

IMPACT ASSESSMENT CRITERIA

These criteria are drawn from the EIA Regulations published by the Department of Environmental Affairs and Tourism (April 1998) in terms of the Environmental Conservation Act, 1989 (Act No. 73 of 1989) and the latest basic assessment report template provided by the Department of Environmental Affairs and Development Planning (DEA&DP) and the DEA&DP Guidelines for involving Biodiversity Specialists in EIA Processes, 2005. These criteria include:

Nature of the impact

This is an appraisal of the type of effect (positive or negative) the construction, operation and maintenance of a development would have on the affected environment. This description should include what is to be affected.

Extent of the impact

Extent defines the physical extent or spatial scale of the impact. The impact could:

- **Site specific:** limited to the site.
- **Local:** limited to the site and the immediate surrounding area (1-10km).
- **Regional:** covers an area that includes an entire geographic region or extends beyond one region to another.
- **National:** across national boundaries and may have national implications.

Duration of the impact

The specialist should indicate whether the lifespan of the impact would be:

- **Short term:** 0-5 years.
- **Medium term:** 5-15 years.
- **Long term:** beyond the operational phase, but not permanently).
- **Permanent:** where mitigation either by natural processes or by human intervention will not occur in such a way or in such time span that the impact can be considered transient.

Consequence of Impact

Indicate how the activity will affect the environment.

Probability of occurrence

Probability describes the likelihood of the impact occurring. The likelihood can be described as:

- **Improbable/unlikely:** low likelihood of the impact occurring.
- **Probable:** distinct possibility the impact will occur.
- **Highly probable:** most likely that the impact will occur.
- **Definite:** impact will occur regardless of any prevention measures.

Irreplaceable loss of resources

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

Reversibility

This refers to the degree to which an impact can be reversed.

- **Fully reversible:** where the impact can be completely reversed.
- **Partly reversible:** where the impact can be partially reversed.
- **Irreversible:** where the impact is permanent.

Indirect impacts

Indirect impacts are secondary impacts and usually occur at a different place or time. Specialists will need to elaborate on any indirect or secondary impacts of proposed activities. If there are no indirect impacts specialist will need to briefly explain so.

Cumulative impact

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

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

Significance rating of impacts prior to and after mitigation

Based on a synthesis of the information contained in the above-described procedure, the significance of the potential impacts must be assessed using the following significance criteria:

- **No impact.**
- **Low negative:** where it would have negligible effects and would require little or no mitigation.
- **Low positive:** the impact will have minor positive effects.
- **Medium negative:** the impact will have moderate negative effects and will require moderate mitigation.
- **Medium positive:** the impact will have moderate positive effects.
- **High negative:** the impact will have significant effects and will require significant mitigation measures to achieve an accepted level of impact.
- **High positive:** the impact will have significant positive effects.
- **Very high negative:** the impact will have highly significant effects and are unlikely to be able to be mitigated adequately.
- **High positive:** the impact will have highly significant positive effects.

Degree to which impact can be avoided

This indicates the degree to which an impact can be avoided. The degree of avoidance can either be

- **High:** impact is completely avoidable
- **Moderate:** impact is avoidable with moderate mitigation
- **Low:** the impact is difficult to avoid and will require significant mitigation measures
- **Unavoidable:** the impact is cannot be avoided even with significant mitigation measures

Can the impact be avoided and if so, how can it be avoided (example: demarcation of no-go areas)?

Degree to which impact can be managed

This indicates the degree to which an impact can be managed. The degree of management can be:

- **High:** impact is completely manageable
- **Moderate:** impact is manageable with moderate mitigation
- **Low:** the impact is difficult to manage and will require significant mitigation measures
- **Unmanageable** (the impact is cannot be managed even with significant mitigation measures).

How can the impact be managed over time (example: clearance of alien vegetation)?

Degree to which an impact can be mitigated

This indicates the degree to which an impact can be reduced. The degree of mitigation can either be high (the impact can be fully mitigated), moderate (the impact can be partly mitigated) or not mitigated at all

Residual impacts

Residual impacts are those impacts that remain following the implementation of mitigation measures. Residual impacts must be identified, rated (i.e. low, medium or high) in accordance to the criteria in **Table 1** (taken from the Western Cape Guideline on Biodiversity Offsets, 2015) and discussed. If there are no residual impacts, the specialist will need to briefly explain that the activity will have no residual impacts.

Table 1: Criteria for Assessing Residual Impacts.

Threshold: The Importance of Biodiversity and/or Ecosystem Services	Impact Significance Rating
<p>Exclusionary threshold; impacts in this category could not be fully compensated by offsets because of the high threat status or irreplaceability of affected biodiversity or ecosystem services. Impacts in this category would generally be unacceptable and could lead to:</p> <ul style="list-style-type: none"> • Irreversible and irreplaceable loss of ecosystem or species <ul style="list-style-type: none"> ○ Impacts on critically endangered ecosystems or species, or leading to a change in the status of ecosystems or species from endangered to critically endangered ○ Impacts on Critical Biodiversity Areas (CBAs) and River and Wetland FEPAs (including free-flowing rivers⁵³) from provincial biodiversity plans/ the Biodiversity Framework, unless there are spatial options to meet the specific biodiversity targets for which these CBAs were identified ○ Impacts on Ramsar sites; • Irreplaceable loss of key ecological corridors recognised as important for evolutionary processes and climate change adaptation where no spatial options to safeguard these processes exist; • Irreversible impacts on legally protected areas in terms of the Protected Areas Act, including Special Nature Reserves, National Parks and Provincial Nature Reserves; World Heritage Sites; Marine Areas; Specially Protected Forest Areas; and Mountain Catchment Areas. • Irreversible or irreplaceable loss of highly valued ecosystem services at national or provincial scale and/ or where there is a high level of dependence on these ecosystem goods and services by local communities for livelihoods and health, and no feasible substitutes 	<p>Very High</p>
<p>Threshold of major potential concern.</p> <ul style="list-style-type: none"> • Irreversible impact, leading to change in ecosystem or species status within the Endangered category, or from Vulnerable to Endangered • Irreversible loss of areas constituting important corridors or process areas at provincial level • Impacts in buffer zones of protected areas (including buffers around National Parks, World Heritage Sites, and Nature Reserves) • Impacts in Trans-Frontier Conservation Areas (outside of protected areas) • Impacts on high water yield areas ('water factories', 'water towers') • Impacts in the Coastal Protection Zone. • Impacts on priority estuaries, in an estuarine functional zone where no setback line has been determined, and/ or on the estuary side of the development setback line • Impacts within a 1km buffer of river and wetland FEPAs • Impacts seawards of the development setback line or within 1km from the HWM where no development setback line has been determined 	<p>High</p>

Threshold: The Importance of Biodiversity and/or Ecosystem Services	Impact Significance Rating
<ul style="list-style-type: none"> • Impacts on the watercourse side of a development setback line or within 100m from the edge of a watercourse where no setback line has been determined • Impacts leading to loss or deterioration of valued ecosystem services at provincial level. 	
<p>Threshold of potential concern.</p> <ul style="list-style-type: none"> • Irreversible impact leading to change in ecosystem status from Least Threatened to Vulnerable • Impacts on Vulnerable species • Loss of areas constituting important corridors or ecological process areas at local levels • Impacts on Ecological Support Areas • Impacts on Vulnerable ecosystems in areas where CBAs have not yet been identified. • Impacts on focal areas for protected area expansion (land-based and marine). • Impact comprising a combination of impacts at a local level on two or more of the following a) a threatened ecosystem, b) threatened species, c) special habitats and d) ecological corridors or important process areas. • Impact leading to loss or deterioration of valued ecosystem services at local level. 	Moderate
<p>Threshold of Low concern. e.g. low impact on local biodiversity or valued ecosystem services</p> <ul style="list-style-type: none"> • Impacts on Least Threatened ecosystems where they do not: support threatened species or special habitats; constitute important ecological process areas or corridors; and/ or provide priority ecosystem services. 	Low
<p>Threshold of negligible concern. e.g. no impact on local biodiversity or valued ecosystem services</p> <ul style="list-style-type: none"> • Impacts on heavily modified or transformed natural environments. 	Very Low