DEPARTMENT OF ENVIRONMENTAL AFFAIRS

NO. 320 **20 MARCH 2020**

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

PROCEDURES FOR THE ASSESSMENT AND MINIMUM CRITERIA FOR REPORTING ON IDENTIFIED ENVIRONMENTAL THEMES IN TERMS OF SECTIONS 24(5)(a) AND (h) AND 44 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998, WHEN APPLYING FOR ENVIRONMENTAL AUTHORISATION

I, Barbara Dallas Creecy, Minister of Environment, Forestry and Fisheries, hereby in terms of sections 24(5)(a), (h) and 44 of the National Environmental Management Act, 1998, prescribe general requirements for undertaking site sensitivity verification and for protocols for the assessment and minimum report content requirements of environmental impacts **for environmental themes for activities requiring environmental authorisation, as contained in the Schedule hereto**. When the requirements of a protocol apply, the requirements of Appendix 6 of the Environmental Impact Assessment Regulations, as amended, (EIA Regulations), promulgated under sections 24(5) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998), are replaced by these requirements.

Each protocol applies exclusively to the environmental theme identified within its scope. Multiple themes may apply to a single application for environmental authorisation, and assessments for these themes must be undertaken in accordance with the relevant protocol, or where no specific protocol has been prescribed, in accordance with the requirements of the EIA Regulations. These procedures and requirements will come into effect 50 days after the publication of this Notice.

BARBARA DALLAS CREECY
MINISTER OF ENVIRONMENT, FORESTRY AND FISHERIES

SCHEDULE

A. SITE SENSITIVITY VERIFICATION REQUIREMENTS WHERE A SPECIALIST ASSESSMENT IS REQUIRED BUT NO PROTOCOL HAS BEEN PRESCRIBED

- Requirements for undertaking a site sensitivity verification, specialist assessment and minimum report content requirements for environmental impacts where a specialist assessment is required but no protocol has been prescribed.

B. ENVIRONMENTAL THEMES

- **Agriculture**
  - Protocol for the specialist assessment and minimum report content requirements for environmental impacts on agricultural resources.
  - Protocol for the specialist assessment and minimum report content requirements for environmental impacts on agricultural resources by onshore wind energy generation facilities where the electricity output is 20 megawatts or more.
- **Avifauna**
  - Protocol for the specialist assessment and minimum report content requirements for environmental impacts on avifaunal species by onshore wind and/or solar photovoltaic energy generation facilities where the electricity output is 20 megawatts or more.
- **Biodiversity**
  - Protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial biodiversity.
  - Protocol for the specialist assessment and minimum report content requirements for environmental impacts on aquatic biodiversity.
- **Noise**
  - Protocol for the specialist assessment and minimum report content requirements for noise impacts.
- **Defence**
  - Protocol for the specialist assessment and minimum report content requirements for impacts on defence installations.
- **Civil Aviation**
  - Protocol for the specialist assessment and minimum report content requirements for impacts on civil aviation installations.

SITE SENSITIVITY VERIFICATION REQUIREMENTS WHERE A SPECIALIST ASSESSMENT IS REQUIRED BUT NO SPECIFIC ASSESSMENT PROTOCOL HAS BEEN PRESCRIBED

1. SITE SENSITIVITY VERIFICATION AND MINIMUM REPORT CONTENT REQUIREMENTS

Prior to commencing with a specialist assessment, the current use of the land and the environmental sensitivity of the site under consideration identified by the national web based environmental screening tool (screening tool), where determined, must be confirmed by undertaking a **site sensitivity verification**.

The screening tool can be accessed at: https://screening.environment.gov.za/screeningtool

1.1. The site sensitivity verification must be undertaken by an environmental assessment practitioner or a specialist.

1.2. The site sensitivity verification must be undertaken through the use of:
- (a) a desk top analysis, using satellite imagery;
- (b) a preliminary on-site inspection; and
- (c) any other available and relevant information.

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

- (a) confirms or disputes the current use of the land and the environmental sensitivity as identified by the screening tool, such as new developments or infrastructure, the change in vegetation cover or status etc.;
- (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[1] (EIA Regulations).

2. SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS

Where a specialist assessment is required and no specific environmental theme protocol has been prescribed, the required level of assessment must be based on the findings of the site sensitivity verification and must comply with Appendix 6 of the EIA Regulations.

[1] The Environmental Impact Assessment Regulations, as promulgated in terms of Section 24 (5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

AGRICULTURE

PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON AGRICULTURAL RESOURCES

1. SCOPE

This protocol provides the criteria for the specialist assessment and minimum report content requirements for impacts on agricultural resources for activities requiring environmental authorisation. This protocol replaces the requirements of Appendix 6 of the Environmental Impact Assessment Regulations[2].

The assessment and reporting requirements of this protocol are associated with a level of environmental sensitivity identified by the national web based environmental screening tool (screening tool) for agricultural resources, which is based on the land capability evaluation values provided by the department responsible for agriculture[3].

The screening tool can be accessed at: https://screening.environment.gov.za/screeningtool

2. SITE SENSITIVITY VERIFICATION AND MINIMUM REPORT CONTENT REQUIREMENTS

Prior to commencing with a specialist assessment, the current use of the land and the environmental sensitivity of the site under consideration, identified by the screening tool, must be confirmed by undertaking a **site sensitivity verification**.

2.1. The site sensitivity verification must be undertaken by an environmental assessment practitioner or a specialist.

2.2. The site sensitivity verification must be undertaken through the use of:
- (a) a desk top analysis, using satellite imagery;
- (b) a preliminary on-site inspection; and
- (c) 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 current use of the land and the environmental sensitivity as identified by the screening tool, such as new developments or infrastructure, the change in vegetation cover or status etc.;
- (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.

3. SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS

TABLE 1: ASSESSMENT AND REPORTING OF IMPACTS ON AGRICULTURAL RESOURCES
1. General information
1.1. An applicant intending to undertake an activity identified in the scope of this protocol on a site identified on the screening tool as being of "very high" or "high" sensitivity for agricultural resources must submit an **Agricultural Agro-Ecosystem Specialist Assessment** unless:

[2] The Environmental Impact Assessment Regulations, as promulgated in terms of Section 24 (5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998).
[3] Refer to the land capability metadata sheet available on the national web based environmental screening tool.

1.1.1 the application is for a linear activity for which impacts on the agricultural resource are temporary and the land in the opinion of the soil scientist or agricultural specialist, based on the mitigation and remedial measures, can be returned to the current land capability within two years of the completion of the construction phase;

1.1.2. the impact on agricultural resources is from an electricity pylon; or

1.1.3. information gathered from the site sensitivity verification differs from the designation of "very high" or "high" agricultural sensitivity, and it is found to be of a "medium" or "low" sensitivity.

1.2. Should paragraphs 1.1.1; 1.1.2; or 1.1.3 apply, an **Agricultural Compliance Statement** must be submitted.

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 agricultural resources must submit an **Agricultural Compliance Statement,** unless:

1.3.1. the information gathered from the site sensitivity verification differs from that identified as having a "medium" or "low" agricultural sensitivity and it is found to be of a "very high" or "high" sensitivity; or

1.3.2. 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 footprint, except in the case of 1.1.1 in which case an Agricultural Compliance Statement applies. Development footprint in the context of this protocol means the area on which the proposed development will take place and includes any area that will be disturbed.

VERY HIGH SENSITIVITY RATING - Land capability evaluation values of 11 – 15; all irrigated land; horticulture and viticulture; demarcated high value agricultural areas with a priority rating of A and/or B.

These areas are potentially unsuitable for development owing to:
- high agricultural value and preservation importance;
- high production capability;
- high capital investment made; or
- unique agricultural land attributes.

HIGH SENSITIVITY RATING - Land capability evaluation values of 8 - 10 including all cultivated areas[4] including sugar cane areas and demarcated high value agricultural areas with a priority rating of C and/or D.

2. Agricultural Agro-Ecosystem Specialist Assessment

2.1. The assessment must be undertaken by a soil scientist or agricultural specialist registered with the South African Council for Natural Scientific Professionals (SACNASP).

2.2. The assessment must be undertaken on the preferred site and within the proposed development footprint.

2.3. The assessment must be undertaken based on a site inspection as well as an investigation of the current production figures, where the land is under cultivation or has been within the past 5 years, and must identify:

2.3.1. the extent of the impact of the proposed development on the agricultural resources; and

2.3.2. whether or not the proposed development will have an unacceptable impact on the agricultural production capability of the site, and in the event where it does, whether such a negative impact is outweighed by the positive impact of the proposed development on agricultural resources.

2.4. The status quo of the site must be described, including the following aspects which must be considered as a minimum in the baseline description of the agro-ecosystem:

2.4.1. the soil form/s, soil depth (effective and total soil depth), top and sub-soil clay percentage, terrain unit and slope;

2.4.2. where applicable, the vegetation composition, available water sources as well as agro-climatic information;

[4] The Field Crop boundary and Land Capability dataset has been provided by the DAFF. For details of the datasets, click on the options button to the right of the Field Crop Boundary layer and Land Capability layer respectively, in the Agricultural Theme to view the metadata.

High sensitivity areas are still preservation worthy since they include land with an agricultural production potential and suitability for specific crops.	2.4.3. the current productivity of the land based on production figures for all agricultural activities undertaken on the land for the past 5 years, expressed as an annual figure and broken down into production units; 2.4.4. the current employment figures (both permanent and casual) for the land for the past 3 years, expressed as an annual figure; and 2.4.5. existing impacts on the site, located on a map (e.g. erosion, alien vegetation, non-agricultural infrastructure, waste, etc.). 2.5. Assessment of impacts, including the following aspects which must be considered as a minimum in the predicted impact of the proposed development on the agro-ecosystem: 2.5.1. change in productivity for all agricultural activities based on the figures of the past 5 years, expressed as an annual figure and broken down into production units; 2.5.2. change in employment figures (both permanent and casual) for the past 5 years expressed as an annual figure; and 2.5.3. any alternative development footprints within the preferred site which would be of "medium" or "low" sensitivity for agricultural resources as identified by the screening tool and verified through the site sensitivity verification. 2.6. The findings of the Agricultural Agro-Ecosystem Specialist Assessment must be written up in an **Agricultural Agro-Ecosystem Specialist Report**. 2.7. This report must contain the findings of the agro-ecosystem specialist assessment and the following information, as a minimum: 2.7.1. details and relevant experience as well as the SACNASP registration number of the soil scientist or agricultural specialist preparing the assessment including a curriculum vitae; 2.7.2. a signed statement of independence by the specialist; 2.7.3. the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment; 2.7.4. a description of the methodology used to undertake the on-site assessment inclusive of the equipment and models used, as relevant; 2.7.5. a map showing the proposed development footprint (including supporting infrastructure) with a 50m buffered development envelope, overlaid on the agricultural sensitivity map generated by the screening tool; 2.7.6. an indication of the potential losses in production and employment from the change of the agricultural use of the land as a result of the proposed development; 2.7.7. an indication of possible long term benefits that will be generated by the project in relation to the benefits of the agricultural activities on the affected land; 2.7.8. additional environmental impacts expected from the proposed development based on the current status quo of the land including erosion, alien vegetation, waste, etc.; 2.7.9. information on the current agricultural activities being undertaken on adjacent land parcels; 2.7.10. an identification of any areas to be avoided, including any buffers; 2.7.11. a motivation must be provided if there were development footprints identified as per paragraph 2.5.3 above that were identified as having a "medium" or "low" agriculture sensitivity and that were not considered appropriate;

	2.7.12. confirmation from the soil scientist or agricultural specialist that all reasonable measures have been considered in the micro-siting of the proposed development to minimise fragmentation and disturbance of agricultural activities; 2.7.13. a substantiated statement from the soil scientist or agricultural specialist with regards to agricultural resources on the acceptability or not of the proposed development and a recommendation on the approval or not of the proposed development; 2.7.14. any conditions to which this statement is subjected; 2.7.15. where identified, proposed impact management outcomes or any monitoring requirements for inclusion in the Environmental Management Programme (EMPr); and 2.7.16. a description of the assumptions made and any uncertainties or gaps in knowledge or data. 2.8. The findings of the **Agricultural Agro-Ecosystem Specialist Assessment** must be incorporated into the Basic Assessment Report or Environmental Impact Assessment Report, including the mitigation and monitoring measures as identified, which are to be contained in the EMPr. 2.9. A signed copy of the assessment must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.
MEDIUM SENSITIVITY RATING - Land capability evaluation values of 6 – 7. Medium sensitivity areas are likely to be very marginal arable land.	**3. Agricultural Compliance Statement** 3.1. The compliance statement must be prepared by a soil scientist or agricultural specialist registered with the SACNASP. 3.2. The compliance statement must: 3.2.1. be applicable to the preferred site and proposed development footprint; 3.2.2. confirm that the site is of "low" or "medium" sensitivity for agriculture; and 3.2.3. indicate whether or not the proposed development will have an unacceptable impact on the agricultural production capability of the site. 3.3. The compliance statement must contain, as a minimum, the following information: 3.3.1. contact details and relevant experience as well as the SACNASP registration number of the soil scientist or agricultural specialist preparing the assessment including a curriculum vitae; 3.3.2. a signed statement of independence; 3.3.3. a map showing the proposed development footprint (including supporting infrastructure) with a 50m buffered development envelope, overlaid on the agricultural sensitivity map generated by the screening tool; 3.3.4. confirmation from the specialist that all reasonable measures have been taken through micro-siting to avoid or minimise fragmentation and disturbance of agricultural activities; 3.3.5. a substantiated statement from the soil scientist or agricultural specialist on the acceptability, or not, of the proposed development and a recommendation on the approval, or not, of the proposed development; 3.3.6. any conditions to which the statement is subjected; 3.3.7. in the case of a linear activity, confirmation from the agricultural specialist or soil scientist, that in their opinion, based on the mitigation and remedial measures proposed, the land can be returned to the current state within two years of completion of the construction phase;
LOW SENSITIVITY RATING - Land capability evaluation values of 1 – 5. Low sensitivity areas are likely to be non-arable land, and is therefore land onto which most development should be steered.	

	3.3.8. where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr; and 3.3.9. a description of the assumptions made as well as any uncertainties or gaps in knowledge or data. 3.4. A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

AGRICULTURE

PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS OF ENVIRONMENTAL IMPACTS ON AGRICULTURAL RESOURCES BY ONSHORE WIND AND/OR SOLAR PHOTOVOLTAIC ENERGY GENERATION FACILITIES WHERE THE ELECTRICITY OUTPUT IS 20 MEGAWATTS OR MORE

1. SCOPE

This protocol provides the criteria for the specialist assessment and reporting of impacts on agricultural resources for activities requiring environmental authorisation, for onshore wind and/or solar photovoltaic (PV) energy generation facilities where the electricity output is 20 megawatts or more. This protocol replaces the requirements of Appendix 6 of the Environmental Impact Assessment Regulations[5].

The assessment and reporting requirements of this protocol are associated with a level of environmental sensitivity identified by the national web based environmental screening tool (screening tool) for agricultural resources, which is based on the land capability evaluation values as provided by the Department responsible for agriculture[6].

The screening tool can be accessed at: https://screening.environment.gov.za/screeningtool.

2. ALLOWABLE DEVELOPMENT LIMITS

Table 1: Allowable development limits for renewable energy generation developments generating electricity of 20 MW or more

Criteria (land capability evaluation value and category of crop boundary)	**Allowable development limits in hectares per MW of installed generation capacity (with sensitivity ratings from the national web based environmental screening tool shown in brackets)**	
	Within field crop boundaries	Outside field crop boundaries

[5] The Environmental Impact Assessment Regulations, as promulgated in terms of Section 24 (5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

[6] Refer to the land capability metadata sheet available on the national web based environmental screening tool.

Land capability evaluation value of 11 – 15; Irrigation, horticulture/viticulture, shade-net; high value agricultural areas with a priority rating A and/or B	0 (Very High Sensitivity)	0 (Very High Sensitivity)
Land capability evaluation value of 8 – 10; all cultivated areas including sugarcane; high value agricultural areas with a priority rating C and/or D	0.20 (High Sensitivity)	0.35 (Medium Sensitivity)
Land capability evaluation value of 6 - 7;	0.25 (High Sensitivity)	2.50 (Low Sensitivity)
Land capability evaluation value of 1 - 5;	0.30 (High Sensitivity)	2.50 (Low Sensitivity)

The allowable development limits are based on the pre-assessment work undertaken through the Strategic Environmental Assessment for Wind and Solar PV Energy in South Africa, 2015, for the effective and efficient roll-out of large scale wind and solar development in South Africa. The pre-assessment was undertaken in specific areas referred to as the Renewable Energy Development Zones (REDZs) as published under Government Notice No. 114, Gazette No. 41445 on 16 February 2018 and extrapolated to cover the entire country. The sensitivities were refined through further public consultation and stakeholder interaction and have been captured in the screening tool.

Allowable development limits refer to the area of a particular land capability that can be directly impacted (i.e. taken up by the physical footprint) by a renewable energy development. Physical footprint in this context is the area that is directly occupied by all infrastructure, including roads, hard standing areas, buildings, substations, etc. that is associated with the renewable energy generation facility during its operational phase, and that result in the exclusion of that land from potential cultivation or grazing. It excludes all areas that were already occupied by roads and other infrastructure prior to the establishment of the renewable energy facility, but includes the surface area required for expanding existing infrastructure (e.g. widening existing roads). It excludes the corridor underneath overhead power lines, but includes the pylon footprints. It therefore represents the total land that is actually excluded from agricultural use as a result of the renewable energy facility.

The Strategic Environmental Assessment for Wind and Solar PV Energy in South Africa, 2015 can be accessed at: https://redzs.csir.co.za/?page_id=611 and https://egis.environment.gov.za/redz

3. SITE SENSITIVITY VERIFICATION AND MINIMUM REPORT CONTENT REQUIREMENTS

Prior to commencing with a specialist assessment, the current use of the land and the potential environmental sensitivity of the site under consideration as identified by the screening tool must be confirmed by undertaking a **site sensitivity verification**.

3.1. The site sensitivity verification must be undertaken by an environmental assessment practitioner or a specialist.

3.2. The site sensitivity verification must be undertaken through the use of:
- (a) a desk top analysis, using satellite imagery;
- (b) a preliminary on-site inspection; and
- (c) any other available and relevant information.

3.3. The outcome of the site sensitivity verification must be recorded in the form of a report that:
- (a) confirms or disputes the current use of the land and the environmental sensitivity as identified by the screening tool, such as new developments or infrastructure, the change in vegetation cover or status etc.;

(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.

4. SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS

TABLE 2: ASSESSMENT AND REPORTING OF IMPACTS ON AGRICULTURAL RESOURCES

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 as being of "very high" or "high" sensitivity for agricultural resources must submit an **Agricultural Agro-Ecosystem Specialist Assessment**, unless:
- 1.1.1. the application includes a linear activity for which impacts to the agricultural resource are temporary and the land in the opinion of the soil scientist or agricultural specialist, based on the mitigation and remedial measures, can be returned to the current land capability within two years of the completion of the construction phase;
- 1.1.2. the impact on agricultural resources is from an electricity pylon; or
- 1.1.3. information gathered from the site sensitivity verification differs from the designation of "very high" or "high" agricultural sensitivity, and it is found to be of a "medium" or "low" sensitivity.

1.2. Should paragraphs 1.1.1; 1.1.2; or 1.1.3 apply, an **Agricultural Compliance Statement** must be submitted.

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 agricultural resources must submit an **Agricultural Compliance Statement** unless:
- 1.3.1. the information gathered from the site sensitivity verification differs from that identified as having a "medium" or "low" agricultural sensitivity and it is found to be of a "very high" or "high" sensitivity; or
- 1.3.2. where the development footprint deviates from any of the allowable development limits contained in Table 1 above. In the context of this protocol, development footprint means the area on which the proposed development will take place and includes any area that will be disturbed.

1.4. Should either paragraphs 1.3.1 or 1.3.2 apply, an Agricultural Agro-Ecosystem Specialist Assessment is to be undertaken and a report prepared in accordance with the requirements of an Agro-Ecosystem Specialist Assessment.

1.5. 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 footprint, except in the case of 1.1.1 in which case an Agricultural Compliance Statement applies.

VERY HIGH SENSITIVITY RATING - Land capability evaluation values of 11 – 15; all irrigated land; horticulture and viticulture; demarcated high value agricultural areas with a priority rating of A and/or B.	**2. Agricultural Agro-Ecosystem Specialist Assessment** 2.1. The assessment must be undertaken by a soil scientist or agricultural specialist registered with the South African Council of Natural Scientific Professionals (SACNASP).

These areas are potentially unsuitable for development owing to: - high agricultural value and preservation importance; - high production capability; - high capital investment made; and/or - unique agricultural land attributes.	2.2. The assessment must be undertaken on the preferred site and within the proposed development footprint. 2.3. The assessment must be undertaken based on a site inspection as well as an investigation of the current production figures, where the land is under cultivation or has been within the past 5 years, and must identify: 2.3.1. the extent of the impact of the proposed development on the agricultural resources; and 2.3.2. whether or not the proposed development will have an unacceptable impact on the agricultural production capability of the site, and in the event where it does, whether such an impact is outweighed by the positive impact of the proposed development on agricultural resources.
HIGH SENSITIVITY RATING - Land capability evaluation values of 8 - 10 including all cultivated areas[7] including sugar cane areas and demarcated high value agricultural areas with a priority rating of C and/or D. High sensitivity areas are still preservation worthy since they include land with an agricultural production potential and suitability for specific crops.	2.4. The assessment must include a description of the status quo, including the following aspects which must be considered as a minimum in the baseline description of the agro-ecosystem: 2.4.1. the soil form/s, soil depth (effective and total soil depth), top and sub-soil clay percentage, terrain unit and slope; 2.4.2. the soil form, soil depth (effective and total soil depth), top and sub-soil clay percentage, terrain unit and slope; 2.4.3. where applicable, the vegetation composition, available water sources as well as agro-climatic information; 2.4.4. the current productivity of the land based on production figures for all agricultural activities undertaken on the land for the past 5 years, expressed as an annual figure and broken down into production units; 2.4.5. the current employment figures (both permanent and casual) for the land for the past 3 years, expressed as an annual figure; and 2.4.6. existing impacts on the site, located on a map (e.g. erosion, alien vegetation, non-agricultural infrastructure, waste, etc.). 2.5. The assessment must include an assessment of impacts, including the following aspects which must be considered as a minimum in the predicted impact of the proposed development on the agro-ecosystem: 2.5.1. change in productivity for all agricultural activities based on the figures of the past 5 years, expressed as an annual figure and broken down into production units; 2.5.2. change in employment figures (both permanent and casual) for the past 5 years expressed as an annual figure; and 2.5.3. any alternative development footprints within the preferred site which would be of "medium" or "low" sensitivity for agricultural resources as identified by the screening tool and verified through the site sensitivity verification. 2.6. The findings of the Agricultural Agro-Ecosystem Specialist Assessment must be written up in an **Agricultural Agro-Ecosystem Specialist Report** that contains as a minimum the following information: 2.6.1. details and relevant experience as well as the SACNASP registration number of the soil scientist or agricultural specialist preparing the assessment including a curriculum vitae; 2.6.2. a signed statement of independence by the specialist;

[7] The Field Crop boundary and Land Capability dataset has been provided by DAFF. For details of the datasets, click on the options button to the right of the Field Crop Boundary layer and Land Capability layer respectively, in the Agricultural Theme to view the metadata.

	2.6.3. the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment; 2.6.4. a description of the methodology used to undertake the on-site assessment inclusive of the equipment and models used, as relevant; 2.6.5. a map showing the proposed development footprint (including supporting infrastructure) with a 50m buffered development envelope, overlaid on the agricultural sensitivity map generated by the screening tool; 2.6.6. an indication of the potential losses in production and employment from the change of the agricultural use of land as a result of the proposed development; 2.6.7. an indication of possible long term benefits that will be generated by the project in relation to the benefits of the agricultural activities on the affected land; 2.6.8. additional environmental impacts expected from the proposed development based on the current status quo of the land including erosion, alien vegetation, waste, etc.; 2.6.9. information on the current agricultural activities being undertaken on adjacent land parcels; 2.6.10. a motivation must be provided if there were development footprints identified as per paragraph 2.5.3 above that were identified as having a "low" or "medium" agriculture sensitivity and that were not considered appropriate; 2.6.11. confirmation from the soil scientist or agricultural specialist that all reasonable measures have been considered in the micro-siting of the proposed development to minimise fragmentation and disturbance of agricultural activities; 2.6.12. a substantiated statement from the soil scientist or agricultural specialist with regards to agricultural resources on the acceptability or not of the proposed development and a recommendation on the approval or not of the proposed development; 2.6.13. any conditions to which this statement is subjected; 2.6.14. where identified, proposed impact management outcomes or any monitoring requirements and/or mitigation measures for inclusion in the Environmental Management Programme (EMPr); 2.6.15. a description of the assumptions made and any uncertainties or gaps in knowledge or data; 2.6.16. calculations of the physical development footprint area for each land parcel as well as the total physical development footprint area of the proposed development (including supporting infrastructure); 2.6.17. confirmation whether the development footprint is in line with the allowable development limits set in Table 1 above, including where applicable any deviation from the set development limits and motivation to support the deviation, including: (a) where relevant, reasons why the proposed development footprint is required to exceed the limit; (b) where relevant, reasons why this exceedance will be in the national interest; and (c) where relevant, reasons why there are no alternative options available including evidence of alternatives considered; and 2.6.18. a map showing the renewable energy facilities within a 50km radius of the proposed development. 2.7. The findings of the **Agricultural Agro-Ecosystem Assessment** must be incorporated into the Basic Assessment Report or the Environmental Impact

	Assessment Report, including the mitigation and monitoring measures as identified, which are to be contained in the EMPr. 2.8. A signed copy of the full Agricultural Agro-Ecosystem Assessment must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.
MEDIUM SENSITIVITY RATING - Land capability evaluation values of 6 – 7. Medium sensitivity areas are likely to be very marginal arable land. **LOW SENSITIVITY RATING** - Land capability evaluation values of 1 – 5. Low sensitivity areas are likely to be non-arable land, and is therefore land onto which most development should be steered.	**3. Agricultural Compliance Statement** 3.1. The **Agricultural Compliance Statement** must be prepared by a soil scientist or agricultural specialist registered with the SACNASP. 3.2. The compliance statement must: 3.2.1. be applicable to the preferred site and proposed development footprint; 3.2.2. confirm that the site is of "low" or "medium" sensitivity for agriculture; and 3.2.3. indicate whether or not the proposed development will have an unacceptable impact on the agricultural production capability of the site. 3.3. The **Agricultural Compliance Statement** must contain, as a minimum, the following information: 3.3.1. details and relevant expertise as well as the SACNASP registration number of the soil scientist or agricultural specialist preparing the statement including a curriculum vitae; 3.3.2. a signed statement of independence by the specialist; 3.3.3. a map showing the proposed development footprint (including supporting infrastructure) with a 50m buffered development envelope, overlaid on the agricultural sensitivity map generated by the screening tool; 3.3.4. calculations of the physical development footprint area for each land parcel as well as the total physical development footprint area of the proposed development including supporting infrastructure; 3.3.5. confirmation that the development footprint is in line with the allowable development limits contained in Table 1 above; 3.3.6. confirmation from the specialist that all reasonable measures have been taken through micro-siting to avoid or minimise fragmentation and disturbance of agricultural activities; 3.3.7. a substantiated statement from the soil scientist or agricultural specialist on the acceptability, or not, of the proposed development and a recommendation on the approval, or not, of the proposed development; 3.3.8. any conditions to which this statement is subjected; 3.3.9. in the case of a linear activity, confirmation from the agricultural specialist or soil scientist, that in their opinion, based on the mitigation and remedial measures proposed, the land can be returned to the current state within two years of completion of the construction phase; 3.3.10. where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr; and 3.3.11. a description of the assumptions made and any uncertainties or gaps in knowledge or data. 3.4. A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

AVIFAUNA

PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON AVIFAUNAL SPECIES 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 impacts on avifaunal species associated with the development of onshore wind energy generation facilities, where the electricity output is 20 megawatts or more, which require environmental authorisation. This protocol replaces the requirements of Appendix 6 of the Environmental Impact Assessment Regulations[8].

The assessment and reporting requirements of this protocol are based on national and international best practice for the avoidance and mitigation of impacts on avifaunal species, and apply within and outside of Renewable Energy Development Zones.[9]

2. SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS

TABLE 1: ASSESSMENT AND REPORTING OF IMPACTS ON AVIFAUNAL SPECIES FOR ONSHORE WIND ENERGY GENERATION FACILITIES WHERE THE OUTPUT IS 20 MW OR MORE

1. General Information

1.1. An applicant intending to undertake an activity as identified in the scope of this protocol must undertake an **Avifaunal Specialist Assessment** based on the potential significance of the impact that the identified activity could have on bird species.

1.2. An **Avifaunal Specialist Assessment** is to be undertaken for all sensitivity ratings provided by the national web based environmental screening tool (screening tool)[10], as the present level of knowledge on bird behaviour and species population precludes confident predictions on the sustainability of priority or threatened species nationally.

1.3. The information provided by the screening tool includes known nests, roosts, vulture restaurants and areas likely to support priority bird species including threatened or rare species, especially those that may be susceptible to wind energy development. Precautionary buffers to these sensitivities as well as to the specific feature have been added. The data is, however, unverified and incomplete and therefore these features and buffers are to be used only as a guide to assist to focus the **Avifaunal Specialist Assessment.**

[8] The Environmental Impact Assessment Regulations, as promulgated in terms of Section 24 (5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998).
[9] Renewable Energy Development Zones as published under Government Notice No. 114, Gazette No. 41445 on 16 February 2018.
[10] The national web-based environmental screening tool can be accessed at https://screening.environment.gov.za/screeningtool

VERY HIGH SENSITIVITY RATING – Very high sensitivity areas are likely to provide critical habitat for priority bird species[11] sensitive to wind energy development[12] and/or whose population is reliant on highly localized and unique roosting, nesting and/or foraging sites. These areas are potentially unsuitable for development owing to there being recent confirmed evidence that the priority bird species are present.	**2. Avifaunal Specialist Assessment** 2.1. The process for undertaking the Avifaunal Impact Assessment comprises of three phases: (a) a reconnaissance study; (b) the preparation of a pre-application avifaunal monitoring plan; and (c) the undertaking of an avifaunal impact assessment and the preparation of a report. 2.2. All tasks of the Avifaunal Specialist Assessment must be undertaken by an avifauna specialist registered with the South African Council for Natural Scientific Professionals (SACNASP). 2.3. All tasks are to be undertaken on the site being submitted as the preferred site and on a control site located in accordance with the latest version of the *Bird and Wind-Energy Best-Practice Guideline*[13], and must identify: (a) the extent of the impact of the proposed development on priority bird species; and (b) whether the proposed development will have an unacceptable impact on priority or threatened bird species. 2.4. The Avifaunal Specialist Assessment must be undertaken based on the results of a **site specific Pre-Application Avifaunal Monitoring Plan** that is informed by a **Reconnaissance Study**, as well as data collected over **four seasons** (i.e. summer, autumn, winter and spring) on the preferred site and the control site.
HIGH SENSITIVITY RATING - High sensitivity areas include: (i) habitat likely to be of importance to priority bird species sensitive to wind energy developments, Critically Endangered, Endangered bird species and/or Vulnerable bird species; and (ii) habitat likely to be of importance to endemic and/or restricted-range bird species that are susceptible to impacts from wind energy facilities. These areas are potentially sensitive for development.	**3. Reconnaissance Study** 3.1. The Reconnaissance Study is to be based on a desktop study of relevant information as well as a **2 to 4-day** on-site inspection of both sites. 3.2. The occurrence of target species is to be identified, including seasonality of occurrence and migratory patterns of the species. 3.3. The study must define the study area (avifaunal impact zone). 3.4. The study is to produce a site specific **Pre-Application Avifaunal Monitoring Plan.**

[11] Priority bird species sensitive to wind energy developments include those identified by BirdLife South Africa as well as those listed on South Africa's National Red List website 42, 43 as Critical Endangered, Endangered, Vulnerable, Threatened or near Threatened according to the IUCN Red List 3.1.

[12] https://www.birdlife.org.za/conservation/terrestrial-bird-conservation/birds-and-renewable-energy/wind-farm-map.

[13] The Best Practice Guidelines for assessing and monitoring the impact of wind energy facilities on birds in Southern Africa is available from: https://www.birdlife.org.za/documents.

MEDIUM SENSITIVITY RATING - Medium sensitivity areas have limited potential for supporting priority populations of threatened species that are susceptible to impacts from wind energy facilities.	**4. Pre-application Avifaunal Monitoring Plan** 4.1. The plan, as a minimum, must include[14]: 4.1.1. the study area and its characteristics which must be mapped including the extent, habitat, special features including topographical and water features, quarries, drainage lines, known breeding sites, existing uses of land, existing infrastructure such as power lines and roads, and existing operational wind energy facilities within 30km of the site; 4.1.2. target avifaunal species that are likely to occur on the preferred site and for which monitoring is required; 4.1.3. pre-application monitoring requirements for both the site as well as the control site, that must include the following: 4.1.3.1. the monitoring intervals including the number and duration of monitoring events which must be based on the latest version of the *BirdLife South Africa Bird and Wind-Energy Best-Practice Guideline* or a motivation provided for the deviation; 4.1.3.2. the location of monitoring points; 4.1.3.3. aspects to be monitored (for example, bird abundance and flight activity, presence of target species, proportion of flying time each target species spends at turbine rotor height, preferred flight paths, risk of identified target species to collision, areas for specific monitoring if any, etc.); 4.1.3.4. equipment to be used; 4.1.3.5. monitoring methodology for the abundance or activity monitoring and for direct observation or vantage point surveys, the latest version of the *BirdLife South Africa Bird and Wind-Energy Best-Practice Guideline* must be followed or a motivation provided for the deviation; 4.1.3.6. numbers of observers to be used; and 4.1.3.7. data to be captured including a pro-forma data capturing template consistent with that envisaged by the national bird monitoring database, once operational.
LOW SENSITIVITY RATING – Low sensitivity areas possibly do not support priority populations of threatened species that are susceptible to impacts from wind energy facilities. These areas are probably suitable for development.	**5. Implementation of the site specific Pre-Application Avifaunal Monitoring Plan** 5.1. Monitoring according to the plan is to be carried out for a period of **not less than four seasons**. 5.2. Data on pre-application monitoring must be captured on the national bird monitoring database accessed at https://www.environment.gov.za/birddatabase, once operational. **6. Avifaunal Specialist Assessment** 6.1. Based on the outcome of the reconnaissance study and the findings of the pre-application avifaunal monitoring, an **Avifaunal Specialist Assessment** must be undertaken. The assessment, as a minimum, must include the following aspects: 6.1.1. discussion on bird abundance and movement within the site; 6.1.2. discussion on presence of target or threatened species and their occurrence on the site at heights which could pose risks to collision;

[14] It is advisable to discuss the content of the plan with BirdLife South Africa before its finalisation.

	6.1.3. assessment of risk of identified target species to collision including the expected fatality rates of the target species based on a suitable model commonly used for risk determination, per species and for the site; 6.1.4. identification and mapping where relevant, of any migratory or preferential bird routes or corridors; 6.1.5. where relevant, discussion on the risk of displacement; 6.1.6. where relevant, areas identified within the site as having a very high sensitivity for bird collision or displacement and in which the development of turbines should be avoided. These areas are to be mapped; 6.1.7. in areas where existing operational wind energy generation facilities have been identified within a 30km radius, a cumulative impact assessment must be undertaken which includes: 6.1.7.1. the fatality rates for target species at the wind energy generation facilities within a 10km radius; 6.1.7.2. the possible additional fatalities from the proposed wind energy generation facility for target species as well as general avifaunal species; and 6.1.7.3. a discussion on the possible cumulative impact of the proposed facility on regional populations of target species; 6.1.8. where no existing operating wind energy generation facilities occur within the 10km radius, the specialist must include a discussion on possible cumulative impacts on target species from the proposed facility; and 6.1.9. a plan for post construction monitoring (on both the preferred site as well as the control site) and reporting, which must include: 6.1.9.1. timeframes and intervals for monitoring; 6.1.9.2. number of turbines to be monitored, including any specific area for monitoring; 6.1.9.3. methodology for searcher efficiency and scavenger removal; 6.1.9.4. method for monitoring, i.e. transects or radial as well as extent of monitoring area; 6.1.9.5. results of monitoring compared against expected fatality rates per target species as well as general species; 6.1.9.6. reporting requirements, including organisations for submission of reports; 6.1.9.7. years and intervals for monitoring to occur; and 6.1.9.8. all methods used to estimate bird numbers and movements during reconnaissance and pre-application monitoring, which should be applied in exactly the same order to ensure the comparability of these two data sets. 6.2. The findings of the **Avifaunal Specialist Assessment** must be written up in an **Avifaunal Specialist Assessment Report** that contains as a minimum the following information: 6.2.1. the SACNASP registration number of the avifaunal specialist preparing the assessment and their curriculum vitae; 6.2.2. a signed statement of independence by the specialist; 6.2.3. a description of the study area including a map of all the aspects identified in the duration, dates and seasons of the site investigation and the relevance of the season to the outcome of the assessment;

	6.2.4. the outcome of the reconnaissance study and the resultant site specific pre-application avifaunal monitoring; 6.2.5. a description of the methodology used to undertake the site specific pre-application avifaunal monitoring program inclusive of the equipment used; 6.2.6. a map showing the Global Positioning System (GPS) coordinates for each of the monitoring points for both the preferred site as well as the control site; 6.2.7. the monitoring intervals for both sites; 6.2.8. where relevant, a map showing the areas to be avoided; 6.2.9. fatality prediction for target species and general species on the preferred site; 6.2.10. a map showing the existing renewable energy facilities within a 10km radius of the proposed development; 6.2.11. where relevant, the outcomes of the cumulative impact assessment; 6.2.12. a discussion based on the pre-application monitoring of the expected impact of the proposed development on avifaunal species; 6.2.13. a substantiated statement from the avifauna specialist, indicating the acceptability or not of the proposed development and a recommendation on the approval, or not, of the proposed development; 6.2.14. any conditions to which this statement is subjected; 6.2.15. a detailed post construction monitoring programme; 6.2.16. the outcomes of the post-construction monitoring, including data and specialists reports, must be uploaded onto the national bird monitoring database, to be accessed at https://www.environment.gov.za/birddatabase, once operational; 6.2.17. where required, proposed mitigation measures or any monitoring requirements for inclusion in the Environmental Management Programme (EMPr); and 6.2.18. a description of the assumptions made and any uncertainties or gaps in knowledge or data. 6.3. The findings of the **Avifaunal Specialist Assessment** 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. 6.4. A signed copy of the Avifaunal Specialist Assessment must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

BIODIVERSITY

PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR 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. This protocol replaces the requirements of Appendix 6 of the Environmental Impact Assessment Regulations[15].

The assessment and minimum reporting requirements of this protocol are associated with a level of environmental sensitivity identified by the national web based environmental screening tool (screening tool). The requirements for terrestrial biodiversity are for landscapes or sites which support various levels of biodiversity. The relevant terrestrial biodiversity data in the screening tool has been provided by the South African National Biodiversity Institute[16].

The screening tool can be accessed at: https://screening.environment.gov.za/screeningtool.

2. SITE SENSITIVITY VERIFICATION AND MINIMUM REPORT CONTENT REQUIREMENTS

Prior to commencing with a specialist assessment, the current use of the land and the potential environmental sensitivity of the site under consideration as identified by the screening tool must be confirmed by undertaking a **site sensitivity verification.**

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[15] The Environmental Impact Assessment Regulations, as promulgated in terms of Section 24 (5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

[16] 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 on the screening tool, in the Aquatic Biodiversity theme, to view the metadata.

2.1. The site sensitivity verification must be undertaken by an environmental assessment practitioner or a specialist.

2.2. The site sensitivity verification must be undertaken through the use of:
(a) a desk top analysis, using satellite imagery;
(b) a preliminary on-site inspection; and
(c) 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 current use of the land and environmental sensitivity as identified by the 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.

3. SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS

TABLE 1: ASSESSMENT AND REPORTING OF IMPACTS ON TERRESTRIAL BIODIVERSITY

1. General Information

1.1. An applicant intending to undertake an activity identified in the scope of this protocol, on a site identified on the screening tool as being of "very high sensitivity" for terrestrial biodiversity, must submit a **Terrestrial Biodiversity Specialist Assessment.**

1.2. An applicant intending to undertake an activity identified in the scope of this protocol on a site identified by the screening tool as being "low sensitivity" for terrestrial biodiversity, must submit a **Terrestrial Biodiversity Compliance Statement.**

1.3. However, where the information gathered from the site sensitivity verification differs from the designation of "very high" terrestrial biodiversity sensitivity on the screening tool and it is found to be of a "low" sensitivity, then a **Terrestrial Biodiversity Compliance Statement** must be submitted.

1.4. Similarly, where the information gathered from the site sensitivity verification differs from that identified as having a "low" terrestrial biodiversity sensitivity on the screening tool, a **Terrestrial Biodiversity Specialist Assessment** must be conducted.

1.5. If any part of the proposed development footprint falls within an area of "very high" sensitivity, the assessment and reporting requirements prescribed for the "very high" sensitivity apply to the entire footprint, excluding linear activities for which impacts on terrestrial biodiversity are temporary and the land in the opinion of the terrestrial biodiversity specialist, based on the mitigation and remedial measures, can be returned to the current state within two years of the completion of the construction phase, in which case a compliance statement applies. Development footprint in the context of this protocol means the area on which the proposed development will take place and includes any are that will be disturbed.

VERY HIGH SENSITIVITY RATING - for terrestrial biodiversity features.	**2. Terrestrial Biodiversity Specialist Assessment** 2.1. The assessment must be prepared by a specialist registered with the South African Council for Natural Scientific Professionals (SACNASP) with expertise in the field of terrestrial biodiversity. 2.2. The assessment must be undertaken on the preferred site and within the proposed development footprint.

2.3. The assessment must provide a baseline description of the site which includes, as a minimum, the following aspects:

2.3.1. a description of the ecological drivers or processes of the system and how the proposed development will impact these;

2.3.2. ecological functioning and ecological processes (e.g. fire, migration, pollination, etc.) that operate within the preferred site;

2.3.3. the ecological corridors that the proposed development would impede including migration and movement of flora and fauna;

2.3.4. the description of any significant terrestrial landscape features (including rare or important flora-faunal associations, presence of strategic water source areas (SWSAs) or freshwater ecosystem priority area (FEPA) sub catchments;

2.3.5. a description of terrestrial biodiversity and ecosystems on the preferred site, including:

(a) main vegetation types;

(b) threatened ecosystems, including listed ecosystems as well as locally important habitat types identified;

(c) ecological connectivity, habitat fragmentation, ecological processes and fine-scale habitats; and

(d) species, distribution, important habitats (e.g. feeding grounds, nesting sites, etc.) and movement patterns identified;

2.3.6. the assessment must identify any alternative development footprints within the preferred site which would be of a "low" sensitivity as identified by the screening tool and verified through the site sensitivity verification; and

2.3.7. the assessment must be based on the results of a site inspection undertaken on the preferred site and must identify:

2.3.7.1. terrestrial critical biodiversity areas (CBAs), including:

(a) the reasons why an area has been identified as a CBA;

(b) an indication of whether or not the proposed development is consistent with maintaining the CBA in a natural or near natural state or in achieving the goal of rehabilitation;

(c) the impact on species composition and structure of vegetation with an indication of the extent of clearing activities in proportion to the remaining extent of the ecosystem type(s);

(d) the impact on ecosystem threat status;

(e) the impact on explicit subtypes in the vegetation;

(f) the impact on overall species and ecosystem diversity of the site; and

(g) the impact on any changes to threat status of populations of species of conservation concern in the CBA;

2.3.7.2. terrestrial ecological support areas (ESAs), including:

(a) the impact on the ecological processes that operate within or across the site;

(b) the extent the proposed development will impact on the functionality of the ESA; and

(c) 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;

2.3.7.3. protected areas as defined by the National Environmental Management: Protected Areas Act, 2004 including-

(a) an opinion on whether the proposed development aligns with the objectives or purpose of the protected area and the zoning as per the protected area management plan;

2.3.7.4. priority areas for protected area expansion, including-

(a) the way in which in which the proposed development will compromise or contribute to the expansion of the protected area network;

2.3.7.5. SWSAs including:
(a) the impact(s) on the terrestrial habitat of a SWSA; and
(b) the impacts of the proposed development on the SWSA water quality and quantity (e.g. describing potential increased runoff leading to increased sediment load in water courses);

2.3.7.6. FEPA sub catchments, including-
(a) the impacts of the proposed development on habitat condition and species in the FEPA sub catchment;

2.3.7.7. indigenous forests, including:
(a) impact on the ecological integrity of the forest; and
(b) percentage of natural or near natural indigenous forest area lost and a statement on the implications in relation to the remaining areas.

2.4. The findings of the assessment must be written up in a **Terrestrial Biodiversity Specialist Assessment Report**.

3. Terrestrial Biodiversity Specialist Assessment Report

3.1. The Terrestrial Biodiversity Specialist Assessment Report must contain, as a minimum, the following information:

3.1.1. contact details of the specialist, their SACNASP registration number, their field of expertise and a curriculum vitae;
3.1.2. a signed statement of independence by the specialist;
3.1.3. a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment;
3.1.4. a description of the methodology used to undertake the site verification and impact assessment and site inspection, including equipment and modelling used, where relevant;
3.1.5. 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;
3.1.6. a location of the areas not suitable for development, which are to be avoided during construction and operation (where relevant);
3.1.7. additional environmental impacts expected from the proposed development;
3.1.8. any direct, indirect and cumulative impacts of the proposed development;
3.1.9. the degree to which impacts and risks can be mitigated;
3.1.10. the degree to which the impacts and risks can be reversed;
3.1.11. the degree to which the impacts and risks can cause loss of irreplaceable resources;
3.1.12. proposed impact management actions and impact management outcomes proposed by the specialist for inclusion in the Environmental Management Programme (EMPr);
3.1.13. a motivation must be provided if there were development footprints identified as per paragraph 2.3.6 above that were identified as having a "low" terrestrial biodiversity sensitivity and that were not considered appropriate;
3.1.14. a substantiated statement, based on the findings of the specialist assessment, regarding the acceptability, or not, of the proposed development, if it should receive approval or not; and
3.1.15. any conditions to which this statement is subjected.

	3.2. The findings of the **Terrestrial Biodiversity Specialist Assessment** 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 where relevant. 3.3. A signed copy of the assessment must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.
LOW SENSITIVITY RATING – for terrestrial biodiversity features.	**4. Terrestrial Biodiversity Compliance Statement** 4.1. The compliance statement must be prepared by a specialist registered with the SACNASP and having expertise in the field of ecological sciences. 4.2. The compliance statement must: 4.2.1. be applicable to the preferred site and proposed development footprint; 4.2.2. confirm that the site is of "low" sensitivity for terrestrial biodiversity; and 4.2.3. indicate whether or not the proposed development will have any impact on the biodiversity feature. 4.3. The compliance statement must contain, as a minimum, the following information: 4.3.1. the contact details of the specialist, their SACNASP registration number, their field of expertise and a curriculum vitae; 4.3.2. a signed statement of independence by the specialist; 4.3.3. a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment; 4.3.4. a baseline profile description of biodiversity and ecosystems of the site; 4.3.5. the methodology used to verify the sensitivities of the terrestrial biodiversity features on the site, including equipment and modelling used, where relevant; 4.3.6. in the case of a linear activity, confirmation from the terrestrial biodiversity specialist that, in their opinion, based on the mitigation and remedial measures proposed, the land can be returned to the current state within two years of completion of the construction phase; 4.3.7. where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr; 4.3.8. a description of the assumptions made and any uncertainties or gaps in knowledge or data; and 4.3.9. any conditions to which this statement is subjected. 4.4. A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

BIODIVERSITY

PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON AQUATIC BIODIVERSITY

1. SCOPE

This protocol provides the criteria for the specialist assessment and minimum report content requirements for impacts on aquatic[17] biodiversity for activities requiring environmental authorisation. This protocol replaces the requirements of Appendix 6 of the Environmental Impact Assessment Regulations[18].

The assessment and reporting requirements of this protocol are associated with a level of environmental sensitivity identified by the national web based environmental screening tool (screening tool). The relevant aquatic biodiversity data in the screening tool has been provided by the South African National Biodiversity Institute[19].

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[17] Aquatic is defined as inland aquatic and estuaries/estuarine systems where plants and animals live.

[18] The Environmental Impact Assessment Regulations, as promulgated in terms of Section 24 (5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

[19] 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 Aquatic Biodiversity theme to view the metadata.

The screening tool can be accessed at: https://screening.environment.gov.za/screeningtool.

2. SITE SENSITIVITY VERIFICATION AND MINIMUM REPORT CONTENT REQUIREMENTS

Prior to commencing with a specialist assessment, the current use of the land and the environmental sensitivity of the site under consideration identified by the screening tool must be confirmed by undertaking a **site sensitivity verification.**

2.1. The site sensitivity verification must be undertaken by an environmental assessment practitioner or a specialist.

2.2. The site sensitivity verification must be undertaken through the use of:
- (a) a desk top analysis, using satellite imagery;
- (b) a preliminary on-site inspection; and
- (c) 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 current use of the land and the environmental sensitivity as identified by the screening tool, such as new developments or infrastructure, the change in vegetation cover or status etc.;
- (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.

3. SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS

TABLE 1: ASSESSMENT AND REPORTING OF IMPACTS ON AQUATIC BIODIVERSITY

1. General Information

1.1. An applicant intending to undertake an activity identified in the scope of this protocol on a site identified on the screening tool as being of:
- 1.1.1. "very high sensitivity" for aquatic biodiversity, must submit an **Aquatic Biodiversity Specialist Assessment**; or
- 1.1.2. "low sensitivity" for aquatic biodiversity, must submit an **Aquatic Biodiversity Compliance Statement**.

1.2. Where the information gathered from the site sensitivity verification differs from the screening tool designation of "very high" aquatic biodiversity sensitivity, and it is found to be of a "low" sensitivity, an **Aquatic Biodiversity Compliance Statement** must be submitted.

1.3. Similarly, where the information gathered from the site sensitivity verification differs from the screening tool designation of "low" aquatic biodiversity sensitivity, and it is found to be of a "very high" sensitivity, an **Aquatic Biodiversity Specialist Assessment** must be submitted.

1.4. If any part of the proposed development footprint falls within an area of "very high" sensitivity, the assessment and reporting requirements prescribed for the "very high" sensitivity apply to the entire footprint, excluding a linear activity for which impacts on aquatic biodiversity are temporary and the land in the opinion of the aquatic biodiversity specialist, based on the mitigation and remedial measures, can be returned to the current state within two years of the completion of the construction phase, in which case a compliance statement applies. In the context of this protocol, development footprint means the area on which the proposed development will take place and includes any area that will be disturbed.

VERY HIGH SENSITIVITY RATING – for aquatic biodiversity features.	**2. Aquatic Biodiversity Specialist Assessment** 2.1. The assessment must be prepared by a specialist registered with the South African Council for Natural Scientific Professionals (SACNASP), with expertise in the field of aquatic sciences. 2.2. The assessment must be undertaken on the preferred site and within the proposed development footprint. 2.3. The assessment must provide a baseline description of the site which includes, as a minimum, the following aspects: 2.3.1. a description of the aquatic biodiversity and ecosystems on the site, including; (a) aquatic ecosystem types; and (b) presence of aquatic species, and composition of aquatic species communities, their habitat, distribution and movement patterns; 2.3.2. the threat status of the ecosystem and species as identified by the screening tool[20]; 2.3.3. an indication of the national and provincial priority status of the aquatic ecosystem, including a description of the criteria for the given status (i.e. if the site includes a wetland or a river freshwater ecosystem priority area or sub catchment, a strategic water source area, a priority estuary, whether or not they are free-flowing rivers, wetland clusters, a critical biodiversity or ecologically sensitivity area); and 2.3.4. a description of the ecological importance and sensitivity of the aquatic ecosystem including: (a) the description (spatially, if possible) of the ecosystem processes that operate in relation to the aquatic ecosystems on and immediately adjacent to the site (e.g. movement of surface and subsurface water, recharge, discharge, sediment transport, etc.); and (b) the historic ecological condition (reference) as well as present ecological state of rivers (in-stream, riparian and floodplain habitat), wetlands and/or estuaries in terms of possible changes to the channel and flow regime (surface and groundwater). 2.4. The assessment must identify alternative development footprints within the preferred site which would be of a "low" sensitivity as identified by the screening tool and verified through the site sensitivity verification and which were not considered appropriate. 2.5. Related to impacts, a detailed assessment of the potential impacts of the proposed development on the following aspects must be undertaken to answer the following questions: 2.5.1. is the proposed development consistent with maintaining the priority aquatic ecosystem in its current state and according to the stated goal? 2.5.2. is the proposed development consistent with maintaining the resource quality objectives for the aquatic ecosystems present? 2.5.3. how will the proposed development impact on fixed and dynamic ecological processes that operate within or across the site? This must include: (a) impacts on hydrological functioning at a landscape level and across the site which can arise from changes to flood regimes (e.g. suppression of floods, loss of flood attenuation capacity, unseasonal flooding or destruction of floodplain processes);

[20] These ecosystems include the National Environmental Management Biodiversity Act, 2004(Act No. 10 of 2004) listed ecosystems.

	(b) will the proposed development change the sediment regime of the aquatic ecosystem and its sub-catchment (e.g. sand movement, meandering river mouth or estuary, flooding or sedimentation patterns); (c) what will the extent of the modification in relation to the overall aquatic ecosystem be (e.g. at the source, upstream or downstream portion, in the temporary / seasonal / permanent zone of a wetland, in the riparian zone or within the channel of a watercourse, etc.); and (d) to what extent will the risks associated with water uses and related activities change; 2.5.4. how will the proposed development impact on the functioning of the aquatic feature? This must include: (a) base flows (e.g. too little or too much water in terms of characteristics and requirements of the system); (b) quantity of water including change in the hydrological regime or hydroperiod of the aquatic ecosystem (e.g. seasonal to temporary or permanent; impact of over-abstraction or instream or off-stream impoundment of a wetland or river); (c) change in the hydrogeomorphic typing of the aquatic ecosystem (e.g. change from an unchannelled valley-bottom wetland to a channelled valley-bottom wetland); (d) quality of water (e.g. due to increased sediment load, contamination by chemical and/or organic effluent, and/or eutrophication); (e) fragmentation (e.g. road or pipeline crossing a wetland) and loss of ecological connectivity (lateral and longitudinal); and (f) the loss or degradation of all or part of any unique or important features associated with or within the aquatic ecosystem (e.g. waterfalls, springs, oxbow lakes, meandering or braided channels, peat soils, etc.); 2.5.5. how will the proposed development impact on key ecosystems regulating and supporting services especially: (a) flood attenuation; (b) streamflow regulation; (c) sediment trapping; (d) phosphate assimilation; (e) nitrate assimilation; (f) toxicant assimilation; (g) erosion control; and (h) carbon storage? 2.5.6. how will the proposed development impact community composition (numbers and density of species) and integrity (condition, viability, predator-prey ratios, dispersal rates, etc.) of the faunal and vegetation communities inhabiting the site? 2.6. In addition to the above, where applicable, impacts to the frequency of estuary mouth closure should be considered, in relation to: (a) size of the estuary; (b) availability of sediment; (c) wave action in the mouth; (d) protection of the mouth; (e) beach slope; (f) volume of mean annual runoff; and (g) extent of saline intrusion (especially relevant to permanently open systems).

	2.7. The findings of the specialist assessment must be written up in an **Aquatic Biodiversity Specialist Assessment Report** that contains, as a minimum, the following information: 2.7.1. contact details of the specialist, their SACNASP registration number, their field of expertise and a curriculum vitae; 2.7.2. a signed statement of independence by the specialist; 2.7.3. a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment; 2.7.4. the methodology used to undertake the site inspection and the specialist assessment, including equipment and modelling used, where relevant; 2.7.5. a description of the assumptions made, any uncertainties or gaps in knowledge or data; 2.7.6. the location of areas not suitable for development, which are to be avoided during construction and operation, where relevant; 2.7.7. additional environmental impacts expected from the proposed development; 2.7.8. any direct, indirect and cumulative impacts of the proposed development on site; 2.7.9. the degree to which impacts and risks can be mitigated; 2.7.10. the degree to which the impacts and risks can be reversed; 2.7.11. the degree to which the impacts and risks can cause loss of irreplaceable resources; 2.7.12. a suitable construction and operational buffer for the aquatic ecosystem, using the accepted methodologies; 2.7.13. proposed impact management actions and impact management outcomes for inclusion in the Environmental Management Programme (EMPr); 2.7.14. a motivation must be provided if there were development footprints identified as per paragraph 2.4 above that were identified as having a "low" aquatic biodiversity sensitivity and that were not considered appropriate; 2.7.15. a substantiated statement, based on the findings of the specialist assessment, regarding the acceptability or not of the proposed development and if the proposed development should receive approval or not; and 2.7.16. any conditions to which this statement is subjected. 2.8. The findings of the **Aquatic Biodiversity Specialist Assessment** must be incorporated into the Basic Assessment Report or the Environmental Impact Assessment Report including the mitigation and monitoring measures as identified, that are to be included in the EMPr. 2.9. A signed copy of the assessment must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.
LOW SENSITIVITY RATING – for aquatic biodiversity features.	**3. Aquatic Biodiversity Compliance Statement** 3.1. The compliance statement must be prepared by a suitably qualified specialist registered with the SACNASP, with expertise in the field of aquatic sciences. 3.2. The compliance statement must: 3.2.1. be applicable to the preferred site and the proposed development footprint; 3.2.2. confirm that the site is of "low" sensitivity for aquatic biodiversity; and 3.2.3. indicate whether or not the proposed development will have an impact on the aquatic features. 3.3. The compliance statement must contain, as a minimum, the following information: 3.3.1. contact details of the specialist, their SACNASP registration number, their field of expertise and a curriculum vitae; 3.3.2. a signed statement of independence by the specialist;

	3.3.3. a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment; 3.3.4. a baseline profile description of biodiversity and ecosystems of the site; 3.3.5. the methodology used to verify the sensitivities of the aquatic biodiversity features on the site including the equipment and modelling used where relevant; 3.3.6. in the case of a linear activity, confirmation from the aquatic biodiversity specialist that, in their opinion, based on the mitigation and remedial measures proposed, the land can be returned to the current state within two years of completion of the construction phase; 3.3.7. where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr; 3.3.8. a description of the assumptions made as well as any uncertainties or gaps in knowledge or data; and 3.3.9. any conditions to which this statement is subjected. 3.4. A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

NOISE

PROTOCOL FOR SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR NOISE IMPACTS

1. SCOPE

This protocol provides the criteria for the specialist assessment and minimum report content requirements for the impacts of noise on the environment for activities requiring environmental authorisation. This protocol replaces the requirements of Appendix 6 of the Environmental Impact Assessment Regulations[21].

The assessment and reporting requirements of this protocol are associated with a level of environmental sensitivity identified by the national web based environmental screening tool (screening tool).

The screening tool can be accessed at: https://screening.environment.gov.za/screeningtool.

2. SITE SENSITIVITY VERIFICATION AND MINIMUM REPORT CONTENT REQUIREMENTS

Prior to commencing with a specialist assessment, the current use of the land and the potential environmental sensitivity of the site under consideration as identified by the screening tool must be confirmed by undertaking a **site sensitivity verification**.

2.1. The site sensitivity verification must be undertaken by an environmental assessment practitioner or a noise specialist, where noise specialist means someone with relevant academic qualifications and with expertise in the domain of acoustic assessments and noise management.

2.2. The site sensitivity verification must be undertaken through the use of:
(a) a desk top analysis, using satellite imagery;
(b) a preliminary on-site inspection; and
(c) 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 current use of the land and environmental sensitivity as identified by the screening tool, such as new developments or infrastructure etc.;
(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.

3. SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS

[21] The Environmental Impact Assessment Regulations, as promulgated in terms of Section 24 (5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

TABLE 1: ASSESSMENT AND REPORTING ON NOISE IMPACTS

1. General Information

1.1. An applicant intending to undertake an activity identified in the scope of this protocol for which a specialist assessment has been identified on the screening tool:

1.1.1. on a site identified as being of:

1.1.1.1. "very high" sensitivity for noise, must submit a **Noise Specialist Assessment**; or

1.1.1.2. "low" sensitivity for noise, must submit a **Noise Compliance Statement.**

1.1.2. on a site where the information gathered from the site sensitivity verification differs from the designation of "very high" sensitivity on the screening tool and it is found to be of a "low" sensitivity, a **Noise Compliance Statement** must be submitted;

1.1.3. on a site where the information gathered from the initial site sensitivity verification differs from the designation of "low" sensitivity on the screening tool and it is found to be of a "very high" sensitivity, a **Noise Specialist Assessment** must be submitted.

1.2. If any part of the proposed development footprint falls within an area of "very high" sensitivity, the assessment and reporting requirements prescribed for the "very high" sensitivity apply to the entire footprint excluding linear activities for which noise impacts are associated with construction activities only and the noise levels return to the current levels after the completion of construction activities, in which case a compliance statement applies. In the context of this protocol, development footprint means the area on which the proposed development will take place and includes any area that will be disturbed.

VERY HIGH SENSITIVITY RATING – Likelihood of a negative noise impact at the receptor.	**2. Noise Specialist Assessment** 2.1. The assessment must be undertaken by a noise specialist on the site being submitted as the preferred site. 2.2. The assessment must be undertaken based on a site inspection as well as applying the noise standards and methodologies stipulated in SANS 10103:2008 and SANS 10328:2008 (or latest versions) for residential and non-residential areas as defined in these standards. 2.3. A baseline description must be provided of the potential receptors and existing ambient noise levels. The receptors could include places of residence or tranquility that have amenity value associated with low noise levels. As a minimum, this description must include the following: 2.3.1. current ambient sound levels recorded at relevant locations (e.g. receptors and proposed new noise sources) over a **minimum of two nights** and that provide a representative measurement of the ambient noise climate, with each sample being a minimum of ten minutes and taken at two different times of the night (such as early evening and late at night) on each night, in order to record typical ambient sound levels at these different times of night; 2.3.2. records of the approximate wind speed at the time of the measurement; 2.3.3. mapped distance of the receiver from the proposed development that is the noise source; and

	2.3.4. discussion on temporal aspects of baseline ambient conditions. 2.4. Assessment of impacts done in accordance to SANS 10103:2008 and SANS 10328:2008 (or latest versions) must include the following aspects which must be considered as a minimum in the predicted impact of the proposed development: 2.4.1. characterisation and determination of noise emissions from the noise source, where characterization could include types of noise, frequency, content, vibration and temporal aspects; 2.4.2. projected total noise levels and changes in noise levels as a result of the construction, commissioning and operation of the proposed development for the nearest receptors using industry accepted models and forecasts; and 2.4.3. desired noise levels for the area. 2.5. The findings of the **Noise Specialist Assessment** must be written up in a **Noise Specialist Report** that must contain as a minimum the following information: 2.5.1. details and relevant qualifications and experience of the noise specialist preparing the assessment including a curriculum vitae; 2.5.2. a signed statement of independence by the specialist; 2.5.3. the duration and date of the site inspection and the relevance of the season and weather conditions to the outcome of the assessment; 2.5.4. a description of the methodology used to undertake the on-site assessment inclusive of the equipment and models used, as relevant, together with results of the noise assessment; 2.5.5. a map showing the proposed development footprint (including supporting infrastructure) with a 50m buffered development envelope; 2.5.6. confirmation from the specialist that all reasonable measures have been considered, or not, in the micro-siting of the proposed development to minimise disturbance of receptors; 2.5.7. a substantiated statement from the specialist on the acceptability, or not, of the proposed development and a recommendation on the approval, or not, of the proposed development; 2.5.8. any conditions to which this statement is subjected; 2.5.9. the assessment must identify alternative development footprints within the preferred site which would be of a "low" sensitivity as identified by the screening tool and verified through the site sensitivity verification and which were not considered; 2.5.10. a motivation must be provided if there were development footprints identified as per paragraph 2.5.9. above that were identified as having a "low" noise sensitivity and that were not considered appropriate; 2.5.11. where identified, proposed impact management outcomes, mitigation measures for noise emissions during the construction and commissioning phases that may be of relative short duration, or any monitoring requirements for inclusion in the Environmental Management Programme (EMPr); and 2.5.12. a description of the assumptions made and any uncertainties or gaps in knowledge or data.

	2.6. The findings of the **Noise Specialist Assessment** must be incorporated into the Basic Assessment Report or the Environmental Impact Assessment Report including the mitigation and monitoring measures as identified for inclusion in the EMPr. 2.7. A signed copy of the specialist assessment must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.
LOW SENSITIVITY RATING - No significant noise impact expected at the receptor.	**3. Noise Compliance Statement** 3.1. The compliance statement must be prepared by an environmental assessment practitioner or a noise specialist. 3.2. The compliance statement must: 3.2.1. be applicable to the preferred site and the proposed development footprint; 3.2.2. confirm that the site is of "low" sensitivity for noise impacts; and 3.2.3. indicate whether or not the proposed development will have an unacceptable impact on the noise receptors of the site. 3.3. The compliance statement must contain, as a minimum, the following information: 3.3.1. contact details of the environmental assessment practitioner or noise specialist, their relevant qualifications and expertise in preparing the statement, and a curriculum vitae; 3.3.2. a signed statement of independence by the environmental assessment practitioner or noise specialist; 3.3.3. a map showing the proposed development footprint (including supporting infrastructure) overlaid on the noise sensitivity map generated by the screening tool; 3.3.4. confirmation that all reasonable measures have been taken through micro-siting to minimize disturbance to receptors; 3.3.5. a substantiated statement from the environmental assessment practitioner or noise specialist on the acceptability, or not, of the proposed development and a recommendation on the approval, or not, of the proposed development; 3.3.6. any conditions to which this statement is subjected; 3.3.7. where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr; and 3.3.8. 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. 3.4. A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

DEFENCE

PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON DEFENCE INSTALLATIONS

1. SCOPE

This protocol provides the criteria for the specialist assessment and minimum report content requirements for impacts on defence installations for activities requiring environmental authorisation. This protocol replaces the requirements of Appendix 6 of the Environmental Impact Assessment Regulations[22].

The assessment and reporting requirements of this protocol are associated with the level of sensitivity identified by the national web based environmental screening tool (screening tool).

The screening tool can be accessed at: https://screening.environment.gov.za/screeningtool.

2. SITE SENSITIVITY VERIFICATION AND MINIMUM REPORT CONTENT REQUIREMENTS

Prior to commencing with a specialist assessment, the current use of the land and the potential environmental sensitivity of the site under consideration as identified by the screening tool must be confirmed by undertaking a **site sensitivity verification**.

2.1. The site sensitivity verification must be undertaken by an environmental assessment practitioner or specialist with expertise in radar.

2.2. The site sensitivity verification must be undertaken through the use of:
- (a) a desk top analysis, using satellite imagery;
- (b) a preliminary on-site inspection; and
- (c) 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 current use of the land and environmental sensitivity as identified by the screening tool, such as new developments or infrastructure etc.;
- (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.

3. SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS

TABLE 1: ASSESSMENT AND REPORTING OF IMPACTS ON DEFENCE INSTALLATIONS

1. General Information
1.1. An applicant intending to undertake an activity identified in the scope of this protocol for which a specialist assessment has been identified on the screening tool: 1.1.1. on a site identified as being of: 1.1.1.1. "very high", "high" or "medium" sensitivity for defence, must submit a **Defence Compliance Statement**; or

[22] The Environmental Impact Assessment Regulations, as promulgated in terms of Section 24 (5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

1.1.1.2. "low" sensitivity, no further assessment requirements are identified.

1.1.2. on a site where the information gathered from the site sensitivity verification differs from the designation of "very high", "high" or "medium" sensitivity on the screening tool and it is found to be of a "low" sensitivity, no further assessment requirements are identified;

1.1.3. similarly, on a site where the information gathered from the initial site sensitivity verification differs from the designation of "low" sensitivity on the screening tool and it is found to be of a "very high", "high" or medium sensitivity, a **Defence Compliance Statement** must be submitted; and

1.1.4. If any part of the proposed development footprint falls within an area of "very high", "high" or "medium" sensitivity, the assessment and reporting requirements prescribed for the "very high", "high" and "medium" sensitivity apply to the entire footprint. In the context of this protocol, development footprint means the area on which the proposed development will take place and includes any area that will be disturbed.

VERY HIGH SENSITIVITY RATING - high likelihood for negative impacts on the defence installation. In-depth assessment of the potential impacts and mitigation measures are likely to be required before development can be considered in these areas.	**2. Defence Compliance Statement** 2.1. The compliance statement must be prepared by an environmental assessment practitioner or a specialist with expertise in radar. 2.2. The compliance statement must: 2.2.1. be applicable to the preferred site and the proposed development footprint; 2.2.2. confirm the sensitivity rating for the site; and 2.2.3. indicate whether or not the proposed development will have an unacceptable impact on defence installations. 2.3. The compliance statement must contain, as a minimum, the following information: 2.3.1. contact details of the environmental assessment practitioner or the specialist, their relevant qualifications and expertise in preparing the statement, and a curriculum vitae; 2.3.2. a signed statement of independence by the environmental assessment practitioner or specialist; 2.3.3. a map showing the proposed development footprint (including supporting infrastructure) overlaid on the defence sensitivity map generated by the screening tool; 2.3.4. a comment, in writing, from the Department of Defence confirming no unacceptable impact on military areas of interest; and 2.3.5. should the comment from the Department of Defence indicate the need for further assessment, a copy of the assessment report and mitigation measures is to be attached to the compliance statement and incorporated into the Basic Assessment Report or Environmental Impact Assessment Report with mitigation and monitoring measures identified included in the Environmental Management Programme. The assessment must be in accordance with the requirements stipulated by the Department of Defence. 2.4. A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.
HIGH SENSITIVITY RATING - potential for negative impacts on the defence installation that can potentially be mitigated. Further assessment may be required to investigate potential impacts and mitigation measures.	
MEDIUM SENSITIVITY RATING - low potential for negative impacts on the defence installation, and if there are impacts there is a high likelihood of mitigation. Further assessment of the potential impacts may not be required.	

LOW SENSITIVITY RATING - No negative impacts on the defence installation are expected in low sensitivity areas. It is unlikely for further assessment and mitigation measures to be required.	No requirement identified.

CIVIL AVIATION

PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON CIVIL AVIATION INSTALLATIONS

1. SCOPE

This protocol provides the criteria for the specialist assessment and minimum report content requirements for impacts on civil aviation installations for activities requiring environmental authorisation. This protocol replaces the requirements of Appendix 6 of the Environmental Impact Assessment Regulations[23].

The assessment and reporting requirements of this protocol are associated with the level of sensitivity identified by the national web based environmental screening tool (screening tool).

The screening tool can be accessed at: https://screening.environment.gov.za/screeningtool.

2. SITE SENSITIVITY VERIFICATION AND MINIMUM REPORT CONTENT REQUIREMENTS

Prior to commencing with a specialist assessment, the current use of the land and the potential environmental sensitivity of the site under consideration as identified by the screening tool must be confirmed by undertaking a **site sensitivity verification**.

2.1. The site sensitivity verification must be undertaken by an environmental assessment practitioner or specialist with expertise in radar.

2.2. The site sensitivity verification must be undertaken through the use of:
- (a) a desk top analysis, using satellite imagery;
- (b) a preliminary on-site inspection; and
- (c) 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 current use of the land and environmental sensitivity as identified by the screening tool, such as new developments or infrastructure etc.;
- (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.

3. SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS

TABLE 1: ASSESSMENT AND REPORTING OF IMPACTS ON CIVIL AVIATION INSTALLATIONS

1. General Information

1.1. An applicant intending to undertake an activity identified in the scope of this protocol for which a specialist assessment has been identified on the screening tool:

1.1.1. on a site identified as being of:

1.1.1.1. "very high", "high" or "medium" sensitivity for civil aviation, must submit a **Civil Aviation Compliance Statement**; or

1.1.1.2. "low" sensitivity, no further assessment requirements are identified.

[23] The Environmental Impact Assessment Regulations, as promulgated in terms of Section 24 (5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

1.1.2. on a site where the information gathered from the site sensitivity verification differs from the designation of "very high", "high" or "medium" sensitivity on the screening tool and it is found to be of a "low" sensitivity, no further assessment requirements are identified; 1.1.3. similarly, on a site where the information gathered from the initial site sensitivity verification differs from the designation of "low" sensitivity on the screening tool and it is found to be of a "very high", "high" or "medium" sensitivity, a **Civil Aviation Compliance Statement** must be submitted; and 1.1.4. If any part of the proposed development footprint falls within an area of "very high", "high" or "medium" sensitivity, the assessment and reporting requirements prescribed for the "very high", "high" and "medium" sensitivity apply to the entire footprint. In the context of this protocol, development footprint means the area on which the proposed development will take place and includes any area that will be disturbed.	
VERY HIGH SENSITIVITY RATING - high likelihood for significant negative impacts on the civil aviation installation that cannot be mitigated. In-depth assessment of the potential impacts are likely to be required before development can be considered in these areas. **HIGH SENSITIVITY RATING** – potential for negative impacts on the civil aviation installation that can potentially be mitigated. Further assessment may be required to investigate potential impacts and mitigation measures. **MEDIUM SENSITIVITY RATING** - low potential for negative impacts on the civil aviation installation, and if there are impacts there is a high likelihood of mitigation. Further assessment of the potential impacts may not be required.	**2. Civil Aviation Compliance Statement** 2.1. The compliance statement must be prepared by an environmental assessment practitioner or a specialist with expertise in radar. 2.2. The compliance statement must: 2.2.1. be applicable to the preferred site and the proposed development footprint; 2.2.2. confirm the sensitivity rating for the site; and 2.2.3. indicate whether or not the proposed development will have an unacceptable impact on civil aviation installations. 2.3. The compliance statement must contain, as a minimum, the following information: 2.3.1. contact details of the environmental assessment practitioner or the specialist, their relevant qualifications and expertise in preparing the statement, and a curriculum vitae; 2.3.2. a signed statement of independence by the environmental assessment practitioner or specialist; 2.3.3. a map showing the proposed development footprint (including supporting infrastructure) overlaid on the civil aviation sensitivity map generated by the screening tool; 2.3.4. a comment, in writing, from the South African Civil Aviation Authority (SACAA), which may include inputs from the Obstacle Evaluation Committee (OEC), if appropriate, confirming no unacceptable impact on civil aviation installations; and 2.3.5. should the comment from the SACAA indicate the need for further assessment, a copy of the assessment report and mitigation measures is to be attached to the compliance statement and incorporated into the Basic Assessment Report or Environmental Impact Assessment Report with mitigation and monitoring measures identified included in the EMPr. The assessment must be in accordance with the requirements stipulated by the SACAA. 2.4. A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.
LOW SENSITIVITY RATING - No significant impacts on the civil aviation installation are expected in low sensitivity areas. It is	No requirement identified.

unlikely for further assessment and mitigation measures to be required.	