

THE COMPLETION OF THE R43 FROM STANFORD TO GANSBAAI, WESTERN
CAPE.



Prepared By

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GNEC

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Contents

1. INTRODUCTION.....	2
2. PROJECT LOCALITY.....	3
3. THE VEGETATION.....	4
3.1 Vegetation within study area.....	4
4. BULBS RESCUED.....	5
<i>Gladiolus orientalis</i>	5
<i>Satyrrium carneum</i>	7
<i>Massonia longipes</i>	9
<i>Gladiolus miniatus</i>	9
<i>Lachenalia bulbifera</i>	9
<i>Lachenalia punctata</i>	10
<i>Trachyandra ciliata</i>	10
5. GNEC NURSERY OVERVIEW	12
6. SEEDS AND CUTTINGS.....	14
7. CONCLUSION	14

TABLE OF FIGURES

Figure 1 Locality Map for the TR28/2	3
Figure 2 Vegetation Types for TR28/2	4
Figure 3 <i>Gladiolus orientalis</i> planted in GNEC Nursery	6
Figure 4 <i>Satyrrium carneum</i> planted in GNEC Nursery.....	8
Figure 5 <i>Massonia longipes</i> planted in GNEC Nursery.....	9
Figure 6 <i>Gladiolus miniatus</i> planted in GNEC Nursery.....	9
Figure 7 <i>Lachenalia bulbifera</i> planted in GNEC Nursery	10
Figure 8 <i>Lachenalia punctata</i> planted in GNEC Nursery	10
Figure 9 <i>Trachyandra ciliata</i> planted in GNEC Nursery.....	11

1. INTRODUCTION

Guillaume Nel Environmental Consultants (GNEC) was appointed by EFG Engineers (Pty) Ltd that has been appointed by Western Cape Government (WCG), Department of Transport and Public Works: Roads Branch, for the proposed rehabilitation/upgrading of Trunk Road 28 Section 2 (TR28/2) and the proposed upgrade of the existing degraded storm water infrastructure (culverts) along the road within the road reserve, between Stanford and Gansbaai from Km 23.83 to Km 43.88.

Road rehabilitation and upgrade:

- Proposed road rehabilitation and upgrade will remain mostly within the previously disturbed 30m road reserve;
- The narrow existing road cross-section is substandard and is to be upgraded to a Class 1 rural cross section. The lanes will be widened from 3.2 m to 3.7 m each and 2 m surfaced shoulders will be added to the carriageway;
- Ensure compliance to the 100 km/h design speed guidelines;
- Allow passing opportunities along the road. (High accident risk currently);
- Upgrade of deteriorating pavement structure;
- Improve unsafe access locations in terms of insufficient shoulder sight distances and access spacing;
- Improving the existing destination, tourism and road warning signage and road markings; and
- Concrete lined side drains.

The existing road reserve along TR28/2 varies from 25m to 30m while the proclaimed road reserve is 30 m. It is therefore recommended to expropriate along the study section as required in order to take up the 30 m proclaimed width. The proposed horizontal road alignment follows the existing horizontal road alignment as far as possible in order to minimise expropriation. Proposed improvements to the vertical alignment will result in further expropriation due to deep cut and high fill. The affected landowners were informed of the proposed expropriation and their inputs were taken into account with the preliminary design.

The search and rescue includes:

- Removal of endemic species
- Removal of Geophytes

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2. PROJECT LOCALITY

The Listed Activities will be undertaken on the Trunk Road 28 Section 3 (TR28/2) located between the Stanford and Gansbaai in the Western Cape.



Figure 1 Locality Map for the TR28/2

3. THE VEGETATION

3.1 Vegetation within study area.

According to the Vegetation Map of South Africa, Lesotho and Swaziland (SANBI, 2018) (VEGMAP), the vegetation types occurring in the study area are Agulhas Sand Fynbos on the northern side, and Overberg Dune Strandveld on the southern side.

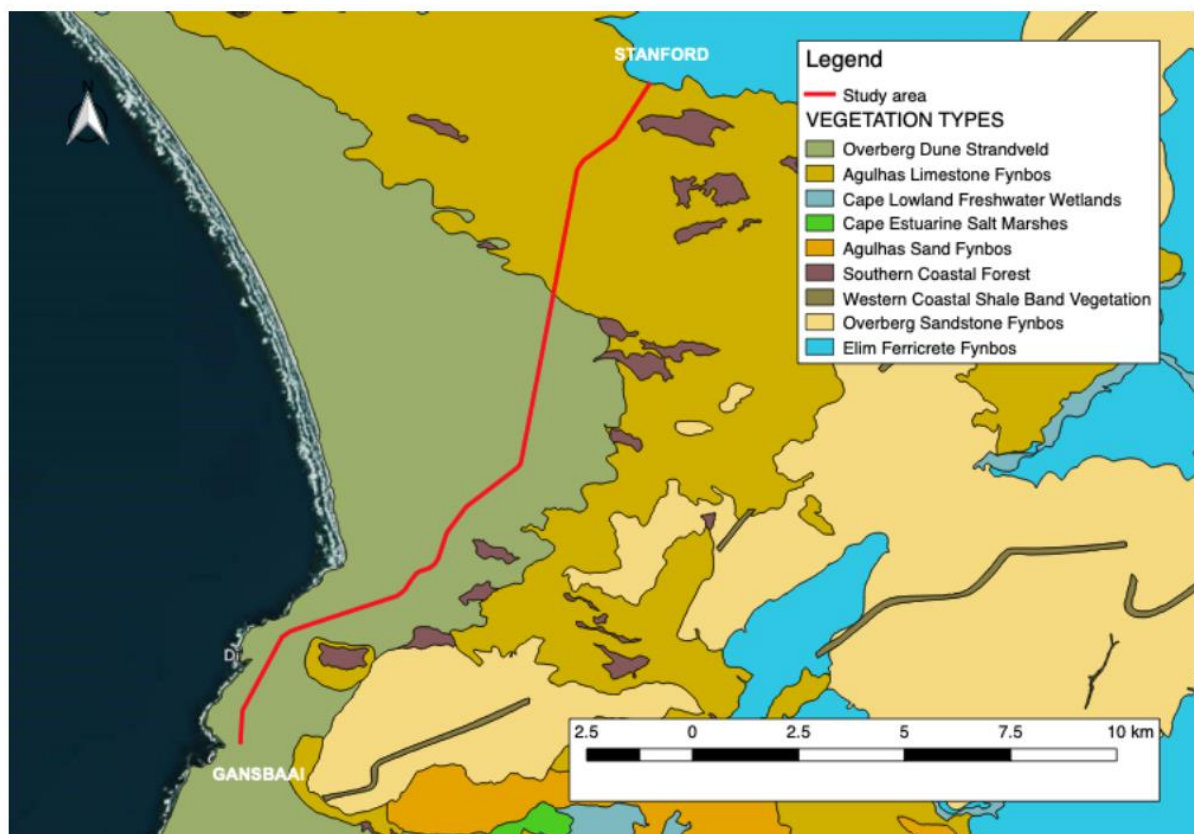


Figure 2 Vegetation Types for TR28/2

4. BULBS RESCUED

Bulb species have been removed within the construction footprint. The following bulbs species have been removed from site and taken to GNEC's rehabilitation nursery where these bulbs have been planted for rehabilitation purposes.

Please refer to the table below for the basic summary of bulbs collected:

<i>Gladiolus orientalis</i>	4636
<i>Gladiolus miniatus</i>	1023
<i>Massonia longipes</i>	682
<i>Satyrium carneum</i>	8932
<i>Lachenalia bulbifera</i>	1354
<i>Lachenalia punctata</i>	1852
<i>Trachiandra ciliata</i>	2524
<u>TOTAL BULBS IN GNEC NURSERY</u>	<u>21 003</u>

The total amount of bulbs of each species is listed below:

Gladiolus orientalis

- Amount collected: 4636 bulbs



Planted in the GNEC Nursery



Figure 3 *Gladiolus orientalis* planted in GNEC Nursery

Satyrium carneum

- Amount collected: 8 932 bulbs



Planted in the GNEC Nursery



Figure 4 *Satyrium carneum* planted in GNEC Nursery

Massonia longipes

- Amount collected: 682 bulbs



Figure 5 Massonia longipes planted in GNEC Nursery

Gladiolus miniatus

- Amount collected: 1023 bulbs



Figure 6 Gladiolus miniatus planted in GNEC Nursery

Lachenalia bulbifera

- Amount collected: 1 354 bulbs

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Figure 7 *Lachenalia bulbifera* planted in GNEC Nursery

Lachenalia punctata

- Amount collected: 1 852 bulbs



Figure 8 *Lachenalia punctata* planted in GNEC Nursery

Trachyandra ciliata

- Amount collected: 2 524 bulbs

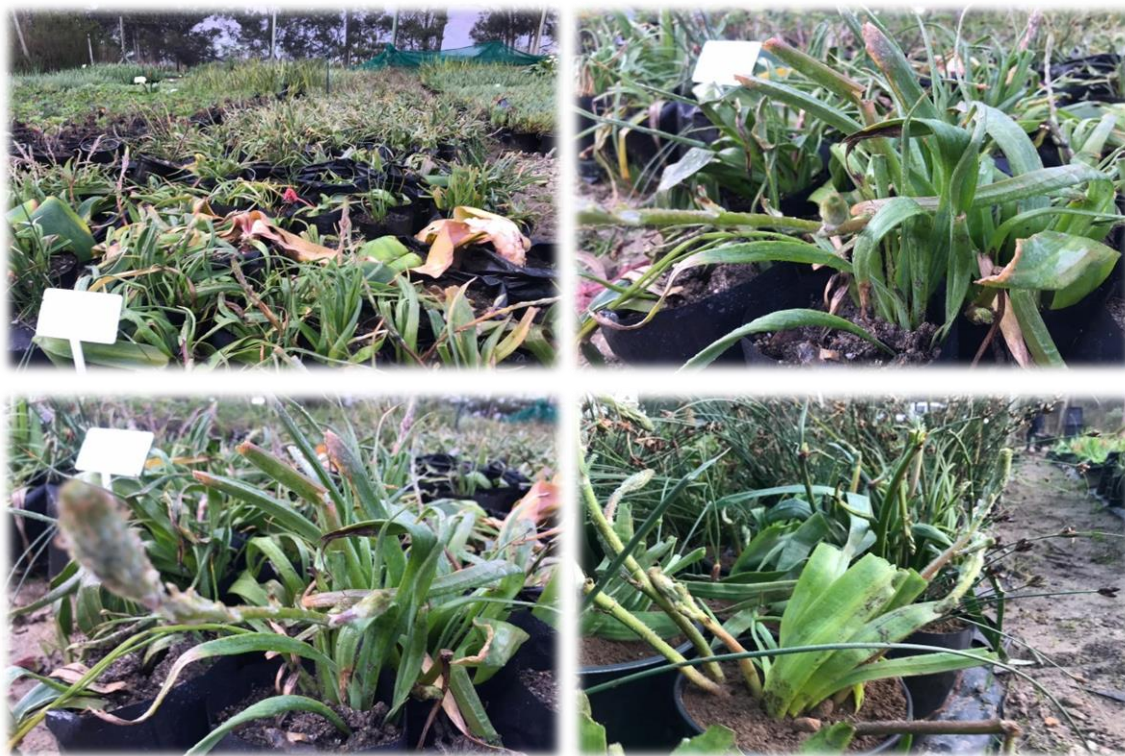


Figure 9 *Trachyandra ciliata* planted in GNEC Nursery

5. GNEC NURSERY OVERVIEW



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6. SEEDS AND CUTTINGS

The following seeds were collected thus far along the TR28/2:

- *Metalasia muricata* – 32 kg
- *Helichrysum petiolare* – 8 kg
- *Aristea bakerii* – 8 kg



Cuttings of the following species will also be made:

- *Osteospermum monilifera*
- *Metalasia muricata*
- *Searsia crenata*

7. CONCLUSION

GNEC in our professional capacity as rehabilitation specialist strongly feel that the search and rescue of endemic species have been very successful.

A total amount of 21 003 plants were search and rescued thus far.

The bulbs have been planted within the rehabilitation nursery for rehabilitation purposes. The seeds will be kept until sowing.

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