

## **APPENDIX G**

### **Specialist Input**

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This Appendix contains the following information:

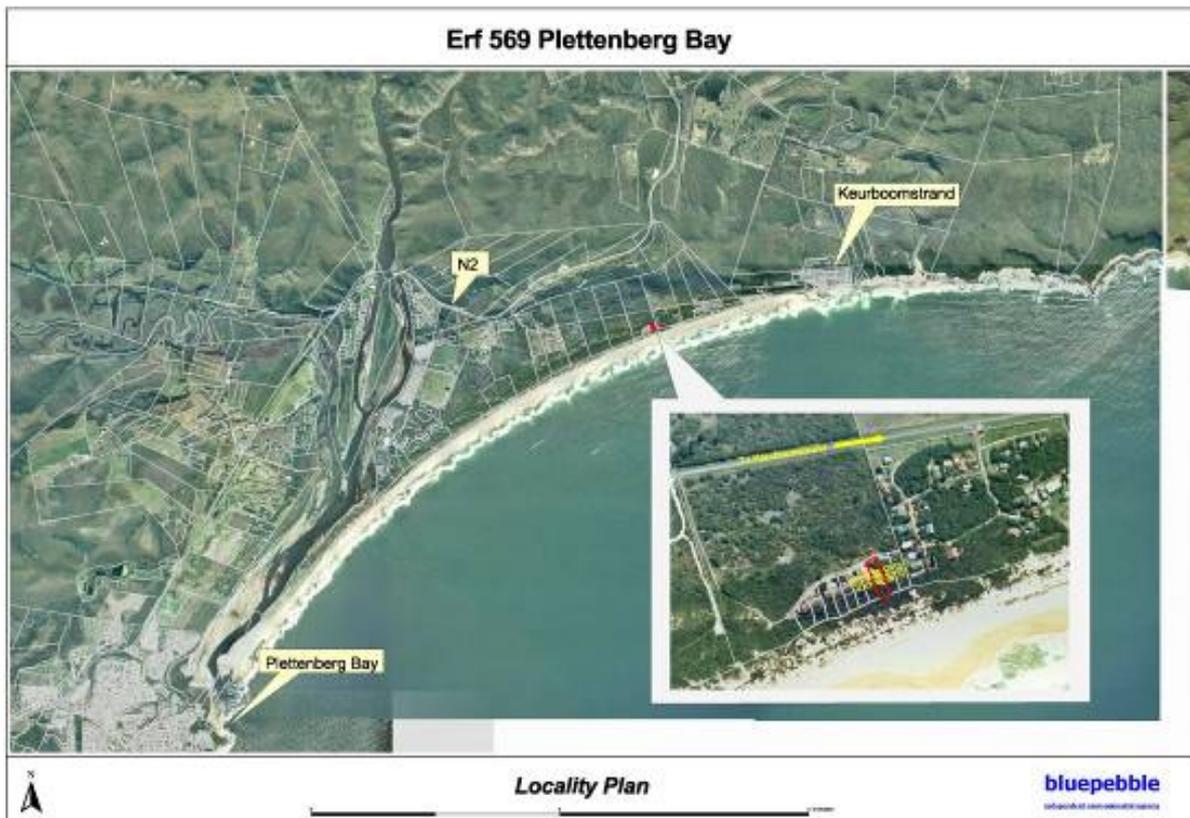
- G1.** Environmental Sensitivity Report (Compiled by bluepebble independent environmental agency in association with Peet Joubert of Nature Management Services)
- G2.** Heritage Specialist Input (Compiled by Peter Nilssen (PhD) Archaeological and Heritage Specialist)

## Environmental Sensitivity Report House Kovarsky, Erf 569, Plettenberg Bay

### 1. Introduction

**bluepebble** independent environmental agency has been appointed by the landowner to submit an environmental sensitivity report for the proposed design and construction of a dwelling on Erf 569 located in the Keurboomstrand area of Plettenberg Bay. **bluepebble** has undertaken the commission in association with Nature Management Services (NMS) who have provided the specialist input for the sensitive site under investigation. The site in question is located on the Keurbaai property along the southern Cape coast between Plettenberg Bay and Keurboomstrand, as depicted in Figure 1.

**Figure 1: Locality Plan for Erf 569, Plettenberg Bay**



## 2. Methodology

A desktop study using available information, and on-site inspections, were conducted to determine the conservation status, extent and health of vegetation on the property. Vegetation type and keystone species were mapped as the primary indicators of environmental sensitivity. The remnant of thicket on the site is very dense and almost impenetrable. It was not possible to determine the exact position of each tree, therefore a vegetation edge was surveyed and mapped on a survey diagram. Trees visible from the perimeter were then marked on the map. Slope gradient, soil type and location relative to the sea were also considered to further inform the environmental sensitivity. A vegetation and site feature map, as well as a sensitivity map were produced to graphically present the environmental sensitivity of the site and surrounds, as depicted in Figures 2 and 3.

## 3. Findings in terms of vegetation, slopes, soils and the sea

### 3.1 Vegetation

The property is situated on the northern dune ridge of the Keurbooms river coastal dune system. The erf is located in the critical biodiversity area as referenced by the Garden Route Initiative in terms of regional fine scale biodiversity mapping. There are other dwellings in close proximity to the site. In most cases all of the vegetation on these adjacent sites was removed to position the buildings. Erf 569 abuts a brick paved driveway on the northern side. A dense clump of sensitive Keurbooms dune thicket presently prohibits access to the rest of the site, wherein vegetation has previously been cleared. The southern section of the erf is part of a dune corridor running in an east-west direction and contains Keurbooms coastal scrub forest vegetation. The main species recorded on the property are recorded in the tables following.

**Table 1: Species in the coastal dune thicket**

	<b>Common Name</b>	<b>Scientific Name</b>
1	White Milkwood	<i>Syderoxylon inerme</i>
2	Climbing Saffron	<i>Laurida (Cassine) tetragona</i>
3	Blue kuni bush	<i>Rhus glauca</i>
4	Cat thorn	<i>Scutia myrsina</i>
5	Asparagus creeper	<i>Asparagus sp.</i>
6	Candlewood	<i>Pterocelastrus tricuspidatus</i>
7	Coastal Camphor tree	<i>Tarchonanthus camphoratus</i>
8	Monkey Apple	<i>Diospyros dichrophylla</i>
9	Dune Olive	<i>Olea exasperata</i>
10	Sea Guarri	<i>Euclea racemosa</i>
11	Coastal Kiepersol	<i>Cussonia thyrsiflora</i>
12	Coastal Crowberry	<i>Rhus crenata</i>

**Table 2: Secondary pioneer growth on the site**

	<b>Common Name</b>	<b>Scientific Name</b>
1	Bitou	<i>Chrysanthemoides monilifera</i>
2	Blombos	<i>Metalasia muricata</i>
3	Vygie	<i>Carpobrotus sp.</i>
4	Gonnabos	<i>Passerina falsifolia</i>

### **3.2 Slopes and soils**

The site features dunes and dune slopes. The soils on site are predominantly wind blown dune sand that is highly susceptible to wind and water erosion. The fact that slopes are present makes the soils even more susceptible to erosion. Removal of coastal vegetation from this site can result in dune blow outs and loss of dune stability.

### **3.3 Sea level rise**

The location of the site in relation to the sea does provide some risk in terms of sea level rise. Yet the extent of this risk both in terms of the topographical location of the site above the current sea level, and the time period over which sea level rise will affect the site, is currently uncertain. Storm events over the past few years have eroded primary dune systems and the potential rise in sea level may increase such erosion potential to the proposed dwelling in the future.

Figure 2: Vegetation/Site Features

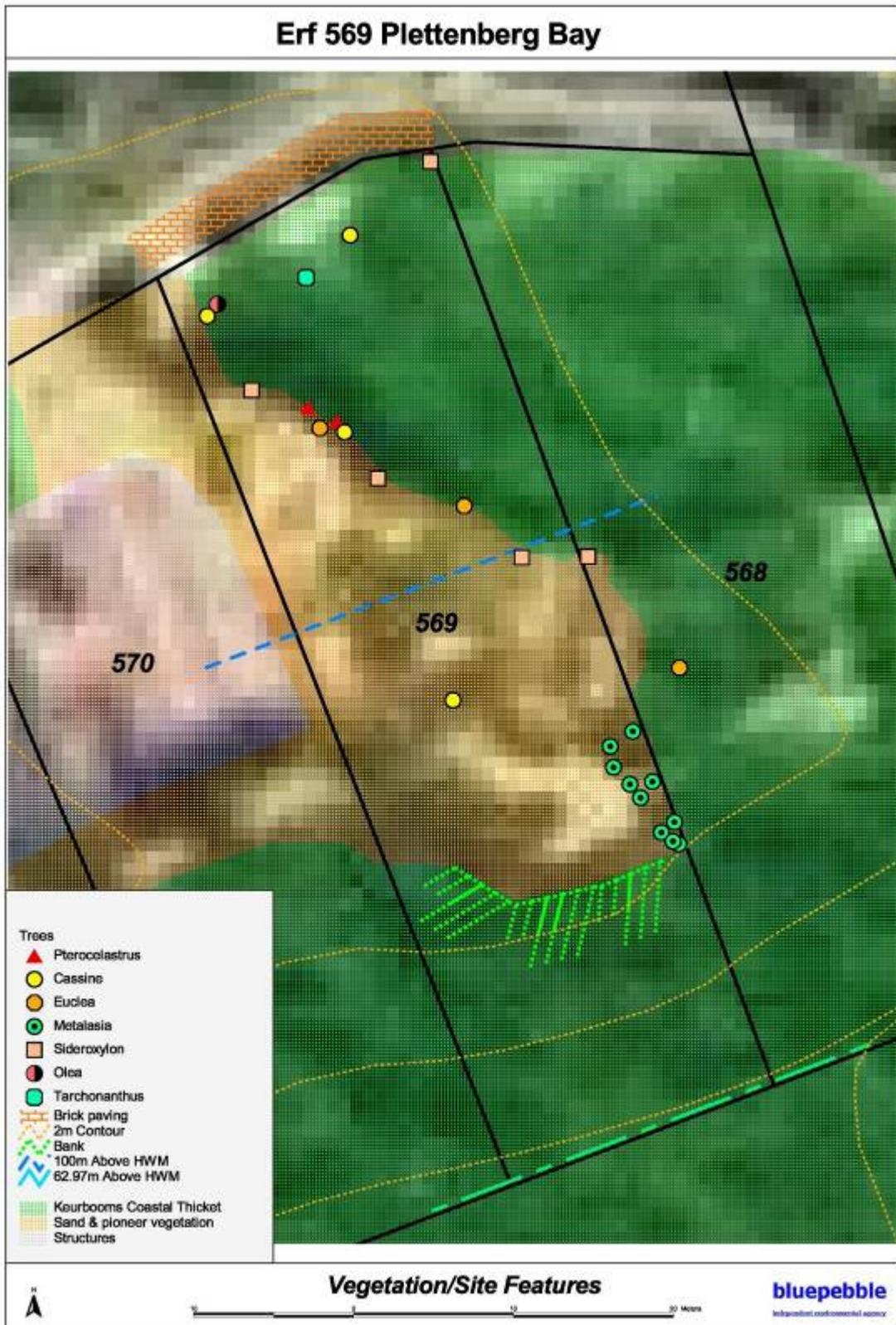
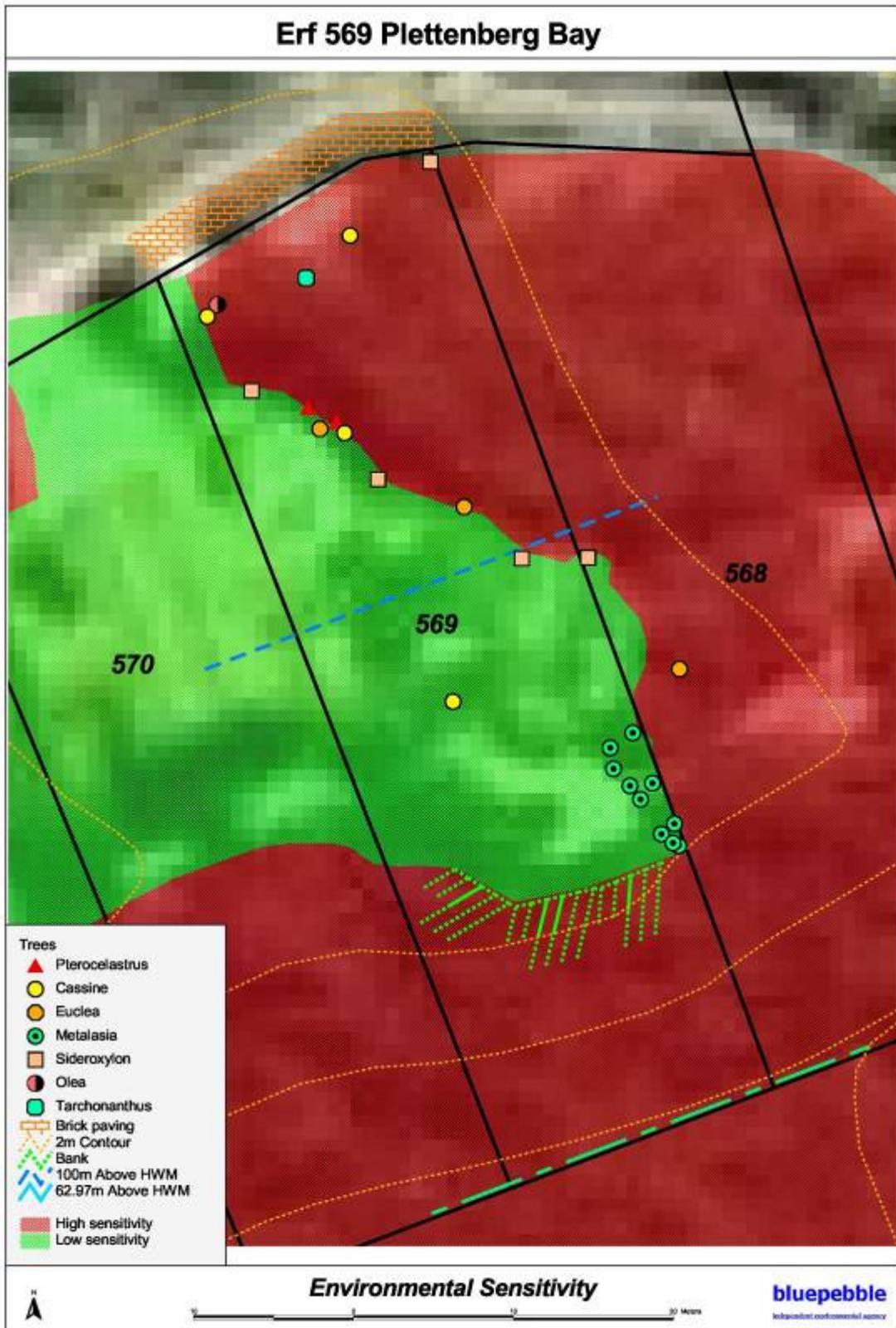


Figure 3: Environmental Sensitivity



#### **4. Applicable environmental legislation**

Current environmental legislation applicable to the proposed activity includes:

4.1 Environmental Impact Assessment (EIA) Regulations (21 April 2006), which states that the activity requires environmental authorisation from the relevant authority, being DEA&DP of the Western Cape.

4.2 National Forests Act, 1998 (Act No. 84 of 1998), which requires that any protected trees of indigenous forests are protected and require that permits be issued for the disturbance.

4.3 Integrated Coastal management Act, 2008 (Act No. 24 of 2008), which puts policy and future regulation on the development of any structures within 100m of the high water mark of the sea.

#### **5. Concluding Statement**

The property is part of an existing development that had been granted development rights a number of years ago. Vegetation had been cleared on other sites close to the property under discussion. A small section of the property had been cleared in the past, but inadequate space had been cleared to allow for site access. It is important to retain the dense nature of the thicket in order to save biodiversity function and viability. The denseness of the vegetation creates a moisture trap which should not be compromised. It will be possible to erect a dwelling on the open area of the property if an access can be created through the vegetation belt on the northern side. Access to the property can be created with minimum impact on the vegetation belt if restricted to 5m along the western boundary. Unfortunately, one medium sized Milkwood tree (*Syderoxylon inerme*) will have to be transplanted to another location as it is currently located within this proposed access area. A Climbing Saffron (*Cassine*) and Dune Olive (*Olea exasperate*) as well as some Sea Guarri (*Euclea racemosa*) plants will have to be removed or moved. It is anticipated that some of the transplants will be unsuccessful.

#### **6. Recommendations**

The following recommendations are made to inform the design process, as well as expedite the EIA process:

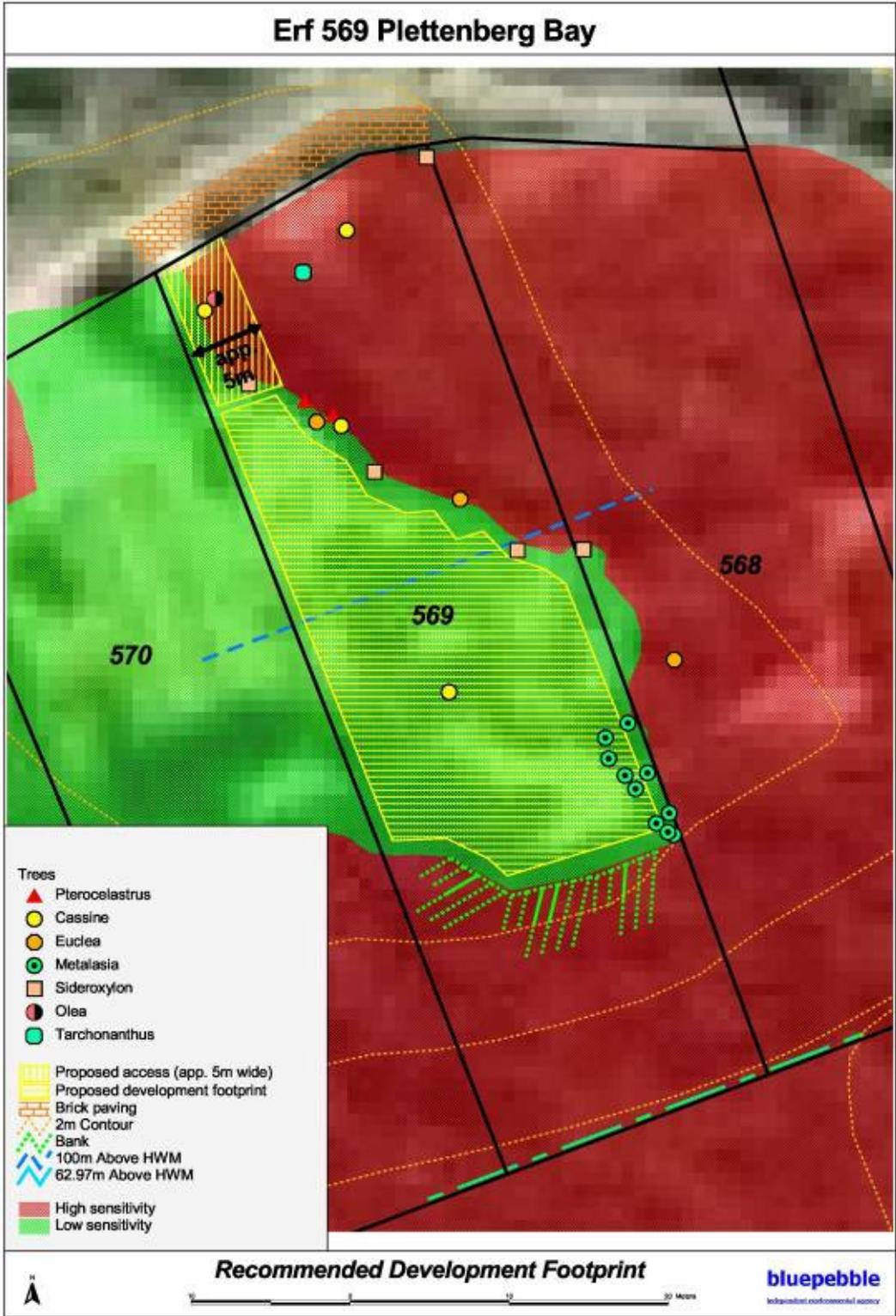
6.1 The recommended development footprint, which avoids the high sensitivity area as depicted in Figure 4, be used for the design to contain both the entire construction footprint and final footprint. The recommended development footprint also sets the structure as far back from the sea as possible in order to reduce issues related to coastal erosion.

6.2 No private access to the beach be designed and constructed.

6.3 Comment should be obtained from Department of Forestry to formalise site visits and meetings held as preparation for the future application for a permit to disturb the coastal dune thicket.

6.4 Aesthetics should be included as a key design principle in the architectural design in order to reduce the visual impact and thus avoid any requirement for visual impact assessment.

**Figure 4: Recommended Development Footprint**



## G2. Heritage Specialist Input.

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**From:** Peter Nilssen [mailto:peter@carm.co.za]  
**Sent:** 30 June 2011 09:19 AM  
**To:** 'Craig Bester'  
**Cc:** 'bluepebble'  
**Subject:** House Kovarsky, Keurbooms, Plettenberg Bay: NID

Hello Craig,

With reference to your e-mail below, I have looked at the information you supplied and note the following:

1. the site for the proposed construction of a single dwelling is located in a previously developed area and as such, will not change the character of the immediate surroundings
2. an EIA for the project is being undertaken
3. it appears that there are no heritage related aspects/criteria of the proposed development that trigger the National Heritage Resources Act (Act 25 of 1999) and therefore, in my opinion, it is not necessary for a heritage practitioner to assist in the completion of the NID and Checklist
4. to cut unnecessary costs, I recommend that you complete HWC's NID form and Checklist and where the NID allows for input from a heritage practitioner, include a note which refer to this e-mail
5. please take note of HWC's new policy regarding the submissions of documents (consult the circular you received from HWC)

Let me know if you have any queries or concerns.

Sincerely & Best Wishes,  
Peter

Peter Nilssen PhD  
Archaeologist & Heritage Practitioner  
**Centre for Heritage & Archaeological Resource Management**  
web site <http://www.carm.co.za/>

PO Box 176, Great Brak River, 6525 | 044 620 4936| 082 783 5896| [peter@carm.co.za](mailto:peter@carm.co.za)

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PO Box 176  
Great Brak River  
6525

(044) 620 4936

**Our Ref: 484**

30 January 2012

Attention: Mr. Jonathan Kingwill  
Bluepebble – independent environmental agency

[bluepebble@iafrica.com](mailto:bluepebble@iafrica.com)

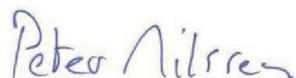
**Re: Proposed New Dwelling on Erf 569, Keurbaai, Plettenberg Bay**

The proposed activity does not trigger the National Heritage Resources Act (Act 25 of 1999). However, because the property is situated less than 100m from the shoreline, the activity does trigger the National Environmental Management Act. As a result, an Environmental Impact Assessment is required and a Notification of Intent to Develop (NID) must be submitted to Heritage Western Cape. The latter process is underway.

This statement is to accompany the Basic Assessment Report. I inspected the affected property on 29 January 2012 with a focus on the impact of the proposed activity on archaeological and heritage related resources. No such resources were identified and therefore, from an archaeological or heritage perspective, there are no objections to the authorisation of the proposed activity on Erf 569, Keurbaai, Plettenberg Bay.

Please call with any queries.

Sincerely and best wishes,



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Peter Nilssen PhD  
Archaeologist & Specialist Heritage Practitioner

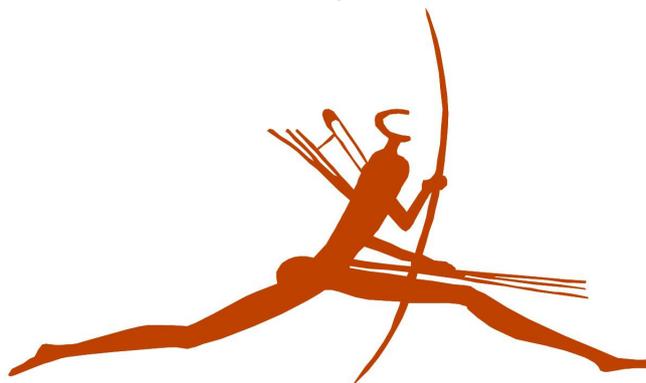
## Statement to Accompany HWC NID

### Proposed Construction of a Dwelling on Erf 569, Keurbaai, Keurboomstrand, Plettenberg Bay, Eden, Western Cape Province

prepared for

**bluepebble - independent environmental agency**, Mr Jonathan Kingwill, 082 777  
0705, bluepebble, Suite 41, Private Bag X31, Knysna, 6570

by



Nilssen Archaeological Resources Management

Peter Nilssen, CHARM, PO Box 176, Great Brak River, 6525  
044 620 4936 | 0827835896 | [peter@carm.co.za](mailto:peter@carm.co.za)

31 January 2012

## 1. Introduction

The proposed development involves the construction of a single residential dwelling on Erf 569, Keurbaai, Keurboomstrand, Plettenberg Bay, Eden, Western Cape Province (See Figures 1 through 4). The proposed activity will involve vegetation clearing and earthmoving activities in a portion of Erf 569 while the remainder of the property will remain undisturbed (Figure 4).

The activity will not change the character of the site since residential dwellings already exist in the immediate vicinity. The proposed activity does not trigger the National Heritage Resources Act (Act 25 of 1999). However, because the property is situated less than 100m from the shoreline, the activity does trigger the National Environmental Management Act. As a result, an Environmental Impact Assessment is required and a Notification of Intent to Develop (NID) is included among the materials submitted to Heritage Western Cape (HWC). The proposed development is lodged for a Basic Assessment EIA process with DEA&DP in George.

This Statement and accompanying NID serve to inform HWC of the proposed activity and to make recommendations regarding heritage resources that may or may not be affected by the proposed activity. The author was appointed by bluepebble– independent environmental agency to conduct a site visit of the affected area, to complete relevant sections of the NID and to produce this Statement for submission to HWC.

This document includes information obtained from bluepebble– independent environmental agency and further details and specifications may be obtained from Mr Jonathan Kingwill (see contact information on title page).

## 2. Study Area

Erf 569 is roughly 0.1ha in extent and is located along the shoreline near the holiday village of Keurbooms Beach, which is approximately 12km NE of Plettenberg Bay (Figures 1 & 2). The land use in the immediate surroundings is general residential. The vegetation is in near pristine condition and is dominated by Cape coastal Fynbos species and thicket and sediments consist of aeolian dune sands (Plates 1 & 2).

The study area was accessed by vehicle by travelling north from Plettenberg Bay on the N2 and by taking the Keurboomstrand turnoff (see red directional arrows in Figure 1). The study was conducted independently.

## 4. Site Inspection and Results

During the site inspection, survey tracks were fixed with a hand held Garmin Camo GPS to record the search area. Photo localities were also fixed by GPS. Digital audio notes and a high quality, comprehensive digital photographic record were also made (full data set available from author on request).

The affected property was inspected on 29 January 2012 with a focus on the impact of the proposed activity on archaeological and heritage related resources. No such resources were identified on the property.

## 5. Recommendations

Because no traces of archaeological or heritage related resources were identified on the property, it is recommended that no further heritage related investigations are necessary. From an archaeological or heritage perspective, there are no objections to the authorisation of the proposed activity on Erf 569, Keurbaai, Plettenberg Bay.

### Figures and Plates (on following pages)

#### File names and captions for figures and plates used in this report

Figure 1 - Erf 569 Keurbooms – Nilssen.jpeg

Figure 1. General location of Erf 569 relative to Plettenberg Bay, Western Province. Map courtesy of the Chief Directorate Surveys and Mapping.

Figure 2 – Erf 569 Keurbooms – Nilssen.jpeg

Figure 2. Enlarged area indicated in Figure 1 showing the location and extent of Erf569, Keurboomstrand.

Figure 3 – Erf 569 Keurbooms – Nilssen.jpeg

Figure 3. Layout and coordinate data for boundary points of Erf 569 Keurboomstrand (north is up). WGS 84, SA National Grid. Courtesy of bluepebble – independent environmental agency

Figure 4 – Erf 569 Keurbooms – Nilssen.jpeg

Figure 4. Layout plan for the proposed residential dwelling on Erf 569. Courtesy of bluepebble – independent environmental agency.

Plate 1 - Erf 569 Keurbooms – Nilssen.jpeg

Plate 1. Panoramic views. Top image shows Erf 569 from its northern boundary. Bottom image shows the southern portion of Erf 569 as viewed from the seaward extent of the proposed dwelling.

Plate 2 - Erf 569 Keurbooms – Nilssen.jpeg

Plate 2. Top left image shows Erf 569 as seen from the north while remaining images show vegetation and exposed dune surfaces.





Figure 2. Enlarged area indicated in Figure 1 showing the location and extent of Erf569, Keurboomstrand.

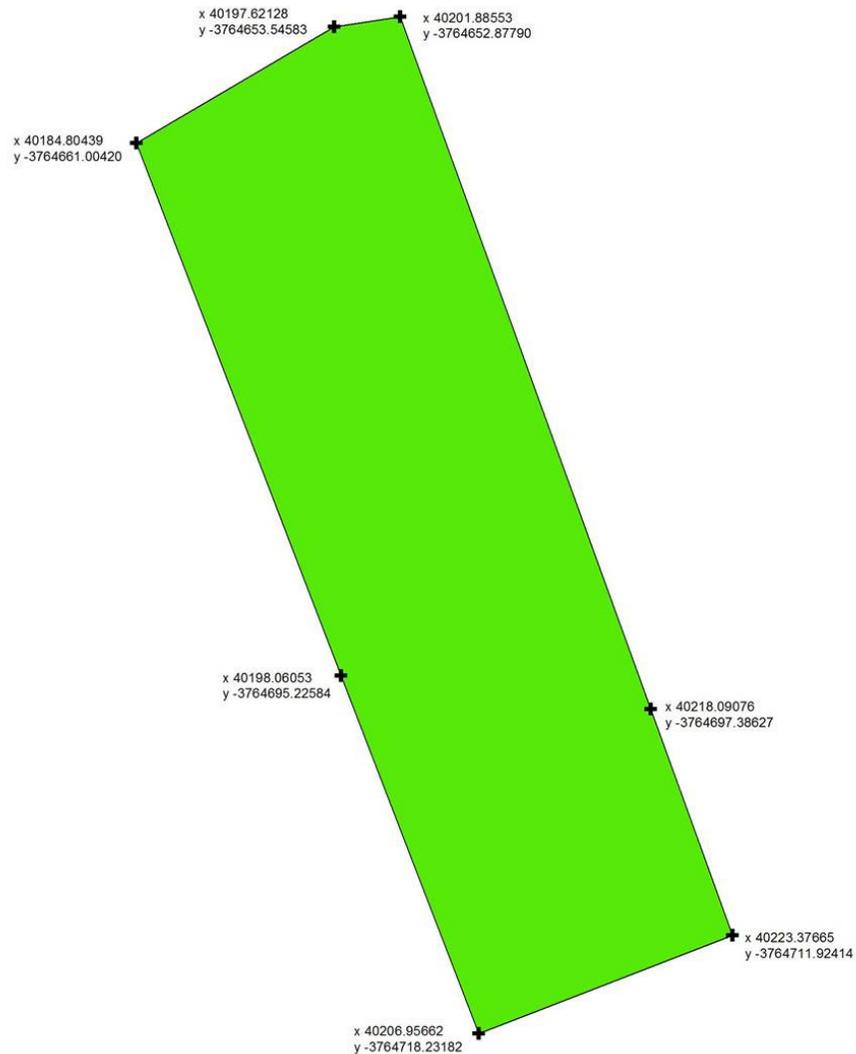


Figure 3. Layout and coordinate data for boundary points of Erf 569 Keurboomstrand (north is up). WGS 84, SA National Grid. Courtesy of bluepebble – independent environmental agency

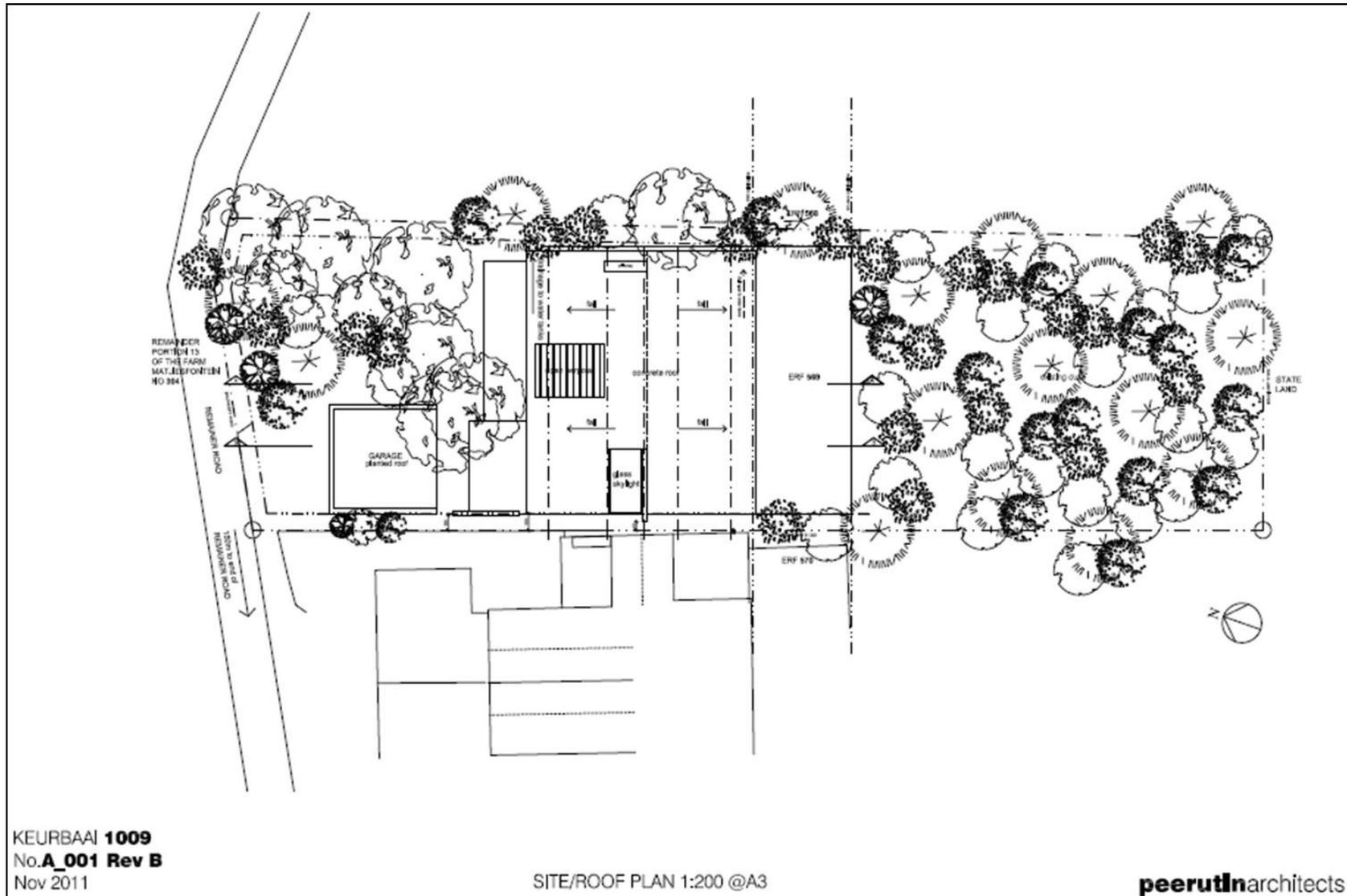


Figure 4. Layout plan for the proposed residential dwelling on Erf 569. Courtesy of bluepebble – independent environmental agency.



Plate 1. Panoramic views. Top image shows Erf 569 from its northern boundary. Bottom image shows the southern portion of Erf 569 as viewed from the seaward extent of the proposed dwelling.



Plate 2. Top left image shows Erf 569 as seen from the north while remaining images show vegetation and exposed dune surfaces.