

DEPARTMENT OF FORESTRY, FISHERIES AND THE ENVIRONMENT

NO. 3715

28 July 2023

NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998  
(ACT NO. 107 OF 1998)

**PROCEDURES TO BE FOLLOWED FOR THE ASSESSMENT AND MINIMUM CRITERIA FOR REPORTING OF IDENTIFIED ENVIRONMENTAL THEMES IN TERMS OF SECTION 24(5)(a) AND (h) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998, WHEN APPLYING FOR ENVIRONMENTAL AUTHORISATION**

I, Barbara Dallas Creecy, Minister of Forestry, Fisheries and the Environment, hereby give notice of my intention to prescribe the protocol for the assessment and minimum report content requirements for determining impacts on Cape Vultures associated with the development of onshore wind energy generation facilities, which require environmental authorisation.

The requirements of the protocol will apply from the date of publication, except where the applicant provides proof to the competent authority that the specialist assessment affected by this protocol had been commissioned by the date of publication of the protocol in the Government Gazette.

Members of the public are invited to submit written comments or inputs, within 30 days after the publication of this Notice in the *Gazette*, to the following addresses:

By post to:       The Director-General  
                    Department of Forestry, Fisheries and the Environment  
                    Attention: Dr D Fischer  
                    Private Bag X447  
                    PRETORIA  
                    0001

By hand at:       Reception, Environment House, 473 Steve Biko Road, Arcadia, Pretoria.

By e-mail:       [dfischer@dffe.gov.za](mailto:dfischer@dffe.gov.za)

Any inquiries in connection with the notice can be directed to Dr Dee Fischer at [dfischer@dffe.gov.za](mailto:dfischer@dffe.gov.za) or (012)399 8843. Comments or inputs received after the closing date may not be considered.

The Department of Forestry, Fisheries and the Environment complies with the Protection of Personal Information Act, 2013 (Act No. 4 of 2013). Comments received and responses thereto are collated into a comments and responses report which will be made available to the public as part of the consultation process. If a commenting party has any objection to his or her name, or the name of the represented company/organisation, being made publicly available in the comments and responses report, such objection should be highlighted in bold as part of the comments submitted in response to this government notice.

  
**BARBARA DALLAS CREECY**  
**MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT**

## CAPE VULTURES

### PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON CAPE VULTURES BY ONSHORE WIND ENERGY GENERATION FACILITIES WHERE THE ELECTRICITY OUTPUT IS 20 MEGAWATTS OR MORE

#### 1. SCOPE

This protocol provides the criteria for the specialist assessment and minimum report content requirements for determining impacts on Cape Vultures associated with the development of onshore wind energy generation facilities where the electricity output is 20 megawatts or more, which require environmental authorisation and are proposed to be located on a site identified by the national web based screening tool (screening tool) as being of "very high" or "high" sensitivity for the potential collision of Cape Vultures with wind turbines as identified in the Cape Vulture theme.

This protocol must be read with the Protocol on Avifaunal Species<sup>1</sup> and the site sensitivity verification required in terms of this Protocol must be undertaken in parallel with the reconnaissance study and pre-application avifaunal monitoring plan required in terms of the Protocol on Avifaunal Species, prior to commencing with the Cape Vulture specialist assessment.

The collision risk potential identified by the screening tool for Cape Vultures is based on data provided by the FitzPatrick Institute of African Ornithology of the University of Cape Town and HawkWatch International. This Protocol applies within and outside of the Renewable Energy Development Zones (REDZs)<sup>2</sup>.

#### 2. SITE SENSITIVITY VERIFICATION AND MINIMUM REPORT CONTENT REQUIREMENTS

Prior to commencing with the Cape Vulture specialist assessment, and in parallel with the reconnaissance study and pre-application avifaunal monitoring plan required in terms of the Protocol on Avifaunal Species, the collision risk potential for Cape Vultures on the preferred site as identified by the screening tool must be confirmed. The potential collision of Cape Vultures with wind turbines is to be confirmed by undertaking a site sensitivity verification for a period of at least 12 months, with surveys timed to account for as much seasonal variation as possible. A minimum of 6 site visits must be conducted within the 12 month period.

2.1. The site sensitivity verification must be undertaken by a specialist registered in the field of zoological or ecological science with the South African Council for Natural Scientific Professions (SACNASP) with demonstrated expertise in Cape Vulture observation and research.

2.2. The site sensitivity verification must be undertaken through the use of:

(a) site inspections to-

- i. identify the land use in the surrounding areas within a 10 km radius of the preferred site with specific reference to the possible location of vulture restaurants or land uses which could result in carcass availability;
- ii. identify any specific topographical features on the site which could attract or pose a risk to Cape Vultures including existing power lines within a 10 km radius of the preferred site;
- iii. verify the size and status of known breeding sites and roosts within a 30 km radius of the proposed preferred site that have not been monitored by any scientific body within the past 5 years;
- iv. continuously monitor wind speed and other weather data that could influence Cape Vulture activity on the preferred site throughout the site sensitivity verification period;

<sup>1</sup> Government Notice No. 320 published under Government Gazette No. 43110 of 20 March 2020

<sup>2</sup> Renewable Energy Development Zones as published under Government Notice No. 114, Gazette No. 41445 on 16 February 2018 and Government Notice No. 144, Government Gazette No. 44191 of 26 February 2021

- (b) vantage point monitoring<sup>3</sup> by two people<sup>4</sup> at the same time for a duration of at least 72 hours per vantage point, once per month for the 12 month period, in order to determine the level of Cape Vulture flight activity on the preferred site and the height of flight;
- (c) consultation with relevant non-governmental organisations<sup>5</sup> with an interest in Cape Vulture protection; and
- (d) any other available and relevant information.

2.3. The outcome of the site sensitivity verification must be recorded in the form of a report that:

- (a) confirms or disputes the environmental sensitivity as identified by the screening tool (Cape Vulture risk layer);
- (b) contains a motivation, corroborated by evidence (e.g. monitoring data) and input from any non-governmental organisations with an interest in Cape Vulture protection or Cape Vulture experts, of either the verified or different environmental sensitivity; and
- (c) where the site sensitivity verification has confirmed the site as being of a "medium" or "low" sensitivity for collision risk to Cape Vultures, the site sensitivity verification report must be included in the assessment report required to be submitted in accordance with the requirements of the Environmental Impact Assessment Regulations.

### 3. SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS

**TABLE 1: ASSESSMENT AND REPORTING OF IMPACTS ON CAPE VULTURES FOR ONSHORE WIND ENERGY GENERATION FACILITIES WHERE THE ELECTRICITY OUTPUT IS 20 MEGAWATTS OR MORE**

#### 1. General Information

- 1.1 An applicant intending to undertake an activity identified in the scope of this protocol on a site identified by the screening tool and verified by the site sensitivity verification report as being of "very high" or "high" sensitivity for the potential collision of Cape Vultures with wind turbines, must submit a Cape Vulture Specialist Assessment that includes an assessment of impacts on Cape Vultures, unless the information gathered from undertaking the site sensitivity verification confirms that the occurrence of Cape Vultures on the site is "medium" or "low"<sup>6</sup>, in which case the requirements of the Specialist Assessments required in the Protocol on Avifaunal Species must be complied with, and the site sensitivity verification report required in paragraph 2 of this Protocol must be included in the Avifaunal Specialist Assessment Report required under the Protocol on Avifaunal Species.
- 1.2 If any part of the proposed development footprint falls within an area of "very high" or "high" sensitivity, the assessment and reporting requirements prescribed for the "very high" or "high" sensitivity apply to the entire development footprint.
- 1.3 An applicant intending to undertake an activity identified in the scope of this protocol on a site identified by the screening tool as being of "medium" or "low" sensitivity for the potential collision of Cape Vultures with wind turbines, must comply with the requirements of the Protocol on Avifaunal Species and the site sensitivity verification report required in terms of this Protocol, which confirms the "medium" or "low" sensitivity, must be included in the Avifaunal Specialist Assessment Report required under the Protocol on Avifaunal Species.

<sup>3</sup> Vantage point monitoring is to be undertaken in accordance with the method as identified in the latest version of the BirdLife South Africa Guideline for impact assessment, monitoring and mitigation.

<sup>4</sup> The vantage point monitors and colony/roost surveyors do not need to be SACNASP registered but must be appointed by the SACNASP registered specialist and work under the direction of this specialist.

<sup>5</sup> These organisations can include BirdLife South Africa, VulPro and the Endangered Wildlife Trust.

<sup>6</sup> Low in the context of a potential collision risk of a Cape Vulture with a wind turbine means that the level of Cape Vulture flight activity over the site is low and where Cape Vultures are identified the height is consistently observed exceeding the tip of the turbine blade and no behaviour that would bring the Cape Vulture into contact with the wind turbine blades is observed throughout the 12 month period observation.

**VERY HIGH AND HIGH SENSITIVITY RATING** – areas where there is a very high probability of encountering Cape Vultures and where there is high risk of population-level impacts from the loss of Cape Vulture individuals.

These areas are potentially unsuitable for wind energy development.

## 2. Cape Vulture Specialist Assessment

- 2.1. The assessment must be undertaken by a specialist registered in the field of zoological science or ecological science with SACNASP with proven experience in the field of Cape Vulture conservation.
- 2.2. The following information or data (in addition to that collected as part of the site sensitivity verification) must be collected through, among others, site investigation and searches in the area to inform the assessment:
  - 2.2.1. Constructed wind energy developments for which environmental authorisation have been granted within a 30km radius<sup>7</sup>, including their location and GPS coordinates;
  - 2.2.2. any power line that poses an electrocution risk due to its design, or a collision risk due to the absence of bird flight diverters or any wind measurement masts within a 5km radius of the preferred site<sup>8</sup>;
  - 2.2.3. data from an additional<sup>9</sup> twelve months of Cape Vulture monitoring, focusing on the collection of additional flight activity through the preferred site, flight direction, behaviour, and specific data necessary to populate a collision risk model;
  - 2.2.4. the size and status of known colonies and roosts within a 30km radius of the preferred site;
  - 2.2.5. the location of possible roosts and colonies within a 5km radius<sup>10</sup> of the preferred site;
  - 2.2.6. specific review of cliffs and high-voltage power line pylons suitable as vulture habitats as identified by GIS<sup>11</sup> and through discussions with Eskom within a 10km radius of the preferred site;
  - 2.2.7. confirmation that the power lines identified that pose an electrocution risk due to its design, or a collision risk due to the absence of bird flight diverters, have been reported to Eskom; and
  - 2.2.8. land use with specific reference to the possible location of vulture restaurants or land uses which could result in carcass availability within a 30km radius of the preferred site.
- 2.3. The spatial information is to be represented on a map which includes the following:
  - 2.3.1. topographical features;
  - 2.3.2. location of vantage point monitoring locations;
  - 2.3.3. locations of existing wind energy developments and wind energy developments for which environmental authorisation

<sup>7</sup> This information can be obtained from the screening tool but will need to be verified by Eskom or discussions with landowners.

<sup>8</sup> The information on power lines that poses an electrocution risk due to its design, or a collision risk due to the absence of bird flight diverters, must be reported to Eskom.

<sup>9</sup> Additional monitoring from the monitoring that was undertaken as part of the site sensitivity verification.

<sup>10</sup> This information can be collected through desk top analysis, consultation with local bird associations, BirdLife South Africa, Vulpro and the Endangered Wildlife Trust.

<sup>11</sup> Geographical information systems.

	<p>have been granted but not constructed;</p> <p>2.3.4. the location of existing power lines indicating any risk areas and proposed power lines as identified in paragraph 2.2.2;</p> <p>2.3.5. location of roosts or colonies as well as potential roosts and colonies; and</p> <p>2.3.6. location of vulture restaurants and land uses which could result in the availability of carcasses.</p> <p>2.4. The data collected as contemplated in paragraph 2.2.3 is to be tabulated and included in a spreadsheet using a template consistent with that envisaged by the national bird monitoring database once operational.</p> <p>2.5. The monitoring data must be uploaded to the national bird monitoring database once operational.</p> <p>2.6. The monitoring data must include as a minimum the following information:</p> <p>2.6.1. GPS coordinates of vantage point monitoring sites; and</p> <p>2.6.2. flights, including direction, height, date, time, wind speed, weather conditions, number of individuals observed and behaviour, including perching vultures; and</p> <p>2.6.3. the findings of the surveys on Cape Vulture roosts and colonies including the size of the roost, the number of breeding pairs and the number of birds observed.</p> <p>2.7. The Cape Vulture Specialist Assessment must be undertaken on the preferred site and must identify and predict the following:</p> <p>2.7.1. areas of identified high collision risk on the preferred site;</p> <p>2.7.2. the estimated annual fatality rate of Cape Vultures, with and without mitigation, based on the findings of a site-specific collision risk modelling exercise;</p> <p>2.7.3. the possible cumulative impact from the various wind energy developments in operation within a 30km radius of the preferred site, on the regional Cape Vulture population;</p> <p>2.7.4. the possible impact of the predicted fatality rate on the regional Cape Vulture population and that impact on the national population; and</p> <p>2.7.5. areas not suitable for development based on the risk of impacts on Cape Vultures.</p> <p>2.8. The findings of the Cape Vulture Specialist Assessment must be written up in a <b>Cape Vulture Specialist Assessment Report</b> that contains as a minimum the following information:</p> <p>2.8.1. A copy of the SACNASP registration certificate of the zoological or ecological specialist who prepared the assessment and a curriculum vitae demonstrating experience in Cape Vultures;</p> <p>2.8.2. details including contact details of the zoological or ecological specialist;</p> <p>2.8.3. a signed statement of independence by the specialist;</p> <p>2.8.4. the duration, date and seasons of the assessment and the relevance of the season to the outcome of the assessment;</p> <p>2.8.5. a summary of the findings of the site sensitivity verification report;</p>
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	<p>2.8.6. a description of the methodology used to undertake the data generation and assessment inclusive of the equipment and models used, as relevant;</p> <p>2.8.7. a summary of the findings of the Cape Vulture monitoring;</p> <p>2.8.8. a map showing the information required in paragraph 2.3 superimposed over the high-risk collision areas and areas not suitable for development as identified in paragraph 2.7.5;</p> <p>2.8.9. a summary of the findings of the Cape Vulture specialist assessment;</p> <p>2.8.10. an indication of the potential annual fatality rate, as well as the cumulative annual fatality rate;</p> <p>2.8.11. the assessed impact of the predicted fatality rate on the regional Cape Vulture population as well as the anticipated impact on the national population;</p> <p>2.8.12. a substantiated statement from the specialist with regards to the acceptability or not of the proposed development on the Cape Vulture population and a recommendation on the approval or not of the proposed development;</p> <p>2.8.13. a description of the assumptions made and any uncertainties or gaps in knowledge or data; and</p> <p>2.8.14. any conditions to which this statement is subjected.</p> <p>2.9. The zoological or ecological specialist must recommend conditions to be included in the environmental authorisation, should such an authorisation be granted, which must include as a minimum the following:</p> <p>2.9.1. mitigation measures to be included in the environmental authorisation which could include curtailment and shut down on demand options and/or carcass and food availability management plans;</p> <p>2.9.2. the initiation date for the start of the post-construction monitoring plan;</p> <p>2.9.3. the approval of the development is subject to adaptive management which could include curtailment and shut down measures as well as the need to include radar shut down, should monitoring identify unanticipated and unacceptable fatality rates, or any other mitigation measures with a proven track record of effectiveness;</p> <p>2.9.4. the adaptive management plan which must include the acceptable number of fatalities as identified in paragraph 2.8.11 must be included as part of the proposal on conditions to be provided; and</p> <p>2.9.5. the intervals for the submission of the post-construction monitoring report.</p> <p>2.10. The findings of the <b>Cape Vulture Specialist Assessment</b> as well as the proposed conditions to be included in the environmental authorisation, if granted, must be incorporated into the Avifaunal Specialist Assessment which is to be included in the Basic Assessment Report or the Environmental Impact Assessment Report.</p> <p>2.11. A signed copy of the Site Sensitivity Verification Report and the Cape Vulture Specialist Assessment must be included in the Avifaunal Specialist Assessment which is to be appended to the Basic Assessment Report or Environmental Impact Assessment Report.</p>
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	<p>2.12. An avifaunal <b>post-construction monitoring plan</b>, which identifies a specific Cape Vulture monitoring regime must be provided and included in the post-construction monitoring plan required in terms of the Avifaunal Specialist Assessment. This plan must include, as a minimum, the following information which would be specific to Cape Vulture monitoring:</p> <ul style="list-style-type: none"> <li>2.12.1. timeframes and intervals for monitoring Cape Vulture fatalities at both wind turbine locations and power lines on the preferred site where risks were identified;</li> <li>2.12.2. the locations to be monitored including 'GPS' points (this will relate to wind turbines once the final turbine placement plan is approved);</li> <li>2.12.3. methodology for searcher efficiency and scavenger removal;</li> <li>2.12.4. methods for monitoring (i.e. transects or radial) as well as the extent of the monitoring area; and</li> <li>2.12.5. the years and intervals for the duration of post-construction monitoring must be identified.</li> </ul> <p>2.13. The findings of the post-construction monitoring must be submitted to the relevant competent authority and relevant conservation organisations at intervals contemplated in paragraph 2.9.5 and must include as a minimum the following information:</p> <ul style="list-style-type: none"> <li>2.13.1. A copy of the SACNASP registration certificate of the zoological or ecological specialist who prepared the monitoring report and a curriculum vitae demonstrating experience in Cape Vultures;</li> <li>2.13.2. a signed statement of independence by the specialist;</li> <li>2.13.3. the duration, date and seasons of the monitoring;</li> <li>2.13.4. a summary of the findings of the monitoring;</li> <li>2.13.5. a description of the methodology used, indicating where the methodology was amended from that identified in paragraphs 2.12.3 and 2.12.4;</li> <li>2.13.6. a map indicating where carcasses of Cape Vultures were found (GPS coordinate), the condition of the carcass, the nearest turbine number, and the estimated age of the bird when killed, where relevant;</li> <li>2.13.7. an indication of the cause of death;</li> <li>2.13.8. information on injured birds, including the location of injury and cause;</li> <li>2.13.9. a statement on the correlation between the expected fatality rates and the findings of the post-construction monitoring compared against post-development prediction; and</li> <li>2.13.10. a statement on the correlation between the expected fatality rate and the findings of the monitoring, including any amendments that must be made to monitoring requirements and the inclusion of curtailment times or other appropriate mitigation measures.</li> </ul> <p>2.14. The data related to the post-construction monitoring must be uploaded to the national bird monitoring database once operational, throughout the period of post construction monitoring, once the system is operational.</p>
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