

## A. INTRODUCTION

### Field Note A2. The Study Area - Morphology

The Study Area spans the coastal belt and the hills north of it between Cape Agulhas in the southwest and Cape Infanta in the northeast. There are five distinct geomorphic units: 1. along the coast - the dune belt; 2. in the southwest - the Bredasdorp Plain; 3. in the centre - the valleys and Hard Dunes (west and east); 4. in the northeast - (mount) Potberg; and 5. in the north - the Shale Hills (the Ruëns) (Figure 1).

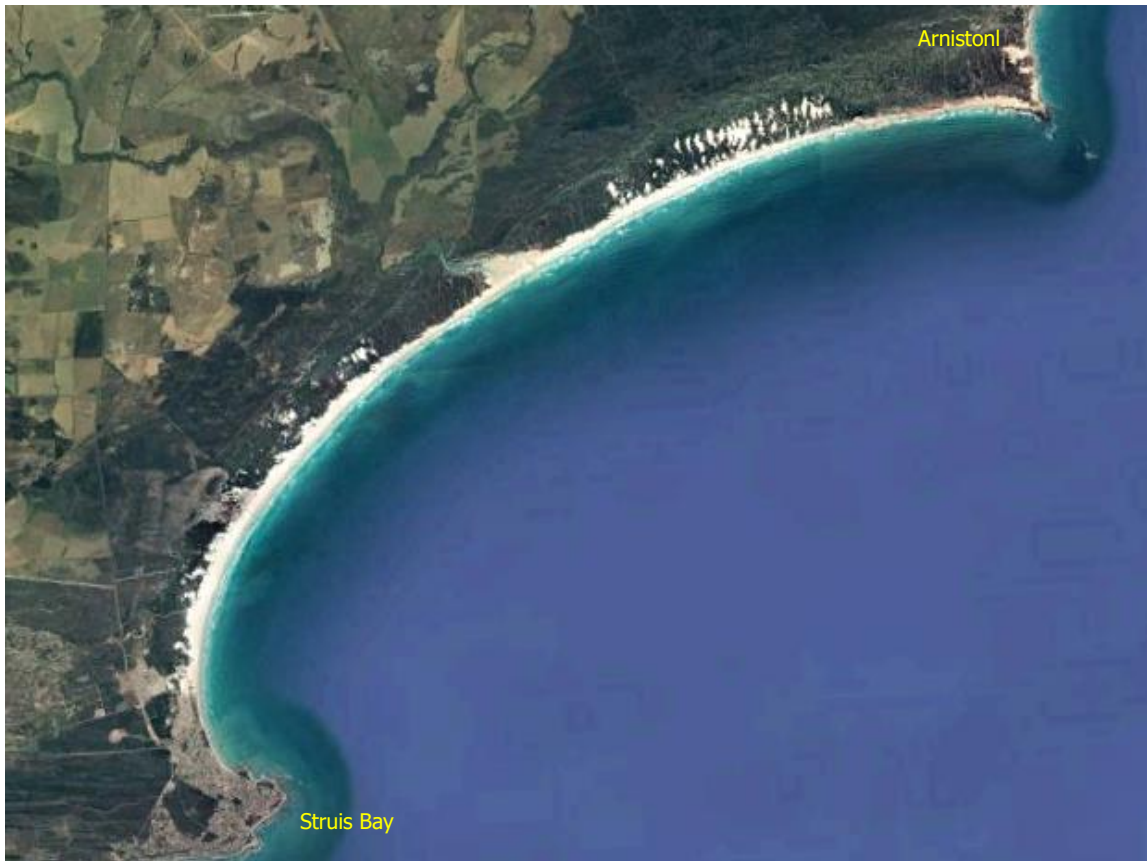


**Figure 1. Satellite Image of the Study Area, showing the generalised confines of the five distinct geomorphic units: 1- the dune belt; 2- the Bredasdorp Plain; 3- the Valleys and Hard Dunes (3W – West Valleys and Hard Dunes; 3E – East Valleys and Hard Dunes); 4- Potberg; 5- the Shale Hills (name given by the author).**

Later in this Website, these units and features are described in detail. For the purposes of this introduction, only a few images and photographs are presented (below).

### **The dune belt**

The dune belt is neither continuous nor uniform. The dunes constitute the youngest formation (the Strandveld Formation) in the area. Some of the dunes are low and other very high (nearly 100 m); some are vegetated and thus not shifting anymore. There are three separate dune fields: in the southwest – the Struis Bay to Arniston Dune Field (Figures 2 and 3); in the centre – the OTR (Overberg Test Range) Dune Field (Figures 4 and 5) and in the northeast - the De Hoop Dune Field (Figures 6 and 7).

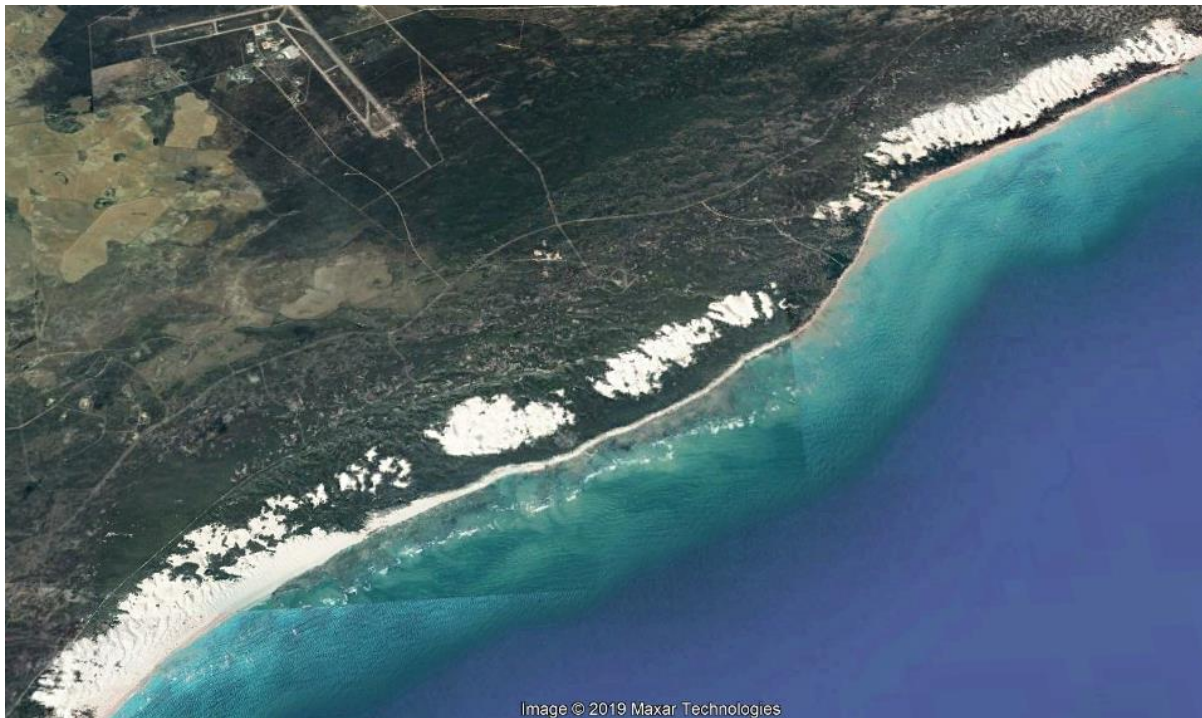


**Figure 2. Satellite Image of the Struis Bay – Arniston Dune Field.**

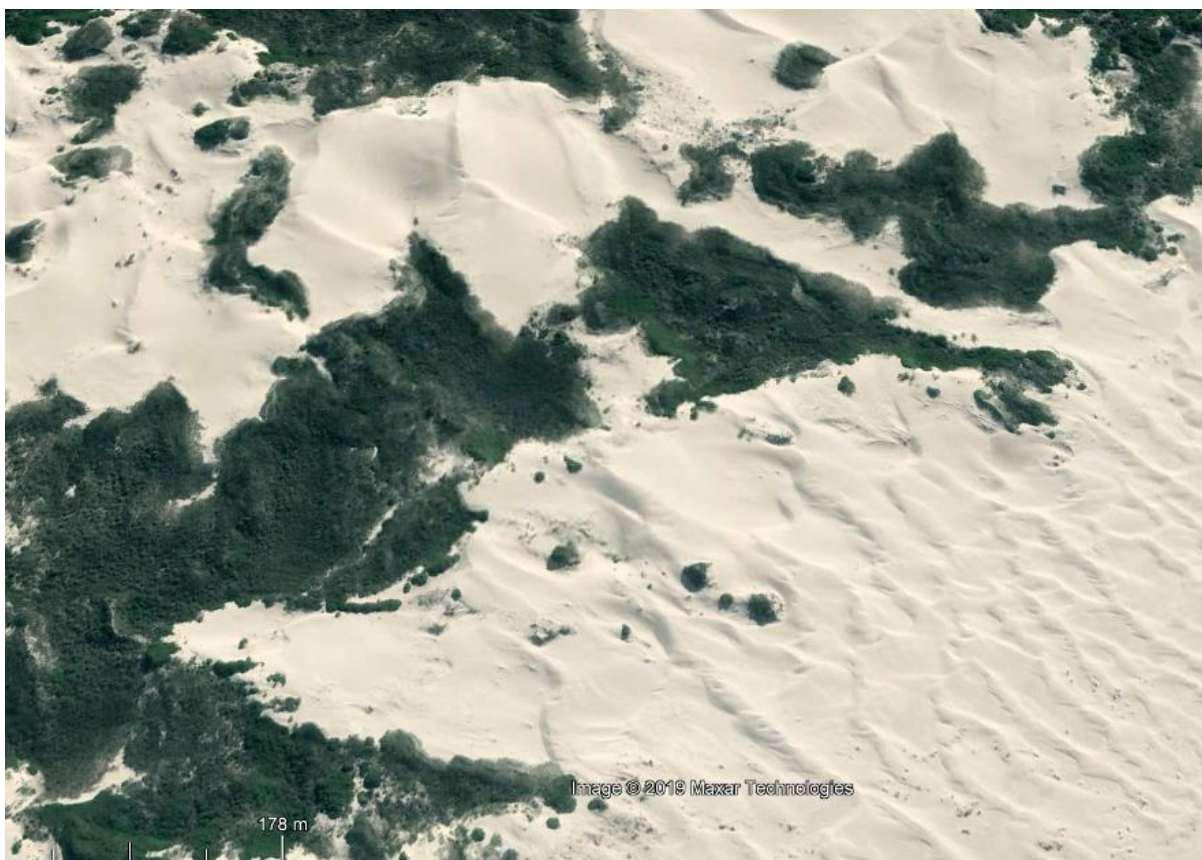


**Figure 3. Satellite Image of typical dunes of the Struis Bay – Arniston Dune Field.**





**Figure 4. Satellite Image of the OTR Dune Field.**



**Figure 5. Satellite Image of typical dunes of the OTR Dune Field. Two types of dunes are discerned from this image.**





**Figure 6. Satellite Image of the De Hoop Dune Field.**

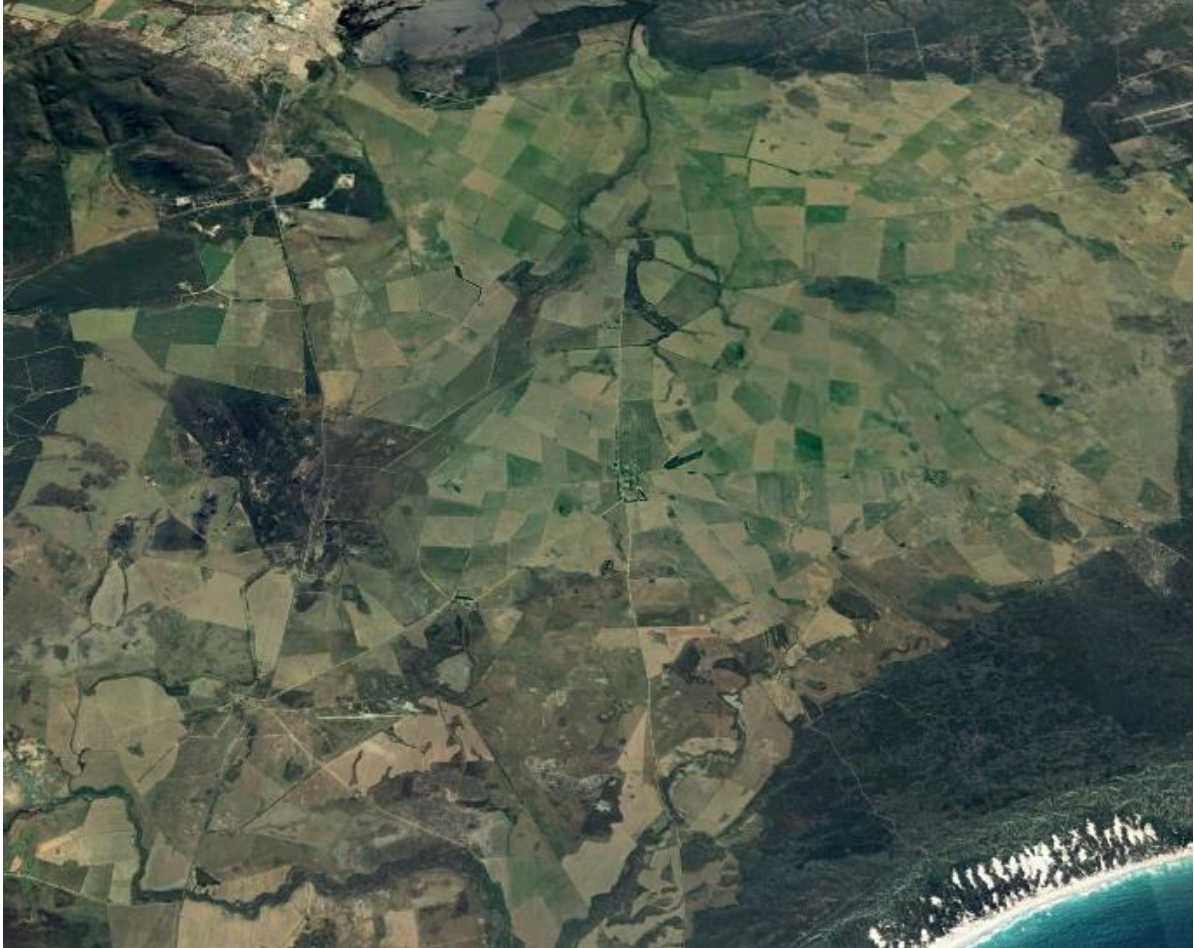


**Figure 7. Satellite Image of typical dunes of the De Hoop Dune Field. The dunes rise up to nearly 100 m above sealevel, and are the highest in the Study Area.**



### ***The Bredasdorp Plain***

The Bredasdorp Plain, levelled by wave action, is nearly flat, except for the ridges close to the shore (Figures 8 and 9).



**Figure 8. Satellite Image of the Bredasdorp Plain.**



**Figure 9. Satellite Image of Prinskraal (also Princekraal), at the centre of the Bredasdorp Plain.**



### ***The West Valleys and Hard Dunes***

The West Hard Dunes attain heights of over 180 m above sealevel. (Figures 10 and 11).



**Figure 10. Satellite Image of part of the West Valleys and Hard Dunes.**



**Figure 11. View of typical West Hard Dunes.**



### ***The East Valleys and Hard Dunes***

The East Hard Dunes attain heights of over 270 m (Figures 12 and 13).



**Figure 12. Satellite Image of part of the East Valleys and Hard Dunes.**



**Figure 13. View of typical East Hard Dunes.**



## **Potberg**

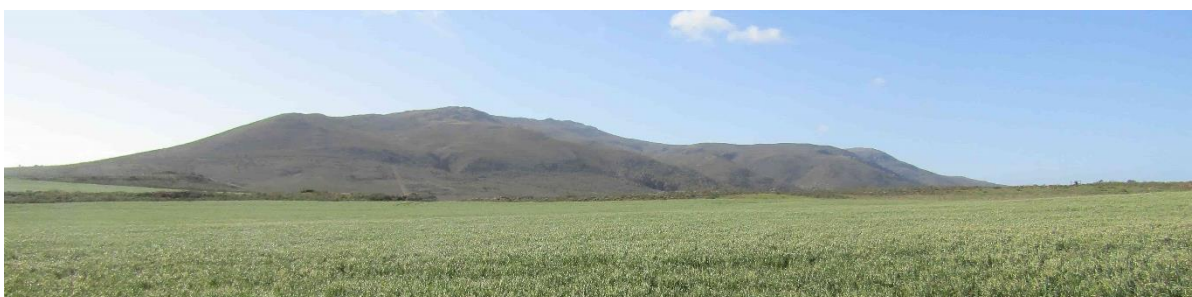
Potberg is a mountain built of the Table Mountain Group Formations. Its highest peak is 611 metres above sealevel (Figures 14 to 16).



**Figure 14. Satellite Image of Potberg. The Breede River flows north of it.**



**Figure 15. Satellite Image the southern part of Potberg.**



**Figure 16. View to the southwest on Potberg.**



### **The Shale Hills**

The area north of the four geomorphic units described above comprise the Shale Hills of the Bokkeveld Formations. The name Shale Hills was given by the author (it is part of the hilly area between Caledon and the Breede River, commonly called Ruëns) (Figures 17 and 18).



**Figure 17. Satellite image of part of the Bokkeveld Formations Shale Hills.**



**Figure 18. View on Shale Hills of the Bokkeveld Formations.**