

**04 May 2023**

## **BASIC ASSESSMENT REPORT**

**THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998)  
AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.**

**NOVEMBER 2019**

| (For official use only)                           |  |
|---|--|
| Pre-application Reference Number (if applicable): |  |
| EIA Application Reference Number:                 |  |
| NEAS Reference Number:                            |  |
| Exemption Reference Number (if applicable):       |  |
| Date BAR received by Department:                  |  |
| Date BAR received by Directorate:                 |  |
| Date BAR received by Case Officer:                |  |

### **GENERAL PROJECT DESCRIPTION**

(This must include an overview of the project including the Farm name/Portion/Erf number)

Portions 91 of the Farm Matjes Fontein 304 is situated in the Keurboom area in the Bitou Municipal Area to the northeast of Plettenberg Bay. The property can be accessed directly from Keurboom Road (Minor Road PO349 Rd) which connects with the N2 via Divisional Road DR1888. The site is approximately 1.8km west of Keurboomstrand.

This site is presently used for a horse riding centre and is directly opposite the Milkwood Glen Residential Complex, which consists of about 50 Group Housing erven and communal open space.

The development concept includes  $\pm$  73 group housing stands with average erf sizes of  $\pm$ 375m<sup>2</sup>. The houses will vary in size but will be built in a similar style that will create a harmonious development. Ample open spaces and landscaped streets are incorporated into the design to enhance the quality of the neighbourhood.

## IMPORTANT INFORMATION TO BE READ PRIOR TO COMPLETING THIS BASIC ASSESSMENT REPORT

1. **The purpose** of this template is to provide a format for the Basic Assessment report as set out in Appendix 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended) in order to ultimately obtain Environmental Authorisation.
2. The Environmental Impact Assessment ("EIA") Regulations is defined in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") hereinafter referred to as the "NEMA EIA Regulations".
3. The required information must be typed within the spaces provided in this Basic Assessment Report ("BAR"). The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided.
4. All applicable sections of this BAR must be completed.
5. Unless protected by law, all information contained in, and attached to this BAR, will become public information on receipt by the Competent Authority. If information is not submitted with this BAR due to such information being protected by law, the applicant and/or Environmental Assessment Practitioner ("EAP") must declare such non-disclosure and provide the reasons for believing that the information is protected.
6. This BAR is current as of **November 2019**. It is the responsibility of the Applicant/ EAP to ascertain whether subsequent versions of the BAR have been released by the Department. Visit this Department's website at <http://www.westerncape.gov.za/eadp> to check for the latest version of this BAR.
7. This BAR is the standard format, which must be used in all instances when preparing a BAR for Basic Assessment applications for an environmental authorisation in terms of the NEMA EIA Regulations when the Western Cape Government Department of Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority.
8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this BAR must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this Report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.
9. This BAR must be duly dated and originally signed by the Applicant, EAP (if applicable) and Specialist(s) and must be submitted to the Department at the details provided below.
10. The Department's latest Circulars pertaining to the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must be taken into account when completing this BAR.
11. Should a water use licence application be required in terms of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA"), the "One Environmental System" is applicable, specifically in terms of the synchronisation of the consideration of the application in terms of the NEMA and the NWA. Refer to this Department's Circular EADP 0028/2014: One Environmental Management System.
12. Where Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA") is triggered, a copy of Heritage Western Cape's final comment must be attached to the BAR.

13. The Screening Tool developed by the National Department of Environmental Affairs must be used to generate a screening report. Please use the Screening Tool link <https://screening.environment.gov.za/screeningtool> to generate the Screening Tool Report. The screening tool report must be attached to this BAR.
14. Where this Department is also identified as the Licencing Authority to decide on applications under the National Environmental Management: Air Quality Act (Act No. 29 of 2004) ('NEM:AQA'), the submission of the Report must also be made as follows, for-  
Waste Management Licence Applications, this report must also (i.e., another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (Tel: 021-483-2728/2705 and Fax: 021-483-4425) at the same postal address as the Cape Town Office.

Atmospheric Emissions Licence Applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (Tel: 021 483 2888 and Fax: 021 483 4368) at the same postal address as the Cape Town Office.

### DEPARTMENTAL DETAILS

| <p align="center"><b>CAPE TOWN OFFICE: REGION 1 and REGION 2</b></p> <p align="center"><b>(Region 1: City of Cape Town, West Coast District)</b><br/><b>(Region 2: Cape Winelands District &amp; Overberg District)</b></p>   | <p align="center"><b>GEORGE OFFICE: REGION 3</b></p> <p align="center"><b>(Central Karoo District &amp; Garden Route District)</b></p>   |
|---|--|
| <p>BAR must be sent to the following details:</p> <p>Western Cape Government<br/>Department of Environmental Affairs and Development Planning<br/>Attention: Directorate: Development Management (Region 1 or 2)<br/>Private Bag X 9086<br/>Cape Town,<br/>8000</p> <p>Registry Office<br/>1<sup>st</sup> Floor Utilitas Building<br/>1 Dorp Street,<br/>Cape Town</p> <p>Queries should be directed to the Directorate: Development Management (Region 1 and 2) at:<br/>Tel: (021) 483-5829<br/>Fax (021) 483-4372</p> | <p>BAR must be sent to the following details:</p> <p>Western Cape Government<br/>Department of Environmental Affairs and Development Planning<br/>Attention: Directorate: Development Management (Region 3)<br/>Private Bag X 6509<br/>George,<br/>6530</p> <p>Registry Office<br/>4<sup>th</sup> Floor, York Park Building<br/>93 York Street<br/>George</p> <p>Queries should be directed to the Directorate: Development Management (Region 3) at:<br/>Tel: (044) 805-8600<br/>Fax (044) 805 8650</p> |

### MAPS

| <p><b>Provide a location map (see below) as Appendix A1 to this BAR that shows the location of the proposed development and associated structures and infrastructure on the property.</b></p> |   |
|---|---|
| <p>Locality Map:</p>  | <p>The scale of the locality map must be at least 1:50 000.<br/>For linear activities or development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map.<br/>The map must indicate the following:</p> <ul style="list-style-type: none"> <li>• an accurate indication of the project site position as well as the positions of the alternative sites, if any;</li> <li>• road names or numbers of all the major roads as well as the roads that provide access to the site(s)</li> <li>• a north arrow;</li> <li>• a legend; and</li> <li>• a linear scale.</li> </ul> <p>For ocean based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken.</p> |

|   |  |
|---|--|
|   | Where comment from the Western Cape Government: Transport and Public Works is required, a map illustrating the properties (owned by the Western Cape Government: Transport and Public Works) that will be affected by the proposed development must be included in the Report.   |
| <b>Provide a detailed site development plan / site map (see below) as Appendix B1 to this BAR; and if applicable, all alternative properties and locations.</b> |  |
| Site Plan:  | <p>Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following:</p> <ul style="list-style-type: none"> <li>• The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be clearly indicated on the plan, preferably together with a linear scale.</li> <li>• The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan.</li> <li>• On land where the property has not been defined, the co-ordinates of the area in which the proposed activity or development is proposed must be provided.</li> <li>• The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be clearly indicated on the site plan.</li> <li>• The position of each component of the proposed activity or development as well as any other structures on the site must be indicated on the site plan.</li> <li>• Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the proposed development <b>must</b> be clearly indicated on the site plan.</li> <li>• Servitudes and an indication of the purpose of each servitude must be indicated on the site plan.</li> <li>• Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): <ul style="list-style-type: none"> <li>o Watercourses / Rivers / Wetlands</li> <li>o Flood lines (i.e., 1:100 year, 1:50 year and 1:10 year where applicable);</li> <li>o Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&amp;DP");</li> <li>o Ridges;</li> <li>o Cultural and historical features/landscapes;</li> <li>o Areas with indigenous vegetation (even if degraded or infested with alien species).</li> </ul> </li> <li>• Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted.</li> <li>• North arrow</li> </ul> <p>A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.</p> |
| Site photographs  | Colour photographs of the site that shows the overall condition of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached to this BAR as <b>Appendix C</b> . The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.   |
| Biodiversity Overlay Map:   | A map of the relevant biodiversity information and conditions must be provided as an overlay map on the property/site plan. The Map must be attached to this BAR as <b>Appendix D</b> .  |
| Linear activities or development and multiple properties  | GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek 94 WGS84 co-ordinate system. Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm Name(s)/Portion(s)/Erf number(s) to this BAR as an Appendix. For linear activities that are longer than 500m, please provide a map with the co-ordinates taken every 100m along the route to this BAR as <b>Appendix A3</b> .   |

## ACRONYMS

|          |  |
|----------|--|
| DAFF:    | Department of Forestry and Fisheries                         |
| DEA:     | Department of Environmental Affairs                          |
| DEA& DP: | Department of Environmental Affairs and Development Planning |
| DHS:     | Department of Human Settlement                               |
| DoA:     | Department of Agriculture                                    |
| DoH:     | Department of Health   |

|        |   |
|--------|---|
| DWS:   | Department of Water and Sanitation                  |
| EMPr:  | Environmental Management Programme                  |
| HWC:   | Heritage Western Cape                               |
| NFEPA: | National Freshwater Ecosystem Protection Assessment |
| NSBA:  | National Spatial Biodiversity Assessment            |
| TOR:   | Terms of Reference                                  |
| WCBSP: | Western Cape Biodiversity Spatial Plan              |
| WCG:   | Western Cape Government                             |

## ATTACHMENTS

**Note:** The Appendices must be attached to the BAR as per the list below. Please use a ✓ (tick) or a x (cross) to indicate whether the Appendix is attached to the BAR.

The following checklist of attachments must be completed.

| APPENDIX    |  |   | ✓ (Tick) or<br>x (cross) |
|-------------|--|---|--------------------------|
| Appendix A: | <b>Maps</b>  |   |                          |
|             | Appendix A1:   | Locality Map  | ✓                        |
|             | Appendix A2:   | Coastal Risk Zones as delineated in terms of ICMA for the Western Cape by the Department of Environmental Affairs and Development Planning  | ✓                        |
|             | Appendix A3:   | Map with the GPS co-ordinates for linear activities   | N/A                      |
| Appendix B: | Appendix B1:   | Site development plan(s)  | ✓                        |
|             | Appendix B2  | A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas; | ✓                        |
| Appendix C: | Photographs  |   | ✓                        |
| Appendix D: | Biodiversity overlay map   |   | ✓                        |
| Appendix E: | Permit(s) / license(s) / exemption notice, agreements, comments from State Department/Organs of state and service letters from the municipality. |   |                          |
|             | Appendix E1:   | Final comment/ROD from HWC  | X                        |
|             | Appendix E2:   | Copy of comment from Cape Nature  | X                        |
|             | Appendix E3:   | Final Comment from the DWS  | X                        |
|             | Appendix E4:   | Comment from the DEA: Oceans and Coast  | X                        |
|             | Appendix E5:   | Comment from the DAFF   | X                        |
|             | Appendix E6:   | Comment from WCG: Transport and Public Works  | X                        |

|             |   |   |     |
|-------------|---|---|-----|
|             | Appendix E7:  | Comment from WCG: DoA   | ✓   |
|             | Appendix E8:  | Comment from WCG: DHS   | X   |
|             | Appendix E9:  | Comment from WCG: DoH   | X   |
|             | Appendix E10:   | Comment from DEA&DP: Pollution Management   | X   |
|             | Appendix E11:   | Comment from DEA&DP: Waste Management   | X   |
|             | Appendix E12:   | Comment from DEA&DP: Biodiversity   | X   |
|             | Appendix E13:   | Comment from DEA&DP: Air Quality  | X   |
|             | Appendix E14:   | Comment from DEA&DP: Coastal Management   | X   |
|             | Appendix E15:   | Comment from the local authority  | X   |
|             | Appendix E16:   | Confirmation of all services (water, electricity, sewage, solid waste management) | ✓   |
|             | Appendix E17:   | Comment from the District Municipality  | ✓   |
|             | Appendix E18:   | Copy of an exemption notice   | N/A |
|             | Appendix E19  | Pre-approval for the reclamation of land  | N/A |
|             | Appendix E20:   | Proof of agreement/TOR of the specialist studies conducted.                       | X   |
|             | Appendix E21:   | Proof of land use rights  | ✓   |
|             | Appendix E22:   | Proof of public participation agreement for linear activities                     | X   |
| Appendix F: | Public participation information: including a copy of the register of I&APs, the comments and responses Report, proof of notices, advertisements and any other public participation information as is required. |   | X   |
| Appendix G: | Specialist Report(s)  |   | ✓   |
| Appendix H: | EMPr  |   | ✓   |
| Appendix I: | Screening tool report   |   | ✓   |

|                      |   |   |
|----------------------|---|---|
| <b>Appendix J:</b>   | <b>The impact and risk assessment for each alternative</b>  | ✓ |
| <b>Appendix K:</b>   | <b>Need and desirability for the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013)/DEA Integrated Environmental Management Guideline</b> | X |
| <b>Appendix.....</b> | <b>Any other attachments must be included as subsequent appendices</b>  | X |

## SECTION A: ADMINISTRATIVE DETAILS

| Highlight the Departmental Region in which the intended application will fall | CAPE TOWN OFFICE:                                    |   | GEORGE OFFICE:   |
|---|--|---|--|
|   | REGION 1<br>(City of Cape Town, West Coast District) | REGION 2<br>(Cape Winelands District & Overberg District) | REGION 3<br>(Central Karoo District & Garden Route District) |
| Name of Applicant/Proponent:  | Stephan Roux   |   |  |
| Name of contact person for Applicant/Proponent (if other):                    | Cornel Delport                                       |   |  |
| Company/ Trading name:  | Familie Roux Eiendomme PTY                           |   |  |
| Company Registration Number:  | 1997/000233/07                                       |   |  |
| Postal address:   | 215 Soutpansbergweg, Rietondale                      |   |  |
|   | Pretoria   | Postal code: 0084   |  |
| Telephone:  | 012 111 9575   | Cell: 084 515 1055  |  |
| E-mail:   | sroux@worldonline.co.za                              | Fax: ( )  |  |
| Company of EAP:   | Eco Route Environmental Consultancy                  |   |  |
| EAP name:   | Joclyn Marshall                                      |   |  |
| Postal address:   | P.O. Box 1252  |   |  |
|   | Sedgefield   | Postal code: 6573   |  |
| Telephone:  | ( )  | Cell: 072 126 6393  |  |
| E-mail:   | joclyn@ecoroute.co.za                                | Fax: 086 402 9562   |  |
| Qualifications:   | MSc. Environmental Science                           |   |  |
| EAPASA registration no:   | 2022/5006  |   |  |
| Name of landowner:  | Familie Roux Eiendomme PTY (Stephan Roux)            |   |  |
| Name of contact person for landowner (if other):                              | Cornel Delport                                       |   |  |
| Postal address:   | 215 Soutpansbergweg, Rietondale                      |   |  |
|   | Pretoria   | Postal code: 0084   |  |
| Telephone:  | 012 111 9575   | Cell:   |  |
| E-mail:   | sroux@worldonline.co.za                              | Fax: ( )  |  |
| Name of Person in control of the land:  | Same as Landowner (above)                            |   |  |
| Name of contact person for person in control of the land:                     |  |   |  |
| Postal address:   |  |   |  |
|   |  | Postal code:  |  |
| Telephone:  | ( )  | Cell:   |  |
| E-mail:   |  | Fax: ( )  |  |
| Municipality in whose area of jurisdiction the proposed activity will fall:   | Bitou Municipality                                   |   |  |
| Contact person:   | Municipal Manager Mbulelo Memanim                    |   |  |
| Postal address:   | Private Bag X1002                                    |   |  |
|   | Plettenberg Bay                                      | Postal code: 6600   |  |
| Telephone:  | 044 501 3000   | Cell: 067 495 845   |  |
| E-mail:   | mmemani@plett.gov.za                                 | Fax: ( )  |  |



## SECTION B: CONFIRMATION OF SPECIFIC PROJECT DETAILS AS INCLUDED IN THE APPLICATION FORM

|  |   |     |                                     |           |                      |
|--|---|-----|-------------------------------------|-----------|----------------------|
| 1.   | Is the proposed development (please tick):  | New | <input checked="" type="checkbox"/> | Expansion |                      |
| 2.   | Is the proposed site(s) a brownfield or greenfield site? Please explain.  |     |                                     |           |                      |
| Greenfield, the development is on a farm portion.  |   |     |                                     |           |                      |
| 3.   | <b>For Linear activities or developments</b>  |     |                                     |           |                      |
| 3.1.   | Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes:   |     |                                     |           |                      |
| 3.2.   | Development footprint of the proposed development for all alternatives.   |     |                                     |           | m <sup>2</sup>       |
| 3.3.   | Provide a description of the proposed development (e.g. for roads the length, width and width of the road reserve in the case of pipelines indicate the length and diameter) for all alternatives.  |     |                                     |           |                      |
| 3.4.   | Indicate how access to the proposed routes will be obtained for all alternatives.   |     |                                     |           |                      |
| 3.5.   | SG Digit codes of the Farms/Farm Portions/Erf numbers for all alternatives  |     |                                     |           |                      |
| 3.6.   | <b>Starting point co-ordinates for all alternatives</b>   |     |                                     |           |                      |
|  | Latitude (S)  | °   | '                                   | ''        |                      |
|  | Longitude (E)   | °   | '                                   | ''        |                      |
|  | <b>Middle point co-ordinates for all alternatives</b>   |     |                                     |           |                      |
|  | Latitude (S)  | °   | '                                   | ''        |                      |
|  | Longitude (E)   | °   | '                                   | ''        |                      |
|  | <b>End point co-ordinates for all alternatives</b>  |     |                                     |           |                      |
|  | Latitude (S)  | °   | '                                   | ''        |                      |
|  | Longitude (E)   | °   | '                                   | ''        |                      |
| <b>Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3.</b>   |   |     |                                     |           |                      |
| 4.   | <b>Other developments</b>   |     |                                     |           |                      |
| 4.1.   | Property size(s) of all proposed site(s):   |     |                                     |           | 147251m <sup>2</sup> |
| 4.2.   | Developed footprint of the existing facility and associated infrastructure (if applicable):<br>There are no permanent buildings on the site.  |     |                                     |           | 100m <sup>2</sup>    |
| 4.3.   | Development footprint of the proposed development and associated infrastructure size(s) for all alternatives:   |     |                                     |           | 60000m <sup>2</sup>  |
| 4.4.   | Provide a detailed description of the proposed development and its associated infrastructure (This must include details of e.g. buildings, structures, infrastructure, storage facilities, sewage/effluent treatment and holding facilities). |     |                                     |           |                      |
| <p>Portions 91 of the Farm Matjes Fontein 304 is situated in the Keurboom area in the Bitou Municipal Area to the northeast of Plettenberg Bay. The property can be accessed directly from Keurboom Road (Minor Road PO349 Rd) which connects with the N2 via Divisional Road DR1888. The site is approximately 1.8km west of Keurboomstrand (figure 1).</p> <p>Portion 91 was created when Portion 14 were subdivided in 1997. In 1978 approval was granted by the Provincial Administration for the development of a Resort with 100 units on Portion 14. Fifty-one units were approved to the south of the Keurboom Road that bisects the property, and 49 units were approved above the road (See Appendix E21). The development was implemented in phases. Phase 1 gained approval in 1978, Phase 2 was approved in 1981, and Phase 3 in 1991. These phases were all implemented below the road and are today known as Milkwood Glen.</p> <p>In 1997 the remainder of Portion 14 was subdivided to separate the undeveloped portion above</p> |   |     |                                     |           |                      |

the road from the resort. At the time it was recommended that the zoning of Portion 91 reverts to Agriculture 1 and that a new application is submitted for development on the northern portion in the event of the owner deciding to develop it.

This site is presently used for a horse-riding center and is directly opposite the Milkwood Glen Residential Complex, which consists of about 50 Group Housing erven and communal open space.

The Plettenberg Bay area historically has very little housing opportunities for middle-income earners. The recent influx of higher-income families moving to the area has led to a sharp increase in housing prices which has further exacerbated the lack of affordable housing. Many residents are displaced as property values rise to the point of unaffordability. This displacement of the middle class and lack of affordable houses has a tremendous effect on the economy of the town, as the middle-class workforce actively contributing to these economies can no longer afford to live here.



**Figure 1: Location of Portion 91 of Farm 304 Matjesfontein.**

The vision of this development is to create an affordable and sustainable housing product specifically targeting the middle-income group. The aim is to create a pleasant yet affordable residential neighbourhood where the average person can own a home and live with dignity. The architecture will be based on green principles which will include smaller but well-designed houses, which are more cost-efficient, energy-efficient and healthy.

The development concept includes  $\pm 73$  group housing stands with average erf sizes of  $\pm 375\text{m}^2$  (Appendix B1). The houses will vary in size but will be built in a similar style that will create a harmonious development. Ample open spaces and landscaped streets are incorporated into the design to enhance the quality of the neighbourhood.

The proposal includes rezoning the property to a "Subdivisional Area". The consolidated stand will then be subdivided into:

- ❖ 73 Residential II (Group Housing) erven.
- ❖ 1 Open Space II erf (communal open space that will include private streets and services and landscaped gardens).
- ❖ 1 Open Space III erf (conservation area which will include the sensitive forest area).
- ❖ 2 Transport II erf (Public road to accommodate the existing divisional road that traverses the southern boundary of the property and the old National road that traverses the northern section of the property).

The property is 14.7ha in size and the gross density will calculate at 5 units per ha. The nett density is calculated excluding the undevelopable steep slopes to the north of the site. The identified development area measures approximately 6ha and 73 units will calculate to a net density of 12 units per ha.

The houses will be equipped with solar systems which require maximum exposure to the sun. In the Southern Hemisphere, houses should be orientated to face north. The layout design has as far as possible orientated erven, especially the smaller ones, in such a way that houses can be placed with their longer frontages to the north. Energy efficient guidelines will include elements such as having appropriate areas of glazing, correct orientation, suitable levels of shading, insulation and thermal mass. The use of local building materials and renewable energy applications such as solar water heaters, rainwater harvesting etc. will be encouraged.

The road network will consist of landscaped lanes. A great neighbourhood has safe and friendly streets where people can walk without fear of crime or being threatened by traffic. The streets in this neighbourhood will be private with low volume and speed and will function more like open spaces than traffic ways. The main road reserves are 12m wide which will allow for enough space to accommodate a road surface, services, sidewalks, and landscaping. All secondary Streets measure 10m in width.

The proposed open space system corresponds to the position of indigenous vegetation. These areas will be part of the landscaping plan of the development and will provide an opportunity for recreational areas such as walking trails, lookout points etc. These facilities will be formally laid out to avoid unnecessary informal path formation in the sensitive forest habitat. A play park and picnic area are planned under the Milkwood trees and the small dam can be equipped with a bird hide or benches where the resident can enjoy the greenery.

Crime is a South African reality and must be a consideration in any new development. The development will be a gated security complex. The development will be fenced but special attention will be given to unobtrusive fencing and animal movement. There will only be one gatehouse that will control access.

**Services:**

The development will aim to be as self-sufficient as possible. There are municipal water sewer and electrical networks available in the area (see Engineering Report: Appendix G3).

The water connection for the development will be off the existing 200mm watermain in Keurboomstrand road. See Engineering Report (Appendix G3). The GLS Capacity Analysis Report confirms that the existing reticulation system and reservoir has sufficient capacity to service the Development (Appendix E16).

The sewer connection for the Development will be to the existing 160mm reticulation pipe situated immediately opposite the site on the southern side of Keurboomstrand Road. See Engineering Report (Appendix G3).

The Development falls within the drainage area of the Keurboomstrand main pump station. Effluent from this pumpstation is routed to the Municipal Ganse Valley wastewater treatment plant through the Matjiesfontein and Aventura pump stations and their respective rising mains. The GLS Capacity Analysis report confirms that these systems have sufficient capacity to accommodate the Development. Notwithstanding, certain rising main upgrades have been recommended and are currently being addressed.

The Applicant's intent is to optimise the use of rainwater harvesting for domestic use and the use of treated greywater for irrigation purposes, within economic feasibility. Detailed solutions will be addressed in the detailed design stage and will be to Bitou Engineering Department approval.

The GLS Report (Appendix E16) concluded that accommodation of the development in the present reticulation system will require no upgrading of the existing reticulation system to comply with the pressure and fire flow criteria as set out in the master plan. It is however noted that for future developments the bulk water system to the Matjiesfontein reservoir should be upgraded.

The existing bulk sewer system downstream of the Matjiesfontein pump station has insufficient capacity to accommodate the proposed development. The minimum upgrades required to accommodate the proposed development in the existing sewer system are to upgrade capacity of the Aventura PS's rising main and replace existing rising main from the Matjiesfontein PS.

**Access:**

The site access will be off Keurboomstrand Road MR395. The development will include the following roads:

- Main Access Collector with a width of 5,5m
- Internal Access Roads with a width of 4,5 to 5.05m

The minimum bellmouth radii will be 7.5m. The main access will have standard SABS pre-cast concrete semi mountable on both sides. The internal roads will have edgings on the high side and mountable kerbing on the low side of the crossfall.

**Fencing:**

Crime is a South African reality and must be a consideration in any new development. The development will be a gated security complex. The development will be fenced but special attention will be given to unobtrusive fencing and animal movement. There will only be one gatehouse that will control access.

**Stormwater:**

The site stormwater will be managed within two catchment areas. Stormwater runoff from the northern steep forested area will be routed through an open channel to the existing pond close to the north eastern corner of the area to be developed.

The development portion of the site is flat with no gradient along its southern boundary and has no defined drainage discharge points. The existing flat and permeable conditions allow for natural infiltration.

The developed erven will generally discharge to the road surfaces which in turn will discharge to a number of retention ponds positioned across the site.

Because the site is very flat underground stormwater pipes will not be feasible. The positions of the ponds are however such the road surfaces will have sufficient capacity to contain the runoff on

surface and discharge it to the ponds without flooding. The discharge from the ponds will be primarily through infiltration with allowance for excess flood to discharge to the Road MR395 reserve in which it will spread and discharge via further infiltration.

All post development stormwater runoff generated from the non-permeable roof and road surfaces will be routed through surface channels and on road surfaces to the retention ponds to be provided. The retention ponds are sized to ensure that the total post development peak discharge does not exceed the total predevelopment discharge from the proposed development catchment areas, for the 1:5 and 1:50 year storm intervals. The road surface and open channels will have sufficient capacity to ensure that the post developed runoff for a 1 in 50 year storm event is conveyed to the retention ponds.

The retention ponds have sufficient area and depth to provide for natural infiltration of the 1 to 50 year Post Development rainfall event. The assumed infiltration rate is 0,05 centimetres per second indicates the pond infiltration discharge capacities which in all cases exceed the peak 1 in 50 year inflow. Should the capacity of these ponds be exceeded the discharge will be through overflow dissipation outlets to the road MR395 reserve, from where it will spread and naturally dissipate.

Stormwater management is addressed in the Engineering Report attached as Appendix G3.

4.5. Indicate how access to the proposed site(s) will be obtained for all alternatives.

The property can be accessed directly from Keurboom Road (Minor Road PO349 Rd) which connects with the N2 via Divisional Road DR1888. The site is approximately 1.8km west of Keurboomstrand.

|      |  |   |     |   |   |   |   |     |   |   |   |   |        |   |   |   |   |   |   |   |   |   |
|------|--|---|-----|---|---|---|---|-----|---|---|---|---|--------|---|---|---|---|---|---|---|---|---|
| 4.6. | SG Digit code(s) of the proposed site(s) for all alternatives: | C | 0   | 3 | 9 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0      | 0 | 3 | 0 | 4 | 0 | 0 | 0 | 9 | 1 |
| 4.7. | Coordinates of the proposed site(s) for all alternatives:      |   |     |   |   |   |   |     |   |   |   |   |        |   |   |   |   |   |   |   |   |   |
|      | Latitude (S)   |   | 34° |   |   |   |   | 0'  |   |   |   |   | 21.04" |   |   |   |   |   |   |   |   |   |
|      | Longitude (E)  |   | 23° |   |   |   |   | 26' |   |   |   |   | 12.43" |   |   |   |   |   |   |   |   |   |

## SECTION C: LEGISLATION/POLICIES AND/OR GUIDELINES/PROTOCOLS

### 1. Exemption applied for in terms of the NEMA and the NEMA EIA Regulations

|   |     |    |
|---|-----|----|
| Has exemption been applied for in terms of the NEMA and the NEMA EIA Regulations. If yes, include a copy of the exemption notice in Appendix E18. | YES | NO |
|---|-----|----|

### 2. Is the following legislation applicable to the proposed activity or development.

|   |      |     |
|---|------|-----|
| The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("ICMA"). If yes, attach a copy of the comment from the relevant competent authority as Appendix E4 and the pre-approval for the reclamation of land as Appendix E19. | YES  | NO✓ |
| The National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA"). If yes, attach a copy of the comment from Heritage Western Cape as Appendix E1.  | YES✓ | NO  |
| The National Water Act, 1998 (Act No. 36 of 1998) ("NWA"). If yes, attach a copy of the comment from the DWS as Appendix E3.  | YES✓ | NO  |
| The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA"). If yes, attach a copy of the comment from the relevant authorities as Appendix E13.  | YES  | NO✓ |
| The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")   | YES  | NO✓ |
| The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) ("NEMBA")   | YES  | NO✓ |
| The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA")  | YES  | NO✓ |
| The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). If yes, attach comment from the relevant competent authority as Appendix E5.   | YES  | NO✓ |

### 3. Other legislation

List any other legislation that is applicable to the proposed activity or development.

**Rezoning in terms of Section 15 (2)a of the said Bylaw:** The property is currently zoned "Agricultural 1" in terms of the Section 8 Zoning Scheme applicable to the area. To facilitate the development of the land the property will have to be rezoned to a "Sub-divisional Area".

**Subdivision in terms of Section 15 (2)d of the said Bylaw:** The current subdivision plan indicates the subdivision of the property into 73 individual Group Housing erven with average erf sizes of  $\pm 375\text{m}^2$  as well as roads and private open spaces.

**National Heritage Resources Act 25 of 1999:** The rezoning of more than a hectare of land will require approval in terms of Section 38 of the Heritage Resources Act. A Notice of Intent to Develop (NID) must be submitted to Western Cape Heritage.

**Subdivision of Agricultural Land Act 70 of 1970:** The property was originally earmarked in the Knysna Wilderness Plettenberg Bay Guide plan for "Recreational" purposes. This means that although the property has farm portion numbers and is zoned for agricultural purposes, it is exempt from the provisions of the Subdivision of Agricultural Land Act (Act 70 of 70). An exemption certificate from the Department of Environmental Affairs and Development Planning has been received.

**The South African National Roads Agency Limited and National Roads Act, Act 7 of 1998:** The property is not situated within a building restriction area as defined in Act 7 of 1998. A building restriction area means the area consisting of land (but excluding land in an urban area) situated alongside a national road within a distance of 60 metres from the boundary of the national road or situated within a distance of 500 metres from any point of intersection with the road. An application to SANRAL is not required.

**Advertising on Road and Ribbon Development Act 21 of 1940:** A Surveyor-General may not approve a General Plan or the diagrams of erven situated wholly or partly outside an urban area if any part of any such erf, lot, or holding falls within a distance of 95m of the centre line of a building restriction road or of a main road, or within 500m of an intersection with a similar or national road, without written approval from the controlling authority concerned. The property borders two Provincial Roads, the PO394 and DR1888 and will therefore require approval from the Provincial Roads Authority. There are also Conditions in the Title Deed That prevent the subdivision of the property without the consent of the controlling authority in terms of Act 21 of 1940.

**Oudeniqua Sensitive Coastal Area Extension Regulations promulgated under Environmental Conservation Act (Act No. 73 of 1989):** Certain areas have been designated as sensitive in terms of these regulations and require approval from the local municipality should activities such as clearance of vegetation and earthworks be undertaken. The property falls within the identified OSCAE area.

**Table 1: Applicable Legislation**

| NATIONAL LEGISLATION  | RELEVANT<br>YES / NO | ADMINISTERING AUTHORITY  | TYPE<br>Permit/ license/<br>authorization/comment<br>/ relevant<br>consideration (e.g.<br>rezoning or consent<br>use, building plan<br>approval) | DATE<br>(if already<br>obtained):                                   |
|---|----------------------|--|--|---|
| CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA. (ACT 108 OF 1996)   | YES                  | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. | PERMIT / LICENSE/<br>AUTHORIZATION /<br>COMMENT/ <b>RELEVANT<br/>CONSIDERATION</b>   |   |
| ENVIRONMENTAL CONSERVATION ACT (ACT 73 OF 1989)<br>OUTENIQUA SENSITIVE COASTAL AREA EXTENSION REGULATIONS | YES                  | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. | <b>PERMIT</b> / LICENSE/<br>AUTHORIZATION /<br>COMMENT/ RELEVANT<br>CONSIDERATION  | Permit to be applied for the construction phase of the development. |
| NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998)   | YES                  | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. | PERMIT / LICENSE/<br><b>AUTHORIZATION /<br/>COMMENT/</b> RELEVANT<br>CONSIDERATION   |   |
| NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT 62 OF 2008)  | YES                  | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. | PERMIT / LICENSE/<br><b>AUTHORIZATION /<br/>COMMENT/</b> RELEVANT<br>CONSIDERATION   |   |
| NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT (ACT NO 10 OF 2004)                                   | YES                  | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. | PERMIT / LICENSE/<br>AUTHORIZATION /<br><b>COMMENT/ RELEVANT<br/>CONSIDERATION</b>   |   |
| NATIONAL ENVIRONMENTAL MANAGEMENT: INTERGRATED COASTAL MANAGEMENT ACT (ACT NO 24 OF 2008)                 | YES                  | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities. | PERMIT / LICENSE/<br>AUTHORIZATION /<br><b>COMMENT/ RELEVANT<br/>CONSIDERATION</b>   |   |
| NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT (ACT 59 OF 2008)   | NO                   | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant                        | PERMIT / LICENSE/<br>AUTHORIZATION /<br>COMMENT/ <b>RELEVANT<br/>CONSIDERATION</b>   |   |

|  |     |   |   |                                 |
|--|-----|---|---|---------------------------------|
|  |     | <b>Competent Authorities.</b>   |   |                                 |
| <b>NATIONAL VELD AND FOREST FIRE ACT (ACT 101 OF 1998)</b>         | YES | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.<br><u>DAFF Jurisdiction</u>                  | PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION |                                 |
| <b>NATIONAL WATER ACT (ACT 36 OF 1998)</b>                         | YES | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.<br><u>Dept of Water Affairs Jurisdiction</u> | PERMIT/ LICENSE/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION  | General Authorization required. |
| <b>WATER SERVICES ACT (ACT 108 OF 1997)</b>                        | NO  | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.<br><u>Dept of Water Affairs Jurisdiction</u> | PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION |                                 |
| <b>SUBDIVISION OF AGRICULTURAL LAND ACT (ACT 70 OF 1970)</b>       | YES | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.<br><u>Dept. of Agriculture Jurisdiction</u>  | PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION | No objection received.          |
| <b>CONSERVATION OF AGRICULTURAL RESOURCES ACT (ACT 43 OF 1983)</b> | YES | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.<br><u>Dept. of Agriculture Jurisdiction</u>  | PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION |                                 |
| <b>NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)</b>            | YES | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.  | PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION | Pending                         |
| <b>NATIONAL HEALTH ACT (ACT 61 OF 2003)</b>                        | YES | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant   | PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION |                                 |



|  |                      |   |   |                                    |
|--|----------------------|---|---|------------------------------------|
|  |                      | <b>Competent Authorities.</b><br><u>Dept. of Health Jurisdiction</u>  |   |                                    |
| <b>NATIONAL ROAD TRAFFIC ACT (ACT 93 OF 1996)</b>                          | YES                  | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.<br><u>WC Roads Dpt, Jurisdiction</u> | PERMIT / LICENSE/<br><b>AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION</b>   | Pending                            |
| <b>LAND USE PLANNING ACT (ACT 3 OF 2014)</b>                               | YES                  | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.                                      | PERMIT / LICENSE/<br><b>AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION</b>   | Pending                            |
| <b>SPLUMA (ACT 13 OF 2013)</b>   | YES                  | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.                                      | PERMIT / LICENSE/<br>AUTHORIZATION / COMMENT/ <b>RELEVANT CONSIDERATION</b>   |                                    |
| <b>PROVINCIAL LEGISLATION WESTERN CAPE</b>                                 | RELEVANT<br>YES / NO | <b>ADMINISTERING AUTHORITY</b>  | <b>TYPE</b><br>Permit/ license/ authorization/comment / relevant consideration (e.g. rezoning or consent use, building plan approval) | <b>DATE (if already obtained):</b> |
| <b>WESTERN CAPE CONSTITUTION ACT 1 OF 1998</b>                             | NO                   | Department of Environmental Affairs, Republic of South Africa.<br>All State and Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.                                      | PERMIT / LICENSE/<br>AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION  |                                    |
| <b>WESTERN CAPE NATURE CONSERVATION LAWS AMENDMENT ACT (ACT 3 OF 2000)</b> | NO                   | Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.<br><u>CapeNature Jurisdiction</u>  | PERMIT / LICENSE/<br>AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION  |                                    |
| <b>WESTERN CAPE NATURE CONSERVATION BOARD ACT ( ACT 15 OF 1998)</b>        | NO                   | Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.<br><u>CapeNature Jurisdiction</u>  | PERMIT / LICENSE/<br>AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION  |                                    |
| <b>WESTERN CAPE PLANNING AND DEVELOPMENT ACT (ACT 7 OF 1999)</b>           | NO                   | Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.<br><u>CapeNature Jurisdiction</u>  | PERMIT / LICENSE/<br>AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION  |                                    |
| <b>MUNICIPAL ORDINANCE 20 OF 1974</b>                                      | NO                   | Local Authorities that have been identified as relevant Competent Authorities.<br><u>Local Government Jurisdiction</u>  | PERMIT / LICENSE/<br>AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION  |                                    |
| <b>MUNICIPAL</b>   | YES                  | Local Authorities that have   | PERMIT / LICENSE/   | Pending                            |

|  |    |  |   |  |
|--|----|--|---|--|
| PLANNING BYLAW 2015                                  |    | been identified as relevant Competent Authorities.<br><u>Municipality</u>  | AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION                   |  |
| WESTERN CAPE LAND ADMINISTRATION ACT (ACT 6 OF 1998) | NO | Provincial Departments as well as Local Authorities that have been identified as relevant Competent Authorities.<br><u>DEA&amp;DP Jurisdiction</u> | PERMIT / LICENSE/ AUTHORIZATION / COMMENT/ RELEVANT CONSIDERATION |  |

#### 4. Policies

| Explain which policies were considered and how the proposed activity or development complies and responds to these policies.   |  |
|--|--|
| POLICIES AND GUIDELINES  | ADMINISTERING AUTHORITY  |
| DEA (2014), Companion to the EIA Regulations 2014, Integrated Environmental Management Guideline Series 5, Department of Environmental Affairs, (DEA), Pretoria, South Africa    | Department of Environmental Affairs, Republic of South Africa.<br><br>All Provincial Departments that have been identified as Competent Authorities. |
| DEA&DP (2014) Guideline on Public Participation, EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning (DEA&DP) | Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)   |
| Guideline for Involving Heritage Specialists in EIA Processes June 2005  | Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)   |
| Guideline for Environmental Management Plans June 2005   | Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)   |
| Ecosystem Guidelines for Environmental Assessment in the Western Cape  | Fynbos Forum   |
| Guidelines for Resort Developments in the Western Cape   | Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)   |
| NEMA EIA Regulations Guideline and Information Document Series: Guideline on Alternatives  | Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)   |
| NEMA EIA Regulations Guideline and Information Document Series: Guideline on Appeals   | Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)   |
| NEMA EIA Regulations Guideline and Information Document Series: Guideline on Exemption Applications  | Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)   |
| NEMA EIA Regulations Guideline and Information Document Series: Guideline on Need and Desirability   | Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)   |
| NEMA EIA Regulations Guideline and Information Document Series: Guideline on Public Participation  | Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)   |
| NEMA EIA Regulations Guideline and Information Document Series: Guideline on Transitional Arrangements   | Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)   |
| Guideline for determining the Scope of Specialist Involvement in EIA Processes   | Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)   |
| Guideline for involving Visual and Aesthetic   | Western Cape Department of Environmental Affairs   |

|   |   |
|---|---|
| <b>Specialists in EIA Processes</b>   | <b>and Development Planning (DEA&amp;DP)</b>  |
| <b>Guideline for involving Social Assessment Specialists in EIA Processes</b> | <b>Western Cape Department of Environmental Affairs and Development Planning (DEA&amp;DP)</b> |
| <b>Guideline for involving Hydro-geologists in EIA Processes</b>              | <b>Western Cape Department of Environmental Affairs and Development Planning (DEA&amp;DP)</b> |
| <b>Guideline for involving Biodiversity Specialists in EIA Processes</b>      | <b>Western Cape Department of Environmental Affairs and Development Planning (DEA&amp;DP)</b> |
| <b>Guideline for Environmental Management Plans</b>                           | <b>Western Cape Department of Environmental Affairs and Development Planning (DEA&amp;DP)</b> |

## 5. Guidelines

List the guidelines which have been considered relevant to the proposed activity or development and explain how they have influenced the development proposal.

### **The Keurbooms & Environs Local Area Spatial Plan (KELASP) (2013):**

The Keurbooms and Environs Local Area Spatial Plan (KELASP) is a Local Area Spatial Plan (LASP) for Keurbooms and its surrounding Environment, which will aid the Municipality in ensuring that the area is protected / conserved and managed / developed in a coherent and sustainable manner. It has been compiled in terms of Municipal Systems Act (Act 32 of 2000) which will afford it formal legal status as a Policy Guideline document to be implemented in conjunction with the broader Bitou Spatial Development Framework (SDF) as well as Integrated Development Plan (IDP).

The KELASP provides land development objectives that take into account existing development and biophysical constraints. Spatial development categories have been provided with general conditions to guide activities that may occur within each category, as set out and summarised in the table below (Table 2):

**Table 2: KELASP Spatial Planning Categories.**

| <b>KEY SPC DESCRIPTION</b>                                   | <b>POLICIES</b>  |
|--|--|
| <b>CORE1</b><br>Formally Protected Conservation Areas        | <ul style="list-style-type: none"> <li>No conventional urban development</li> <li>Formally protected areas, including those under SANParks and CapeNature control, should continue to enjoy the highest levels of protection.</li> <li>Further continuous corridors between the mountains and the sea, such as that between Nature's Valley on the coast and Garden Route National Park in the Tsitsikamma Mountains, should be promoted.</li> <li>The municipality should engage with the conservation authorities to ensure that economic growth and employment opportunities from these areas are maximised.</li> </ul> |
| <b>CORE 2</b><br>River Corridors and Wetlands                | <ul style="list-style-type: none"> <li>River corridors and wetlands, including ephemeral pans, must be protected from urban, agricultural, and mining activities to a distance of at least 30 m from their banks unless closer setbacks have been determined by a geohydrologist and freshwater ecologist.</li> </ul>  |
| <b>BUFFER 1</b><br>Endangered vegetation                     | <ul style="list-style-type: none"> <li>Conservation of endangered vegetation areas shall be encouraged through the promotion of conservancies and stewardship projects with limited eco-tourism development rights and/or donations to formal conservation agencies.</li> </ul>  |
| <b>BUFFER 2</b><br>Extensive Agriculture / Livestock Grazing | <ul style="list-style-type: none"> <li>No development beyond 1 unit per 3 hectares.</li> <li>Development should be clustered.</li> <li>No further subdivisions below minimum farm size - Dept of</li> </ul>  |

|  |   |
|--|---|
|  | <p>Agriculture.</p> <ul style="list-style-type: none"> <li>• Rotational grazing and other veld management best practices shall be promoted so as to improve biodiversity and stocking rates.</li> </ul>   |
| <p><b>INTENSIVE AGRICULTURE</b><br/>Irrigation and Dry Land Crop and Pasture Farming</p>           | <ul style="list-style-type: none"> <li>• No development beyond 1 unit per 3 hectares.</li> <li>• Development should be clustered (no further subdivisions below minimum farm size - Dept of Agriculture).</li> <li>• All existing and potential land suitable for intensive agriculture shall be protected from conversion to other uses including conservation.</li> <li>• Agriculture water demand management must be practiced and intensive agriculture water supplies shall be protected and not diverted to other uses.</li> <li>• Investigate methods to bring the agricultural land currently lying fallow back into production if possible.</li> </ul> |
| <p><b>URBAN SETTLEMENT</b><br/>All land used for Urban purposes in Towns, Villages and Hamlets</p> | <ul style="list-style-type: none"> <li>• Increase gross average densities to 25du/ha in settlements requiring public transport.</li> <li>• Increase gross average densities to 15du/ha in small rural settlements that do not require public transport.</li> <li>• Urban development shall be promoted within urban settlements according to the settlement planning principles provided for in the broader Bitou SDF.</li> </ul>   |
| <p><b>URBAN EDGE</b></p>   | <ul style="list-style-type: none"> <li>• Outer boundary of urban settlement aligned to protect natural and agricultural resources and to promote more compact settlements.</li> <li>• Urban settlement should primarily be located and encouraged within the Urban Edge.</li> <li>• No urban development shall be permitted outside of the urban edge or identified Development Nodes.</li> <li>• The Urban Edge / Development Nodes should enclose sufficient land to accommodate the settlement's growth for the next 10-20 years.</li> </ul>   |

The Spatial Plan has identified development nodes for this area. For these nodes, a gross density profile of 12 units per ha of the identified transformed footprint area is proposed. The latter is based on the guideline of 15 units per hectare proposed for smaller rural settlements as contained in the Draft Bitou SDF (2013).

The extent of the proposed development nodes as conceptually indicated on the plan is based on the measured footprint of the identified transformed area. The proposed development nodes are strictly located within areas that have been identified as being transformed with no natural remnants remaining.

The entire southern portion of the site, where the development is planned, is identified as a transformed area, according to the KELASP Environmental Sensitivity Map (Appendix B2). The proposed density of the development is 12 units per ha of the identified transformed footprint, as proposed in the document.

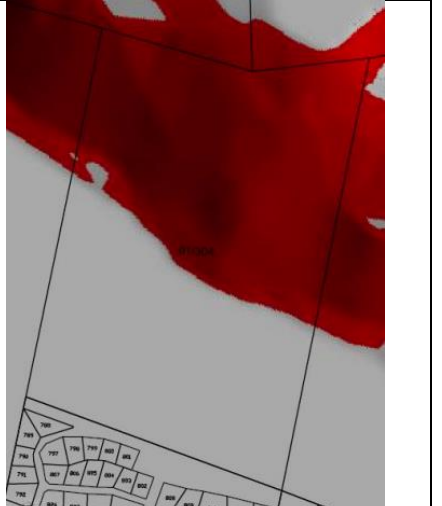
The document also determined "no go" development areas based on the various bio-physical constraints which determine that no development should be considered:

- below the 1:50 and 100: year flood lines;
- on any slopes with a gradient steeper than 1:4;
- below the 4,5m coastal setback line;
- within the 100m high water mark setback; and
- within the Tshokwane Wetland system.


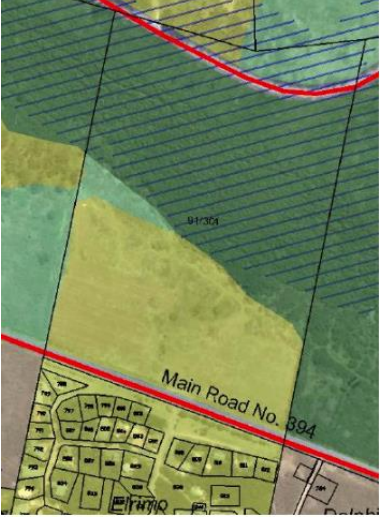
The proposed development footprint complies with all the parameters as set out above, except for the 4.5m coastal setback line. Taking the 4.5m contour line into account, only about 1.6ha of the 6ha transformed area has been identified as being suitable for development. This calculates to a maximum of 19 units.

This 4.5m coastal setback recommendation was taken from the 4.5m swash contour and 4.5 m estuary/river flood contour that was a recommendation by the 2010 Eden District Municipality Sea level rise and flood risk model of 2010, commissioned by The Provincial Department of Environmental Affairs and Development Planning. The purpose of this model was to identify areas that are vulnerable to migrating shorelines and tidal reaches, storm associated extreme sea levels and estuary/river flooding. It is submitted that this property is not within 100m of the coastline and is not in the 100-year flood line of the estuary flood plain as defined in the Keurbooms Bitou Estuarine Management Plan 2018 and the reference to the 4.5m inland contour line are therefore less relevant to properties inland of these vulnerable areas.

The KELASP (2013) report includes a thorough assessment of the Tshokwane Wetlands including various classifications of different wetland units, delineation of wetland areas, and development recommendations (Freshwater Consulting Group, 2013). Findings in the report relevant to proposed development at the site are summarised as follows<sup>1</sup>:

| <b>KELASP recommendations and guidelines</b>  | <b>Graphic</b>   |
|---|--|
| <p>Development on steep slopes with a gradient &gt; 1:4 is not supported.</p> <p>The area highlighted in red represents the steeply sloping land on 91/304.</p> |  |

<sup>1</sup> Freshwater Compliance Statement by Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd, dated April 2023.

|   |  |
|---|--|
| <p>Development is not supported in areas below the 1:50 and 1:100 year floodline.</p> <p>Lines indicated are: dark blue = 1:100 year floodline, and light blue area is an 'island' below the 1:50 year floodline. The purple line is the 100m urban coastal setback line. The proposed development area is located outside of all these features and is therefore not flagged from a heightened flood risk perspective.</p> |   |
| <p>Development is supported in transformed areas.</p> <p>The related graphic maps the southern portion of the site (proposed for development) as a 'Transformed Area' less sensitive to disturbance with opportunities for development and no natural habitat remaining. The relevant area is mapped in light green.</p>  |  |

**6. Protocols**

|  |
|--|
| <p>Explain how the proposed activity or development complies with the requirements of the protocols referred to in the NOI and/or application form</p> |
| <p><i>A Screening Tool has been completed as well as a Site Sensitivity Verification Report (Appendix I).</i></p>                                      |

**SECTION D: APPLICABLE LISTED ACTIVITIES**

List the applicable activities in terms of the NEMA EIA Regulations

| Activity No(s): | Provide the relevant <b>Basic Assessment Activity(ies)</b> as set out in <b>Listing Notice 1</b>   | Describe the portion of the proposed development to which the applicable listed activity relates.   |
|-----------------|--|---|
| 12              | <p>The development of—</p> <p>(ii) infrastructure or structures with a physical footprint of 100 square metres or more;</p> <p>where such development occurs—</p> <p>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.</p> | <p>The dam and associated spring are identified as a watercourse as defined in the National Water Act. The development will be within 32 meters of the watercourse, with a 10 meter buffer around the dam and spring.</p> |

|                 |   |  |
|-----------------|---|--|
| 27              | The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation.   | The development has a footprint of approximately 6ha, requiring more than 1 ha of vegetation to be cleared, but less than 20ha.  |
| 28              | Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development:<br>(ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare.  | The land is currently zoned as Agriculture 1 in terms of the Section 8 Zoning Scheme and is used for equestrian purposes (riding school). The property will be rezoned to Subdivisional Area to allow for the residential development.   |
| Activity No(s): | Provide the relevant <b>Basic Assessment Activity(ies)</b> as set out in <b>Listing Notice 3</b>  | Describe the portion of the proposed development to which the applicable listed activity relates.  |
| 4               | The development of a road wider than 4 metres with a reserve less than 13,5 metres.<br><b>i. Western Cape</b><br>ii. Areas outside urban areas;<br>(aa) Areas containing indigenous vegetation;   | The development will consist of public roads of approximately 1.2ha, and private roads and services of approximately 1.2ha.<br><br>The public road will accommodate the existing divisional road that traverses the southern boundary of the property and the old National road that traverses the northern section of the property. |
| 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.<br><b>i. Western Cape</b><br>i. 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;<br>ii. Within critical biodiversity areas identified in bioregional plans. | The development has a footprint of approximately 6ha, requiring more than 300 square meters of vegetation to be cleared within sections of an endangered ecosystem (Garden Route Shale Fynbos)   |
| 14              | The development of—<br>(ii) infrastructure or structures with a physical footprint of 10 square metres or more;<br><br>where such development occurs—<br>(c) if no development setback has been adopted, within 32 metres of  | The dam and associated spring are identified as a watercourse as defined in the National Water Act. The development will be within 32 meters of the watercourse, with a 10 meter buffer around the dam and spring.   |

|   |  |   |
|---|--|---|
|   | <p>a watercourse, measured from the edge of a watercourse.</p> <p>i. Outside urban areas:<br/> (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;<br/> (hh) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined.</p> | <p>The site is identified as being within the estuarine functional zone, although there are no aquatic features present on the site and no hydromorphic indicators in the soil.</p> |
| <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>The listed activities specified above must reconcile with activities applied for in the application form. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted.</li> <li>Where additional listed activities have been identified, that have not been included in the application form, and amended application form must be submitted to the competent authority.</li> </ul> |  |   |

List the applicable waste management listed activities in terms of the NEM:WA

| Activity No(s): | Provide the relevant <b>Basic Assessment Activity(ies)</b> as set out in <b>Category A</b> | Describe the portion of the proposed development to which the applicable listed activity relates. |
|-----------------|--|---|
| N/A             |  |   |

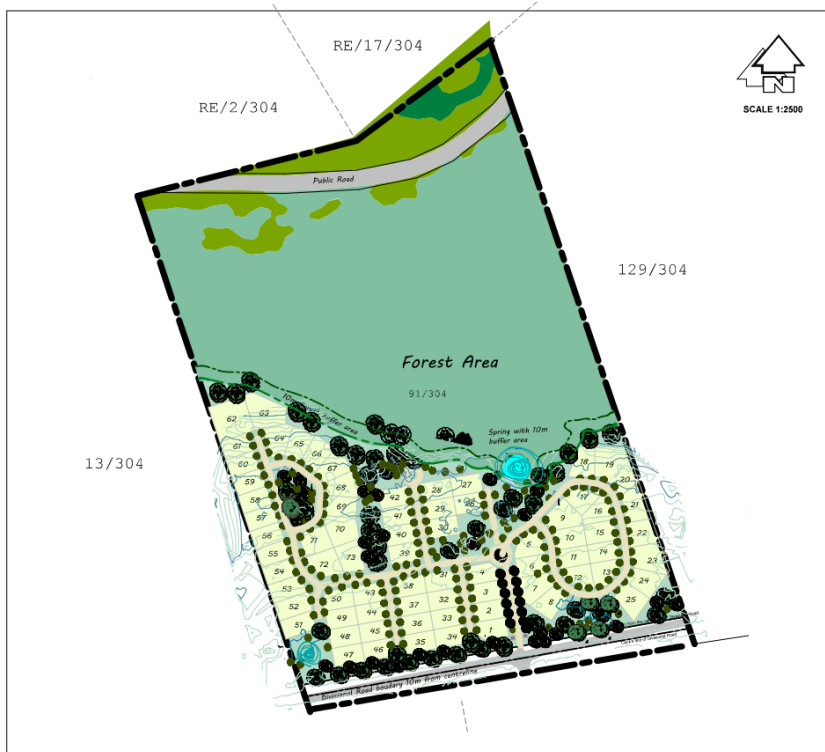
List the applicable listed activities in terms of the NEM:AQA

| Activity No(s): | Provide the relevant <b>Listed Activity(ies)</b> | Describe the portion of the proposed development to which the applicable listed activity relates. |
|-----------------|--|---|
| N/A             |  |   |

## SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

|  |   |
|--|---|
| 1.   | Provide a description of the preferred alternative. |
| <p>The vision of this development is to create an affordable and sustainable housing product specifically targeting the middle-income group. The aim is to create a pleasant yet affordable residential neighbourhood where the average person can own a home and live with dignity. The architecture will be based on green principles which will include smaller but well-designed houses, which are more cost-efficient, energy-efficient and healthy.</p> <p>The development concept includes ± 73 group housing stands with average erf sizes of ±375m<sup>2</sup> (Appendix B1). The houses will vary in size but will be built in a similar style that will create a harmonious development. Ample open spaces and landscaped streets are incorporated into the design to enhance the quality of the neighbourhood.</p> <p>The property is 14.7ha in size and the gross density will calculate at 5 units per ha. The nett density is calculated excluding the undevelopable steep slopes to the north of the site. The identified development area measures approximately 6ha and 73 units will calculate to a net density of 12 units per ha.</p> |   |





|  |
|--|
| <b>Proposed Development Concept</b><br>Property Size ±14.1ha<br>Zoning Agriculture 1   |
| <b>73 Group Housing Erven</b><br>Average erf size 375m <sup>2</sup><br>Approximate Residential footprint 3.1ha                             |
| <b>Existing and rehabilitated forest area</b><br>Approximate 8.6ha   |
| <b>Public roads</b><br>Approximate 1.2ha   |
| <b>Private Roads &amp; Services</b><br>Approximate 1.2ha   |
| DRW Nr 91/304/ 001<br>Date : 5 October 2022  |
| <br><b>Planning Space</b><br>Town and Regional Planners |

**Figure 2: Preferred layout.**

The proposed open space system corresponds to the position of indigenous vegetation. These areas will be part of the landscaping plan of the development and will provide an opportunity for recreational areas such as walking trails, lookout points etc. These facilities will be formally laid out to avoid unnecessary informal path formation in the sensitive forest habitat. A play park and picnic area are planned under the Milkwood trees and the small dam can be equipped with a bird hide or benches where the resident can enjoy the greenery. A great neighbourhood has places for people to meet, talk and be neighbourly.

2. Explain how the proposed development is in line with the existing land use rights of the property as you have indicated in the NOI and application form? Include the proof of the existing land use rights granted in Appendix E21.

The property will be rezoned from “Agricultural 1” to “Sub-divisional Area” to allow for the Group Housing erven. The property was originally earmarked in the Knysna Wilderness Plettenberg Bay Guide plan for “Recreational” purposes. This means that although the property has farm portion numbers and is zoned for agricultural purposes, it is exempt from the provisions of the Subdivision of Agricultural Land Act (Act 70 of 70).

The following is being applied for in terms of land use approval / consent:

- (i) Rezoning in terms of Section 15 (2)a of the said Bylaw: The property is currently zoned “Agricultural 1” in terms of the Section 8 Zoning Scheme applicable to the area. To facilitate the development of the land the property will have to be rezoned to a “Sub-divisional Area”.
- (ii) Subdivision in terms of Section 15 (2)d of the said Bylaw: The current subdivision plan indicates the subdivision of the property into 73 individual Group Housing erven with average erf sizes of ±375m<sup>2</sup> as well as roads and private open spaces.

3. Explain how potential conflict with respect to existing approvals for the proposed site (as indicated in the NOI/and or application form) and the proposed development have been resolved.

**Subdivision of Agricultural Land Act 70 of 1970:** The property was originally earmarked in the Knysna Wilderness Plettenberg Bay Guide plan for “Recreational” purposes. This means that although the property has farm portion numbers and is zoned for agricultural purposes, it is exempt from the provisions of the Subdivision of Agricultural Land Act (Act 70 of 70). An exemption

certificate from the Department of Environmental Affairs and Development Planning has been received.

**The South African National Roads Agency Limited and National Roads Act, Act 7 of 1998:** The property is not situated within a building restriction area as defined in Act 7 of 1998. A building restriction area means the area consisting of land (but excluding land in an urban area) situated alongside a national road within a distance of 60 metres from the boundary of the national road or situated within a distance of 500 metres from any point of intersection with the road. An application to SANRAL is not required.

**Advertising on Road and Ribbon Development Act 21 of 1940:** A Surveyor-General may not approve a General Plan or the diagrams of erven situated wholly or partly outside an urban area if any part of any such erf, lot, or holding falls within a distance of 95m of the centre line of a building restriction road or of a main road, or within 500m of an intersection with a similar or national road, without written approval from the controlling authority concerned. The property borders two Provincial Roads, the PO394 and DR1888 and will therefore require approval from the Provincial Roads Authority. There are also Conditions in the Title Deed That prevent the subdivision of the property without the consent of the controlling authority in terms of Act 21 of 1940.

|    |  |
|----|--|
| 4. | Explain how the proposed development will be in line with the following? |
|----|--|

|     |   |
|-----|---|
| 4.1 | The Provincial Spatial Development Framework. |
|-----|---|

The PSDF 2014 has been approved by the Executive Authority, Minister Anton Bredell, Minister of Local Government, Environmental Affairs and Development Planning, and endorsed by the Provincial Cabinet. The Western Cape PSDF sets out to put in place a coherent framework for the Province's urban and rural areas.

The Provincial SDF indicates George as the regional center for the eastern part of the province, with Knysna and Plettenberg Bay being smaller centres along the Regional Connector Route (N2). It earmarks the area along the Garden Route as a tourism route with leisure activities of provincial significance.

The sustainable use of provincial assets is one of the main aims of the policy. The protection of the non-renewable natural and agricultural resources is achieved through clear settlement edges for towns by defining limits to settlements and through establishing buffers/transitions between urban and rural areas. The urban fringe must ensure that urban expansion is structured and directed away from environmentally sensitive land and farming land; agricultural resources are reserved; environmental resources are protected; appropriate levels of services are feasible to support urban fringe land uses, and land use allocations within the urban fringe are compatible and sustainable.

|     |  |
|-----|--|
| 4.2 | The Integrated Development Plan of the local municipality. |
|-----|--|

The Garden Route SDF aims to promote balanced development that supports the integration and densification of settlements within the District. In general, it promotes the creation of a walkable, integrated, and compact urban environment. The report states that the financial and economic viability of towns in the District should be improved by promoting the intensification of existing urban areas. This can be achieved through infill, densification, and redevelopment, which in turn makes the use of existing infrastructure capacity and services more efficient. This vacant site presents an ideal opportunity for densification and urban infill.

|      |  |
|------|--|
| 4.3. | The Spatial Development Framework of the local municipality. |
|------|--|

The Western Cape Biodiversity Spatial Plan (WCBSP) was developed by CapeNature, in collaboration with the Department of Environmental Affairs and Development Planning as a spatial tool that comprises the Biodiversity Spatial Plan Map (BSP Map) of biodiversity priority areas,

accompanied by contextual information and land-use guidelines.

The Biodiversity Sector Plan simply provides information on biodiversity (i.e., provides only one information layer of the many layers required in land-use planning), and must be used in conjunction with other land-use or town and regional planning application procedures.

In terms of these maps, the northern section of the property is a Critical Biodiversity area, while the southern section is a completely transformed area. Development is not permitted in the CBA area but is generally permitted in transformed areas.

4.4. The Environmental Management Framework applicable to the area.

A detailed Local Area Spatial Plan was compiled for the Keurbooms area in 2013. The area has a fairly homogenous holiday/resort character. The document states that altering its character by permitting commercial and other non-residential development could detract from the area's attraction. The theme should thus be a low-density residential one. The proposal complies with this theme.

The property is situated in the Coastal Corridor which is defined by a number of smaller properties located within an approximate 1km offset from the high watermark extending from the Bitou River in the direction of the Keurboomstrand settlement. The Spatial Plan has identified development nodes for this area. For these nodes, a gross density profile of 12 units per ha of the identified transformed footprint area is proposed. The latter is based on the guideline of 15 units per hectare proposed for smaller rural settlements as contained in the Draft Bitou SDF (2013).

The extent of the proposed development nodes as conceptually indicated on the plan is based on the measured footprint of the identified transformed area. The proposed development nodes are strictly located within areas that have been identified as being transformed with no natural remnants remaining.

The entire southern portion of the site, where the development is planned, is identified as a transformed area, according to the Environmental Sensitivity Map Nr 6 and Biodiversity Map Nr 7 attached to the Keurboom and Environs Local Area Spatial Plan Report. The proposed density of the development is 12 units per ha of the identified transformed footprint, as proposed in the document

The document also determined "no go" development areas based on the various bio-physical constraints which determine that no development should be considered:

- below the 1:50 and 100: year flood lines;
- on any slopes with a gradient steeper than 1:4;
- below the 4,5m coastal setback line;
- within the 100m high water mark setback; and
- within the Tshokwane Wetland system.

The proposed development footprint complies with all the parameters as set out above, except for the 4,5m coastal setback line. Taking the 4.5m contour line into account, only about 1.6ha of the 6ha transformed area has been identified as being suitable for development. This calculates to a maximum of 19 units.

This 4.5m coastal setback recommendation was taken from the 4.5m swash contour and 4.5 m estuary/river flood contour that was a recommendation by the 2010 Eden District Municipality Sea level rise and flood risk model of 2010, commissioned by The Provincial Department of Environmental Affairs and Development Planning. The purpose of this model was to identify areas

that are vulnerable to migrating shorelines and tidal reaches, storm associated extreme sea levels and estuary/river flooding. It is submitted that this property is not within 100m of the coastline and is not in the 100-year flood line of the estuary flood plain as defined in the Keurbooms Bitou Estuarine Management Plan 2018 and the reference to the 4.5m inland contour line are therefore less relevant to properties inland of these vulnerable areas.

5. Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development.

A map was produced that determined the site constraints and limitations of the site. This was based on the specialists studies conducted for terrestrial biodiversity and freshwater, as well as other factors such as slope analysis. The KELASP was also considered in the preferred layout and alternative layout regarding slopes, floodlines, and transformed areas.

Limitations include the following:

1. The proposed development will be restricted to the lowland areas that were previously cultivated. The forest areas are therefore outside the proposed development footprint.
2. The mapped spring and dam have been protected by a 10 m buffer as recommended, which constitutes the regulated area as per GN509 as this incorporates riparian vegetation in the immediate vicinity of the features.
3. The slope analysis indicated that the entire southern section of the site has a gradient of less than 25% and is therefore suitable for development.

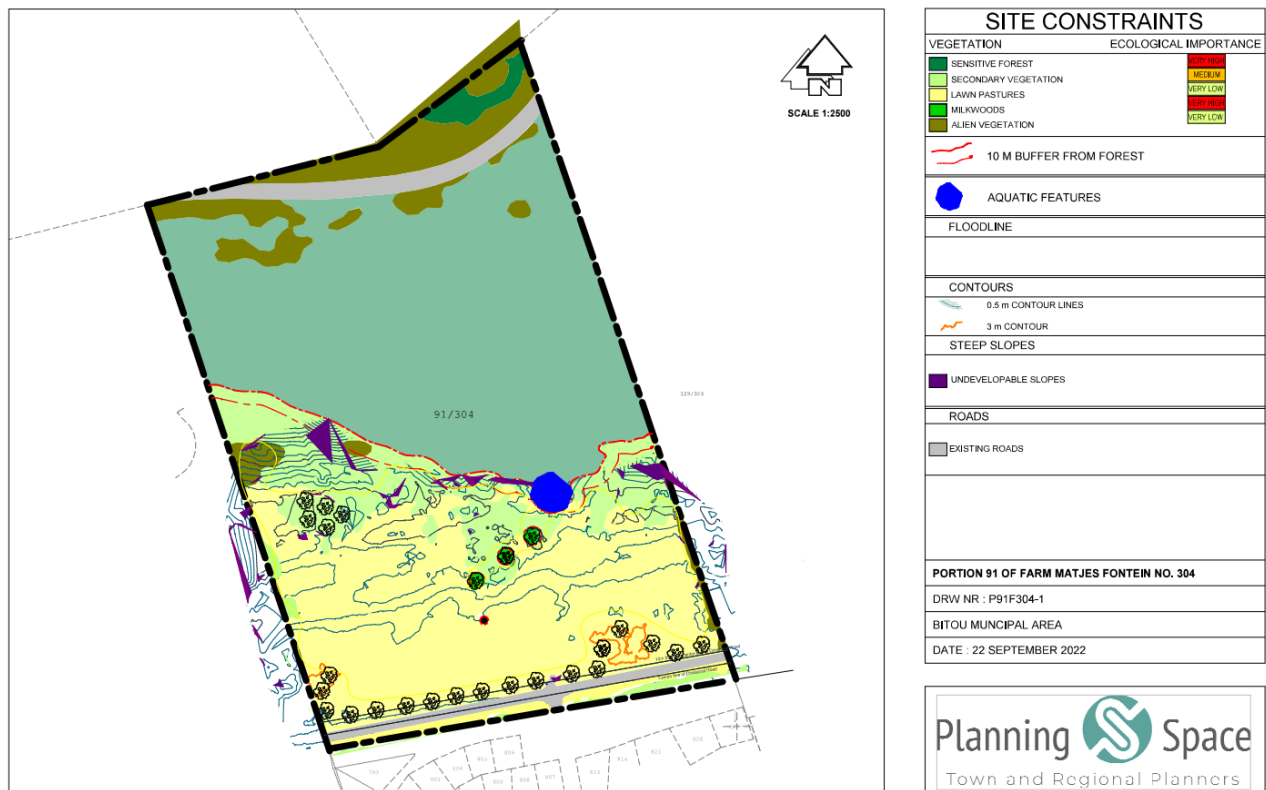


Figure 3: Site constraints.

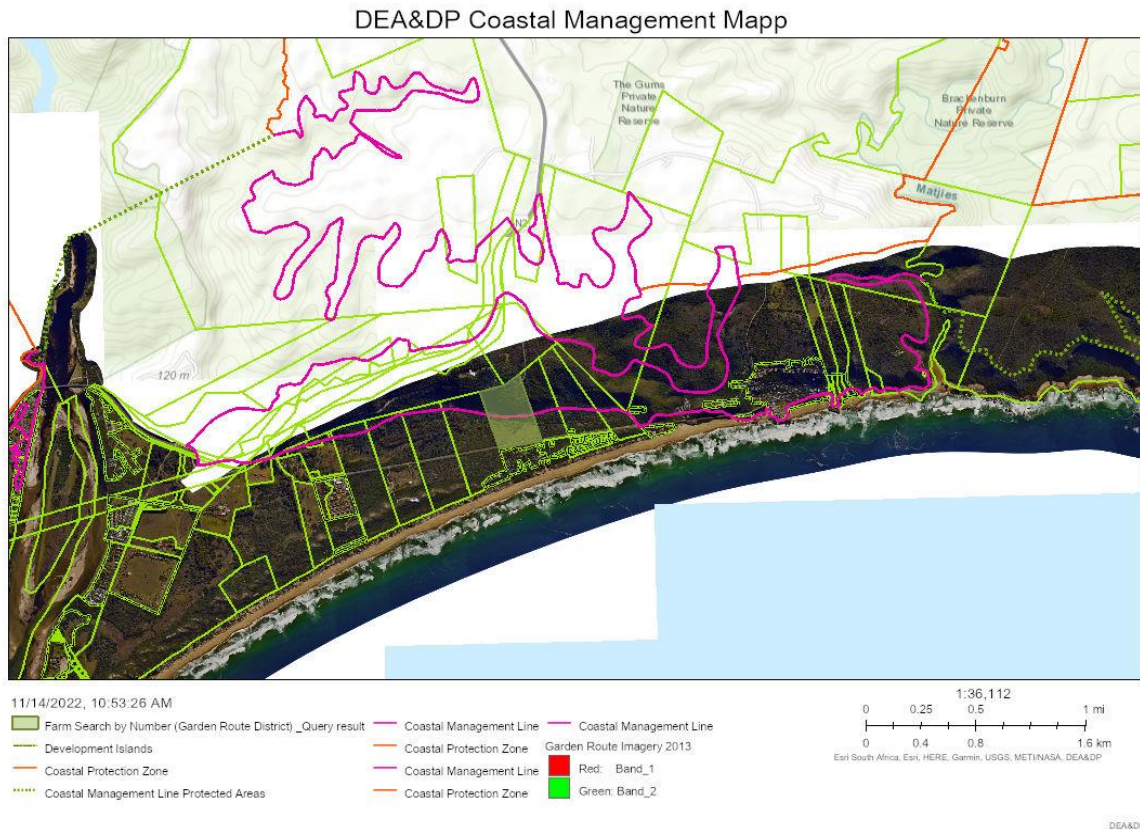
6. Explain how the Western Cape Biodiversity Spatial Plan (including the guidelines in the handbook) has influenced the proposed development.

The Western Cape Biodiversity Spatial Plan (WCBSP) was developed by Cape Nature, in collaboration with the Department of Environmental Affairs and Development Planning as a spatial tool that comprises the Biodiversity Spatial Plan Map (BSP Map) of biodiversity priority areas, accompanied by contextual information and land-use guidelines. The Biodiversity Sector Plan simply provides information on biodiversity.

The Western Cape Biodiversity Spatial Plan (WC BSP) shows that the entire northern area (60%) of the site (except the road) is within a CBA1 area for terrestrial and forest, while the remaining area is transformed. Development is not permitted in the CBA area but is generally permitted in transformed areas.

7. Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA.

The site is within the coastal protection zone and a portion to the south is within the coastal management lines as shown in figure 4 below.



**Figure 4: DEA&DP Coastal Management Lines for the Keurbooms area. Portion 91 of 304 Matjes Fontein is highlighted green.**

The property is situated in the Coastal Corridor which is defined by a number of smaller properties located within an approximate 1km offset from the high watermark extending from the Bitou River in the direction of the Keurboomstrand settlement. The Keurboom and Environs Local Area Spatial Plan has identified development nodes for this area. For these nodes, a gross density profile of 12 units per ha of the identified transformed footprint area is proposed. The latter is based on the guideline of 15 units per hectare proposed for smaller rural settlements as contained in the Draft Bitou SDF (2013).

8. Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I.

The Screening Tool Report submitted with the application is attached as Appendix I with Site Sensitivity Verification Report. Additional Screening Tool Reports have been included to address the listed activities as per NEMA.

9. Explain how the proposed development will optimise vacant land available within an urban area.

The proposed development (preferred option) is on unutilised vacant land which falls within the urban edge and is therefore in alignment with the above-mentioned guidelines as stipulated in the SDF.

10. Explain how the proposed development will optimise the use of existing resources and infrastructure.

The municipal services for the proposed development are available on the boundary of the property. The main supplier of bulk services and electricity is the Bitou Municipality, nevertheless the Applicant will investigate / research the latest technology with respect to water supply (tanks)

and energy saving devices, such as heat pumps, solar energy, bollard lighting and solar panels.

11. Explain whether the necessary services are available and whether the local authority has confirmed sufficient, spare, unallocated service capacity. (Confirmation of all services must be included in Appendix E1 6).

Engineering Report (Appendix G3) and GLS Report (Appendix E1 6) are attached.

The GLS Report concluded that accommodation of the development in the present water reticulation system will require no upgrading of the existing reticulation system to comply with the pressure and fire flow criteria as set out in the master plan. It is however noted that for future developments the bulk water system to the Matjiesfontein reservoir should be upgraded.

The existing bulk sewer system downstream of the Matjiesfontein pump station has insufficient capacity to accommodate the proposed development. The minimum upgrades required to accommodate the proposed development in the existing sewer system are to upgrade capacity of the Aventura PS's rising main and replace existing rising main from the Matjiesfontein PS.

Confirmation from the Local Municipality is pending.

12. In addition to the above, explain the need and desirability of the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013) or the DEA's Integrated Environmental Management Guideline on Need and Desirability. This may be attached to this BAR as Appendix K.

### THE NEED FOR AFFORDABLE HOUSING

The first question that needs to be asked when any development is considered is whether there is a need for the contemplated land use. This is normally a question that the potential investor would answer before he embarks on a long and expensive application process. Development, like any other business, is about supply and demand.

The Garden Route is becoming increasingly popular among people who want to seek a quieter lifestyle and move out of the cities. According to the Bitou Lm Growth Projections and Land Use Budget, the actual population growth in Bitou LM for the period 2001 –2016 has been about 1999 people per annum and this growth rate has dramatically increased in the last 2 years. Statistics show that historically most people moving to the Bitou area are from the Eastern Cape. Most of these people are poor, low-skilled individuals who are searching for employment opportunities. Although most of the population growth and subsequent housing needs are in the poorer communities, there is also a known need for middle-income properties in Plettenberg Bay.

There is currently a "semigration" trend, with many people from Gauteng and KwaZulu/Natal moving to smaller towns in the Western Cape. It seems that Covid-19 has caused a lot of people to introspect and re-evaluate their priorities, which has led to the current influx of affluent city dwellers to the Garden Route. Recent unrest and increased crime and violence in Gauteng and Natal will be likely to create an even higher demand for housing in safer areas. This leads to a situation where demand, and therefore property prices, are well above national averages even though affordability is relatively low.

The Plettenberg Bay area historically has very little housing opportunities for middle-income earners. The mentioned influx of higher-income families moving to the area has led to a sharp increase in housing prices which has further exacerbated the lack of affordable housing. Many residents are displaced as property values rise to the point of unaffordability. This displacement of the middle class and lack of affordable houses has a tremendous effect on the economy of the town, as the middle-class workforce actively contributing to these economies can no longer afford to live here.

This development aims to address the housing need of the middle-income earners who lives and work in the area.

**SOCIO-ECONOMIC NEED OF THE LARGER COMMUNITY**

South Africa has an ever-increasing challenge of high unemployment and skills shortages. With the destructive impact of Covid 19 on the world economy this problem has worsened. At the end of 2018, the unemployment rate was reported to be 27,2%5. One of the main goals that South Africa has set itself in the National Development Plan, is to cut the unemployment rate to 6% by 2030.

The planned residential estate will create construction jobs for local contractors and labourers. The employment opportunities associated with the construction phase are frequently regarded as temporary employment. However, while these jobs may be classified as “temporary” it is worth noting that the people employed in the construction industry by its very nature rely on “temporary” jobs for their survival. In this regard “permanent” employment in the construction sector is linked to the ability of construction companies to secure a series of temporary projects over a period of time. Each development, such as the proposed development, therefore, contributes to creating “permanent” employment in the construction sector.

The construction industry is an important player in job creation, not only in the construction sector but in other sectors of the economy as well. The construction industry uses a wide range of inputs such as manufacturing of construction materials and equipment, mining of raw materials, forestry, transportation, real estate, finance, and professional services which all contribute indirectly to more jobs that are created across several sectors.

Plettenberg bay has a very similar demographic profile to the rest of the country. Socio-economic studies indicate high levels of poverty and unemployment. The social needs of the larger community form part of the “surrounding environment” and should receive due consideration when new developments are investigated. The “ripple effect” that a development of this scale has on the local economy and social well-being of the community cannot be ignored.

**PHYSICAL SITE CONSTRAINTS AND OPPORTUNITIES**

The table below provides a summary of the physical site constraints and opportunities identified to date:

**OPPORTUNITIES**

**Municipal Infrastructure:**

Bulk municipal services are available, and access is available through an existing road network. Municipal sewer and water lines are situated along this road, making a cost-efficient connection to this network possible.

**Agricultural Value:**

The property has no agricultural value due to, its small size, and limited irrigation potential. For this reason, the property

**CONSTRAINTS**

There is 2 public road that traverses over the properties, taking away valuable development land.

The capacity of the existing infrastructure needs to be further investigated.

has not been identified for Agricultural purposes in the SDF.

**Low conservation value:**

The southern side of the property has a low conservation value due to historical agricultural practices.

**Topography:** The site has an even gradient which will allow for cost-effective services and design.

The northern part of the property is covered with sensitive forest and cannot be developed.

A large part of the property is too steep to develop

The low-lying nature of the land (below 5m MSL) results in the property being identified as part of the EFZ

**High visibility:**

The development area is situated adjacent to Keurboom Road. A Landscape Plan and an architectural design guideline will be a requirement to mitigate the potential visual impact.

It can be concluded that the site has limited constraints and that the unique site characteristics will be preserved within the planned development. The site characteristic described above makes this site highly desirable for development.

**COMPATIBILITY WITH THE SURROUNDING AREA**

The Keurboom village is a seasonal holiday town with a homogeneous single residential holiday character. The property is about 1.8 km west of the town along a stretch of road that contains several gated residential developments. The Zoning Plan attached hereto indicate that the study area mainly consists of Single residential and Group housing zoned residential estate of varying densities. The proposal is compatible with the existing land uses.

| DEVELOPMENT NAME |        | NR OF UNITS                  |
|------------------|--------|------------------------------|
| Dolphin Waves    | 12/304 | 64 Group Housing stands      |
| Keurbaai         | 13/304 | 11 Group Housing Residential |
| Milkwood Glen    | 14/304 | 51 Group Housing Stands      |
| Driftwood        | 15/304 | 5 Single Residential Stands  |
| Whales Haven     | 16/304 | 17 Group Housing Stands      |

*Extracted from the Town Planning Report by Planning Space Town and Regional Planners, dated 11/01/2022 (Appendix G6).*



## SECTION F: PUBLIC PARTICIPATION

The Public Participation Process ("PPP") must fulfil the requirements as outlined in the NEMA EIA Regulations and must be attached as Appendix F. Please note that if the NEM: WA and/or the NEM: AQA is applicable to the proposed development, an advertisement must be placed in at least two newspapers.

1. Exclusively for linear activities: Indicate what PPP was agreed to by the competent authority. Include proof of this agreement in Appendix E22.

N/A

2. Confirm that the PPP as indicated in the application form has been complied with. All the PPP must be included in Appendix F.

All comments received from the pre-application PPP will be addressed in the Comment and Response report to be included in the Draft BAR.

3. Confirm which of the State Departments and Organs of State indicated in the Notice of Intent/application form were consulted with.

The following Departments have been notified of the Pre-Application BAR:

| Organisation   | Notified   |
|--|------------|
| Provincial Health Department   | 08/05/2023 |
| Department of Water and Sanitation                                       | 08/05/2023 |
| Provincial Roads Department  | 08/05/2023 |
| Department of Transport & Public Works                                   | 08/05/2023 |
| Western Cape Department of Agriculture: Land Use Management              | 08/05/2023 |
| SANRAL   | 08/05/2023 |
| Heritage Western Cape  | 08/05/2023 |
| Cape Nature: Land Use Advice   | 08/05/2023 |
| SANParks   | 08/05/2023 |
| Breede-Gouritz Catchment Management Agency                               | 08/05/2023 |
| Department of Environment Forestry Fisheries & Environment DFFE (Knysna) | 08/05/2023 |
| Coastal Management Unit: DEA&DP  | 08/05/2023 |
| SCFPA  | 08/05/2023 |
| SACAA  | 08/05/2023 |
| Bitou Municipality   | 08/05/2023 |
| Garden Route District Municipality                                       | 08/05/2023 |

4. If any of the State Departments and Organs of State were not consulted, indicate which and why.

N/A

5. If any of the State Departments and Organs of State did not respond, indicate which.

This will be addressed following the pre-application PPP

6. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated into the development proposal.

All comments received from the pre-application PPP will be addressed in the Comment and Response report to be included in the Draft BAR.

**Note:**

A register of all the I&AP's notified, including the Organs of State, and all the registered I&APs must be included in Appendix F. The register must be maintained and made available to any person requesting access to the register in writing.

The EAP must notify I&AP's that all information submitted by I&AP's becomes public information.

Your attention is drawn to Regulation 40 (3) of the NEMA EIA Regulations which states that "Potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but **must** be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority."

All the comments received from I&APs on the pre -application BAR (if applicable and the draft BAR must be recorded, responded to and included in the Comments and Responses Report and must be included in Appendix F.

All information obtained during the PPP (the minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded) and must be included in Appendix F.

Please note that proof of the PPP conducted must be included in Appendix F. In terms of the required "proof" the following is required:

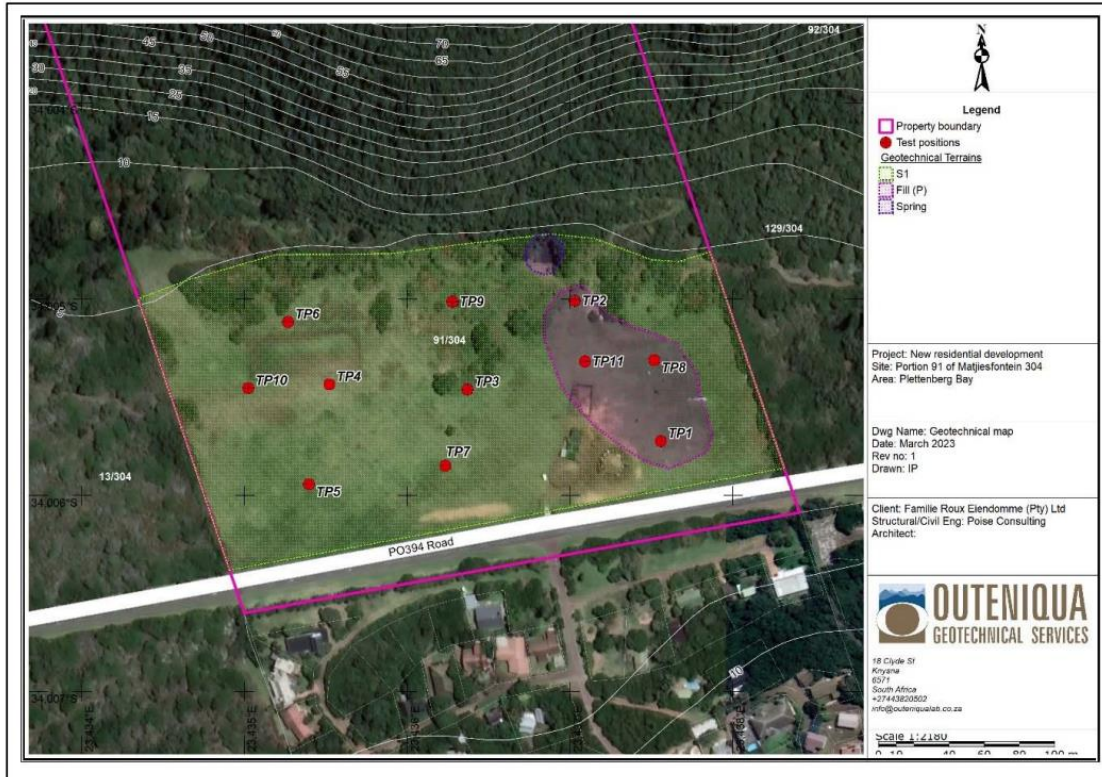
- a site map showing where the site notice was displayed, dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
  - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
  - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
  - if a facsimile was sent, a copy of the facsimile Report;
  - if an electronic mail was sent, a copy of the electronic mail sent; and
  - if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

## SECTION G: DESCRIPTION OF THE RECEIVING ENVIRONMENT

All specialist studies must be attached as Appendix G.

### 1. Groundwater

|      |   |  |      |
|------|---|--|------|
| 1.1. | Was a specialist study conducted?   | YES  | NO ✓ |
| 1.2. | Provide the name and or company who conducted the specialist study.   | N/A  |      |
| 1.3. | Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.                 | N/A  |      |
| 1.4. | Indicate the depth of groundwater and explain how the depth of groundwater and type of aquifer (if present) has influenced your proposed development. | <p>The fine sandy soil conditions generally had moderate permeability and drainage characteristics, but surface water was expected to accumulate temporarily after heavy rainfall events. A surface water body, fed by a perennial spring, was also identified at the base of the slope on the eastern side of the site. Groundwater was identified in test pits on the southern (lower) side of the site (TP1 &amp; TP5) at an average depth of 2m. Seepage and run-off from the slopes to the north were therefore expected to have an influence on the engineering design. Groundwater was also expected to affect deep excavations (&gt;1.5m below NGL) in some areas.</p> |      |



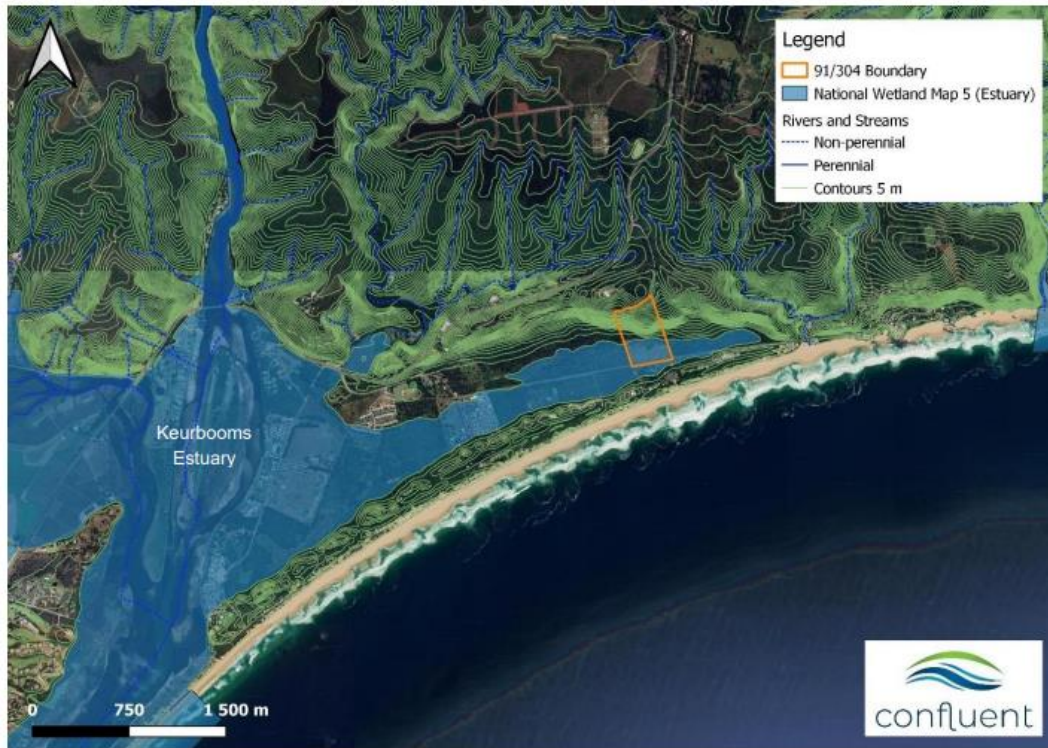
**Figure 5: Geotechnical map.**

The lower portion of the property where development is proposed was also assessed in a geotechnical report (Outeniqua Labs, 2023). The report provides more detailed information on the soil drainage features and level of groundwater at the site. Test pit locations are indicated in Figure 5. Soil at the site was described as dominated by estuarine sandy soils with moderate permeability and drainage characteristics. Surface water is expected to accumulate temporarily following heavy rainfall events. Groundwater was detected in 2 of the test pits at an average of 2 m (Outeniqua Geotechnical Report, 2023). This represents a perched water table over a portion of the site. While the associated water levels can rise and fall, there would need to be a very large volume of water (extremely high rainfall) for the water table to rise from 2 m to within 50 cm of the soil surface where wetland features (wetland plants and changes to soil morphology) typically occur<sup>2</sup>. Furthermore, the rise and fall of the water table is transient in nature and would not persist long enough for wetland conditions to occur (pers. comm. I. Paton, Outeniqua Labs).

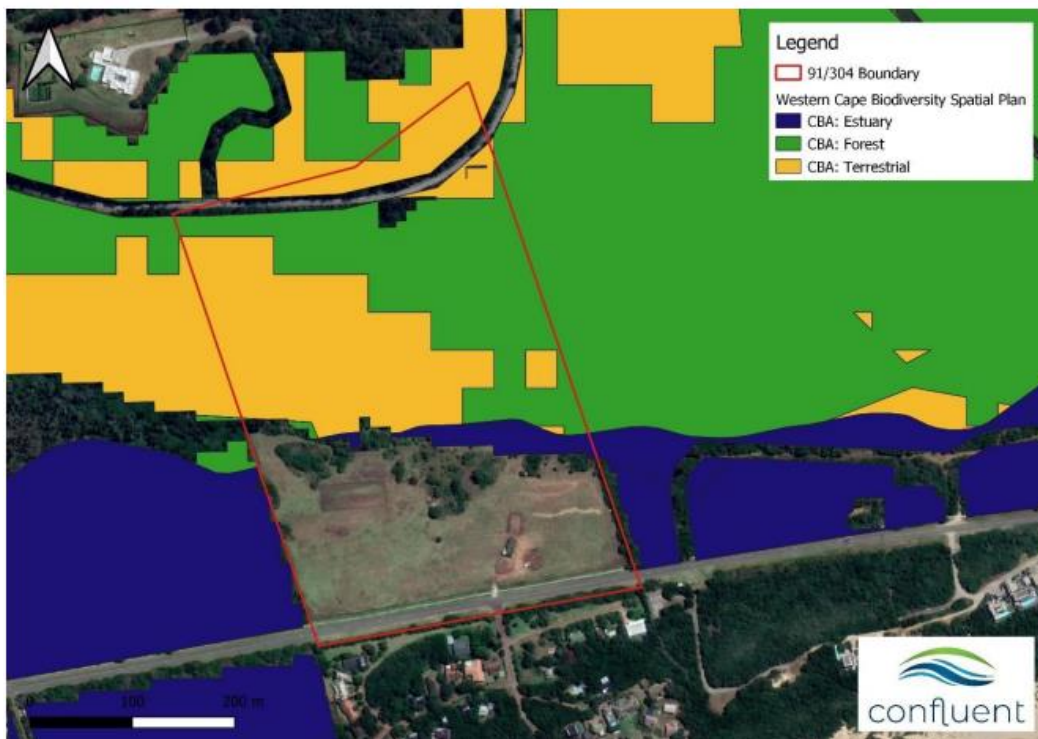
## 2. Surface water

|      |   |   |    |
|------|---|---|----|
| 2.1. | Was a specialist study conducted?   | YES ✓   | NO |
| 2.2. | Provide the name and/or company who conducted the specialist study.   | Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd: Freshwater Compliance Statement for Portion 91 of Farm 304, Matjesfontein, Plettenberg Bay, dated April 2023.  |    |
| 2.3. | Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development. | The site has been classified as having 'Very High' aquatic biodiversity by the Department of Environment, Forestry and Fisheries (DFFE) screening tool. This classification is based on the site being located within the mapped Estuarine Functional Zone (EFZ) for Keurbooms Estuary (Figure 6) and areas indicated by the Western Cape Biodiversity Spatial Plan (WCBSP) as Aquatic Critical Biodiversity Areas (Figure 7). Based on the results of the Freshwater desktop review and the site survey, the sensitivity of aquatic biodiversity on Portion 91/304 can be regarded as <b>LOW</b> . |    |

<sup>2</sup> Freshwater Compliance Statement by Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd, dated April 2023.



**Figure 6: Location of 91/304 Matjesfontein in relation to the mapped Keurbooms Estuarine Functional Zone, contours and other watercourses.**



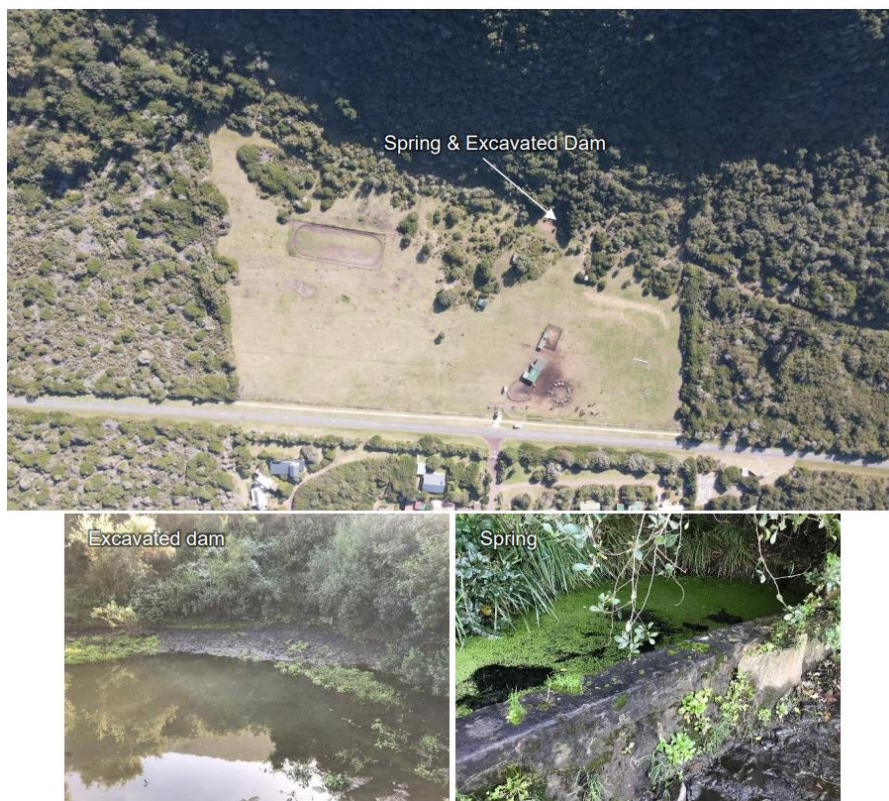
**Figure 7: Critical Biodiversity Areas indicated in the Western Cape Biodiversity Spatial Plan (2017).**

The site falls within quaternary catchment K60E. No freshwater features such as drainage lines, rivers or wetlands are indicated to occur within the footprint of the property or within close proximity to the property (Figure 6). The only mapped aquatic feature is the Estuarine Functional Zone (EFZ) which is identified as any area below 5 m.a.m.s.l. (metres above mean sea level). The northern portion of the property is fairly steep and forested, while the southern portion is very flat with pasture grazed by horses.

A small natural spring is present on the site and was identified by the landowner. Water flowing from the spring is stored to a minor extent in a small, excavated dam (Figure 8).

Soil is very sandy on the site and should therefore be relatively well drained. The dam is roughly circular, and measures approximately 90m<sup>2</sup> in extent. The dam and associated spring are identified as a watercourse as defined in the National Water Act. According to GN509 of the NWA, the regulated area of a spring or dam is classified as the outer edge of 1:100 year floodline and/or delineated riparian habitat (whichever is greater) from the middle of the spring or dam. As the floodline is not relevant in this situation, and riparian vegetation was indistinguishable from the surrounding vegetation, a buffer of 10 m for this feature is recommended. Development should be planned to exclude this buffer area during the construction and operational phase<sup>3</sup>.

The mapped spring and dam have been protected by a 10 m buffer as recommended, which constitutes the regulated area as per GN509 as this incorporates riparian vegetation in the immediate vicinity of the features. Provided no development takes place within this area, the development will not require any level of Water Use Authorisation in terms of the National Water Act.



**Figure 8: Photographs indicating the location of the spring and associated dam.**

### 3. Coastal Environment

|      |  |  |      |
|------|--|--|------|
| 3.1. | Was a specialist study conducted?  | YES  | NO ✓ |
| 3.2. | Provide the name and/or company who conducted the specialist study.  | N/A  |      |
| 3.3. | Explain how the relevant considerations of Section 63 of the ICMA were taken into account and explain how this influenced your proposed development. | The development does not affect coastal Public Property, or coastal access land. The property is located within the Coastal Protection Zone. Comment from the Coastal Management Department (DEA&DP) will be requested, and their inputs incorporated into the assessment. |      |

<sup>3</sup> Freshwater Compliance Statement by Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd, dated April 2023.

|   |  |
|---|--|
| 3.4.  | Explain how estuary management plans (if applicable) has influenced the proposed development.  |
| See point 3.5.  |  |
| 3.5.  | Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development. |
| <p>The Keurboom Bitou Estuarine Management Plan includes the mapping of an Estuarine Functional Zone. An Estuarine Functional Zone is defined in the NEMA Regulations as “the area in and around an estuary which includes open water areas, estuarine habitats, and the surrounding flood plains. The mapped Estuarine functional Zone is however identified as any area below the 5m above mean sea-level, which does not accurately identify the Estuarine Functional Zone as defined above. The ground truthing of the site by freshwater specialists Confluent Environmental, confirmed that there are no aquatic features present on the site and no hydromorphic indicators in the soil. Furthermore, according to the Keurboom-Bitou Estuary Management Plan the property is located above the 100-year flood line, so there is also no flood risk associated with the property. The following findings were extracted from the Freshwater study:</p> <ul style="list-style-type: none"> <li>❖ Remnant patches of vegetation were present on 91/304 and these contained a couple of large specimens of Milkwood trees (<i>Sideroxylon inermeis</i>) intermingled with <i>Searsia</i> sp. Shrubs which make up thicket areas. In the grazed open area which corresponds with the mapped EFZ, the dominant plant species are numerous bloodlilies (<i>Haemanthus sanguineus</i>), <i>Stenotaphrum secundatum</i> (Buffalo Grass), <i>Mesembryanthemum</i> spp. (ice plants), <i>Romulea</i> spp. (Froetangs), <i>Carprobrotus</i> sp., <i>Searsia crenata</i> (Dunekraaibessie), <i>Salvia aurea</i> (brown sage), and <i>Massonia longipes</i> (coastal hedgehog lily). While these species are typically associated with coastal, sandy habitats, they are not strictly associated with estuarine systems including the upper extent of the tidal zone. Furthermore, no estuarine species from any of the tidal habitats including saltmarsh or supra-tidal vegetation were identified at the site. These species would typically include rushes and sedges such as <i>Juncus kraussii</i>, <i>Cyperus laevigatus</i>, or <i>Phragmites australis</i>.</li> <li>❖ Soil augering at the site indicated deep, sandy, fairly well drained soil with no textural change at 50 cm which could promote the development of wetland habitat. This is consistent with the mapped soil type in the area which is described as soils with limited pedological development (young soils with minimal organic matter), and a low clay content (&lt; 15%).</li> <li>❖ Findings that the site is largely terrestrial are consistent with the spatial assessment provided in the Keurbooms-Bitou Estuary Management Plan (Figure 9). This figure excludes the floodplain area from the 1000 m buffer around the Keurbooms-Bitou estuary. The EFZ as defined by the 2014 EIA Regulations (GNR985) under the NEMA as “the area in and around an estuary which includes the open water area, estuarine habitat (such as sand and mudflats, rock and plant communities) and the surrounding floodplain area...”.</li> <li>❖ One of the development risks within the EFZ relates to flooding which can be exacerbated by climate change and associated sea level rise. The K-BEMP (2018) includes mapped 1:50 and 1:100 year floodlines which are shown in Figure 9. The property is located on the edge of the 1:100 year floodline, which is not mapped to extend beyond the boundary of the property. In reality, the frequency of 100-year flood events is increasing due to climate change, and when coincident with sea-level rise and high tide events, it is not impossible that minor flooding could affect the low-lying area of the property in future. This should be considered in the design and layout of the property, and stormwater management should not further exacerbate the flood risk. To this end, Sustainable Drainage Systems (SuDS) should be fully implemented should the development proceed.</li> </ul> |  |

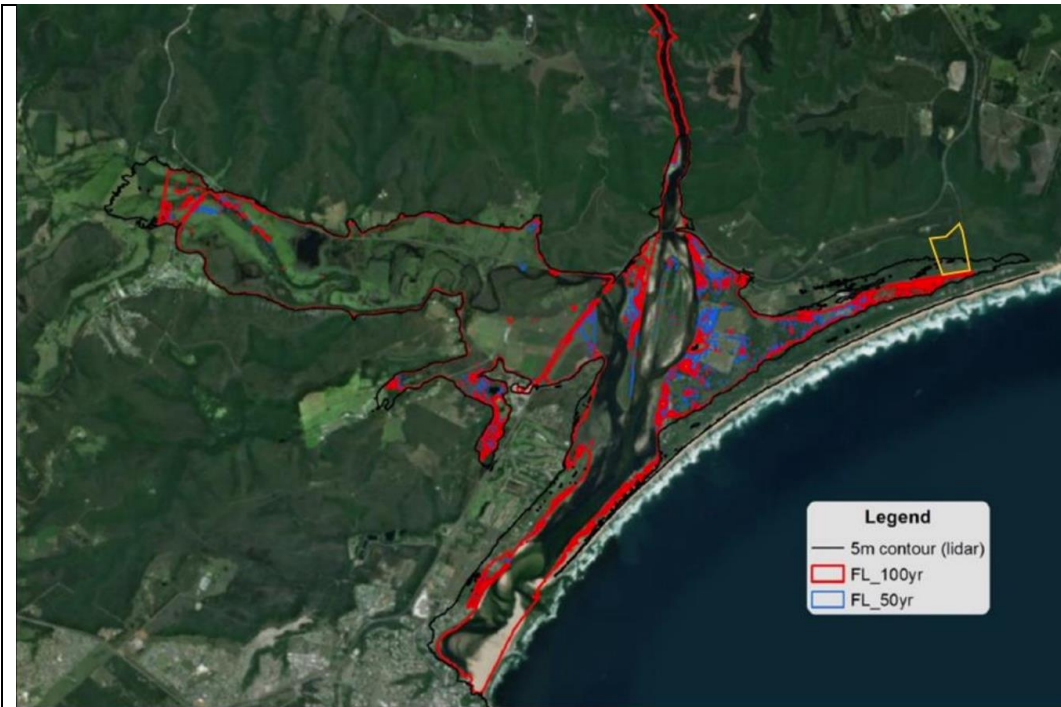


Figure 9: Mapped floodlines according to the Keurbooms-Bitou Estuary Management Plan indicating.

The site is outside the 1:50 and 1:100-year floodlines indicated in KELASP, and is also outside of the Tshokwane Wetland system, as well as outside the 100 m high water mark setback (Figure 10).

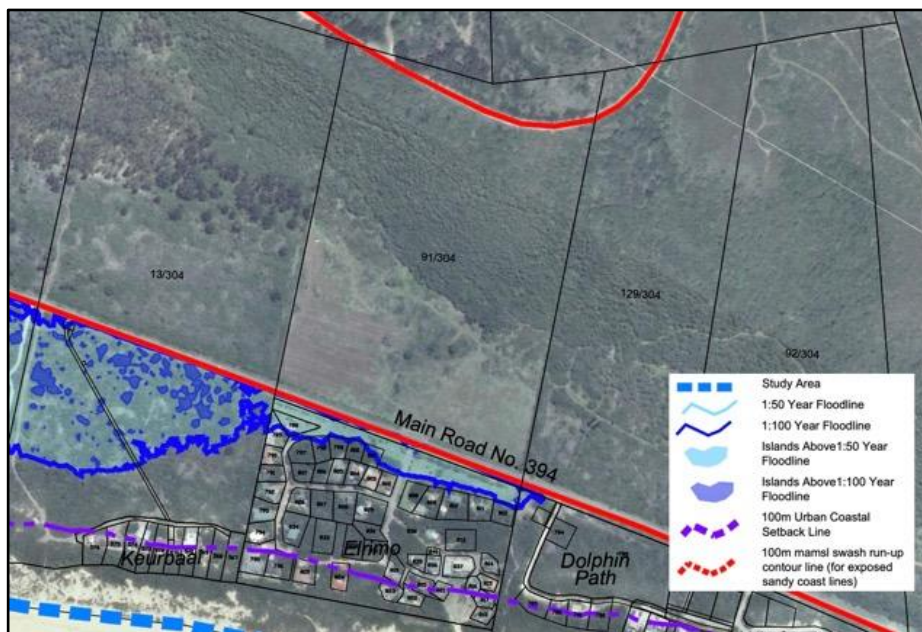
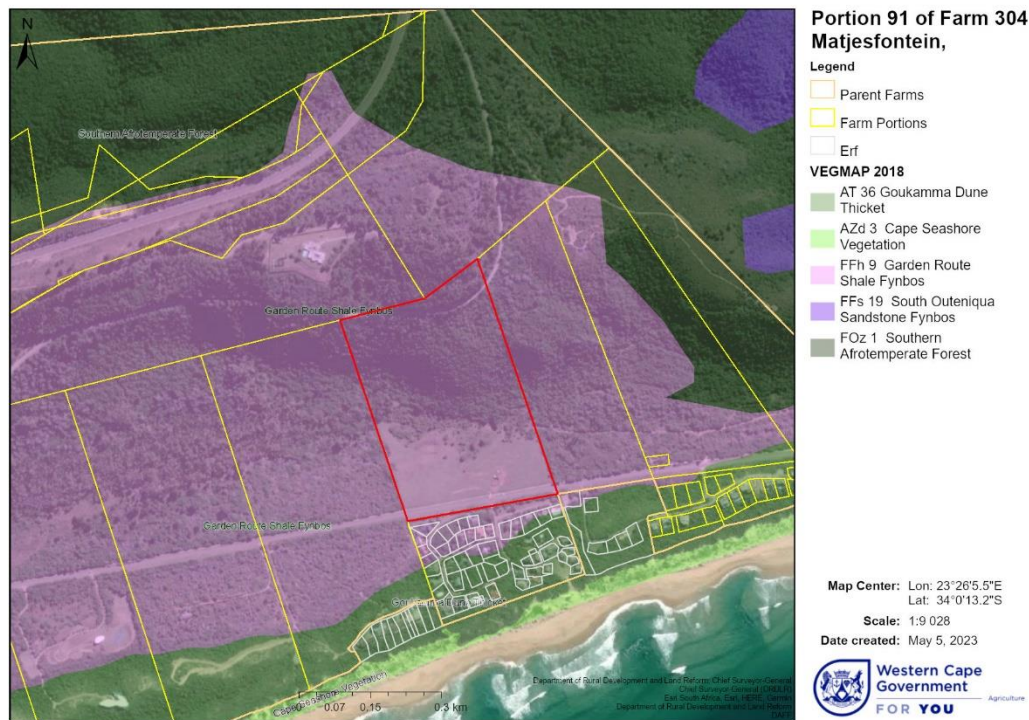


Figure 10: Floodlines and wetlands from KELASP.

#### 4. Biodiversity

|      |  |   |    |
|------|--|---|----|
| 4.1. | Were specialist studies conducted?   | YES ✓   | NO |
| 4.2. | Provide the name and/or company who conducted the specialist studies.  | David Hoare Consulting (Pty) Ltd: Plant Species, Animal Species and Terrestrial Biodiversity Assessment Report for Portion 91 of Farm 304 Matjes Fontein, Keurboomsstrand, Plettenberg Bay in the Western Cape Province. Dated 16 March 2023. |    |
| 4.3. | Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development. |   |    |

The entire site is within one regional vegetation type, namely Garden Route Shale Fynbos (Figure 10). There is another vegetation type nearby, Garden Route Granite Fynbos. In the event that natural habitat remains on site, there are likely to be floristic and vegetation structural influences from either of these vegetation types within the site, depending on local ecological conditions. The national vegetation map is, however, not mapped at a fine scale and it is probable that local topography could support other habitat types, such as thicket or low forest<sup>4</sup>. Garden Route Shale Fynbos that occurs on site and nearby areas, according to the national map, is briefly described below.



**Figure 11: Regional vegetation types of the site and surrounding areas.**

**Distribution:**

This vegetation type is found in the Western and Eastern Cape Provinces: Patches along the coastal foothills of the Langeberg at Grootberg (northeast of Heidelberg), the Outeniqua Mountains from Cloete’s Pass via the Groot Brak River Valley, Hoekwil, Karatara, Barrington and Knysna to Plettenberg Bay. Patches from the Bloukrans Pass along coastal platform shale bands south of the Tsitsikamma Mountains via Kleinbos and Fynboshoek to south of both Clarkson and the Kareedouw Mountains. Altitude 0–500 m.

**Vegetation & Landscape Features:**

Undulating hills and moderately undulating plains on the coastal forelands. Structurally this is tall, dense proteoid and ericaceous fynbos in wetter areas, and graminoid fynbos (or shrubby grassland) in drier areas. Fynbos appears confined to flatter more extensive landscapes that are exposed to frequent fires—most of the shales are covered with afrotemperate forest. Fairly wide belts of *Virgilia oroboides* occur on the interface between fynbos and forest. Fire-safe habitats nearer the coast have small clumps of thicket, and valley floors have scrub forest (Vlok & Euston-Brown 2002).

**Geology & Soils:**

Acidic, moist clay-loam, prismaeutanic and pedocutanic soils derived from Caimans Group and Ecca (in the east) shales. Land types mainly Db and Fa.

<sup>4</sup> David Hoare Consulting (Pty) Ltd: Plant Species, Animal Species and Terrestrial Biodiversity Assessment Report. Dated 16 March 2023.



**Climate:**

Non-seasonal rainfall dominates the region, with MAP 310–1 120 mm (mean: 700 mm), relatively even throughout the year, but with a slight low in winter. Mean daily maximum and minimum temperatures 27.6°C and 6.5°C for January and July, respectively. Frost incidence 2 or 3 days per year.

**Important Taxa:**

| <b>Growth form</b>                  | <b>Species</b>   |
|-------------------------------------|--|
| <b>Tall shrubs</b>                  | <i>Leucadendron eucalyptifolium</i> (d), <i>Protea aurea</i> subsp. <i>aurea</i> (d), <i>P. coronata</i> (d), <i>Leucospermum formosum</i> , <i>Metalasia densa</i> , <i>Passerina corymbosa</i> , <i>Protea neriifolia</i> , <i>Rhus lucida</i> <sup>†</sup>  |
| <b>Low shrubs</b>                   | <i>Acmadenia alternifolia</i> , <i>A. tetragona</i> , <i>Anthospermum aethiopicum</i> , <i>Cliffortia ruscifolia</i> , <i>Elytropappus rhinocerotis</i> , <i>Erica hispidula</i> , <i>Helichrysum cymosum</i> , <i>Leucadendron salignum</i> , <i>Pelargonium cordifolium</i> , <i>Phyllica axillaris</i> , <i>P. pinea</i> , <i>Psoralea monophylla</i> , <i>Selago corymbosa</i> . |
| <b>Herbs</b>                        | <i>Helichrysum felinum</i>   |
| <b>Geophytic herb</b>               | <i>Pteridium aquilinum</i> (d), <i>Eriospermum vermiforme</i>  |
| <b>Succulent herb</b>               | <i>Crassula orbicularis</i>  |
| <b>Herbaceous succulent climber</b> | <i>Crassula roggeveldii</i>  |
| <b>Graminoid</b>                    | <i>Ischyrolepis sieberi</i> (d), <i>Aristida junciformis</i> subsp. <i>galpinii</i> , <i>Brachiaria serrata</i> , <i>Cymbopogon marginatus</i> , <i>Elegia juncea</i> , <i>Eragrostis capensis</i> , <i>Ischyrolepis gaudichaudiana</i> , <i>Restio triticeus</i> , <i>Themeda triandra</i> , <i>Tristachya leucothrix</i> .   |

A total of 69 plant species were recorded on site within the proposed development footprint and along the margins of the forest (see Appendix G5: Plant, Animal and biodiversity Assessment), of which three are declared weeds and/or alien invader plants, three are naturalized exotic species, and the remainder are indigenous species, some of which are weedy species commonly found in disturbed places or are species that commonly colonise areas of disturbance.

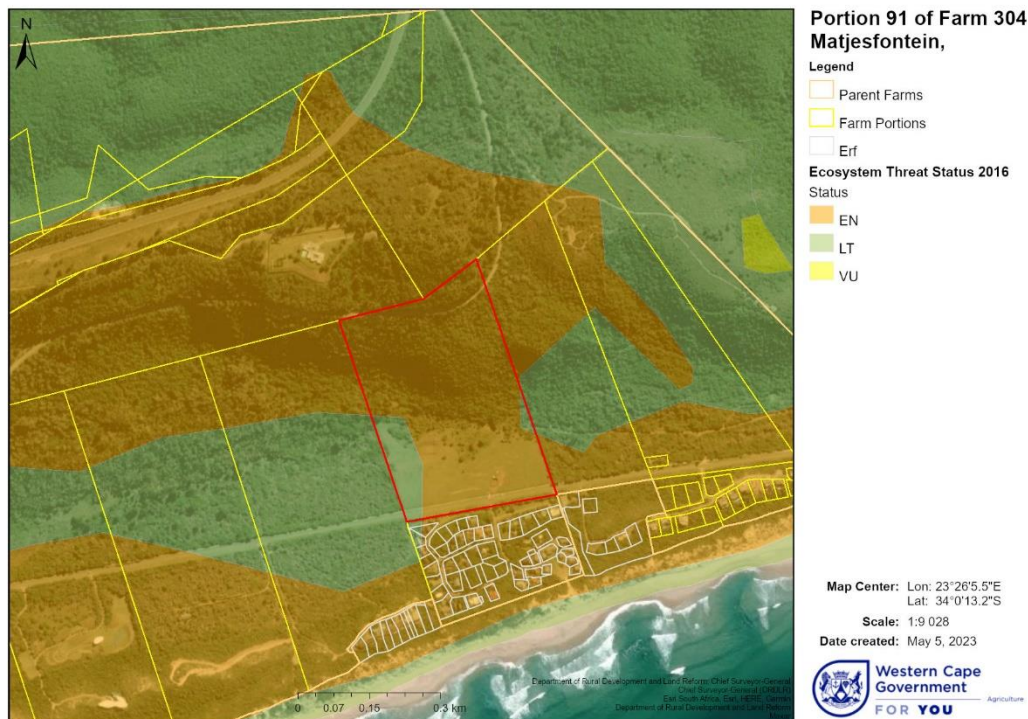
The alien invasive species are as follows:

- *Acacia cyclops*\* (NEMBA Category 1b)
- *Pinus* sp\* (NEMBA Category 2)
- *Paraserianthes lophantha*\* (Invader category 1b)

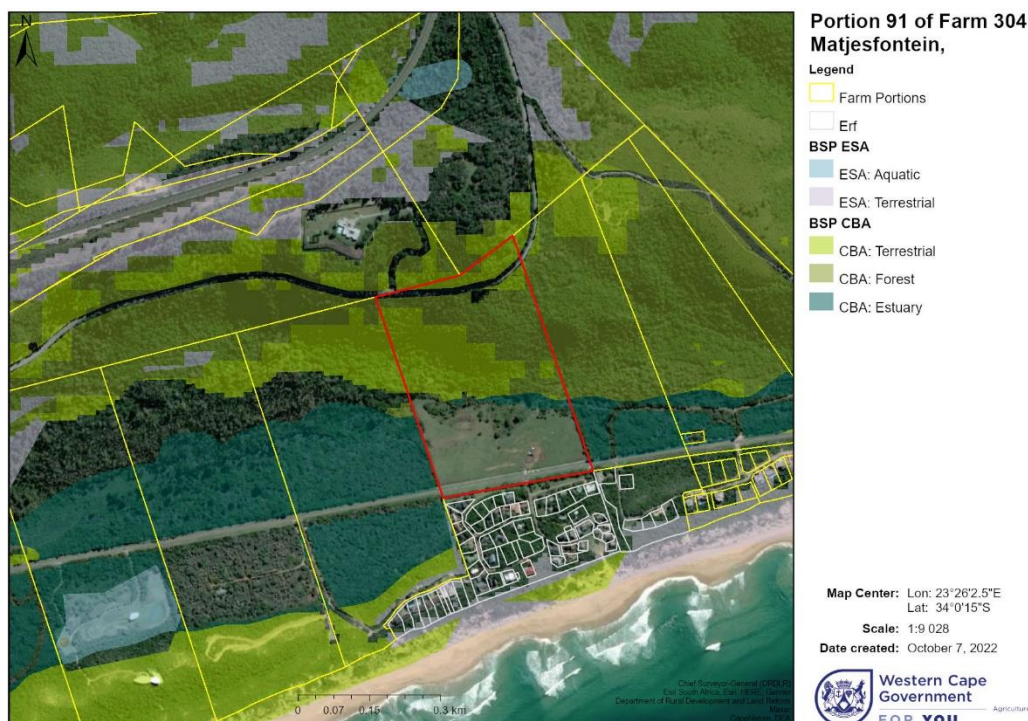
According to the National Web-Based Environmental Screening Tool, a number of plant species of concern are flagged as of concern for the site. These are mostly fynbos species, or forest species. There are two species that could occur within forest habitats on site. These are *Ocotea bullata* (Endangered) that has a high probability of occurring on site, and *Faurea macnaughtonii* (Rare) that has a moderate possibility of occurring there.

There are therefore two threatened, near threatened or rare species that could occur in the study area. It is therefore verified that the Plant Species Theme has **MEDIUM** sensitivity for this site.

The conservation status of Garden Route Shale Fynbos is Vulnerable according to the 2018 NBA (Skowno et al. 2019) (figure 11). The threat status in accordance with the Revised National List of Ecosystems (Government Notice No 2747 of 18 November 2022) published under the National Environmental Management: Biodiversity Act (Act No. 10, 2004), which lists national vegetation types that are afforded protection on the basis of rates of transformation, is listed as Endangered.



**Figure 12: Ecosystem Threat Status according to the 2018 NBA (Skowno et al. 2019).**



**Figure 13: Western Cape Biodiversity Spatial Plan of the site and surrounding areas.**

The WC BSP map for the property shows that the entire northern area of the site ( $\pm 60\%$ ), except for the road, is within a Critical Biodiversity Area (CBA1) (Figure 12). This CBA area consists of terrestrial and Forest CBA's, which continue beyond the boundaries of the site. This indicates that the forest vegetation on site is considered to be highly important for the conservation of biodiversity in the province as well as for maintaining ecological patterns in the landscape.

The current site includes areas within CBA1 that are also indigenous forest. It is confirmed from the site visit that these areas are in a natural state. They therefore have VERY HIGH sensitivity according to the Terrestrial Biodiversity Theme.

On the basis of the presence of natural habitat within a CBA1 area and within a listed ecosystem, it is verified that the site occurs partially within an area of **VERY HIGH** sensitivity with respect to the Terrestrial Biodiversity Theme. These areas are not affected by the proposed development.

The "no-go" development areas in KELASP are determined based on various bio-physical constraints, including the following:

- ❖ below the 1:50 and 1:100 year floodlines;
- ❖ on any slope with gradient steeper than 1:4;
- ❖ below the 4,5 m coastal setback line;
- ❖ within the 100m high water mark setback; and
- ❖ within the Tshokwane Wetland system.

"No-go" areas also include any of the following Habitat Mapping and Sensitivity Analysis units:

- ❖ Map Unit 3: Fynbos.
- ❖ Map Unit 4: Forest.
- ❖ Map Unit 5: Dune Thicket/Dune Fynbos Mosaic.
- ❖ Map Unit 6: Coastal fore dune and seashore.
- ❖ Map Unit 7: Wetlands (in general in addition to specific delineation of Tshokwane Wetland).
- ❖ Map Unit 8: Fynbos invaded with aliens.

The site includes significant areas that are steeper than a gradient of 1:4. A comparison with the proposed development shows that these are excluded from the development footprint.

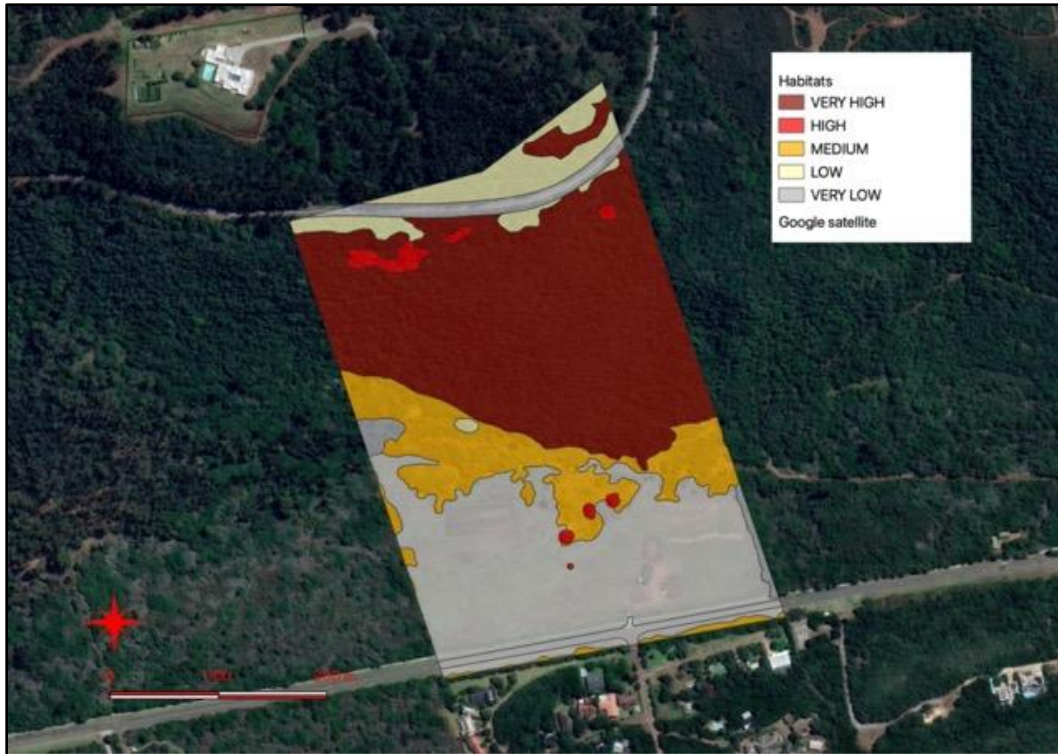
No-go mapping units from KELASP that occur on site are **Map Unit 4: Forest** and **Map Unit 8: Fynbos invaded with aliens** (Figure 14). A comparison with the proposed development shows that **Map Unit 4: Forest** is excluded from the development footprint, but that **Map Unit 8: Fynbos invaded with aliens** is partly included within the proposed development footprint, but not within the Alternative 1 footprint.



Figure 14: Habitat Units from KELASP.

4.4. Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development.

As per the Plant, Animal and Terrestrial Biodiversity Assessment, a map of combined habitat sensitivity on site for the Plant Species Theme and Animal Species Theme is provided in Figure 15, mapped according to the calculations provided through the process of calculating Site Ecological Importance.



**Figure 15: Habitat sensitivity on site as per the Plant, Animal and Terrestrial Biodiversity Assessment.**

The footprint of the proposed development is within areas mapped as "lawns/pasture" (Very Low sensitivity), "Secondary Vegetation" (Medium sensitivity) and "Alien Trees" (Very Low or Low sensitivity).

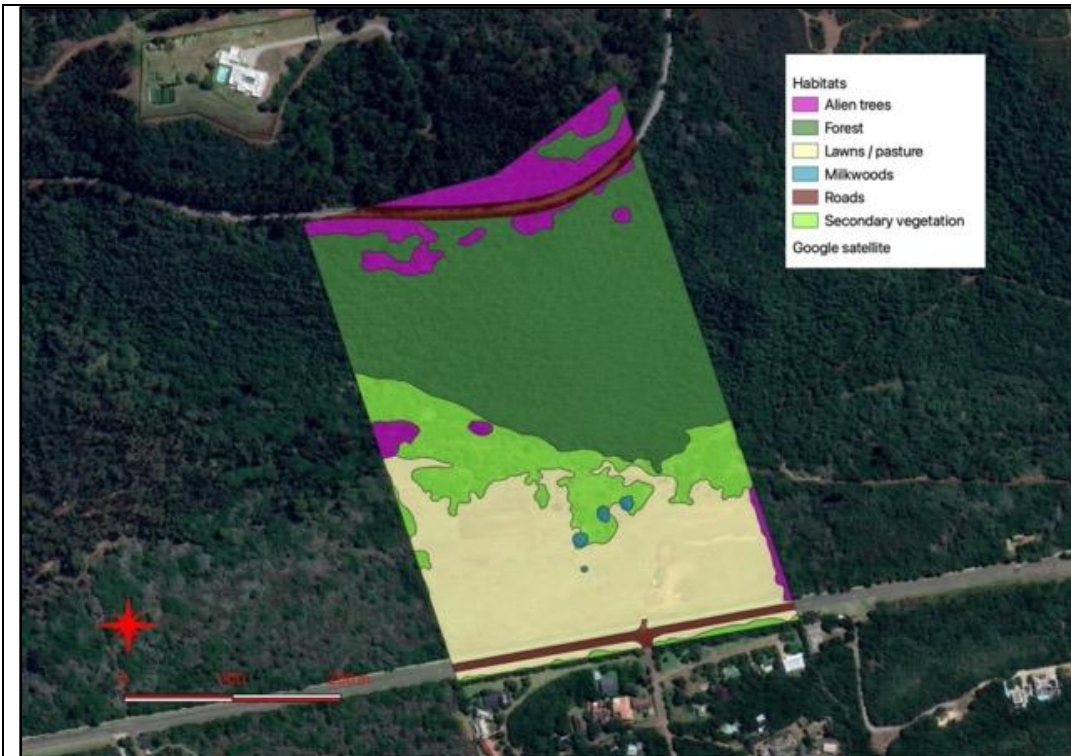
No plant species of concern were found on site, but a small number of free-standing, relatively large milkwood trees (*Sideroxylon inerme*) were found on site that are protected under the National Forests Act. These are shown as being retained within the proposed development (both options).

There are two sensitive animal species that are likely to use that particular habitat / part of the site. They can use it for foraging on rare occasion (e.g. the Bustard and raptor species). The other listed (e.g. the insects) have a low probability of presence while the small antelope may use the transition zones near dense trees and shrubs on rare occasions.

Following the procedures within the Species Environmental Assessment Guidelines, the forests on site have been assessed as having Very High sensitivity / Ecological Importance, secondary vegetation as having Medium sensitivity / Ecological Importance, and remaining areas Low or Very Low sensitivity.

4.5. Explain what impact the proposed development will have on the site-specific features and/or function of the Biodiversity Spatial Plan category and how has this influenced the proposed development.

Based on a detailed field survey by Dr Hoare to verify conditions on site, a detailed landcover and habitat mapping exercise was undertaken for the site. This identified three main habitats occurring on site, shown in Figure 16. These are mapped as Forest, Secondary vegetation and Pastures. There are also transformed areas associated with roads, localised patches of alien trees, and residual individual milkwood trees (*Sideroxylon inerme*). The habitat assessment is important for understanding the suitability of habitat on site for various plant and animal species of concern, which usually have very specific habitat requirements.



**Figure 16: Map of habitats on site as per the Plant, Animal and Terrestrial Biodiversity Assessment.**

### Forest

The steep-sided slopes in the northern half of the site contain indigenous forest that should probably be classified and mapped as Southern Afrotemperate Forest. It has a closed canopy, open understorey and relatively tall structure, therefore does not qualify to be mapped as thicket. No detailed vegetation survey was undertaken within this area because it had already been decided that these forested areas would be excluded from any development. Based on observations of peripheral species, it resembles mesic forest in other coastal parts of the Garden Route.

### Secondary vegetation

Between the forest and the pastures is an irregularly-shaped band of vegetation that contains a mixture of shrubs and weeds that indicates that it is various stages of post-disturbance development. Historical aerial photographs show that this entire area was once cultivated but has gone through various iterations of being cleared and then recovering somewhat.

Tall woody shrubs and small trees found here include the following: *Buddleja saligna*, *Capparis sepriaria*, *Clausena anisata*, *Dovyalis rhamnoides*, *Grewia occidentalis*, *Gymnosporia buxifolia*, *Pterocelastrus tricuspidatus*, *Putterlickia pyracantha*, *Scutia myrtina*, *Searsia crenata*, *Searsia lucida*, *Rhoicissus digitata*, and *Mystroxyton aethiopicum*, as well as *Lauridia tetragona* and *Trimeria grandifolia*, but these last two are probably forest margin species detected along the forest margin. Lower shrubs included *Acalypha* sp, *Euryops virgineus*, *Nidorella ivifolia*, *Helichrysum cymosum*, *Helichrysum petiolare*, *Helichrysum teretifolium*, *Osteospermum moniliferum*, *Otholobium stachyerum*, *Passerina corymbosa*, *Podalyria myrtillifolia*, and *Polygala myrtifolia*, many of which are typical colonisers of cleared plantation areas. Herbaceous species included a mixture of understorey species, such as *Anemia caffrorum*, *Asparagus asparagoides*, *Dietes cf bicolor*, *Isoglossa* sp, *Rubia petiolaris*, and *Stachys aethiopica*, and weedy species, such as *Cerastium glomeratum*, *Felicia amoena*, *Pelargonium elongatum*, *Rubus pinnatus* and *Vicia sativa*.

Alien invasive and exotic species detected in this area included *Acacia cyclops*, *Paraserianthes lophantha*, *Pinus* sp., and *Yucca aloifolia*.

### Pastures

The pastures occur in the entire southern part of the site in areas that were historically cultivated. The landscape here is flat. They are currently being used as pasture for horses and are therefore grazed relatively short.

The pasture areas were dominated largely by the grasses, *Stenotaphrum secundatum* and *Cenchrus clandestinus*, along with a large number of weeds and species that are tolerant of disturbance, including *Abutilon sonneratianum*, *Arctotheca prostrata*, *Carpobrotus deliciosus*, *Cerastium glomeratum*, *Chenopodium sp.*, *Euphorbia helioscopia*, *Felicia amoena*, *Medicago sp.*, *Moraea sp*, *Hebenstretia integrifolia*, *Lepidium africanum*, *Lycium ferocissimum*, *Lysimachia arvensis*, *Massonia depressa*, *Mesembryanthemum aitonis*, *Rumex hypogaeus*, *Salvia aurea*, *Senecio inaequidens*, *Solanum linnaeanum*, and *Brunsvigia orientalis*.

### Milkwood trees

There are a small number of scattered milkwood trees (*Sideroxylon inerme*) that, based on their size, are possibly remnants of the original vegetation that occurred there. It was common practice to leave large trees as shade within agricultural areas. Alternatively, they became established after the cessation of active cultivation, but this would not have given them time to grow to their current stature. Three large and one small tree were counted on site, in the area between the secondary vegetation and the pastures. The milkwoods are protected trees and removal would require a permit.

|      |   |
|------|---|
| 4.6. | If your proposed development is located in a protected area, explain how the proposed development is in line with the protected area management plan. |
|------|---|

N/A

|      |   |
|------|---|
| 4.7. | Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development. |
|------|---|

There is habitat on site that is suspected habitat for threatened plant and animal species. This is the forest habitat, which is outside the proposed development footprint and will not be affected by the proposed development. The species that could potentially occur within this habitat are as follows<sup>5</sup>:

- Knysna Warbler (Vulnerable) has a moderate probability of occurring in forest margin areas.
- Crowned Eagle (Near Threatened) - the forests on site may constitute part of the general foraging range but it is unlikely that they are resident on site, or are dependent on it.
- Tunnelling Dung Beetle (Endangered). The type locality of the species is forest habitats in the Keurboomstrand area.
- Small antelope (Vulnerable). There is a moderate to high probability of it occurring in the forests on site.
- *Ocotea bullata* (Stinkwood, Endangered) probably occurs in the forests on site.

None of these species are expected to be negatively affected by the proposed development (both options).

On the basis that it has been recorded from Plettenberg Bay and the site has suitable habitat, the Knysna Warbler (Vulnerable) has a moderate to high probability of occurring in forest margin areas on site. The forests on site may constitute part of the general foraging range of Crowned Eagle (Near Threatened), but it is unlikely that they occur on site, or are dependent on it. The type locality of the Tunnelling Dung Beetle (Endangered) is forest habitats in the Keurboomstrand area. It therefore has to be assumed that there is a high probability of it occurring there. There is a moderate to high probability of the small antelope (Vulnerable) occurring in the forests on site. It is therefore verified that the Animal Species Theme has **MEDIUM** sensitivity for the site.

<sup>5</sup> David Hoare Consulting (Pty) Ltd: Plant Species, Animal Species and Terrestrial Biodiversity Assessment Report. Dated 16 March 2023.

## 5. Geographical Aspects

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.

The climate is warm and temperate. The Köppen-Geiger climate classification is Cfb, which is considered wet all seasons, summers long and cool. The average annual temperature is 16.9 °C. Rainfall is evenly distributed throughout the year, with an annual precipitation of about 663 mm. The site has a humid climate.

The official geological mapping of the area indicated that the lower/southern portion of the site was underlain by estuarine/alluvial sand deposits of Quaternary age (yellow on map in Figure 5) which overlie sandstone and conglomerate of the Enon Formation (red/orange on map) of the Uitenhage Group on the northern slopes. The Enon Formation then overlies shale of the Gydo Formation and sandstone and shale of Baviaanskloof Formation which outcrop along the Keurboomstrand road to the east of the site. No major geological faults were mapped in the vicinity of the site and the risk of seismic activity was low. The geology was generally considered macro stable for development purposes with due consideration paid to local geotechnical constraints.

As per the Geotechnical Report by Outeniqua Labs (Appendix G4), the soil profile was broadly consistent across the site, and dominated by estuarine sandy soil. The profile broadly included a sporadic upper horizon of imported fill soil (disturbed or dumped soil), underlain by an insitu topsoil horizon, consisting of silty sand, roots and organic humus, which was underlain by unconsolidated to semi consolidated sand with scattered marine shell fragments. At the south west corner of the property, a pedogenic calcrete hardpan layer (very soft rock) was encountered just below the topsoil horizon. The calcrete was highly to completely weathered in places to a sandy gravel, angular cobbles and/or small boulders.

The southern portion of the property has a very even gradient and is situated between 3m and 6m above sea level. From here the gradient steeply inclines to about 125m above sea level, forming a steep south-facing ridge (Figure 17). The development is planned on the even southern portion of the site. A detailed contour plan of the southern section was prepared by VPM Surveys and is attached as Appendix B3. The slope analysis (Appendix B3) indicates that the entire southern section of the site has a gradient of less than 25% and is therefore suitable for development.

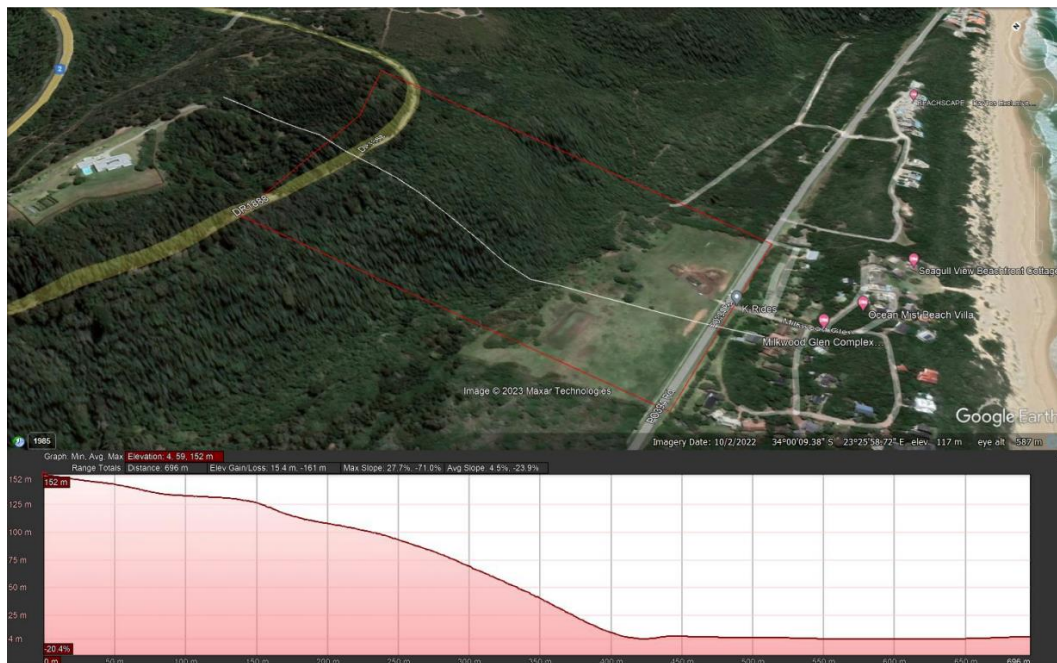


Figure 17: Elevation profile from Google Earth.

## 6. Heritage Resources

|  |   |       |    |
|--|---|-------|----|
| 6.1.   | Was a specialist study conducted?   | YES ✓ | NO |
| 6.2.   | Provide the name and/or company who conducted the specialist study.                                   |       |    |
| Dr. Peter Nilssen: Heritage Statement in support of Heritage Western Cape Notification of Intent to Develop (HWC NID – Section 38). NID to be submitted to Heritage Western Cape.  |   |       |    |
| 6.3.   | Explain how areas that contain sensitive heritage resources have influenced the proposed development. |       |    |
| <p>The palaeontological sensitivity of the development footprint is low and even though Mr Pether recommends the inclusion of the Fossil Finds Procedure in the EMP for the development, geotechnical test pits to a depth of 2 to 3 m have revealed no palaeontological resources. Excavations for bulk services and foundations are not expected to exceed 1, 5 m in depth.</p> <p>The proposed development footprint on 91/304 has been impacted by farming activities (ploughing, cultivation and grazing) since at least 1818 and more likely since the mid- to late-1700s. As a result, the context of pre-colonial heritage resources in surface sediments was damaged, disturbed or destroyed. Colonial period heritage resources – structures and old road – were demolished or destroyed by the late 1900s or early 2000s.</p> <p>Furthermore, as described by Mr Steele and as revealed in the geotechnical test pits, sediments containing fragmented marine shell, some bone and a few stone artefacts were imported, dumped and dispersed on the property in the last 4 to 5 years. The geotechnical test pits lack any evidence of archaeological horizons or shell midden deposits and are archaeologically and palaeontologically sterile to depth.</p> <p>The archaeological walk-through identified the imported and dispersed sediments with fragmented marine shell, some bone and a few stone artefacts as described by Mr Steele and as detected through geotechnical test excavations. These sediments have no sub-surface origin and were clearly imported and dispersed on 91/304. Identified modern building rubble and rubbish, as well as isolated Stone Age pieces are considered to be of low heritage value and are not conservation worthy.</p> <p>Due to the absence of significant heritage resources, the proposed activity will have no cumulative impacts on the archaeological or heritage value of the area.</p> <p>This baseline investigation has shown that heritage resources on the affected part of the property are of low significance and are given a field rating of Not Conservation Worthy. Since there are no significant heritage resources associated with the proposed development footprint, it does not meaningfully contribute to the cultural landscape of the area.</p> <p>For reasons given above, and due to the planned screening from the PO394 road, the proposed activity will have a negligible to no negative impact on the aesthetic value of the area.</p> <p>The positive socio-economic impact, including several short, medium and long term jobs as well as the provision of middle income housing outweigh the negligible to zero negative impacts this project may have on heritage resources.</p> <p>Because of the above, and because there is no reason to believe that significant heritage resources will be impacted by the proposed development on 91/304, it is recommended that no further heritage-related specialist studies (as listed in the NID) are required and that a Heritage Impact Assessment is not warranted for the project.</p> <p>Nevertheless, recommendations made by the specialists and/or Heritage Western Cape will be included in the Environmental Management Program.</p> |   |       |    |



## 7. Historical and Cultural Aspects

Explain whether there are any culturally or historically significant elements as defined in Section 2 of the NHRA that will be affected and how has this influenced the proposed development.

No culturally or historically significant elements will be affected.

## 8. Socio/Economic Aspects

8.1. Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.

The Plettenberg Bay area historically has very little housing opportunities for middle-income earners. The recent influx of higher-income families moving to the area has led to a sharp increase in housing prices which has further exacerbated the lack of affordable housing. Many residents are displaced as property values rise to the point of unaffordability. This displacement of the middle class and lack of affordable houses has a tremendous effect on the economy of the town, as the middle-class workforce actively contributing to these economies can no longer afford to live here.

The Keurboom village is a seasonal holiday town with a homogeneous single residential holiday character. The property is about 1.8 km west of the town along a stretch of road that contains several gated residential developments. The Zoning Plan attached hereto indicate that the study area mainly consists of Single residential and Group housing zoned residential estate of varying densities. The proposal is compatible with the existing land uses.

| DEVELOPMENT NAME | ERF    | NR OF UNITS                  |
|------------------|--------|------------------------------|
| Dolphin Waves    | 12/304 | 64 Group Housing stands      |
| Keurbaai         | 13/304 | 11 Group Housing Residential |
| Milkwood Glen    | 14/304 | 51 Group Housing Stands      |
| Driftwood        | 15/304 | 5 Single Residential Stands  |
| Whales Haven     | 16/304 | 17 Group Housing Stands      |

8.2. Explain the socio-economic value/contribution of the proposed development.

The planned residential estate will create construction jobs for local contractors and labourers. The employment opportunities associated with the construction phase are frequently regarded as temporary employment. However, while these jobs may be classified as "temporary" it is worth noting that the people employed in the construction industry by its very nature rely on "temporary" jobs for their survival. In this regard "permanent" employment in the construction sector is linked to the ability of construction companies to secure a series of temporary projects over a period of time. Each development, such as the proposed development, therefore, contributes to creating "permanent" employment in the construction sector.

The construction industry is an important player in job creation, not only in the construction sector but in other sectors of the economy as well. The construction industry uses a wide range of inputs such as manufacturing of construction materials and equipment, mining of raw materials, forestry, transportation, real estate, finance, and professional services which all contribute indirectly to more jobs that are created across several sectors.

Plettenberg bay has a very similar demographic profile to the rest of the country. Socio-economic studies indicate high levels of poverty and unemployment. The social needs of the larger community form part of the "surrounding environment" and should receive due consideration when new developments are investigated. The "ripple effect" that a development of this scale has on the local economy and social well-being of the community cannot be ignored.

|  |  |
|--|--|
| 8.3.   | Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.   |
| <p>South Africa has the challenge of high unemployment and skills shortages. The employment opportunities associated with the construction phase of development is frequently regarded as temporary employment. However, while these jobs may be classified as “temporary” it is worth noting that the people employed in the construction industry by its very nature rely on “temporary” jobs for their survival. In this regard “permanent” employment in the construction sector is linked to the ability of construction companies to secure a series of temporary projects over a period of time.</p> <p>The construction industry is an important player in job creation, not only in the construction sector but in other sectors of the economy as well. The construction industry uses a wide range of inputs such as manufacturing of construction materials and equipment, plantation forestry, transportation, real estate, finance and professional services which all contribute indirectly to more jobs that are created across several sectors.</p> |  |
| 8.4.   | Explain whether the proposed development will impact on people's health and well-being (e.g. in terms of noise, odours, visual character and sense of place etc) and how has this influenced the proposed development. |
| <p>The Keurboom Road is a scenic route and as such, the visual quality along the way is a relevant consideration. There is a 10m wide open space system proposed along this road. This strip of land will be densely vegetated to obscure the development. This vegetation buffer will allow for a visual barrier between the development and the Road, which will reduce the visual impact of the development, and reduce noise levels emanating from the Road.</p>   |  |

## SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

### 1. Details of the alternatives identified and considered

|  |  |
|--|--|
| 1.1.   | Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts. |
| Provide a description of the preferred property and site alternative.  |  |
| The preferred property is that of Portion 91 (a portion of portion 14) of the farm Matjes Fontein 304 in the Bitou Municipality and Administrative District of Knysna, Western Cape Province.  |  |
| Provide a description of any other property and site alternatives investigated.  |  |
| There are no other site alternatives available.  |  |
| Provide a motivation for the preferred property and site alternative including the outcome of the site selectin matrix.  |  |
| In the consideration of alternative land, the principles of sustainable development should be practicable, feasible, reasonable, and viable.   |  |
| <p>A portion of the property has been identified as a strategic development area within the urban edge. This proposal aligns with the proposed development nodes as identified in the Keurboom local Area Structure Plan. The urban edge has been defined by the steep sloped to the north and the 5m contour line which defines the Estuarine Functional Zone to the south. The proposed development area extends beyond the identified urban edge as the Aquatic Assessment confirmed that the area contains no estuarine habitats and is not within the 1:100-year flood line of the estuary.</p>                                 |  |
| <p>The SDF states that the urban edge is to be viewed as a conceptual, indicative measure (growth management tool) aimed at illustrating a concept, rather than being in exact line with statutory status. The SDF also explains that the urban edge is a proposed limit for expansion of any urban node beyond which development should not occur unless the land is already provided with or can connect directly to existing municipal services infrastructure. In this case available municipal water and sewer pipelines traverse the south boundary of the property so the development can connect directly to the network</p> |  |
| <p>Furthermore, the SDF confirms that all land development applications for the use of land abutting an urban edge should be considered consistent with the SDF if the land has at any time in the past been used or designated for any urban development, which includes all development of land where the</p>  |  |

primary use of the land is for the erection of structures. In this case, the land was previously approved for a resort with 50 units, this has also been acknowledged in the Keurboom Local Environs Spatial plan.

The property was originally earmarked in the Knysna Wilderness Plettenberg Bay Guide plan for "Recreational" purposes. This means that although the property has farm portion numbers and is zoned for agricultural purposes, it is exempt from the provisions of the Subdivision of Agricultural Land Act (Act 70 of 70). An exemption certificate from the Department of Environmental Affairs and Development Planning is attached as Appendix E7.

Although the site is zoned as Agricultural 1, the property has low agricultural potential as determined in the Agricultural Assessment by DSA in their study dated May 2023 (Appendix G1). The development will not have a significant impact on agricultural in the area and poses no threat to food security. It also has a small footprint and low impact on existing agricultural activities. According to the specialist, in terms of agricultural sensitivity, the development should thus be allowed to proceed<sup>6</sup>.

Provide a full description of the process followed to reach the preferred alternative within the site.

In 1978 approval was granted by the Provincial Administration for the development of a Resort with 100 units on Portion 14. Portion 91 was created when Portion 14 was subdivided in 1997. Fifty-one units were approved to the south of the Keurboom Road that bisects the property, and 49 units were approved above the road (See Appendix E21). The development was implemented in phases. Phase 1 gained approval in 1978, Phase 2 was approved in 1981, and Phase 3 in 1991. These phases were all implemented below the road and are today known as Milkwood Glen.

In 1997 the remainder of Portion 14 was subdivided to separate the undeveloped portion above the road from the resort. At the time it was recommended that the zoning of Portion 91 reverts to Agriculture 1 and that a new application is submitted for development on the northern portion in the event of the owner deciding to develop it.

The property was originally earmarked in the Knysna Wilderness Plettenberg Bay Guide plan for "Recreational" purposes. This means that although the property has farm portion numbers and is zoned for agricultural purposes, it is exempt from the provisions of the Subdivision of Agricultural Land Act (Act 70 of 70).

The property has therefore been earmarked for development since 1978 and has been included as a development node in various Spatial Development Plans for the area.

Provide a detailed motivation if no property and site alternatives were considered.

The site is physically suitable for development and can cost-effectively connect to the existing municipal services networks that are located along the south boundary of the property.

Previous development rights allowed for the development of ±50 units on the property but these rights were not implemented and have lapsed. Both the Bitou Spatial Development Framework and the Keurbooms Environ Local Area Structure Plan earmarked a portion of the property for development. The proposal extends beyond the identified development area, based on the aquatic specialist study that confirms that the site does not contain any estuarine habitats and is not within the demarcated estuarine floodplain.

List the positive and negative impacts that the property and site alternatives will have on the environment.

See Table 3 below.

|      |   |
|------|---|
| 1.2. | Activity alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts. |
|------|---|

Provide a description of the preferred activity alternative.

No activity alternatives have been investigated for this development.

<sup>6</sup> Dr Darren Bouwer of Digital Soils Africa: Agricultural compliance Statement for Portion 91 of Farm 304, Matjes Fontein, Plettenberg Bay. May 2023.

Provide a description of any other activity alternatives investigated.

N/A

Provide a motivation for the preferred activity alternative.

N/A

Provide a detailed motivation if no activity alternatives exist.

N/A

List the positive and negative impacts that the activity alternatives will have on the environment.

N/A

1.3. Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts

Provide a description of the preferred design or layout alternative.

### Preferred Layout - 73 group housing stands

The development concept includes ± 73 group housing stands with average erf sizes of ±375m<sup>2</sup>. The houses will vary in size but will be built in a similar style that will create a harmonious development. Ample open spaces and landscaped streets are incorporated into the design to enhance the quality of the neighbourhood.

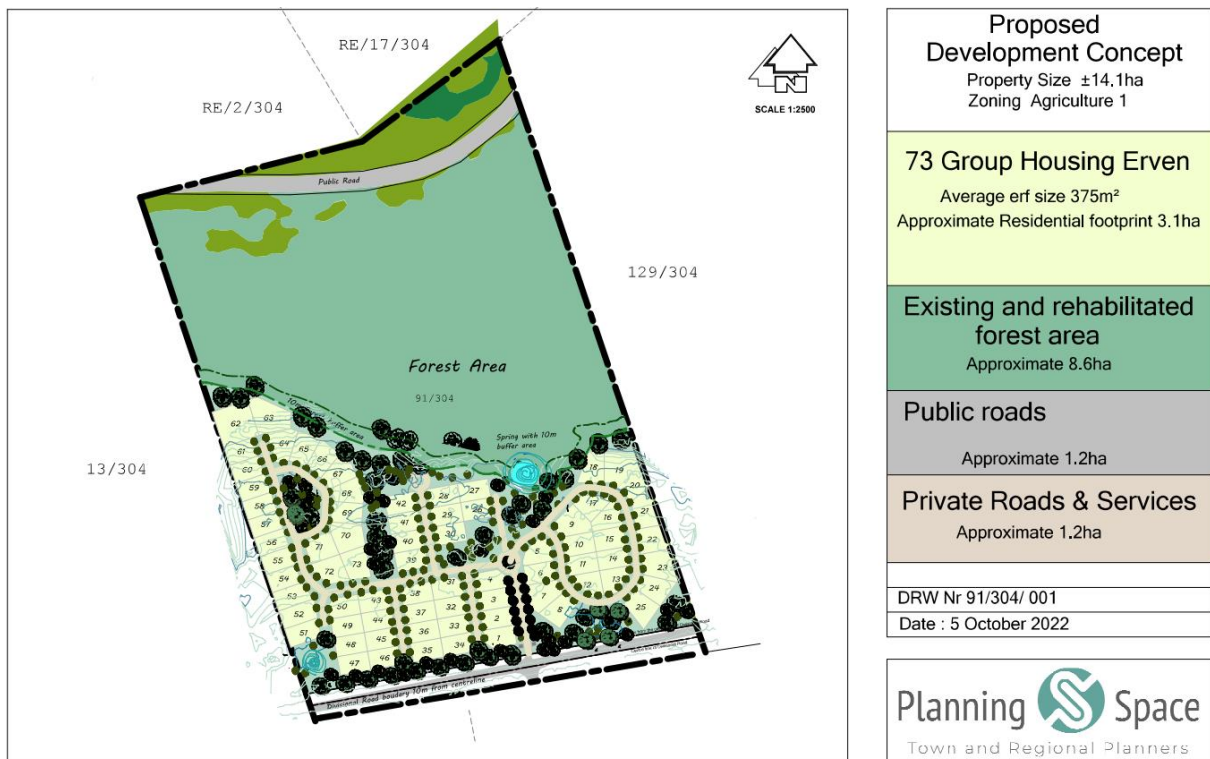


Figure 18: Site Development Plan for the Preferred Layout.

The proposal includes rezoning the property to a "Subdivisional Area". The consolidated stand will then be subdivided into:

- ❖ 73 Residential II (Group Housing) erven.
- ❖ 1 Open Space II erf (communal open space that will include private streets and services and landscaped gardens).
- ❖ 1 Open Space III erf (conservation area which will include the sensitive forest area).
- ❖ 2 Transport II erf (Public road to accommodate the existing divisional road that traverses the southern boundary of the property and the old National road that traverses the northern section of the property).

Provide a description of any other design or layout alternatives investigated.

### Alternative Layout 1: 19 single residential stands

The development concept for alternative 1 includes 19 single residential stands with average erf sizes of  $\pm 800\text{m}^2$ . This Layout was prepared to comply with the recommendations contained in the Keurboom and Environs Local Area Spatial Plan. This Plan has identified development nodes for certain properties. For these nodes, a gross density profile of 12 units per ha of the identified transformed footprint area is proposed. The latter is based on the guideline of 15 units per hectare proposed for smaller rural settlements as contained in the Draft Bitou SDF (2013).

These nodes were identified by excluding certain “no go” development areas based on the following bio-physical constraints which determine that no development should be considered:

- below the 1:50 and 100: year flood lines;
- on any slopes with a gradient steeper than 1:4;
- below the 4,5m coastal setback line;
- within the 100m high water mark setback; and
- within the Tshokwane Wetland system.

The entire southern portion of the site, where the development is planned, is identified as a transformed area, according to the Environmental Sensitivity Map Nr 6 and Biodiversity Map Nr 7 attached to the Keurboom and Environs Local Area Spatial Plan Report (Appendix B2).

The proposed development footprint for Preferred Layout complies with all the parameters as set out above, except for the 4,5m coastal setback line. Taking the 4.5m contour line into account, only about 1.6ha of the 6ha transformed area has been identified as being suitable for development. This calculates to a maximum of 19 units. Alternative 1 is contained within the 4.5m contour line and complies with the density recommended for this node. The unit density of Alternative 1 is not financially viable for the developer and does not affectively utilise the available transformed areas (very low habitat sensitivity) that would become Private Open Space for beneficial and sustainable development opportunities.

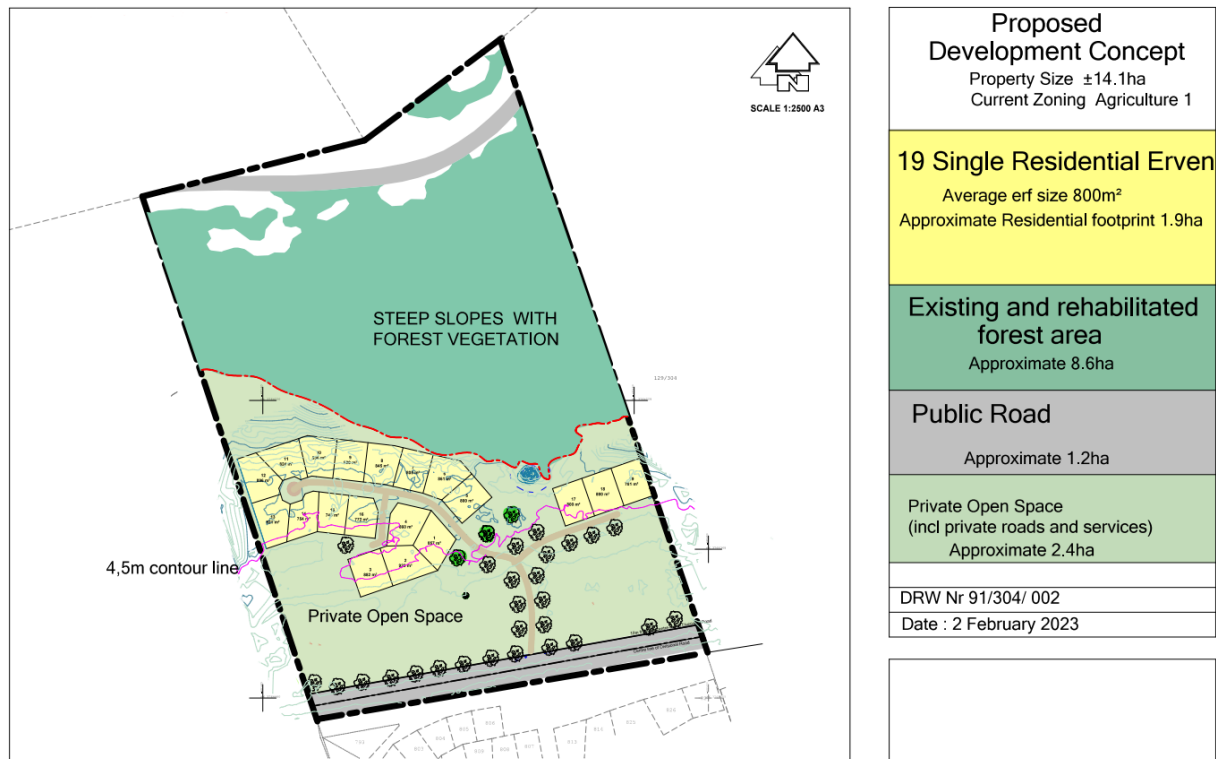


Figure 19: Site Development Plan for the Alternative 1 Layout.

### No-go Alternative: Undeveloped urban land

The No-go option is the option of not undertaking the proposed project or alternatives and can be used as a baseline from which impacts can be compared. If the proposed estate is not developed the following will occur:

1. The site will remain as is and continue to support what remaining fauna and flora make use of the area. There will be no further disturbance to the secondary vegetation on site.
2. Protected species and SCC that may potentially occur in the area will not be further impacted.
3. Rehabilitation of forest margins that have already been impacted, and creation of vegetated open spaces in transformed areas will not be undertaken.
4. There will be no further impacts on landscape connectivity beyond the impacts that already exist due to the riding school and horse paddocks.
5. Management of alien invasive plants may not be implemented or monitored effectively.
6. The transformed land may continue to be used as a riding-school which will continue to impact the site.
7. The potential socio-economic benefits to the town and communities will be lost.
8. Much needed housing opportunity for middle-income earners will be lost.
9. The potential for job creation and skills development will be lost.

Provide a motivation for the preferred design or layout alternative.

The developer wants to provide a high-quality yet affordable housing product. To make this project financially viable and responsive to the target market, the cost of land, services and build cost need to be limited and in order to do so, a certain economy of scale needs to be attained. The most relevant design aspect to achieve this is through development density. The planned nett residential density is approximately 12 units per ha, which is still regarded as low density. Medium-density housing, defined in terms of dwelling units per hectare (du/ha), is approximately 40–100 du/ha (gross), and would be more cost-effective. However, being situated at the outer edge of town, and not in the centre, too high density will also not be appropriate as it may impact on the character of the area.

The proposed density is high enough to be financially viable, yet low enough to fit into the surrounding area.

Provide a detailed motivation if no design or layout alternatives exist.

N/A

List the positive and negative impacts that the design alternatives will have on the environment.

See Table 3 below.

|      |  |
|------|--|
| 1.4. | Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts. |
|------|--|

Provide a description of the preferred technology alternative:

The houses will be equipped with solar systems which require maximum exposure to the sun. In the Southern Hemisphere, houses should be orientated to face north. The layout design has as far as possible orientated even, especially the smaller ones, in such a way that houses can be placed with their longer frontages to the north.

House designs will be elaborated on in the Architectural Design Guidelines. Energy efficient guidelines will include elements such as having appropriate areas of glazing, correct orientation, suitable levels of shading, insulation and thermal mass. The use of local building materials and renewable energy applications such as solar water heaters, rainwater harvesting etc. will be encouraged.

Provide a description of any other technology alternatives investigated.

There are various technological aspects which must be implemented as a matter of course in order to assist with overall energy saving:

- Solar geysers and geyser thermal insulation.

|  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>- Use of gas.</li> <li>- Energy efficient light bulbs.</li> <li>- Natural ventilation in the buildings / structures.</li> <li>- Roof water tanks.</li> <li>- Solar panels.</li> </ul>        |
| Provide a motivation for the preferred technology alternative.   |   |
| The use of energy saving, and eco-friendly technology will not only alleviate the pressure on the national electricity grid, which is under severe strain, but will also make use of natural, renewable energy.  |   |
| Provide a detailed motivation if no alternatives exist.  |   |
| N/A  |   |
| List the positive and negative impacts that the technology alternatives will have on the environment.  |   |
| Positive impacts include energy and water saving, and reduced impacts on the environment. There are no foreseeable negative impacts to use alternative technologies other than financial.  |   |
| 1.5.   | Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.  |
| Provide a description of the preferred operational alternative.  |   |
| No operational alternatives were considered.   |   |
| Provide a description of any other operational alternatives investigated.  |   |
| N/A  |   |
| Provide a motivation for the preferred operational alternative.  |   |
| N/A  |   |
| Provide a detailed motivation if no alternatives exist.  |   |
| Operational alternatives are not considered applicable to the general purpose of this development as it will be for residential use.   |   |
| List the positive and negative impacts that the operational alternatives will have on the environment.   |   |
| N/A  |   |
| 1.6.   | The option of not implementing the activity (the 'No-Go' Option).   |
| Provide an explanation as to why the 'No-Go' Option is not preferred.  |   |
| It makes no socio-economic sense to leave the property as it is, if the area does not lend itself to urban development as per Bitou SDF, in this case residential and resort.  |   |
| If the land remains undeveloped there will be very little benefit for the landowner, the community, or the municipality.   |   |
| 1.7.   | Provide an explanation as to whether any other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist. |
| None.  |   |
| 1.8.   | Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.   |
| <p><b>Preferred Layout - 73 group housing stands</b></p> <p>The preferred property is that of Portion 91 (a portion of portion 14) of the farm Matjes Fontein 304 in the Bitou Municipality and Administrative District of Knysna, Western Cape Province.</p> <p>The development concept includes ± 73 group housing stands with average erf sizes of ±375m<sup>2</sup>. The houses will vary in size but will be built in a similar style that will create a harmonious development. Ample open spaces and landscaped streets are incorporated into the design to enhance the quality of the neighbourhood.</p> <p>The proposal includes rezoning the property to a "Subdivisional Area". The consolidated stand will then be subdivided into:</p> <ul style="list-style-type: none"> <li>❖ 73 Residential II (Group Housing) erven.</li> <li>❖ 1 Open Space II erf (communal open space that will include private streets and services and landscaped gardens).</li> </ul> |   |

❖ 1 Open Space III erf (conservation area which will include the sensitive forest area).

2 Transport II erf (Public road to accommodate the existing divisional road that traverses the southern boundary of the property and the old National road that traverses the northern section of the property).

The developer wants to provide a high-quality yet affordable housing product. To make this project financially viable and responsive to the target market, the cost of land, services and build cost need to be limited and in order to do so, a certain economy of scale needs to be attained. The most relevant design aspect to achieve this is through development density. The planned nett residential density is approximately 12 units per ha, which is still regarded as low density. Medium-density housing, defined in terms of dwelling units per hectare (du/ha), is approximately 40–100 du/ha (gross), and would be more cost-effective. However, being situated at the outer edge of town, and not in the centre, too high density will also not be appropriate as it may impact on the character of the area.

The proposed density is high enough to be financially viable, yet low enough to fit into the surrounding area.

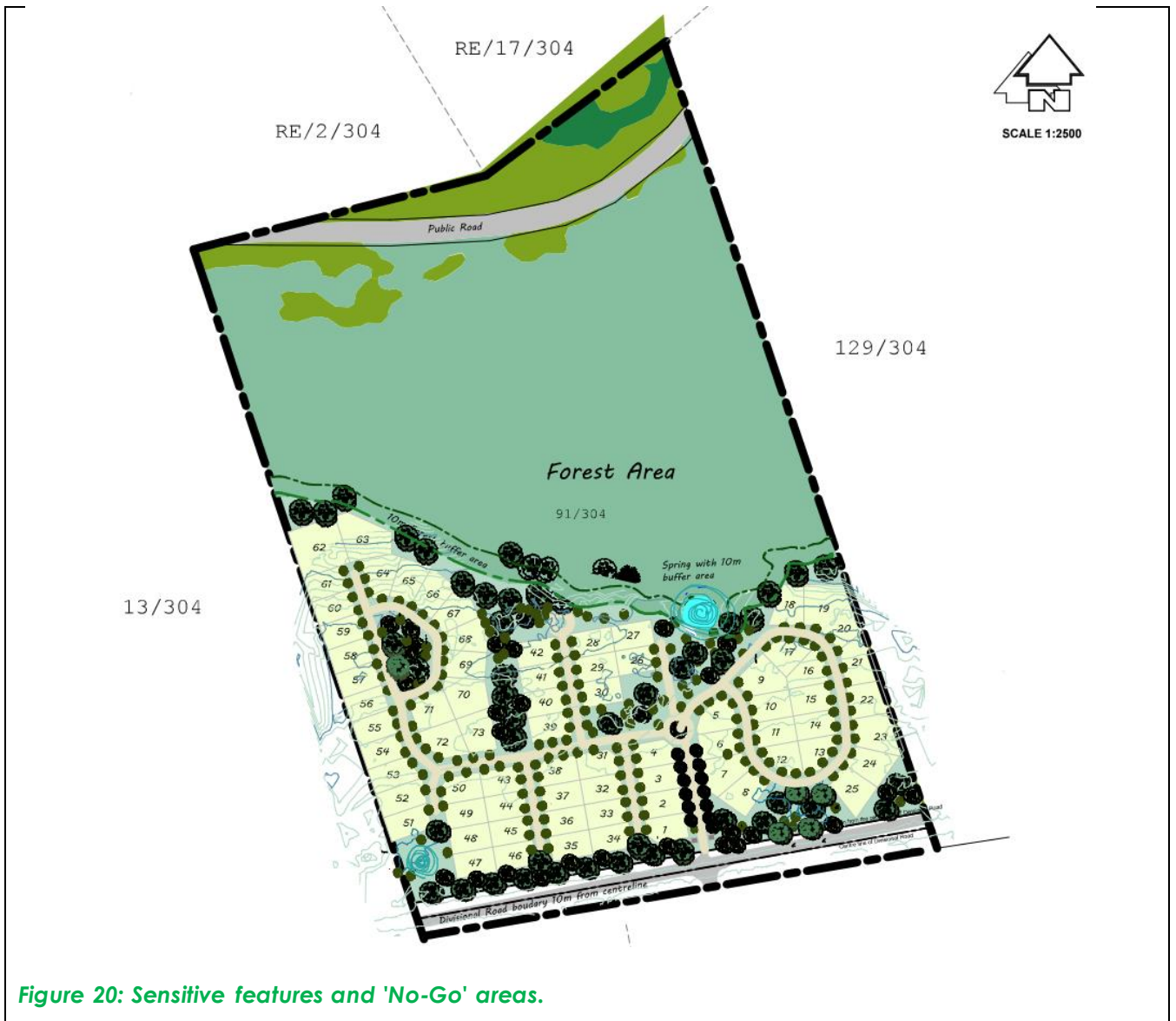
## 2. “No-Go” areas

Explain what “no-go” area(s) have been identified during identification of the alternatives and provide the co-ordinates of the “no-go” area(s).

The steep-sided southern slopes in the northern half of the site contain indigenous forest that has a high sensitivity and may not be developed, this is a ‘No-Go’ area. A 10-meter buffer has been established around the forest margin as shown in Figure 20. Between the forest and the pastures is an irregularly shaped band of vegetation that contains a mixture of shrubs and weeds that indicates that it is in various stages of post-disturbance development. Historical aerial photographs show that this entire area was once cultivated but has gone through various iterations of being cleared and then recovering somewhat. This area has a medium sensitivity and section of it surrounding the forest forms part of the 10-meter buffer zone. It is recommended that steps should be taken to rehabilitate the buffer zone areas and encourage the growth of forest species. Ongoing alien clearing will also be a requirement. The proposed layout makes provision for a 10m buffer along the forest margin and also incorporated portions of the secondary vegetation area to form part of the open space system within the development, which will link up with the forest area.

The dam and associated spring in the study area are identified as a watercourse as defined in the National Water Act. As the floodline is not relevant in this situation, and riparian vegetation was indistinguishable from the surrounding vegetation, a buffer of 10 m for this feature is recommended. Development should be planned to exclude this buffer area during the construction and operational phase.





**Figure 20: Sensitive features and 'No-Go' areas.**

**3. Methodology to determine the significance ratings of the potential environmental impacts and risks associated with the alternatives.**

Describe the methodology to be used in determining and ranking the nature, significance, consequences, extent, duration of the potential environmental impacts and risks associated with the proposed activity or development and alternatives, the degree to which the impact or risk can be reversed and the degree to which the impact and risk may cause irreplaceable loss of resources.

**Assessment Criteria are based on the following:**

- NEMA Act 107 of 1998
- NEMA: EIA Regulations 2014 as amended

The criteria are also based on the EIA Regulations, published by the Department of Forestry, Fisheries and the Environment (April 1998) in terms of the Environmental Conservation Act No. 73 of 1989. These criteria include:

Nature of the impact

This is an estimation of the type of effect the construction, operation and maintenance of a development would have on the affected environment. This description should include what is to be affected and how.

### Extent of the impact

Describe whether the impact will be: local extending only as far as the development site area; or limited to the site and its immediate surroundings; or will have an impact on the region or will have an impact on a national scale or across international borders.

### Duration of the impact

The specialist should indicate whether the lifespan of the impact would be short term (0-5 years), medium term (5-15 years), long term (16-30 years) or permanent.

### Intensity

The specialist should establish whether the impact is destructive or benign and should be qualified as low, medium or high. The specialist study must attempt to quantify the magnitude of the impacts and outline the rationale used.

### Probability of occurrence

The specialist should describe the probability of the impact actually occurring and should be described as improbable/unlikely (low likelihood), probable (distinct possibility), highly probable (most likely) or definite (impact will occur regardless of any prevention measures).

### Reversibility

- Completely reversible – the impact can be reversed with the implementation of minor mitigation measures.
- Partly reversible – the impact is reversible but more intense mitigation measures are required.
- Barely reversible – the impact is unlikely to be reversed even with intense mitigation measures.
- Irreversible – the impact is irreversible, and no mitigation measures exist.

### Irreplaceable loss of resources

Describes the degree to which resources will be irreplaceably lost due to the proposed activity. It can be no loss of resources, marginal loss, significant loss or complete loss of resources.

### Cumulative effect

An effect which in itself may not be significant but may become significant if added to other existing or potential impacts that may result from activities associated with the proposed development. The cumulative effect can be:

- Negligible – the impact would result in negligible to no cumulative effect.
- Low – the impact would result in insignificant cumulative effects.
- Medium – the impact would result in minor cumulative effects.
- High – the impact would result in significant cumulative effects.

### Significance

Significance of impacts are determined through a synthesis of the assessment criteria and is described as –

- Low negative– where it would have negligible effects and would require little or no mitigation
- Low positive – the impact will have minor positive effects
- Medium negative – the impact will have moderate negative effects and will require moderate mitigation
- Medium positive – the impact will have moderate positive effects
- High negative – the impact will have significant effects and will require significant mitigation measures to achieve an accepted level of impact

- High positive – the impact will have significant positive effects
- Very high negative – the impact will have highly significant effects and are unlikely to be able to be mitigated adequately
- High positive – the impact will have highly significant positive effects

#### 4. Assessment of each impact and risk identified for each alternative

**Note:** The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. The EAP may decide to include this section as Appendix J to this BAR.

See Appendix J – Impact Assessment Table.

## SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

|  |   |
|--|---|
| 1.   | Provide a summary of the findings and impact management measures identified by all Specialist and an indication of how these findings and recommendations have influenced the proposed development. |
| <p><b>Agricultural compliance Statement for Portion 91 of Farm 304, Matjes Fontein, Plettenberg Bay by Dr Darren Bouwer of Digital Soils Africa, dated May 2023.</b></p> <p>Due to the small footprint and low impact on existing agricultural activities, it is the specialist's opinion that the development continues. The development will not have a significant impact on agricultural in the area and poses no threat to food security. In terms of agricultural sensitivity, the development should thus be allowed to proceed.</p> <p><b>Freshwater Compliance Statement: Portion 91 of Farm 304, Matjesfontein, Plettenberg Bay by Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd, dated April 2023.</b></p> <p>Based on the results of the desktop review and the site survey, the sensitivity of aquatic biodiversity on Portion 91/304 can be regarded as LOW. The main factors influencing the statement include the following:</p> <ul style="list-style-type: none"> <li>❖ The mapped aquatic features at the site are associated with estuarine habitat which is mapped according to the contours (5 m.a.m.s.l.) and not the actual habitat present. Ground-truthing of the site by the aquatic specialist confirmed no estuarine habitat present in remnant vegetation at the site, and no hydromorphic indicators in the soil that would indicate wetland conditions;</li> <li>❖ While a natural spring and dam are present on the site, they are very small in extent and can be adequately protected from the development by implementing the 10m buffer during the construction and operational phases as indicated in this report. The presence of this feature is not sufficient to increase the sensitivity of the site to Very High, and it has been excluded from the development area in both SDP options. No stormwater should be put into this dam as the water is of high quality.</li> <li>❖ According to the Keurbooms-Bitou Estuarine Management Plan the property and proposed development area are located above the 100-year floodline and outside of any ecologically sensitive areas associated with the estuary or Tshokwane wetlands.</li> <li>❖ Following feedback received from DEA&amp;DP querying the level of groundwater at the site, a geotechnical study was compiled. Groundwater was only present in 2 of the test pits at an average depth of 2 m. For wetland or estuarine conditions to form, the soil profile must be periodically saturated in the plant root zone (upper 50 cm). This would need to happen for at least several months of the year to influence vegetation composition. As the groundwater level was substantially deeper than this, and no wetland / estuarine vegetation was observed at the soil surface, it is concluded that no estuarine or wetland habitat could form at the site.</li> </ul> <p>The mapped spring and dam have been protected by a 10 m buffer as recommended, which</p> |   |

constitutes the regulated area as per GN509 as this incorporates riparian vegetation in the immediate vicinity of the features. Provided no development takes place within this area, the development will not require any level of Water Use Authorisation in terms of the National Water Act.

**Plant Species, Animal Species and Terrestrial Biodiversity Assessment Report by David Hoare Consulting (Pty) Ltd, dated 16 March 2023.**

Desktop information, field data collection and mapping from aerial imagery provides the following verifications of patterns for various themes:

- ❖ The site consists of a combination of pasture / lawns (on the flat lowlands), secondary scrub vegetation, forest woodland (on the steep south-facing slopes), patches of alien trees, and some scattered milkwood trees within the pasture area. The forests are in a natural state whereas other habitats are secondary.
- ❖ The proposed development will be restricted to the lowland areas that were previously cultivated. The forest areas are therefore outside the proposed development footprint.
- ❖ The forest exists in the areas designated as Critical Biodiversity Area 1. The site occurs within Garden Route Shale Fynbos, which is listed as Endangered. The forest habitat on site is not typical of the listed ecosystem within which it occurs but it is nevertheless a listed ecosystem.
- ❖ Following the procedures within the Species Environmental Assessment Guidelines, the forests on site have been assessed as having Very High sensitivity / Ecological Importance, secondary vegetation as having Medium sensitivity / Ecological Importance, and remaining areas Low or Very Low sensitivity.
- ❖ On the basis of the presence of natural habitat within a CBA1 area and within a listed ecosystem, it is verified that the site occurs partially within an area of VERY HIGH sensitivity with respect to the Terrestrial Biodiversity Theme. These areas are not affected by the proposed development.
- ❖ No plant species of concern were found on the lowland part of the site and, based on the available habitat (except for the forest, which will not be affected by the proposed development), it is considered unlikely that any of those plant species flagged for the site would occur there. However, it is likely that an Endangered tree species occurs within the forest, and possible that a Rare tree occurs within the forest. It is therefore verified that the site has MEDIUM sensitivity with respect to the Plant Species Theme, but only within areas not affected by the proposed development.
- ❖ The lowland part of the site is not considered to be good habitat for any of the animal species flagged for the site. However, the forest is likely habitat for three animal species, the Knysna Warbler (Vulnerable), a small antelope (Vulnerable), and the Tunnelling Dung Beetle (Endangered). It is therefore verified that the Animal Species Theme has MEDIUM sensitivity for the site, but only within areas not affected by the proposed development.
- ❖ An impact assessment determined that the impact of the proposed development (both options) has Very Low significance on vegetation, protected trees, and animal species of concern. However, Alternative 1 is preferred on the basis that it incorporates more open space, which is better for ecosystem processes and connectivity, although not significantly so.
- ❖ The proposed development project (73 units) affects a small area mapped in the Keurbooms

and Environs Local Area Spatial Plan (KELASP) as "**Map Unit 8: Fynbos invaded with aliens**", which is a restricted zone according to this LASP. The on-site vegetation was found to be secondary with alien plants, but this is legally natural vegetation within an Endangered ecosystem (according to the legal definition of natural vegetation in NEMA). This small patch of habitat is not considered to have biodeiversity significance, but constitutes the only restriction, according to the information considered here. On this basis, the Alternative 1 proposal is preferred.

- ❖ The proposed development is entirely within areas mapped as secondary or pasture that has low biodiversity value and sensitivity. The development is therefore supported on condition that forest habitats on the property are fully protected. Either option is acceptable, although Alternative 1 is marginally preferred.

2. List the impact management measures that were identified by all Specialist that will be included in the EMPr

**Freshwater Compliance Statement: Portion 91 of Farm 304, Matjesfontein, Plettenberg Bay by Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd, dated April 2023.**

- ❖ While a natural spring and dam are present on the site, they are very small in extent and can be adequately protected from the development by implementing the 10m buffer during the construction and operational phases.
- ❖ No stormwater should be put into this dam as the water is of high quality.

**Plant Species, Animal Species and Terrestrial Biodiversity Assessment Report by David Hoare Consulting (Pty) Ltd, dated 16 March 2023.**

- ❖ Forest habitats on the upland, steeply-sloping part of the site, have high biodiversity and conservation value, and are designated as sensitive. These areas must not be affected by the proposed development. A buffer zone should be retained along the base of the slope to protect the forest margin. For example, steps should be taken to rehabilitate these areas and encourage growth of species, such as *Pterocelastrus tricuspidatus* and *Sideroxylon inerme*, that are mesic and fire-resistant. An open space management system should be developed to formalize such steps for forest protection.
- ❖ Rehabilitation of disturbed areas, as well as previously invaded areas, should promote establishment of site-appropriate indigenous species.
- ❖ An ongoing alien invasive management programme should take place on site. This will protect riparian habitats downslope from degradation and could potentially be the biggest contribution to maintaining and protecting biodiversity on site and in surrounding areas.

3. List the specialist investigations and the impact management measures that will **not** be implemented and provide an explanation as to why these measures will not be implemented.

None.

4. Explain how the proposed development will impact the surrounding communities.

The Keurboom village is a seasonal holiday town with a homogeneous single residential holiday character. The property is about 1.8 km west of the town along a stretch of road that contains several gated residential developments. The Zoning Plan indicate that the study area mainly consists of Single residential and Group housing zoned residential estate of varying densities. The proposal is compatible with the existing land uses.

The Keurboom Road is a scenic route and as such, the visual quality along the way is a relevant consideration. There is a 10m wide open space system proposed along this road. This strip of land will be densely vegetated to obscure the development. This vegetation buffer will allow for a visual barrier between the development and the Road, which will reduce the visual impact of the

|    |   |
|----|---|
|    | development, and reduce noise levels emanating from the Road.<br>The development density and design will be such that impact on surrounding communities will be minimal.  |
| 5. | Explain how the risk of climate change may influence the proposed activity or development and how has the potential impacts of climate change been considered and addressed.  |
|    | Although the site has not been subject to any past flooding, low-lying areas below 3m have been avoided and form part of the open system to accommodate possible future flooding scenarios. This will enhance the resilience of the development to climate change in the future. A detailed stormwater plan is attached as Appendix G3. |
| 6. | Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.   |
|    | None.   |
| 7. | Explain how the findings and recommendations of the different specialist studies have been integrated to inform the most appropriate mitigation measures that should be implemented to manage the potential impacts of the proposed activity or development.  |
|    | Mitigation measures recommended by the specialists have been included in the EMPr (Appendix H).   |
| 8. | Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option.   |
|    | The layout and design of the site development plan took into account the topography of the property, the sensitive forest area, surrounding vegetation and aquatic features found thereon.  |

## SECTION J: GENERAL

### 1. Environmental Impact Statement

|      |  |
|------|--|
| 1.1. | Provide a summary of the key findings of the EIA.  |
|      | <ul style="list-style-type: none"> <li>❖ The site includes significant areas that are steeper than a gradient of 1:4. A comparison with the proposed development shows that these are excluded from the development footprint.</li> <li>❖ No freshwater features such as drainage lines, rivers or wetlands are indicated to occur within the footprint of the property or within close proximity to the property. Based on the results of the Freshwater desktop review and the site survey, the sensitivity of aquatic biodiversity on Portion 91/304 can be regarded as <b>LOW</b>.</li> <li>❖ The only mapped aquatic feature is the Estuarine Functional Zone (EFZ) which is identified as any area below 5 m.a.m.s.l. (metres above mean sea level). However, no estuarine species from any of the tidal habitats including saltmarsh or supra-tidal vegetation were identified at the site. Ground truthing by the specialist confirmed that no estuarine habits are present on site.</li> <li>❖ The site is outside the 1:50 and 1:100-year floodlines indicated in KELASP, and is also outside of the Tshokwane Wetland system, as well as outside the 100 m high water mark setback.</li> <li>❖ The property is located on the edge of the 1:100 year floodline, which is not mapped to extend beyond the boundary of the property. In reality, the frequency of 100-year flood events is increasing due to climate change, and when coincident with sea-level rise and high tide events, it is not impossible that minor flooding could affect the low-lying area of the property in future. This should be considered in the design and layout of the property, and stormwater management should not further exacerbate the flood risk. To this end, Sustainable Drainage Systems (SuDS) should be fully implemented.</li> <li>❖ Soil augering at the site indicated deep, sandy, fairly well drained soil with no textural change at 50 cm which could promote the development of wetland habitat. This is consistent with the mapped soil type in the area which is described as soils with limited pedological development (young soils with minimal organic matter), and a low clay content (&lt; 15%).</li> </ul> |

- ❖ The dam and associated spring are identified as a watercourse as defined in the National Water Act. The mapped spring and dam have been protected by a 10 m buffer as recommended, which constitutes the regulated area as per GN509 as this incorporates riparian vegetation in the immediate vicinity of the features. Provided no development takes place within this area, the development will not require any level of Water Use Authorisation in terms of the National Water Act.
- ❖ The entire site is within one regional vegetation type, namely Garden Route Shale Fynbos. The conservation status of Garden Route Shale Fynbos is Vulnerable.
- ❖ The WCBSP map for the property shows that the entire northern area of the site ( $\pm 60\%$ ), except for the road, is within a Critical Biodiversity Area (CBA1). On the basis of the presence of natural habitat within a CBA1 area and within a listed ecosystem, it is verified that the site occurs partially within an area of **VERY HIGH** sensitivity with respect to the Terrestrial Biodiversity Theme. These areas are not affected by the proposed development.
- ❖ On the basis that it has been recorded from Plettenberg Bay and the site has suitable habitat, the Knysna Warbler (Vulnerable) has a moderate to high probability of occurring in forest margin areas on site. The forests on site may constitute part of the general foraging range of Crowned Eagle (Near Threatened), but it is unlikely that they occur on site, or are dependent on it. The type locality of the Tunnelling Dung Beetle (Endangered) is forest habitats in the Keurboomstrand area. It therefore has to be assumed that there is a high probability of it occurring there. There is a moderate to high probability of the small antelope (Vulnerable) occurring in the forests on site. It is therefore verified that the Animal Species Theme has **MEDIUM** sensitivity for the site.
- ❖ There are two species that could occur within forest habitats on site. These are *Ocotea bullata* (Endangered) that has a high probability of occurring on site, and *Faurea macnaughtonii* (Rare) that has a moderate possibility of occurring there. There are therefore two threatened, near threatened or rare species that could occur in the study area. It is therefore verified that the Plant Species Theme has **MEDIUM** sensitivity for this site.
- ❖ No plant species of concern were found on site, but a small number of free-standing, relatively large milkwood trees (*Sideroxylon inerme*) were found on site that are protected under the National Forests Act. These will be retained within the proposed development.
- ❖ Following the procedures within the Species Environmental Assessment Guidelines, the forests on site have been assessed as having Very High sensitivity / Ecological Importance, secondary vegetation as having Medium sensitivity / Ecological Importance, and remaining areas Low or Very Low sensitivity.
- ❖ No-go mapping units from KELASP that occur on site are *Map Unit 4: Forest* and *Map Unit 8: Fynbos invaded with aliens*. A comparison with the proposed development shows that *Map Unit 4: Forest* is excluded from the development footprint, but that *Map Unit 8: Fynbos invaded with aliens* is partly included within the proposed development footprint.
- ❖ The palaeontological sensitivity of the development footprint is low and even though Mr Pether recommends the inclusion of the Fossil Finds Procedure in the EMP for the development, geotechnical test pits to a depth of 2 to 3 m have revealed no palaeontological resources. Excavations for bulk services and foundations are not expected to exceed 1,5 m in depth. There is no reason to believe that significant heritage resources will

be impacted by the proposed development.

- 1.2. Provide a map that that superimposes the preferred activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. (Attach map to this BAR as Appendix B2)

See Appendix B2.

- 1.3. Provide a summary of the positive and negative impacts and risks that the proposed activity or development and alternatives will have on the environment and community.

**Table 3: Positive and Negative Aspects of the Project.**

| Specific Aspect of Proposal                    | Positive  | Negative  |
|--|---|---|
| Planning Policy, Documentation and Urban Edge. | This particular property is in proximity to existing developments and is partially within the urban edge of expansion for the Bitou Municipal District. The proposal is compatible with various planning policies and documents. A portion of the property will remain as Open Space to be rehabilitated with indigenous shrub and trees which will 'soften' the visual impact.   | The proximity to scenic area and the coastline may have visual impacts. These can be managed and mitigated.   |
| Bulk Services supply                           | There already is a connection point for the proposed development and there will be no pressure / demand on the current system. Access to the property is currently available through the existing road network.   | All wastewater, water supply and storm water will need to be managed but this is achievable with all the correct mechanisms and mitigation in place.  |
| Conservation Status / value                    | The area identified for the development footprint is not within a CBA and the vegetation on site has been transformed over the years resulting in a low to medium conservation value within the proposed development footprint.   | Loss of potential habitat and species of conservation value.  |
| Sufficient ecological corridors                | The proposed open space system corresponds to the position of indigenous vegetation. These areas will be part of the landscaping plan of the development and will provide an opportunity for recreational areas such as walking trails, lookout points etc. These facilities will be formally laid out to avoid unnecessary informal path formation in the sensitive forest habitat. A play park and picnic area are planned under the Milkwood trees and the small dam can be equipped with a bird hide or benches where the resident can enjoy the greenery. A great neighbourhood has places for | The proposal would not greatly compromise on landscape connectivity given that the forest area will remain undisturbed. However fencing and encroachment into the forest margin may impact certain species such as the Knysna Warbler, Crowned Eagle, and small antelope. |



|                      |   |   |
|----------------------|---|---|
|                      | people to meet, talk and be neighbourly.  |   |
| Erosion              | Rehabilitation of disturbed areas with indigenous vegetation.   | Erosion due to removal of organic rich topsoil and disturbance of vegetation.   |
| Noise and Visibility | The Development will have Architectural Guidelines in terms of aesthetics and 'sense of place' that will be adhered to. | Visual and noise Impacts to adjacent residents during construction phase.   |
| Alien Vegetation     | Systematically remove invasive alien vegetation (also in the operational phase).  | Loss of natural vegetation and increased fire risk if not removed.  |
| Fire risk            | Removal of alien vegetation to reduce fuel load.  | Fire risk may be high if alien vegetation is not removed.   |
| Storm water          | Implementation of stormwater management plan and the use of SUDs and retention ponds.                                   | Pollution into sub-surface water and accelerated erosion.   |
| Site Access          | Access will be restricted.  | Potential increased vehicle movement will require suitable guidelines and recommendations to be adhered to as stipulated, with regards to access. |

## 2. Recommendation of the Environmental Assessment Practitioner ("EAP")

|   |  |
|---|--|
| 2.1.  | Provide Impact management outcomes (based on the assessment and where applicable, specialist assessments) for the proposed activity or development for inclusion in the EMPr           |
| See Appendix J – Impact Assessment Table.   |  |
| 2.2.  | Provide a description of any aspects that were conditional to the findings of the assessment either by the EAP or specialist that must be included as conditions of the authorisation. |
| <p>THE APPLICANT IS RESPONSIBLE, WITH THE INPUT OF A QUALIFIED ENVIRONMENTAL CONSULTANT / PRACTITIONER, TO IMPLEMENT AN ACCEPTABLE CONSTRUCTION AND OPERATIONAL PHASE EMPr WHICH ADDRESSES SUCH ASPECTS AS THE STORAGE OF ANY CONSTRUCTION MATERIALS / IMPLEMENTS, VEHICLE MOVEMENT, ENVIRONMENTAL CONTROL AND MITIGATION OF POTENTIAL IMPACTS.</p> <p>APPOINT AN ENVIRONMENTAL CONTROL OFFICER (ECO) TO ENSURE THAT CONTRACTORS COMPLY WITH THE RECOMMENDATIONS IN THE APPROVED EMP AND THE ENVIRONMENTAL AUTHORISATION.</p> <p>THE ENVIRONMENTAL INTEGRITY (INCLUDING VISUAL IMPACT) OF THE SITE IS OF IMPORTANCE AND WHERE ALIEN VEGETATION HAS BEEN REMOVED, THE REHABILITATION / RE-PLANTING WITH SUITABLE INDIGENOUS VEGETATION MUST TAKE PLACE.</p> <p>THE DESIGN MUST BE SUCH THAT IT TAKES COGNISANCE OF THE POTENTIAL NEGATIVE VISUAL IMPACTS – BUILDING DESIGN, COLOUR AND ANY HEIGHT RESTRICTIONS MUST BE CONSIDERED</p> <p>ANY RECOMMENDATIONS MADE BY SPECIALIST'S IN A PARTICULAR FIELD OF EXPERTISE MUST BE ADHERED TO SO THAT A CONCERTED EFFORT IS MADE TO PROTECT IT AND MITIGATE FOR ENVIRONMENTAL IMPACTS.</p> <p>STORMWATER MUST BE WELL-MANAGED IN ORDER TO ENSURE THAT NO UNNECESSARY POLLUTION OR EROSION OCCURS ON AND OFF THE SITE AND THAT THE INTEGRITY OF THE ENVIRONS IS MAINTAINED.</p> |  |

REHABILITATION OF ANY EXISTING DISTURBANCE AREAS / EROSION POTENTIAL ON SITE USING APPROPRIATE METHODS.

REHABILITATION AND RE-VEGETATION WITH SUITABLE ENDEMIC INDIGENOUS SPECIES; ACCEPTABLE LANDSCAPING METHODS TO ENHANCE THE AREA AND ENSURE COMPATIBILITY WITH THE ENVIRONS.

PERMISSION MUST BE ATTAINED FROM WESTERN CAPE DEPARTMENT OF FORSTRY TO REMOVE ANY OF THE PROTECTED MILKWOOD TREES THAT STILL OCCUR ON THE PROPERTY.

2.3. Provide a reasoned opinion as to whether the proposed activity or development should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be included in the authorisation.

This will be addressed following public participation process.

2.4. Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.

It is assumed that there will be I&AP input during the public participation process to facilitate effective planning and decision making.

2.5. The period for which the EA is required, the date the activity will be concluded and when the post construction monitoring requirements should be finalised.

1. The EA is required for a period of ten (10) years.
2. The activity will be concluded in accordance with Sales Agreement whereby all stands have been developed.
3. Post construction monitoring will be finalised one (1) year from completion of the Project.

### 3. Water

Since the Western Cape is a water scarce area explain what measures will be implemented to avoid the use of potable water during the development and operational phase and what measures will be implemented to reduce your water demand, save water and measures to reuse or recycle water.

Rainwater harvesting tanks and natural vegetation in open spaces and pavement areas / discouraging of planted areas that require more frequent watering.

### 4. Waste

Explain what measures have been taken to reduce, reuse or recycle waste.

General waste generated through the construction and operational phase of the project is the responsibility of the contractor / landowner. Refuse such as container bags, gravel, rubble, cans, plastic, wire, etc. generated during the execution of any works must be separated out and stored in appropriately designated areas, removed on a regular basis for disposal at a permitted waste disposal site. All recyclable waste must be separated out with separate containers for paper products, glass, plastic, etc.

### 5. Energy Efficiency

8.1. Explain what design measures have been taken to ensure that the development proposal will be energy efficient.

Solar geysers and geyser thermal insulation  
Solar panels  
Use of gas  
Energy efficient light bulbs  
Low bollard-type lighting  
Natural ventilation in certain buildings  
Roof water tanks

The houses will be equipped with solar systems which require maximum exposure to the sun. In the Southern Hemisphere, houses should be orientated to face north. The layout design has as far as possible orientated erven, especially the smaller ones, in such a way that houses can be placed with their longer frontages to the north.

House designs will be elaborated on in the Architectural Design Guidelines. Energy efficient guidelines will include elements such as having appropriate areas of glazing, correct orientation, suitable levels of shading, insulation and thermal mass. The use of local building materials and renewable energy applications such as solar water heaters, rainwater harvesting etc. will be encouraged.