- Risk: If the goal is not achieved.
- Actions: Measures put in place to achieve objectives.
- Monitoring: To check if the objectives are achieved.
- Targets: Indicators of the effectiveness of the programme.
- Remedial Action: If targets aren't met.

During the lifespan of human habitation people generally waste on a daily basis. This includes food waste, packaging (paper, plastic, cardboard), glass bottles, metal cans, sewage etc.

To minimize potential environmental impacts, the measures outlined below should be integrated in the operation of the development daily.

(a) Construction Materials

Materials used in the life-cycle of the project should be focused on renewable and recyclable elements:

- Select materials for durability to minimize maintenance or replacement,
- Use standard materials to increase the potential for re-use and re-cycling, and
- Materials should be sourced locally where possible.

(b) Waste Management

The operation of the site does not inherently produce waste however, any occasional refuse that may result will be contained and removed from the site to a registered waste facility.

(c) Fire Management

Given the location of the proposed development within a fire driven ecosystem, wildfires pose a risk that must be suitably managed.

In addition, the following fire management activities must be implemented throughout the operation of the development:

- No open fires are permitted.
- Stockpiles of wood are not permitted onsite.
- Alien invasive vegetation must be removed from the site as indicated by the botanical specialist on an ongoing basis. All cut vegetation and litter resulting from clearing activities must be removed from the site or responsibly used e.g., chipped.
- The landowner must comply with Chapter 5 of the National Veld and Forest Fire act and should therefore have suitable equipment, protective clothing, and suitably trained personnel available in accordance with the size of the property. All firefighting equipment must be checked and maintained annually in October before the start of the fire season.
- The site occupant must report fires immediately to the relevant organizations/parties (E.g., Villiersdorp Fire Department and Neighbours)
- Should the landowner not be present onsite during the fire season they must ensure that there is a responsible person present on or near the property who will assist in extinguishing the fire and take reasonable steps to alert the fire department and neighbouring landowners/their agents.

6.2. Goals

The following goals were set to ensure minimal environmental impact during the operation and life cycle of the project:

1. Protect the surrounding natural environment
2. Prevent and manage soil erosion.
3. Implement suitable fire risk management.

Goal 1: Protect the surrounding natural environment					
Objective	**Risk**	**Actions**	**Monitoring**	**Targets**	**Remedial Action**
Maintain the rehabilitated state of impacted aquatic systems and associated buffers	• Watercourse degradation • Watercourse sedimentation • Increased runoff into onsite watercourses • Water quality impairment	• The onsite wetland and associated buffer zone is to be considered 'No-Go' areas for vehicles, machinery, and employees. • Maintain suitable vegetation cover within the wetland and associated buffer. • Maintain vehicles in good working condition. • Any leaks/ spills should be cleaned immediately, and contaminated soils disposed of to appropriate landfill site. • The Rehabilitation Plan (Annexure D) must be implemented and monitored.	• Rehabilitated areas, including the new stormwater retention area, should be monitored for at least 2 years to ensure successful recovery and establishment of the vegetation within. Following the monitoring cycle as outlined in the detailed freshwater rehabilitation plan (Annexure D). • Monitoring the 'No-Go" area for signs of unauthorised use and vegetation damage. • External audits to ensure that the project is operating in an environmentally suitable manner. • Regularly check all vehicles for leaks or damage.	• Prevent disturbance of watercourses and buffers. • To ensure the integrity of the rehabilitated watercourses and associated buffers. • Reduce and prevent erosion within rehabilitated areas.	• Non-compliance must be reported to the owner and site manager immediately. • Owner/Site Manager to take immediate action against non-compliance. • If damage does take place, rehabilitation must be implemented as outlined in the commissioned aquatic system rehabilitation plan. • Repair any leaking vehicles/equipment immediately within a designated bunded area.
Maintain the remaining indigenous vegetation on site.	• Loss of biodiversity • Ecological degradation • Excessive water use	• Remove any alien invasive seedlings. • Should a fire occur onsite, the burnt areas must be monitored for alien seedling germination and suitable removal carried out. • All cut/pulled material must be removed from the site.	• Regular monitoring of the mitigation area for re-emergence of alien invasive species.	• Maintain and improve the ecological integrity and biodiversity of natural areas onsite.	• Should any alien invasive vegetation be noted within the mitigation area, the site manager must be notified, and suitable action must be taken to facilitate removal.
		• ***Responsibility: Owner and Site Manager***	• ***Responsibility: Site Manager***	• ***Responsibility: Owner and Site Manager***	• ***Responsibility: Owner and Site Manager***

Goal 2: Prevent and manage soil erosion					
Objective	**Risk**	**Actions**	**Monitoring**	**Targets**	**Remedial Action**
To minimise/ avoid erosion within the cleared area and on access road(s)	• Degradation of access roads. • Degradation of natural land areas. • Possible sedimentation of onsite watercourses.	• The wetland and associated buffer area must be maintained in good ecological state with suitable vegetation cover. • Establish and maintain suitable vegetation cover at all stormwater concentration points (e.g., on the lower property boundary) • Ensure that all vehicles using the access road are road worthy.	• Regular erosion monitoring must take place onsite and on the site access roads.	• Adaptive erosion management onsite. • Limited onsite erosion • Limited road deterioration	• Should any erosion be detected, the ECO or site manager must identify the cause of such erosion and ensure that the most appropriate method of mitigation or stabilisation is employed as soon as possible.
		Responsibility: Owner and Site Manager	***Responsibility: Site Manager***	***Responsibility: Site Manager***	***Responsibility: ECO and Site Manager***

Goal 3: Implement suitable fire risk management.					
Objective	**Risk**	**Actions**	**Monitoring**	**Targets**	**Remedial Action**
To ensure that no wildfires start within the property or spread to the surrounding lands.	• Loss of infrastructure • Loss of protected vegetation	• Maintain the site free from alien invasive vegetation, dry and/or highly flammable material. • No open fires may be lit anywhere on the site. • Appropriate fire safety training must be provided to all staff working onsite.	• All firefighting equipment must be checked and maintained annually in October, before the start of the fire season. • The site must be regularly monitored for any accumulation of leaf litter, dry plant material or flammable debris. This must be removed.	• Allow the natural fire regime to function as far as possible while protecting infrastructure and operations.	• Refer non-compliance to site manager and ECO. • In the case of a fire occurring on site, the site manager, safety steward, landowner and adjacent landowners are to be notified immediately. If required, the assistance of the local fire department should be sought by the safety steward.
		Responsibility: Owner and Site Manager	***Responsibility: Site Manager***	***Responsibility: Site Manager***	***Responsibility: ECO and Site Manager***

SECTION 7: MONITORING AND COMPLIANCE

7.1. Monitoring

The monitoring of works on site is necessary to demonstrate compliance with the specifications of the EMPr and to allow for problems or issues of non-conformance to be identified and appropriate corrective measures to minimize environmental damage to be implemented.

Monitoring should include daily visual checks by the site manager, checks on requirements for site activities by the ECO, as well as a review of site documentation. Monitoring should include photographic records. The ECO shall complete the performance record at the end of each table in section 7.2 of this document, as a record of transgressions or problems experienced on site, and how they were dealt with. Monitoring of the activities onsite by the ECO should take place 6-monthly (until buffers and rehabilitated areas are established) and an official report thereof must be prepared. These monitoring reports must be safely stored and made available to the auditor as well as the environmental competent authority (DEA&DP).

The rehabilitation of the wetland area and it's 50 m buffer will take place in accordance with a formal rehabilitation plan (as stipulated in this plan). Rehabilitated areas, including the new stormwater retention area, should be monitored for at least 2 years to ensure successful recovery and establishment of the vegetation within (see Appendix D).

7.2. Environmental Control Sheets

a. Communication

TASK	MITIGATION AND ENVIRONMENTAL CONTROLS	ACTION
Site Control Register	○ To be updated on a regular basis	ECO/Site Manager
Environmental Awareness education	○ All employees who have access to the site must attend a training session prior to commencing work on site. ○ Record of members attending training sessions to be kept and updated regularly.	ECO/Site Manager
Method Statements	○ Method statements to indicate What, How, Where and When activities are to take place. ○ Method statements for each relevant activity to be submitted to ECO prior to the start of that activity on site. ○ Work is not to commence until method statement approved by ECO and Site Manager if necessary.	Contractor/Site Manager

COMMENTS/ UPDATE					
RECORD OF PERFORMANCE					
Acceptable		**Details of Transgression**	**Responsible Party**	**Action Taken**	**Date**
Yes	**No**				

b. Site Procedures

TASK	MITIGATION AND ENVIRONMENTAL CONTROLS	ACTION
Fire control	○ No open fires are lit on site without approval of the ECO and Site Manager.	Site Manger
Waste management	○ All waste to be stored in an appropriate area on site and protected against wind dispersal. ○ Waste to be removed on a regular basis for disposal at a permitted disposal site. ○ No burning or burying of refuse on site is allowed.	Site Manager
Stormwater management	○ Suitable measures must be in place to prevent erosion resulting from diversion, restriction or increase in stormwater runoff. ○ Erosion or stormwater damage resulting from operations to be suitably repaired.	Site Manager
Maintenance of vehicles	○ All mechanical equipment and work vehicles to be stored on the hardened platform area only. ○ Drip trays or impervious materials to be used to prevent contamination of soil and surrounding areas.	Site Manager
Erosion control	○ All cleared ground is to be suitably stabilised to prevent dust. ○ If ground is watered to prevent dust, care must be taken that runoff is not excessive, or erosive. ○ Should any erosion be detected, the ECO or site manager must identify the cause of such erosion and ensure that the most appropriate method of mitigation or stabilisation is employed as soon as possible.	Site Manager

COMMENTS/ UPDATE					
RECORD OF PERFORMANCE					
Acceptable		**Details of Transgression**	**Responsible Party**	**Action Taken**	**Date**
Yes	**No**				

7.3. Review of the EMPr

The EMPr will be reviewed by the ECO on an ongoing basis. Based on observations during site inspections and issues raised at site meetings, the ECO will determine whether any procedures require modification to improve the efficiency and applicability of the EMPr on site. The EMPr must be updated should any significant changes occur to the operations with regard to the composting site.

Any such changes or updates will be registered in the ECO's 6-monthly record, as well as being included as an annexure to this document. Annexures of this nature must be distributed to all relevant parties on site.

7.4. Environmental Audits

A suitably qualified Environmental Auditor is to be appointed, at the expense of the Landowner, to undertake audits of compliance with the EMPr. This should happen 6 months after Environmental Authorization and 6 months after buffers and rehabilitated areas are established. The implementation of all mitigation must be independently audited within 18 months of any authorisation.

Objectives should be to audit compliances with the key components of the EMPr, to identify main areas requiring attention and recommend priority actions. The audit should cover a cross section of issues, including implementation of environmental controls, environmental management, and environmental monitoring.

Results of the audits should inform changes required to the specifications of the EMPr or additional specifications to deal with any environmental issues which arise on site and have not been dealt with in the current document.

The national, provincial and local authorities must be given access to audit or inspect the facility if so requested.

7.5. Record Keeping

The Landowner should keep records of the following:

- Monitoring reports (ECO Reports)
- A site control register:
    - The control register must outline monitoring undertaken by the site manager.
    - It is recommended that the register is in a digital format as this will ensure that all records are easily accessible for internal and external auditing requirements.
    - An incident and complaints register must form part of the overall site control register.
- Reviews of the EMPr,
- Amendments to the EMPr, EA or GA/ WULA

Records should be kept and must be made available for review on request, based on adequate motivation. Minutes of meetings on site must reflect environmental queries, complaints, actions agreed upon, dates of eventual compliance and must form part of the official environmental site record.

In addition to the summary report, the ECO shall keep photographic records of all site visits and an ad hoc record of incidents or events on site, especially in the case of transgressions from EMPr specifications. Such photographs are to be taken with an in-camera dating facility.

7.6. Incident reporting

Environmental incident reporting is a vital part of communication. Employees are required to report all environmental related problems, incidents, and pollution, so that the appropriate mitigation actions can be implemented timeously. See Appendix B for a template that can be used for incident reporting

The landowner and the site manager shall investigate the incident and record the following information:

- How the incident happened,
- The reasons the incident happened,
- How rehabilitation or clean up needs to take place,
- The nature of the impact that occurred,
- The type of work, process or equipment involved; and
- Recommendations to avoid future such incidents and/or occurrences.

The landowner shall also:

- Inform the ECO of all incidents that were reported, and
- consult with the ECO for recommendations on actions to be taken or implemented where appropriate (e.g., clean-ups).

SECTION 8: TRANSGRESSIONS IN TERMS OF EMPR

The Landowner must comply with the requirements of this EMPr on an on-going basis and any failure on his part to do so will entitle the relevant competent authorities to **take corrective action against the transgressor**.

In the event that any activities are undertaken outside the scope of the adopted EMPr requirements, in terms of the action outlined within the given method statement, the responsible person(s) will potentially be subject to Section

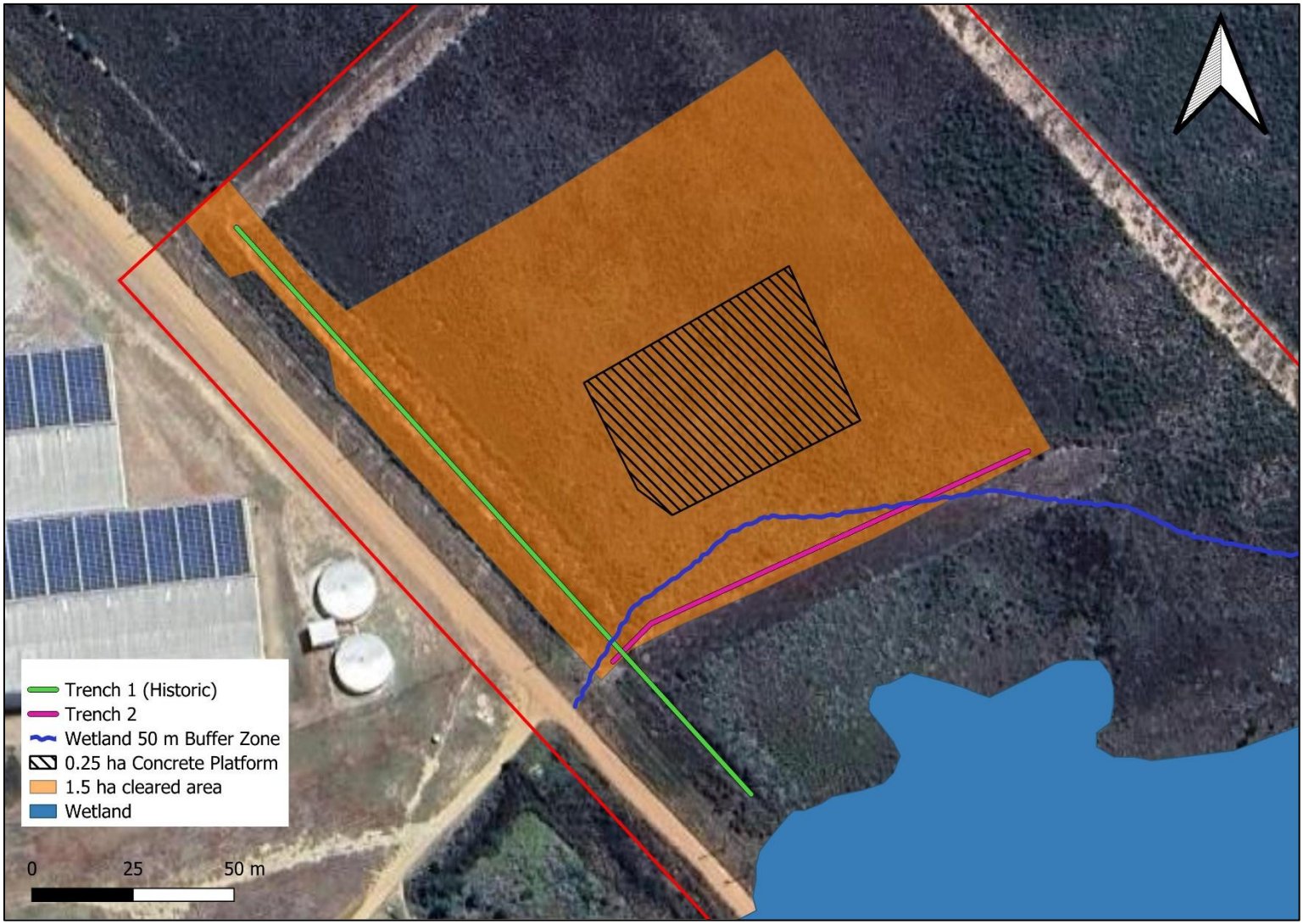
24(F) of NEMA, and that appropriate enforcement and compliance requirements will follow by the competent authority.

Transgressions relate to actions by the landowner and operating team members whereby damage or harm is inflicted upon the environment or any feature thereof and where any of the conditions or specifications of the EMPr/ EA/ GA are infringed upon.

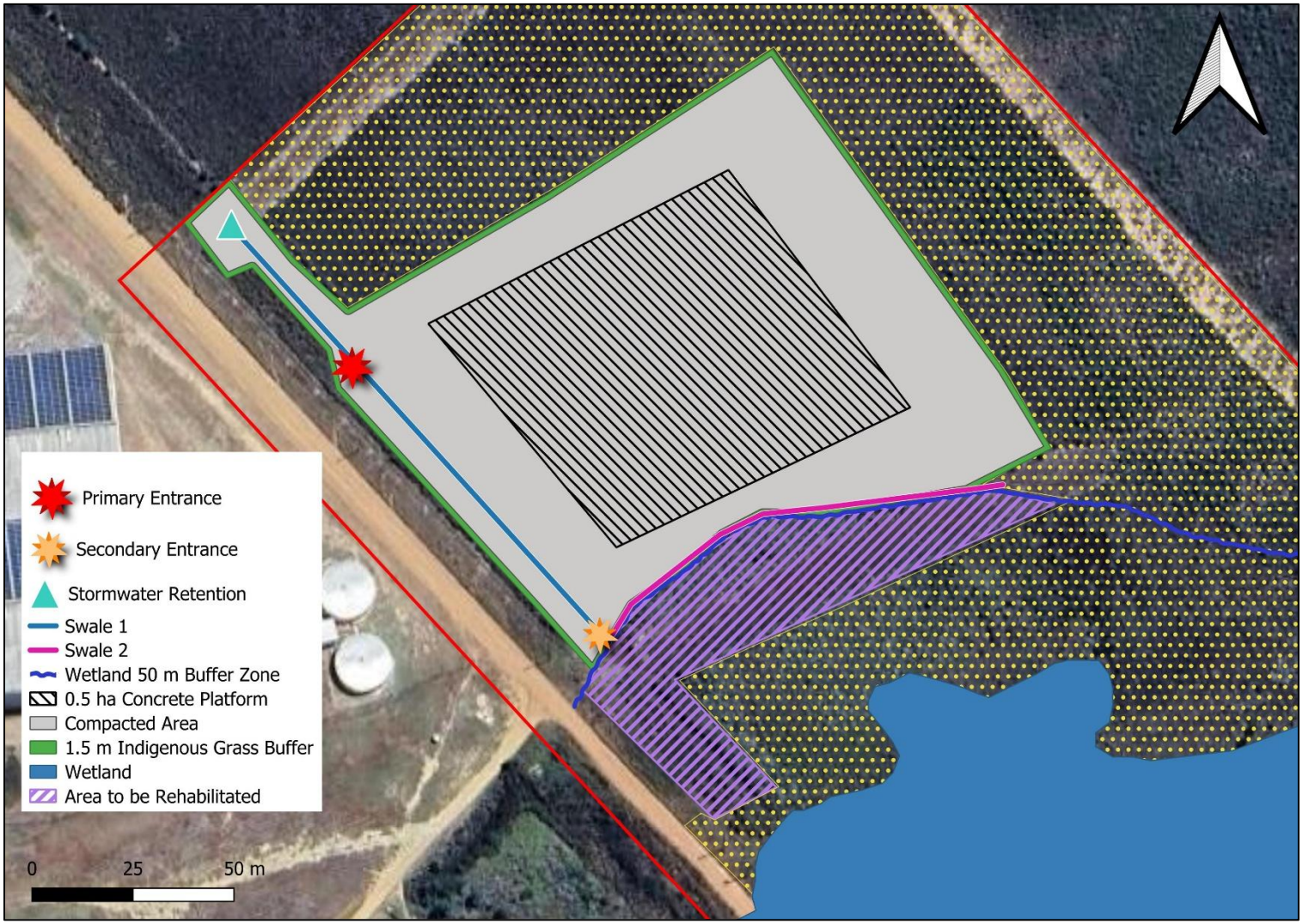
In the instance of environmental damage, the damage is, where possible, to be repaired and rehabilitated using appropriate measures, as specified and undertaken by appropriate specialists, for the account of the responsible party.

Issues of non-compliance noted by the ECO are to be communicated to the site manager, who holds the responsibility of ensuring that the relevant parties are made aware of the lack of compliance with EMPr specifications, and that appropriate action is taken to rectify the situation. Issues of non-compliance must be reported in the required ECO site visit report. The ECO will advise on appropriate corrective actions when necessary.

APPENDIX A1: SDP – EXISTING LAYOUT



APPENDIX A2: SDP – PREFERRED LAYOUT (including Mitigation)



APPENDIX B: INCIDENT REPORT TEMPLATE

Environmental Incident Report

Date:	**File reference number:**
Name:	
Exact location of incident:	

Section 1: Description of incident

Section 2: Remedial action required

Section 3: Relevant Documentation

Section 4: Steps to prevent recurrence

Section 5: Signatures

Site manager:	Date: .....
ECO:	Date: .....
Landowner:	Date: .....

APPENDIX C: CV OF EAP

APPENDIX D: REHABILITATION PLAN

SEE APPENDIX I2 OF 24G APPLICATION