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REHABILITATION PLAN FOR A 1280m² PORTION OF

REMAINDER VAALEVALLEI, 219, MOSSEL BAY

Compiled by	HilLand Environmental
HilLand reference	MOS25/1262/21
Date	12 September 2025
DEADP reference	**16/3/3/5/D6/18/0006/24**

HilLand Environmental Report: MOS25/1262/21
12 September 2025

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Rehabilitation plan portion of remainder farm 219 Vaalevallei

Submitted to:

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Department of Environmental Affairs and Development Planning
Western Cape Government

Conditions of report use:

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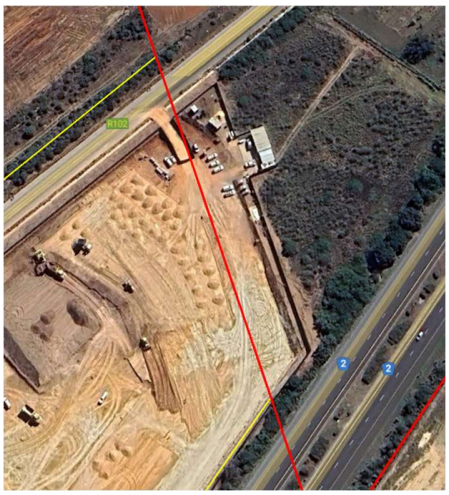
2 INTRODUCTION

HilLand Environmental EAP Services were appointed by the applicant, Garden Walk to draft a Rehabilitation plan for the portion of land erroneously cleared of vegetation as part of the ground preparation and construction of the Garden Walk Mall.

The error occurred through the incorrect survey pegs being used on site and all parties assuming that the clearing was taking place in accordance with the EA issued in terms of NEMA and under the EMPr for the project.



Remainder farm 219 Vaalevallei (outline in red) abuts the Garden Walk property (outline in yellow).

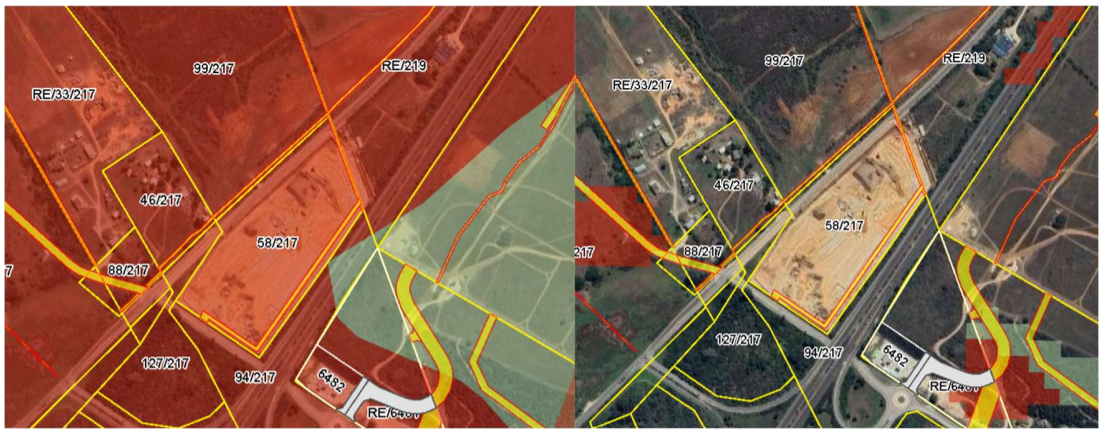
3 HISTORIC CONTEXT and BIODIVERSITY OF THE SITE

As part of the lawful commencement over the full Garden Walk development site, plant rescue was undertaken (visible geophytes, Aloes and a Milkwood tree).

Topsoil was rescued for use in landscaping and rehabilitation.

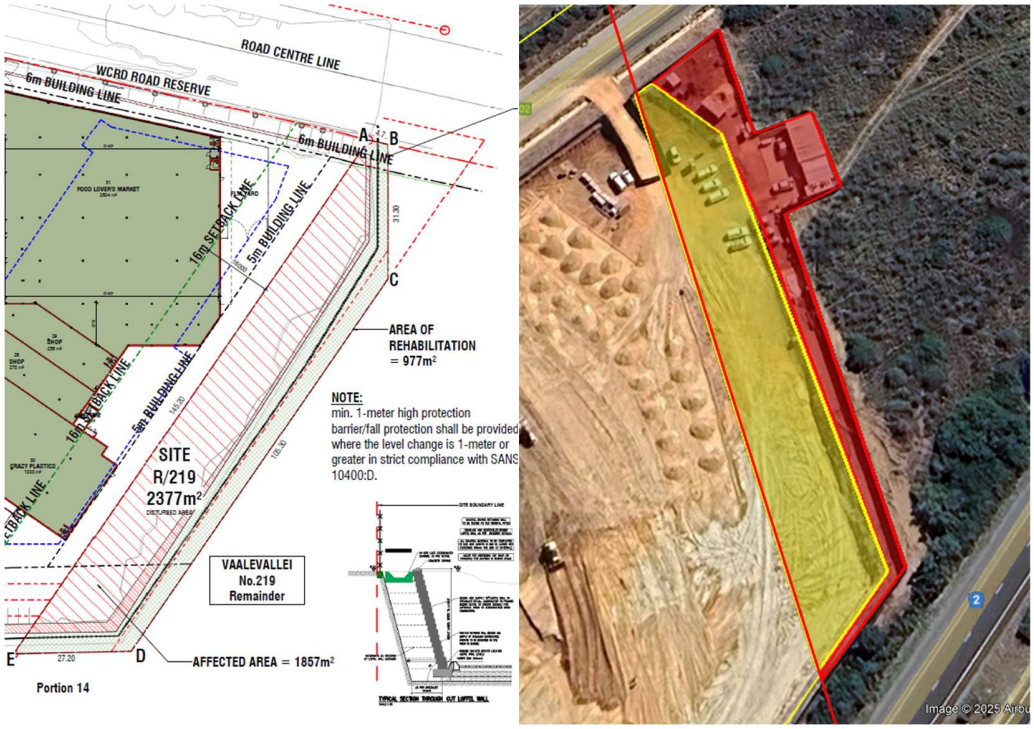
The area in question was not a pristine ecosystem but has been subject to historic transformation over time.

Aerial photos (2022 and 2005) showing the transformed nature of the site prior to clearing.



The area is mapped as falling within the original extent of a Critically Endangered Ecosystem – Mossel Bay Shale Renosterveld, however the SANBI Endangered Ecosystems remnant mapping for the area with the Google Earth current aerial photo confirms that the area had already been historically transformed and no longer supported intact endangered ecosystem as confirmed by the specialist in the assessment undertaken for the Garden Walk EA amendment prior to them commencing on site.

The elements of Endangered Hartenbos Dune Thicket occur close to the site and as such they are also included in the rehabilitation plan.



The area above the retaining wall is proposed for rehabilitation (area in red), while the area below and including the retaining wall will form part of a S24G rectification application (area in yellow).

The rehabilitation area will need to include the temporary contractors site office and parking area (total rehabilitation area of approximately 1280m^2). The contractor's site office area was approved in terms of the EMP as an area of 295m^2 extending over the boundary and onto the neighbouring property (see method statement and approved plan at the time). This specifically kept disturbance of the area temporary and under the NEMA threshold 300m2 at the time. The use of the incorrect boundary line, now requires the temporary site camp rehabilitation to be included in this rehabilitation plan.

As part of the area is still in use, the rehabilitation is proposed in two phases:

- Phase 1 (Green) 480m^2 to be undertaken immediately on approval of the rehabilitation plan
- Phase 2 (Red) 800m^2 to be undertaken in March 2026 as the construction phase reaches finality and the contractor can move their office off site.

Photo of the rehabilitation area above the retaining wall – where work and access has been restricted.

Photo of the area below the retaining wall where a S24G rectification application will be made to retain the area already cleared of vegetation.

4 ASSESSMENT OF DISTURBANCE

The area that has been physically cleared of vegetation above the retaining wall was initially cleared as part of the development area in terms of the approved EMPr. Plant and topsoil rescue was undertaken in terms of compliance with the EMPr for Garden Walk.

The area was assessed by a biodiversity specialist prior to any works commencing and it was confirmed by the specialist that the area supported secondary indigenous vegetation present after historic transformation through agricultural activities.

The fact that the boundary line had been incorrectly surveyed and pegged on site was unfortunate. The area between the retaining wall and the no-go demarcation fencing can be easily rehabilitated to its prior condition as there has not been significant irreversible disturbance.

In summary, the rehabilitation will include loosening the compaction of the soil, returning the topsoil from the stockpile, seeding the soil to prevent erosion (wind or water) and replanting

vegetation that would have occurred there prior to the clearing. Rescue plants and plants selected for the specific ecosystem will be planted in the area.

There will have been no significant long-term impact on the pre-existing natural vegetation based on the status of the area prior to commencing the clearing and the ease with which the area can be restored.

Aloe and thicket bushclumps present in the general area on site prior to construction commencing.

Aloe along the farm fence line that were rescued prior to construction commencing.

Aloe rescue in progress.

Site camp as it was being set up.

Status of the vegetation on the property immediately after clearing. The shade net was installed to demarcate the property boundary and no-go area. The vegetation to the left is an accurate representation of the status of the vegetation in the area that was physically cleared to the right of the shade cloth fence.

Species present – various grasses (*Paspalum, Digitaria, Eragrostis*), weed species (*Conyza, Solanum),* Alien species (*Acacia cyclops),* pioneer thicket species (*Helichrysum petiolare, Searsia lucida, Osteospermum moniliferum*)

Current status on the agricultural land to the east of the shade netting, showing the topsoil mostly vegetated along the fencing with grasses and pioneer species *Tetragonia* and mustard (agricultural crop remnant).

Status of the vegetation on the inside of the fencing. Showing an area that has been compacted and disturbed, with limited regrowth due to the compaction and disturbance. Note that there is significant rodent activity on both sides of the fence in the form of fresh burrows. This will impact any seeding activities and must be kept in mind when sowing seed.

Area above the retaining wall to be rehabilitated. Area below the retaining wall to remain in use as a road in terms of the S24G.

Area in and around the site camp will have to be rehabilitated once construction is complete and all temporary structures are removed.

5 REHABILITATION PLAN

This specification outlines the rehabilitation approach for a historically transformed agricultural area where there has been recent clearing disturbance within the ecotonal area between Mossel Bay Shale Renosterveld vegetation type (FRs14), and Hartenbos Dune Thicket (AT40). The objective is to restore some form of ecosystem structure and functionality on the portion of land that was disturbed outside the property boundary

The rehabilitation plan aims to create an area that mimics the current surrounding natural vegetation pattern and process. Grassy areas with flowering shrubs and forbs and scattered bushclumps of thicket species which will increase structural diversity, bird and pollinator habitat, and make the site more resilient.

5.1 Planting Design for Bushclumps

- Establish clusters (10–15 plants per clump).
- Space bushclumps 20m apart
- Combine 2–3 canopy species (e.g., *Euclea racemosa, Olea exasperata, Sideroxylon inerme*) with understory shrubs (*Carissa, Gymnosporia, Searsia*).
- Add climbers (*Rhoicissus digitata*) and Aloe around edges.
- Allow a good grassy groundcover area between buschclumps.
- Allow for natural animal/bird dispersal to expand bushclumps over time.

5.2 Rehabilitation Objectives

- Re-establish indigenous thicket clusters, shrubs and grasses, local to and occurring naturally in the surrounding area.
- Prevent re-infestation of alien species.

5.3 Methodology

5.3.1 Site Preparation:

- Remove alien species or weeds (*Acacia* spp.) prior to planting.
- Rip / loosen compacted soils (>300 mm depth) to improve infiltration.
- Return 20cm of topsoil to the area from the topsoil stockpile site. Try to follow the natural topography to create some habitat diversity in the form of undulations, swales, rises etc.

5.3.2 Planting Strategy:

- Apply grass seed mix at a rate of 4g /m^2
- Plant bushclumps of thicket species including the rescued *Aloe* at random spacings.
- Plant shrubs between the bushclumps for habitat diversity and recreating the ecotone.
- Cover the area with a mulch to retain moisture.
- Cover the area with brushwood to limit wind damage while plants establish.
- Irrigation – temporary irrigation to be installed for watering the plants until they are well established.
- Weeding – only removal of alien invasive species, the area is rehabilitation and not landscaping.
- Protective fencing – fencing will be installed along the edge of the rehabilitation zone in order to protect the rehabilitation area from any future disturbance through farming activities. No pathway, mowing or disturbance along the base of the fence line permitted.

5.3.3 Microhabitat Design:

- Cluster shrubs in naturalistic patches / bushclumps (not uniform rows).
- Leave open gaps for grasses and shrub planting between the bushclumps.

    - **Grasses** (to stabilise the soil and prevent erosion)
        - ***Themeda triandra***
        - ***Heteropogon contortus***
        - ***Cynodon dactylon***
        - ***Eragrostis curvula, E. capensis***
        - ***Ehrharta calycina***
        - Annual winter rye can be added to the mix

    - **Shrubs** (for between thicket cluster planting)
        - ***Arctotis leptorhyncha, Felicia dubia, Cullumia decurrens***
        - ***Pelargonium capitatum***
        - ***Polygala myrtifolia***
        - ***Selago fruticosa, Selago corymbosa***
        - ***Eriocephalus africanus***
        - ***Dicerothamnus rhinocerotis***
        - ***Eriocephalus africanus, Stoebe plumosa, Metalasia densa***
        - ***Helichrysum cymosum, Helichrysum petiolare***
        - ***Tarchonanthus littoralis***
        - ***Carpobrotus acinaciformis***
        - ***Ruschia leptocalyx***
        - ***Crassula capitella, Crassula rupestris, Tetragonia fruticosa*** (ground covers)

- **Thicket bushclump / ecotone elements** (for random selection of planting clusters)
  - ***Carissa bispinosa***
  - ***Aloe ferox***
  - ***Pterocelastrus tricuspidatus***
  - ***Sideroxylon inerme***
  - ***Pittosporum viridiflorum***
  - ***Searsia crenata, S. lucida, S. glauca***
  - ***Diospyros dichrophylla***
  - ***Grewia occidentalis***
  - ***Olea exasperata,***
  - ***Gymnosporia buxifolia***
  - ***Euclea racemosa***
  - ***Podocarpus latifolius***
  - ***Afrocarpus falcutus***

5.3.4 Sourcing Guidelines

- All plant material must originate from local genetic stock (Mossel Bay area).
- Aloe recovered during plant rescue from the site.

5.3.5 Implementation Timeline

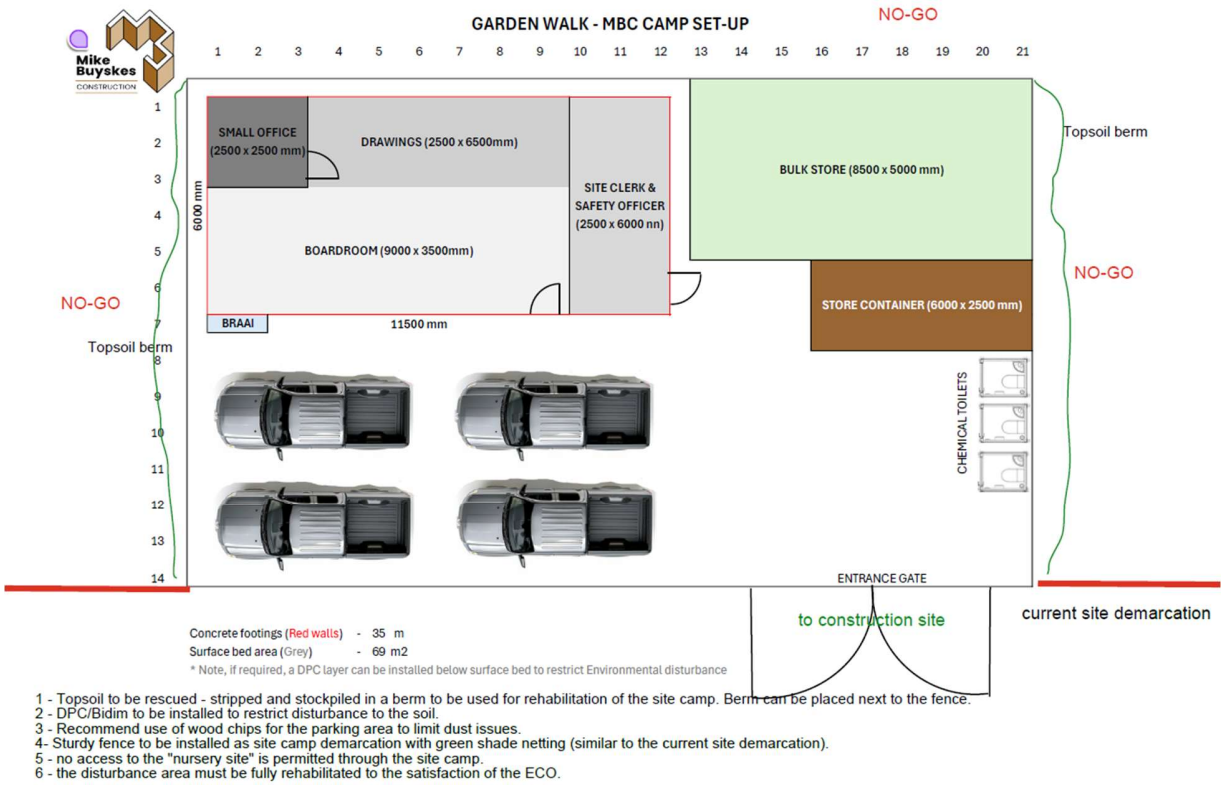
- **Phase 1 (September – December 2025):** Site preparation, alien clearing, soil ripping, topsoil replacement and shaping and planting of the area above the retaining blocks.
- **Phase 2 (March – May 2026):** Site preparation, alien clearing, soil ripping, topsoil replacement and shaping and planting of the area around the contractors site camp offices.

5.3.6 Monitoring & Performance Indicators

- Year 1: ≥50% survival of planted shrubs, ≥60% ground cover.
- Year 2: 80% survival of planted shrubs, 100% ground cover.
- Annual photo-point monitoring and species count.
- ECO to report on the success of the rehabilitation monthly for the first 3 months after completion and thereafter annually for 2 years.

6 References:

- Hoare, D. 2024 – Plants, Animals, Terrestrial & Aquatic Biodiversity assessment.
- National Threatened Ecosystems Lists (2011; updated 2022) with FRs14 status and rationale. Government of South Africa+1
- Western Cape Biodiversity Spatial Plan (2023) — confirms CE status and planning guidance. Cape Nature
- SANBI Red List



Approved method statement for the temporary contractor's site offices.