



REHABILITATION PLAN

for

FARM RE/139 GROOTBRAK

On

Mossel Bay Municipal District

In terms of the

**National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended &
Environmental Impact Regulations 2014**



Prepared for Applicant: IDEAL TRADING 103 CC

By: Cape EAPrac

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Case Officer: Harriet van Schalkwyk

Date: 10 November 2022

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PURPOSE OF THIS REPORT:

Decision-making by DEADP

APPLICANT:

Mr C Spies & D Swanich on behalf of

IDEAL TRADING 103 CC

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Rehabilitation Plan (MOS777/01)

10 November 2022

REHABILITATION PLAN

in terms of the

National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended &
Environmental Impact Regulations 2010

Rehabilitation Plan

FARM RE/139, GROOTBRAK (MOSEL BAY MUNICIPALITY)

Submitted for:

Departmental Review

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ORDER OF REPORT

Rehabilitation Plan – Main Report

- Appendix A:** Location Map
- Appendix B:** Biodiversity Maps
- Appendix C:** Site Plan
- Appendix D :** Pre-Compliance Notice

ENVIRONMENTAL REHABILITATION PLAN

BACKGROUND

This Rehabilitation Plan has been compiled as a step-by-step guide to the Applicant, IDEAL TRADING 103 CC, hereafter referred to as the Applicant, for the environmentally responsible rehabilitation and restoration of a small area previously cleared on farm RE/139, Grootbrak (Mossel Bay Municipal District).

The overall size of the property is approximately **27ha** and is located roughly **1km West** of the village of Great Brak River and **22km East** of Mossel Bay. The N2 road borders the southern boundary. Surrounding land use to the north, west and south include agriculture, small holdings and municipal water treatment facility on the western boundary. The property is **vacant** and rises approximately **131m above Mean Sea Level** at its highest point in the North (Figure 1).

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The Applicant cleared approximately **25 853m² (2.58ha)** of vegetation and excavated soil to create flat bench areas to start producing bricks. The site has a moderate slope and an elevation up to 94m above MSL (Figures 1 & 2). The portion of the property that has been impacted by the disturbance was previously used for agricultural purposes for more than 18 years (Figure 5). The site was inspected on 22 September 2022 by the EAP. It is evident that natural vegetation regrowth has started to recover since initial clearing in 2021, with no major signs of erosion.



Figure 1: Property location



Figure 2: Disturbed area (Google Earth 2020).

Subsequent to initial clearing and earthworks, the Applicant ceased all activities on the property following an inspection by the Mossel Bay Municipality. The site has been dormant ever since.

On 31 October 2022, the Provincial Department of Environmental Affairs & Development Planning (DEA&DP) issued a Pre-Compliance Notice to the Applicant informing that the activities undertaken to develop a brickworks, are deemed to be unauthorised since vegetation was removed and material was excavated/moved without *prior* Environmental Authorisation. The Applicant was given the option to either apply for retrospective authorisation through means of a Section 24G process, or to restore and rehabilitate the area to its natural condition.

The Applicant opted to restore and rehabilitate the affected area. The main purpose of this Rehabilitation Plan is to:

- (a) Adhere to the conditions of the Pre-Compliance Notice.
- (b) Address the environmental impacts of the disturbance/transformation.
- (c) Provide recommendations on rehabilitation and restoration of the affected area.
- (d) Include provision for assessment of the effectiveness of rehabilitation/restoration of the affected area.
- (e) Provide for monitoring up to the completion of the necessary rehabilitation measures.

This rehabilitation plan details the restoration of material, as well as restoration of ground cover and makes provision for (A) a timeframe for implementation, (B) monitoring and (C) final compliance/verification of successful rehabilitation.

Once approved by the Competent Authority, the Applicant must implement this Plan within the specified time and upon receipt of the final Completion Statement, the Competent Authority will consider the matter resolved.

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1. INTRODUCTION

Cape EAPrac has been appointed by IDEAL TRADING 103 CC as the independent **Environmental Assessment Practitioner (EAP)** responsible for the compilation of a **Rehabilitation Plan** for the rehabilitation and restoration of a portion (25 853m²) of the farm RE/139, Grootbrak.

1.1 HISTORICAL LAND USE

The portion of the property that has been impacted by the disturbance (vegetation removal and excavation) and has been used for agricultural purposes (mostly grazing) for more than 18 years preceding the recent clearing (Figure 3).



Figure 3: Google Earth image (2004) of the disturbed area

1.2 UNREGULATED ACTIVITIES

The Applicant cleared vegetation with heavy machinery covering an area of approximately 25 853m² and undertook earthworks to create two flat bench areas to produce cement bricks. The vegetation and excavated soil were partially removed from the site with some stockpile material at the bottom of the site (Figure 4).

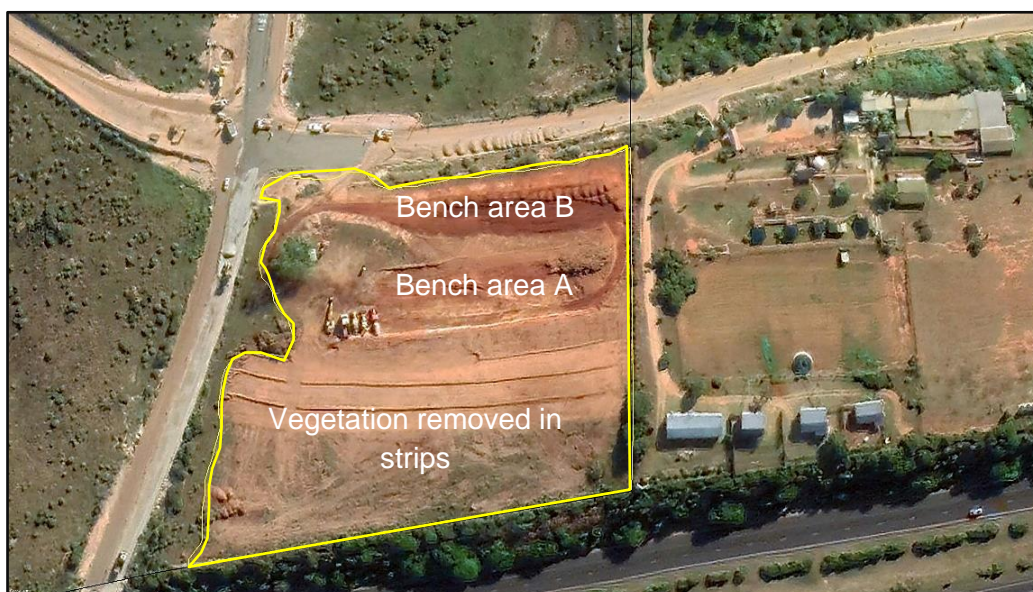


Figure 4: Google Earth image (2020) showing the disturbed area

The site was inspected on 22 September 2022 and several photographs were taken of the disturbed area (Figure 5)

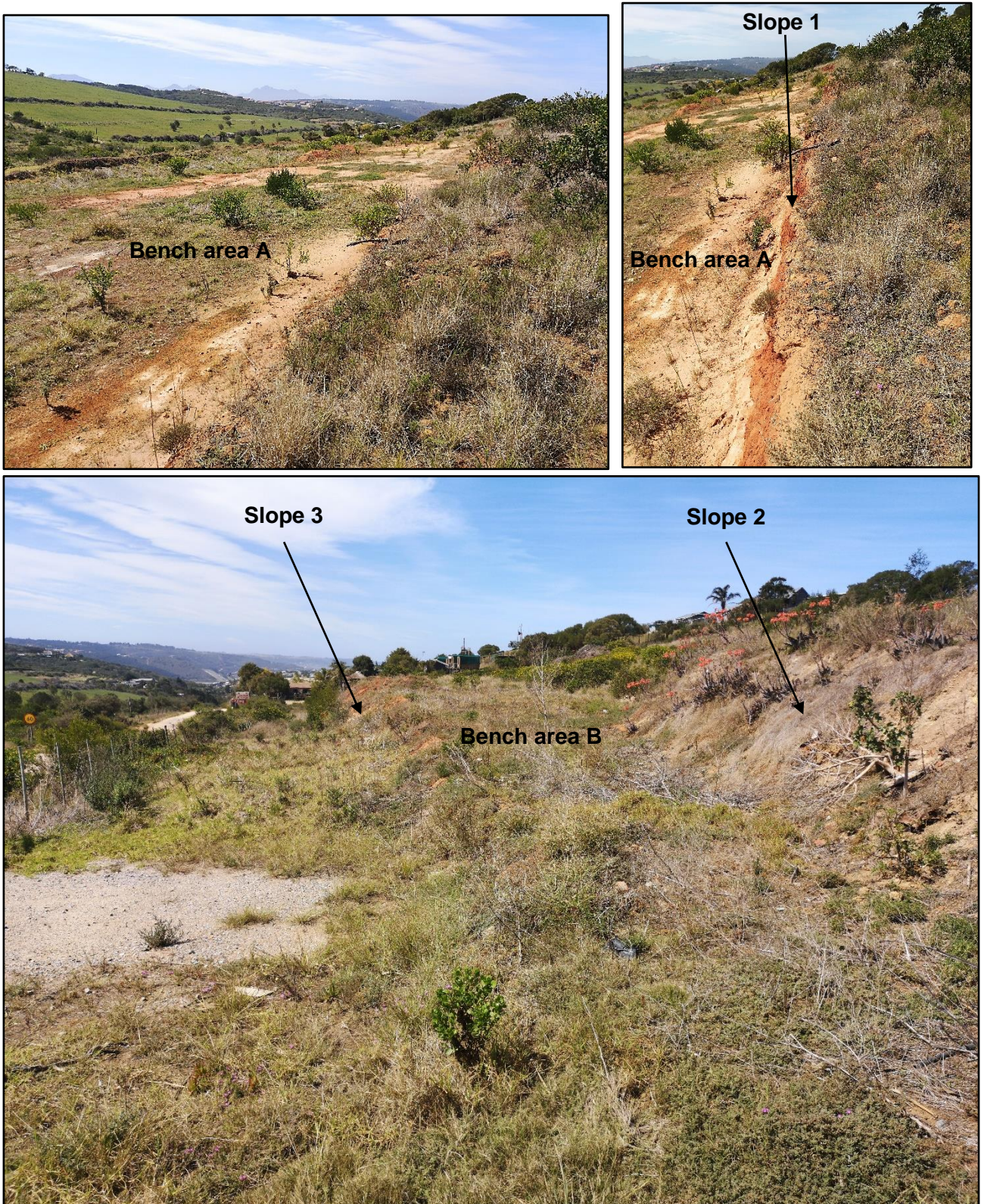


Figure 5: Excavated areas



Figure 6: Area where vegetation was removed in strips

The activities to create the disturbance on the site included the following (Figure 4):

- Earthworks to create bench A (4 365m²)
- Earthworks to create bench B (5 168m²)
- Removal of vegetation in strips (5 168m²)

Despite the level of disturbance and earthworks, at the time of the site visit, it was evident that vegetation has established very well on the disturbed areas except on the steep slope (cut) at bench A (Figures 5 & 6).

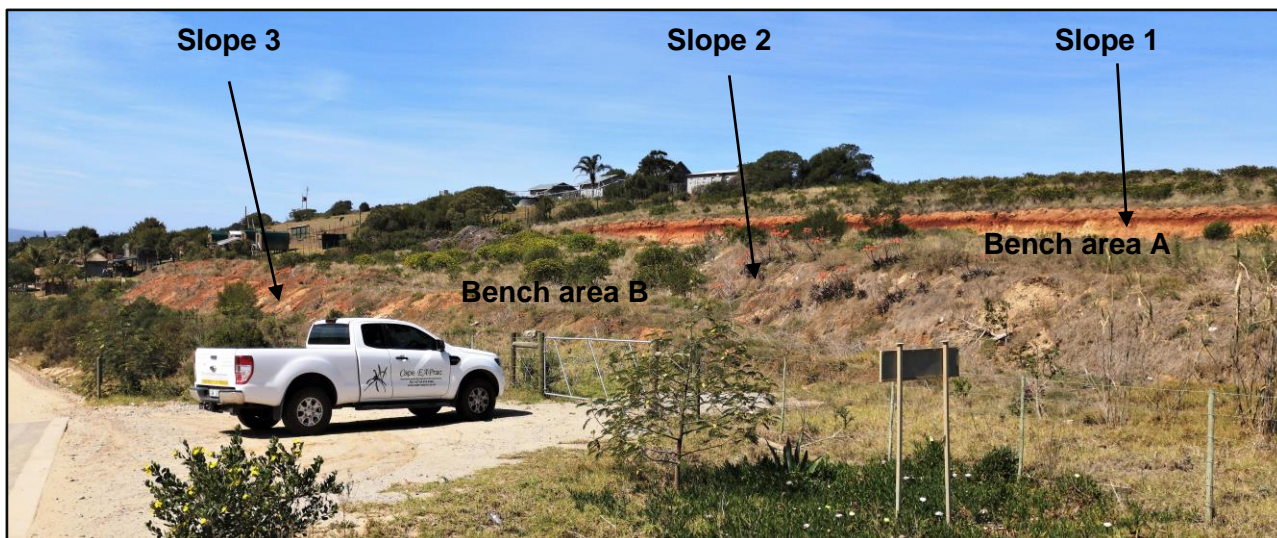


Figure 7: Steep slope area

The Department cited the following listed activities in the National Environmental Management Act (Act 107 of 1998, as amended), in the Pre-Compliance Notice:

Listing Notice 3 of 2017:

Activity 12

The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan

i. Western Cape

Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004.

After having inspected the site, Cape EAPrac submits that the following listed activity also applies:

Listing Notice 1 of 2014 (as amended):

Activity 27:

The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for the undertaking of a linear activity or maintenance purposes in accordance with a maintenance management plan.

2. ENVIRONMENTAL FEATURES OF THE SITE

The disturbed area **partially** falls within an area designated as a Critical Biodiversity Area 1 (CBA1), Critical Biodiversity Area 2 (CBA2) and Ecological Support Area 1 (ESA1) for terrestrial (Figure 7). No aquatic or forest areas are present on the site.

Although Critical Biodiversity and Ecological Support Areas have not yet been adopted for the Western Cape, it alludes to the fact that activities undertaken within such designated areas must be done in terms of the Duty of Care Principles of NEMA.

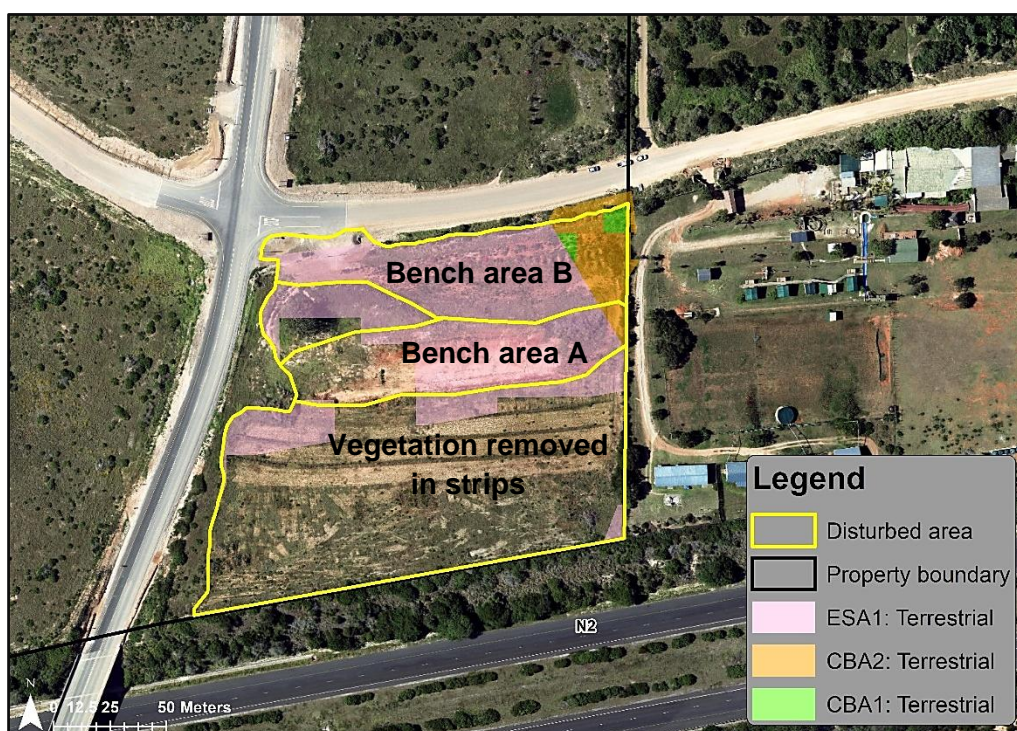


Figure 8: Critical Biodiversity Area and Ecological Support Area designations for the site

According to the **national vegetation map** (2018) the vegetation type is classified as **Hartenbos Dune Thicket** with a terrestrial threat status of **Least Concern**. However the 2011 Ecosystem Threats Status (Gazetted) indicate the ecosystem threat status as **Endangered** and the vegetation type as **Groot Brak Dune Strandveld**. The site has been used for agricultural purposes for more than 18 years with very little indigenous vegetation remaining before the disturbance of the site.

3. REHABILITATION REQUIREMENTS

The affected area is not deemed highly sensitive, and it is small as well as fragmented and completely fragmented from other remaining natural areas through existing major roads on all four (4) sides. The work area can be easily confined and the methodology of working from the top down will avoid destabilising areas that have been restored.

Considering the following key aspects, this Rehabilitation Plan recommends the following:

- Bench areas A & B are **not to be backfilled** due to the **good recovery of the vegetation** with groundcover already established (backfilling will result in the loss of natural vegetation all over again);
- The top area where only vegetation was removed in strips requires no activity rehabilitation due to the natural recovery of vegetation where **groundcover has been established**.
- Slope one (1) is 90° and must be **re-shaped** to the same angle as Slope two (2) and three (3) to prevent erosion and allow vegetation to recover.
- Slopes two and three require **no further shaping** because they are not as steep as Slope one and vegetation has already established on them which prevents unwanted erosion from happening (Figures 5-7).

3.1 AIMS OF THIS REHABILITATION PLAN

The outcome of this Rehabilitation Plan is limited to the following:

- Prevent further vegetation loss.
- Recreating a natural, vegetated slopes.
- Landscaping to establish ground cover.
- Prevent unwanted erosion along the re-established slopes.
- Ensure environmental monitoring until completion.

3.2 PREVENT FURTHER LOSS OF VEGETATION

- Vehicles that will be used to shape **Slope one** must come through the gate and follow the grassy area next to the western boundary to the **Bench A**. Vehicles may not venture into surrounding areas containing remaining natural vegetation that has recovered.
- Once Slope one has been shaped clean topsoil must be applied. Total affected area is to be covered with topsoil 20cm-30cm thick.
- Seeding (indigenous grass species mix) must be done immediately after the topsoil cover is restored.
- The shaped area must be covered with an erosion control product such as jute, coir or straw matting. Geotextile called soil saver can also be used (suppliers from Kaytech) (Figure 9).
- Erosion gulleys that may form during the period ground cover establishes must be infilled without delay.
- No other shaping or excavations are permitted.

Before the shaping commences, the Applicant must inform the Environmental Control Officer (ECO), or the landscaper to inspect the area to identify plants within the excavated area that can be rescued and transplanted back on the site in the affected areas. The ECO must also oversee the reshaping activity for Slope one.

If additional topsoil is deemed necessary, the ECO must confirm that the topsoil is sourced from a permitted source and that such external topsoil must be free from invasive alien species.

3.3 ESTABLISHING GROUNDCOVER & PREVENTING UNWANTED EROSION

The following recommendations must be implemented.

- Once the affected area has been covered with topsoil, the area must be raked lightly to create an even surface before seeding takes place.
- Grass seeds or similar to be used must be as follows (combination, or individual):
 - *Digitaria Eriantha* (used in September)
 - *Ehrharta Calycina* (used in April)
 - *Ehrharta Meliciodes* (used in April)
 - *Cynodin Dactylon* (used in September)
 - The seed must be mixed and sown at a ratio of 1:1:1, at a distribution rate of approx. 20 – 25kg per hectare.
 - Grass seed can be *obtained* from SSK: *Agricol* in Mossel Bay (044 – 601 1200), George (Tel. 044 – 878 2407) and Cape Town (Tel. 021 – 981 1126).
- As a general rule of thumb, the seed must be sown at a depth of no more than double the size of the seeds. In most cases, this will amount to a depth of no more than 5mm (so not necessary to bury the seeds once sown). The loose soil can be tamped down with the front of a rake/spade once seeded.
- Temporary irrigation of the grassed areas can be accommodated with a mobile pump taking water from the two on-site rainwater tanks.



Figure 9: Example of soil erosion protection measures along sloped areas.

3.4 ACCESS CONTROL

Vehicles entering the site for backfilling of the affected area or bringing in additional topsoil must refrain from moving into areas containing natural vegetation. The lower-lying portion of the site that has been used for agriculture can be used to stockpile and store any material.

Once the work is done, no vehicles must be allowed onto the rehabilitated area until such time as full ground cover has been established.

3.5 INVASIVE ALIEN CLEARING

For the duration of rehabilitation and restoration of the affected area, the Applicant is responsible for the continuous removal of invasive alien species observed within the affected area. Invasive alien vegetation must be removed by hand and herbicide applied to further prevent spreading.

3.6 TIMEFRAME

The Applicant must reshape Slope one within **three (3) months** from when the rehabilitation plan has been approved taking into account the fact that winter months are not ideal growing months, whereas warmer months are better suited for landscaping and growing to be effective.

Seeding must be implemented within a further **two (2) months** from when reshaping is complete.

3.7 MONITORING

It is a recommendation of this plan that the Applicant appoint an ECO before and for the duration of the restoration/rehabilitation to oversee the backfilling and reshaping, as well as the rehabilitation efforts.

1. The Applicant is obliged to inform the **appointed ECO** before any material will be backfilled so that indigenous plants within that area can be clearly marked/rescued/replanted before the material is moved.
2. The ECO must **induct** the appointed contractor who will be responsible for the earthmoving activities before any backfilling takes place to ensure he/she understands the Rehabilitation Plan outcomes.
3. A first **Completion Statement** must be compiled by the ECO once the **reshaping** has been completed (no later than six weeks post reshaping).
 - a. This report must be submitted to the Competent Authority.
4. **Monthly follow-up inspection** must be undertaken by the ECO for the duration of landscaping/rehabilitation period to establish ground cover (for a period of six months from when the completion statement is submitted).
5. A second **Completion Statement** must be compiled by the ECO within six weeks from when the site has been stabilised/seeded.
 - a. This Completion Statement must be submitted to the Competent Authority.
6. **Monthly follow-up inspections** must be undertaken by the ECO for a minimum period of six months once seeding is completed to monitor the establishment of ground cover.
 - a. If ground cover establishment is not deemed sufficient by the ECO during this period, or erosion measures are failing, measures from this Rehabilitation Plan must be repeated where necessary and at the discretion of the ECO.
7. **Final Completion Statement** must be compiled and submitted to the Competent Authority within no less than one (1) year from when the second Completion Statement has been submitted.

4. ROLES AND RESPONSIBILITIES

The key roles and responsibilities are detailed in the table below.

Table 1: Roles and responsibilities with regard to the implementation of the Rehabilitation Plan.

Role	Responsibility
Environmental Authority – Provincial Department of Environmental Affairs.	
The Provincial Department of Environmental Affairs & Development Planning is the competent / delegated	<ul style="list-style-type: none"> Ensure overall compliance with the Rehabilitation Plan. Review this document and any revisions thereof. Undertake site audits at their discretion.

Role	Responsibility
<p>authority responsible for compliance with the relevant environmental legislation.</p>	<ul style="list-style-type: none"> Enforce legal mechanisms for contraventions of this Rehabilitation Plan.
<p>Applicant – IDEAL TRADING 103 CC</p>	
<p>Responsible for ensuring compliance with all statutory requirements relating to the proposed works.</p>	<ul style="list-style-type: none"> Implement the rehabilitation plan. Ensuring compliance with the conditions set out in Pre-Compliance Notice & Rehabilitation Plan. Compliance with the requirements set out in this Rehabilitation Plan. Appoint an ECO to oversee earthworks and rehabilitation.
<p>Environmental Control Officer (ECO) – To be appointed</p>	
<p>The ECO fulfils an advisory role to monitor, guide and report compliance with the rehabilitation plan.</p>	<ul style="list-style-type: none"> Revise, update and amend the rehabilitation plan if necessary and submit the amendments to the competent authority for consideration. Ensure all relevant persons have a copy of the plan and any amendments thereof. Report any non-compliance with the Rehabilitation Plan to the competent authority if necessary. Undertake site inspections in compliance with this plan. Comply and submit Completion Statements to the DEADP, as well as the employer’s representative & Applicant.

5. ENVIRONMENTAL CONTROL OFFICER

In compliance with this Rehabilitation Plan, an Environmental Control Officer (ECO) must be appointed to oversee the rehabilitation and to implement monitoring of rehabilitation.

The ECO will be responsible for monitoring, reviewing and verifying compliance with the environmental specifications of this Plan and the conditions of approval.

The appointed ECO must have proven experience with environmental monitoring and control on similar-scale projects.

The responsibilities of the ECO include but are not limited to the following:

- Review, maintain and update this Plan where necessary.
- Compilation of Completion Statements to ensure compliance with the Plan and conditions of approval. These reports must be submitted to the competent authority within 6 weeks from when (a) reshaping, (b) seeding/landscaping have been completed.
- Monitor compliance with this Plan.
- Recommend the issuing site instructions to the Applicant for corrective actions required.

5.1.1 Frequency of monitoring inspections

The ECO must inspect the site at the outset of any event where the material will be moved for reshaping / topsoil brought in.

When the material will be moved i.e., reshaping, the Applicant must confirm the period over which material will be moved, for example, an entity may bring in 20 cubic metres of topsoil from elsewhere and it will take 2-days to dump and shape the material, then the ECO must be on-site during this period. Likewise, when reshaping is undertaken the ECO must be informed of the period it will take to complete a section and conduct ad hoc site inspections during this period.

The same applies to when seeding/planting will take place as these activities will be aligned with when a specific section of reshaping is completed.

5.1.2 Induction

The appointed contractor who will be responsible for heavy machinery moving onto/off-site must be inducted before such machinery being allowed on-site.

Personnel appointed/sourced to undertake the reshaping and seeding/planting must be inducted by the ECO before these actions are performed.

5.1.3 Reporting & Record keeping

The ECO must submit all three of the named Completion Statements within 6 weeks from when the specific activities, namely earthworks, seeding and post-monitoring are completed.

The ECO must keep a record of all induction sessions.

Should additional rehabilitation measures be required, the ECO must make recommendations in this regard in the Completion Statement(s) and follow-up rehabilitation measures must then be reported to the Competent Authority within one (1) month from the date when Completion Statement was submitted.

6. CONCLUSION

The site that was affected is not deemed to have a high ecological sensitivity and before the disturbance occurred was an agricultural area for more than 18 years. Invasive alien vegetation is of concern and the Applicant must ensure general compliance with the National Environmental Management Biodiversity Act (NEMBA) as well as the stipulations on managing invasive alien vegetation in accordance with the Conservation of Agricultural Resources Act (CARA).

It is recommended that the applicant be allowed maximum six (6) months after this Plan has been approved, to reshape and restore the affected area with landscaping efforts.

The appointed ECO must monitor the activities and compile three (3x) separate Completion Statements throughout the rehabilitation process as stipulated in this plan.

The Completion Statements must be submitted to the DEA&DP for record purposes.

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