

### 3. BIODIVERSITY

#### 3(a) - PROTOCOL FOR THE ASSESSMENT AND REPORTING OF ENVIRONMENTAL IMPACTS ON TERRESTRIAL BIODIVERSITY

##### 1. SCOPE

This Protocol provides the criteria for the assessment and reporting of impacts on terrestrial biodiversity for activities requiring environmental authorisation. The assessment requirements of this Protocol are associated with a level of environmental sensitivity determined by the national web based environmental screening tool. For terrestrial biodiversity the requirements are for landscapes or sites which support various levels of biodiversity. The relevant terrestrial biodiversity data in the national web based environmental screening tool has been provided by the South African National Biodiversity Institute<sup>1</sup>. If any part of the proposed development falls within an area of “very high” sensitivity, the requirements prescribed for such sensitivity apply.

The national web based environmental screening tool can be accessed at: <https://screening.environment.gov.za/screeningtool>

##### 2. REQUIREMENTS FOR THE ASSESSMENT AND REPORTING OF IMPACTS

Requirements for the assessment and reporting of impacts of development on terrestrial biodiversity are set out in Table 1 below, and correlate to the sensitivity ratings contained in the national web based environmental screening tool. Prior to beginning the assessment, the current use of the land and the potential environmental sensitivity of the site as identified by the national web based environmental screening tool must be confirmed by undertaking an Initial Site Sensitivity Verification.

- 2.1 The Initial Site Sensitivity Verification must be undertaken by an Environmental Assessment Practitioner or a registered specialist with expertise in the relevant environmental theme being considered.
- 2.2 The Initial Site Sensitivity Verification must be undertaken through the use of:
  - (a) a desk top analysis, using satellite imagery; and
  - (b) a preliminary on-site inspection to identify if there are any discrepancies with the current use of land and environmental status quo versus the environmental sensitivity as identified on the national web based environmental screening tool, such as new developments, infrastructure, indigenous/pristine vegetation, etc.
- 2.3 The outcome of the Initial Site Sensitivity Verification must be recorded in the form of a report that-
  - (a) confirms or disputes the current use of the land and environmental sensitivity as identified by the national web based environmental screening tool;
  - (b) contains a motivation and evidence (e.g. photographs) of either the verified or different use of the land and environmental sensitivity; and
  - (c) is submitted together with the relevant assessment report prepared in accordance with the requirements of the Environmental Impact Assessment Regulations.

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<sup>1</sup> The biodiversity dataset has been provided by the South African Biodiversity Institute. For details of the dataset, click on the options button to the right of the various biodiversity layers within the national web based environmental screening tool, in the Terrestrial Biodiversity theme, to view the metadata.

### 3. REQUIREMENTS FOR ENVIRONMENTAL ASSESSMENT

**TABLE 1: REQUIREMENTS FOR THE ASSESSMENT AND REPORTING OF IMPACTS ON TERRESTRIAL BIODIVERSITY FOR ACTIVITIES REQUIRING ENVIRONMENTAL AUTHORISATION**

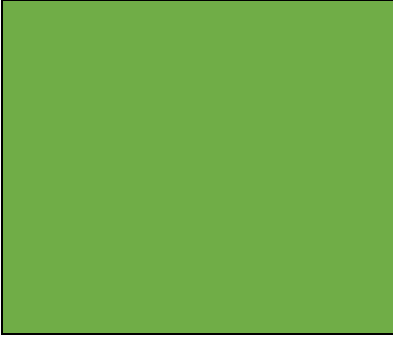
<b>VERY HIGH SENSITIVITY RATING</b> - for terrestrial biodiversity features	<p><b>1 General Information</b></p> <p>1.1 An applicant intending to undertake an activity identified in the Scope of this Protocol, on a site identified as being of “very high sensitivity” for terrestrial biodiversity on the national web based environmental screening tool must submit a <b>Terrestrial Biodiversity Impact Assessment</b>.</p> <p>1.2 However, where the information gathered from the Initial Site Sensitivity Verification identified in section 2.1 of this Protocol or the specialist assessment differs from the designation of “very high” terrestrial biodiversity sensitivity from the national web based environmental screening tool and it is found to be of a “low” sensitivity, then a terrestrial biodiversity impact assessment is not required.</p> <p>1.3 Should paragraph 1.2 apply, a <b>Terrestrial Biodiversity Compliance Statement</b> is to be provided. An Environmental Assessment Practitioner or a suitably qualified and SACNASP registered specialist, must append to the <b>Terrestrial Biodiversity Compliance Statement</b> a motivation and evidence (e.g. photographs) of the changed Terrestrial Biodiversity sensitivity.</p> <p><b>2 The Terrestrial Biodiversity Impact Assessment</b></p> <p>2.1 The assessment must be undertaken by a SACNASP registered specialist, on the preferred development site.</p> <p>2.2 Description of the preferred site - the following aspects, as a minimum, must be considered in the baseline description:</p> <p>2.2.1 A description of the ecological drivers/processes of the system and how the proposed development will impact these;</p> <p>2.2.2 Ecological functioning and ecological processes (e.g. fire, migration, pollination, etc.) that operate within the proposed development site;</p> <p>2.2.3 The ecological corridors that the development would impede including migration and movement of flora and fauna;</p> <p>2.2.4 The description of any significant landscape features (including rare or important flora/faunal associations, presence of Strategic Water Source Areas (SWSAs) or Freshwater Ecosystem Priority Areas (FEPA) sub catchments;</p> <p>2.2.5 A description of terrestrial biodiversity and ecosystems on the proposed development site, including –</p> <ul style="list-style-type: none"> <li>a) Main vegetation types;</li> <li>b) Threatened ecosystems, including Listed Ecosystems as well as locally important habitat types identified;</li> <li>c) Ecological connectivity, habitat fragmentation, ecological processes and fine-scale habitats; and</li> <li>d) Species, distribution, important habitats (e.g. feeding grounds, nesting sites, etc.) and movement patterns identified.</li> </ul> <p>2.3 Identify any alternative development footprints within the preferred development site which would be of a “low” sensitivity as identified by the national web based environmental screening tool and verified through the Initial Site Sensitivity Verification;</p> <p>2.4 The Terrestrial Biodiversity Impact Assessment must be based on the results of a site inspection undertaken on the preferred development site and must identify:</p>
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- 2.5 Terrestrial Critical Biodiversity Areas (CBAs), including:
    - 2.5.1 The reasons why an area has been identified as a CBA;
    - 2.5.2 An indication of whether or not the development is consistent with maintaining the CBA in a natural or near natural state or in achieving the goal of rehabilitation;
    - 2.5.3 The impact on species composition and structure of vegetation with an indication of the extent of clearing activities;
    - 2.5.4 The impact on ecosystem threat status;
    - 2.5.5 The impact on explicit subtypes in the vegetation;
    - 2.5.6 The impact on overall species and ecosystem diversity of the site; and
    - 2.5.7 The impact on populations of species of special concern in the CBA.
  - 2.6 Terrestrial Ecological Support Areas, including:
    - 2.6.1 The impact on the ecological processes that operate within or across the site;
    - 2.6.2 The extent the development will impact on the functionality of the ESA; and
    - 2.6.3 Loss of ecological connectivity (on site, and in relation to the broader landscape) due to the degradation and severing of ecological corridors or introducing barriers that impede migration and movement of flora and fauna.
  - 2.7 Protected Areas as defined by the National Environmental Management: Protected Areas Act, 2004 including:
    - 2.7.1 An opinion on whether the proposed development aligns with the objectives/purpose of the Protected Area and the zoning as per the Protected Area Management Plan;
  - 2.8 Priority Areas for Protected Area Expansion, including:
    - 2.8.1 The way in which in which the development will compromise or contribute to the expansion of the protected area network.
  - 2.9 Strategic Water Source Areas (SWSA) including:
    - 2.9.1 The impact(s) on the terrestrial habitat of a Strategic Water Source Area, and
    - 2.9.2 The impacts of the development on the SWSA water quality and quantity (e.g. describing potential increased runoff leading to increased sediment load in water courses).
  - 2.10 Freshwater Ecosystem Priority Area (FEPA) sub catchments, including:
    - 2.10.1 The impacts of the development on habitat condition and/or species in the FEPA sub catchment.
  - 2.11 Indigenous Forests, including:
    - 2.11.1 Impact on the ecological integrity of the forest;
    - 2.11.2 Extent of natural or near natural indigenous forest area lost.
- 3 The findings of the **Terrestrial Biodiversity Impact Assessment** must be written up in a Terrestrial Biodiversity Impact Assessment Report.

This report must include as a minimum the following information:

- 3.1 Contact details and curriculum vitae of the specialist including SACNASP registration number and field of expertise and their curriculum vitae;
- 3.2 A signed statement of independence by the specialist;
- 3.3 Duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment;
- 3.4 A description of the methodology used to undertake the impact assessment and site inspection, including equipment and modelling used where relevant;
- 3.5 A description of the assumptions made and any uncertainties or gaps in knowledge or data as well as a statement of the timing and intensity of site inspection observations;
- 3.6 Areas not suitable for development, to be avoided during construction and operation (where relevant);
- 3.7 Additional environmental impacts expected from the proposed development based on those already evident on the site and a discussion on the cumulative impacts;

	<p>3.8 Impact management actions and impact management outcomes proposed by the specialist for inclusion in the EMPr; and</p> <p>3.9 A motivation where the development footprint identified as per section 2.3 in this Table were not considered stating reasons why these were not being not considered.</p> <p>3.10A reasoned opinion, based on the findings of the specialist assessment, regarding the acceptability or not of the development and if the development should receive approval or not, and any conditions to which the statement is subjected.</p> <p>4 The findings of the <b>Terrestrial Biodiversity Impact Assessment</b> must be incorporated into the Basic Assessment Report or the Environmental Impact Assessment Report, including the mitigation and monitoring measures as identified, which must be incorporated into the EMPr. A signed copy of the Assessment must be appended to the Basic Assessment Report or Environmental Assessment Report.</p>
<p><b>LOW SENSITIVITY RATING – for terrestrial biodiversity features</b></p>	<p><b>1 General Information</b></p> <p>1.1 An applicant, intending to undertake an activity identified in the Scope of this Protocol, on a site identified as being of “low sensitivity” for terrestrial biodiversity on the national web based environmental screening tool must submit a <b>Terrestrial Biodiversity Compliance Statement</b> to the competent authority, unless:</p> <p>1.1.1 The information gathered from the Initial Site Sensitivity Verification differs from that identified as having a “low” terrestrial biodiversity sensitivity by the national web based environmental screening tool and it is found to be of a “very high” sensitivity.</p> <p>1.2 Should paragraph 1.1.1 apply, a <b>Terrestrial Biodiversity Impact Assessment</b> is to be undertaken and a report should be prepared in accordance with the requirements of a Terrestrial Biodiversity Impact Assessment.</p> <p><b>2 Terrestrial Biodiversity Compliance Statement</b></p> <p>2.1 The <b>Terrestrial Biodiversity Compliance Statement</b>, must be prepared by a suitably qualified specialist in the field of ecological sciences, on the site being submitted as the preferred development site and must verify:</p> <p>2.1.1 That the site is of “low” sensitivity for terrestrial biodiversity; and</p> <p>2.1.2 Whether or not the proposed development will have any impact on the biodiversity feature.</p> <p>3 The <b>Terrestrial Biodiversity Compliance Statement</b>, must contain, as a minimum, the following information:</p> <p>3.1 Contact details and curriculum vitae of the specialist including SACNASP registration number and field of expertise;</p> <p>3.2 A signed statement of independence by the specialist;</p> <p>3.3 Baseline profile description of biodiversity and ecosystems, including the duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment;</p> <p>3.4 Methodology used to verify the sensitivities of the terrestrial biodiversity on the national web based environmental screening;</p> <p>3.5 Methodology used to undertake the site survey and prepare the Compliance Statement, including equipment and modelling used where relevant;</p> <p>3.6 Where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr;</p>

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- 3.7 A description of the assumptions made and any uncertainties or gaps in knowledge or data as well as a statement of the timing and intensity of site inspection observations; and
  - 3.8 Any conditions to which the statement is subjected.
  - 4 A signed copy of the full **Terrestrial Biodiversity Compliance Statement** must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

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