IAIA’s Webinar Series

- How are we “Doing” Gender? Oxfam’s Gender IA Guide
- A Rapid Tour of Emerging Technologies and IA
- Accessing and Interpreting Biodiversity Information for Biodiversity Screening
- Empowering Indigenous Voices in Impact Assessment
- Understanding Impacts on Vulnerable Populations through Psycho-Social IA
- Health Considerations in Impact Assessment
- Resettlement and Impact Assessment – Points of Intersection

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Housekeeping

- Recording? ✓
- Questions? ✓
- Slides available? ✓
Species Environmental Assessment Guidelines

Presenter: Domitilla Raimondo
Species Environmental Assessment Guidelines

Presented by Domitilla Raimondo SANBI – Biodiversity Assessment and Monitoring

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[Logos of environmental affairs, SANBI, Envirot, BirdLife]
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Panel member  
luke@enviro-insight.co.za

Abulele Adams  
Panel member  
aadams1@csir.co.za

https://bgis.sanbi.org/
Structure of talk

• Purpose of the Species Environmental Assessment Guideline
• Introduction to the EIA Screening Tool species data
• Step by step guidance on how to implement the Animal 3c) and Plant 3d) Species Protocols
• Project Area of Influence
• Taxon specific guidance examples
• Question session 1
• Evaluation of Site Ecological Importance
• Question session 2
Total of 12 Species of Conservation Concern:

- 3 CR    - 2 EN
- 2 VU    - 2 NT

Barken’s Valley Port Elizabeth
Baywest Mall
Purpose of Guideline

- **Provide step by step guidance** on how to implement the Animal 3c) and Plant 3d) Species Protocols published for comment on January 10th.

- **Provide standardised guidance** on sampling and data collection methodologies for the different taxonomic groups that are represented in the respective Protocols.

- These guidelines are intended for specialist studies undertaken for activities that have triggered a listed activity in terms of the National Environmental Management Act (No. 107 of 1998) as contained in GNR 983, 984 and 985.
Guidelines explain how to respond to the Screening report requirements

https://screening.environment.gov.za/screeningtool

- Legal requirement
- Screening report requirement for the EA process
Screening Tool Structure

Levels of Sensitivity

**Very High**
- Critical habitat for highly range restricted species (EOO<10 km²)
- Completely irreplaceable: no options for offsetting loss

**High**
- Threatened species/species of conservation concern confirmed present through recent records

**Medium**
- Habitat suitability model and/or historical records indicate that threatened species/species of conservation concern are likely to be present: must be confirmed through field surveys

**Low**
- No species of conservation concern known or predicted
### VERY HIGH SENSITIVITY RATING FOR TERRESTRIAL SPECIES RESOURCES

1. **Critical Habitat for range restricted species** of conservation concern that have a global range of less than 10 km².
2. Species of conservation concern listed on South Africa’s National Red List websites 4, 5 as Critically Endangered, Endangered or Vulnerable according the IUCN Red List 3.1. Categories and Criteria or listed as Nationally Rare.

These areas are irreplaceable in terms of species of conservation concern and unsuitable for development.

### HIGH SENSITIVITY RATING FOR TERRESTRIAL SPECIES RESOURCES

1. **Confirmed habitat for species of conservation concern.**
2. Species of conservation concern listed on South Africa’s National Red List websites 4, 5 as Critically Endangered, Endangered or Vulnerable according the IUCN Red List 3.1. Categories and Criteria.

These areas are unsuitable for development due to a very likely impact on species of conservation concern.

### MEDIUM SENSITIVITY RATING FOR TERRESTRIAL SPECIES RESOURCES

1. **Suspected habitat for species of conservation concern** based either on there being records for this species collected in the past prior to 2002 or being a natural area included in a habitat suitability model.
2. Species of conservation concern listed on South Africa’s National Red List websites 4, 5 as Critically Endangered, Endangered or Vulnerable according the IUCN Red List 3.1. Categories and Criteria.

### Protocol for the Assessment of Environmental Impacts on Terrestrial Species Resources in Areas with Environmental Sensitivity as Identified by the National Web-Based Environmental Screening Tool

**SACNASP registered specialist**

**Determine:**

- **a.** the distribution, location, viability (ability to survive and reproduce in future) and detailed description of population size of the species of conservation concern identified on the proposed development site and alternative sites
- **b.** description of the importance of the conservation of the population of the species of special concern identified on the proposed development site and alternative sites based on information available in national and international databases including South African Red List of Species, Red List of South African Plants, IUCN Red List of Threatened Species, and/or other relevant databases;
- **c.** description of any dynamic ecological processes that might be disrupted by the development and resulting impact on the identified species of conservation concern;

Etc.
1. General Information

1.1 An applicant, intending to undertake an activity as identified in the scope of this protocol, on a site identified as being of "low sensitivity" for terrestrial animal species on the national web-based environmental screening tool must submit a Terrestrial Animal Species Compliance Statement, unless

1.1.1 The information gathered from the initial site sensitivity verification identified in section 2 of this protocol differs from that identified as having a "low" terrestrial animal species sensitivity by the national web-based environmental screening tool and it is found to be of a "very high" "high" and/or "medium" sensitivity.

1.2 Should 1.1.1 apply, a Terrestrial Animal Species Impact Assessment is to be undertaken and a report should be prepared in accordance with the requirements of a Terrestrial Animal Impact Assessment.

2. Terrestrial Animal Species Compliance Statement

2.1 The Terrestrial Animal Species Compliance Statement must be prepared by a suitably qualified, taxon relevant SAGNASP registered specialist, on the site being submitted as the preferred development site and must verify:

2.1.1 That the site is of "low" sensitivity for terrestrial animal species; and

2.1.2 Whether or not the proposed development will have any impact on the terrestrial animal species.

3. The Terrestrial Animal Species Compliance Statement, must contain, as a minimum, the following information:

3.1 Contact details and curriculum vitae of the specialist including SAGNASP registration number and field of expertise;

3.2 A signed statement of independence by the specialist;

3.3 Methodology used to undertake the site survey and prepare the compliance statement, including equipment and modelling used where relevant;

3.4 Where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMP;

3.5 A description of the assumptions made and any uncertainties or gaps in knowledge or data as well as a statement of the timing and intensity of site inspection observations; and

3.6 Any conditions to which the statement is subjected.

4. A signed copy of the full Terrestrial Animal Species Compliance Statement must be appended to the EIA or EIAR.
Specialist report works on species triggered by EIA Screening Tool

Plants >50 threatened plants

<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>Feature(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Acrodon purpureostylus</td>
</tr>
<tr>
<td>High</td>
<td>Bobartia longicyma subsp. microflora</td>
</tr>
<tr>
<td>High</td>
<td>Drosanthemum lavisii</td>
</tr>
<tr>
<td>High</td>
<td>Lobelia valida</td>
</tr>
<tr>
<td>High</td>
<td>Erica albertyniae</td>
</tr>
<tr>
<td>High</td>
<td>Sensitive species 253</td>
</tr>
<tr>
<td>High</td>
<td>Sensitive species 259</td>
</tr>
<tr>
<td>High</td>
<td>Anginon pumilum</td>
</tr>
<tr>
<td>High</td>
<td>Sensitive species 157</td>
</tr>
<tr>
<td>High</td>
<td>Elegia fenestrata</td>
</tr>
<tr>
<td>High</td>
<td>Anisodontea dissecta</td>
</tr>
<tr>
<td>High</td>
<td>Amphithalea speciosa</td>
</tr>
<tr>
<td>High</td>
<td>Argyrolobium pachyphyllum</td>
</tr>
<tr>
<td>High</td>
<td>Heliophila linearis var. reticulata</td>
</tr>
<tr>
<td>High</td>
<td>Dymondia margaretae</td>
</tr>
<tr>
<td>High</td>
<td>Stoebc schultzii</td>
</tr>
<tr>
<td>High</td>
<td>Diosma parvula</td>
</tr>
</tbody>
</table>
2811 threatened plant species
± 78 000 occurrence records
Brunsvigia litoralis (EN)
Suitable habitat models
What is included in the guideline

1 INTRODUCTION
2 PURPOSE OF THE DOCUMENT
  2.1 How it relates to the Aquatic and Terrestrial Biodiversity Protocols
  2.2 How it relates to other species related Protocols
  2.3 What the guidelines will not be addressing
  2.4 How these guidelines relate to Provincial guidelines on biodiversity assessments in EIAs.
3 LEGAL FRAMEWORK
  3.1 Screening Tool Report
  3.2 Legal provision relating to Protocols
  3.3 Appendix 6 of EIA Regulations
  3.4 The legal status of the Screening Tool, Protocols and the Species Protocols Guideline
4 SCREENING TOOL
  4.1 Purpose of the Screening Tool and how it works
  4.2 Defining species of conservation concern (SCC)
  4.3 Assigning sensitivity rating to species data in the Screening Tool
  4.4 Submission of Screening Tool Report
  4.5 Addressing sensitive species
5 PROTOCOL IMPLEMENTATION
  5.1 Initial Site Sensitivity Verification (ISSV) step
  5.2 Assessment Protocols and Compliance Statement
  5.3 Step-by-step guidance for Protocols 3c and 3d.
Step by step guidance for the protocol

2.3.9 The likelihood of other threatened species, undescribed species or highly localised endemics, migratory species, or species of conservation concern, occurring in the vicinity.

Minimum Requirements

A table in the report presenting all SCC that were predicted by the Screening Tool as well as any additional SCC observed that were not predicted by the Screening Tool;

Additional species that must be included in the table are:
- undescribed species
- highly localised endemics
- migratory species

This table must contain the following information:
- Taxonomic Family
- Common Name
- Scientific Name
- Current IUCN extinction risk category (most recent of either national or regional)
- Habitat requirements (a brief description)
- Probability of occurrence on the site:
  - Confirmed (if observed during the survey);
  - High;
  - Medium;
  - Low.
- A short justification for the provided probability of occurrence

Detailed guidance and additional information

The procedure for collating occurrence data and presentation thereof is described in detail in 9.3.6 Researching and presenting data for expected SCC.
2.3.8 Buffer distances (as per the Species Environmental Assessment Best Practice Guidelines) used for the population of each species of conservation concern; and

Minimum Requirements

All associated habitat (e.g. nesting, roosting, foraging etc.) for each SCC should be buffered according to the guidelines presented in the taxon-specific sections below. Where recommendations for buffers have been provided in provincial guidelines which exceed those recommended in the taxon-specific sections below, the provincial guidelines should be followed;

Where precise buffers are not currently available for a particular SCC or group of SCC, the specialist is required to perform comprehensive literature research and consult with external species-specific specialists for guidance in this regard. Should this exercise not result in clearly definable buffer distances, the precautionary principle must be applied and buffer sizes should be set at the maximum possible;

Where defined SCC buffers are applied and include irreversibly modified habitat (e.g. major infrastructure) that cannot be rehabilitated or restored, these areas may be excised from the buffer as they are non-functional. Degraded habitat that falls within the buffer and may offer some ecological functionality, must not be excised from the buffer;

It is essential to demonstrate consideration of habitat connectivity during the application of buffers for SCC. If the recommended buffer distance for a SCC does not allow for appropriate habitat connectivity, the specialist should increase the recommended buffer distance accordingly in the area where habitat connectivity must be maintained.

Detailed guidance and additional information

Taxon-specific guidance for the application of buffers for SCC is provided in the following sections:

- 10.1 FLORA
- 10.2 HERPETOFAUNA
- 10.3 AVIFAUNA
- 10.4 MAMMALS
- 10.5 BUTTERFLIES

The worked example for the determination of Site Ecological Importance (8.4 Worked example) provides additional guidance on how to apply buffers.

See also 9.3.2 Application of the precautionary principle and ‘absence data’;
**Table 10-5: Buffer applications for herpetofauna SCC**

<table>
<thead>
<tr>
<th>Species or Species Group</th>
<th>Attribute</th>
<th>Minimum Buffer (m)</th>
<th>Recommended Buffer (m)</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic and semi-aquatic species. Includes all amphibians listed in Table 10-3 and the following reptiles: Crocodylus niloticus Pelusios castanoides Pelusios rhodesianus</td>
<td>Aquatic habitats (wetlands, ponds, rivers, streams, seeps etc.) utilised by these species for breeding &amp; foraging purposes. This must include catchment areas of these aquatic habitats.</td>
<td>100</td>
<td>400</td>
<td>Buffers to be applied from the wetland edge (as per wetland delineations). Buffers to be applied must ensure connectivity between buffers of other aquatic habitats. If this can be achieved through the application of the minimum buffer distance then it may be applied. However, should this not be the case, the buffer size should be increased until this can be demonstrated. If no such connectivity is possible at all, then the recommended buffer must be applied. Minimum buffer recommendations for wetlands provided in Macfarlane &amp; Bredin (2017) are not applicable for these SCC.</td>
</tr>
<tr>
<td>Herpetofauna reliant on forest habitats Amphibians: Afrikalus knysnae Anhydrophryne ngongoniensis Natalolobatrachus bonebergi Anhydrophryne rattrayi Reptiles: Bradypodion caeruleogula Bradypodion caffer Bradypodion thamnobates Dendroaspis angusticeps Scelotes inornatus</td>
<td>Forest habitats either utilised directly or indirectly by the listed species for breeding, foraging or refugia</td>
<td>100</td>
<td>250</td>
<td>Buffers to be applied from the forest edge. Minimum buffer size is expected to allow for an appropriate ecotone as many forest species rely on the forest edge for foraging, basking and mate-seeking purposes. Where possible, connectivity between Forest patches should be maintained through the application of the recommended buffer distance.</td>
</tr>
<tr>
<td>Smaug giganteus</td>
<td>Colonies, indicated by the presence of recently excavated burrows.</td>
<td>250</td>
<td>400</td>
<td>Buffer to be applied around the periphery of Sungazer colonies. Buffer must specifically exclude eroded runoffs from areas cleared of vegetation (e.g. crop farming) that can bury and destroy Sungazer burrows. Applied buffer must ensure no exposure to pesticides and other chemicals used to treat adjacent agricultural crops or wind-blown ash (from power stations) or mining tailings. Therefore, the prevalent wind direction must be taken into account. Sungazers are known to migrate distances of up to 1 km and may regularly move between 30-80 m during mating seasons (S. Parusnath pers. comm.), making them particularly susceptible to being killed by road traffic.</td>
</tr>
<tr>
<td>Herpetofauna specifically reliant on grassland: Amphibians: Vandijkophrynus amatolicus Reptiles: Tetradactylus fitzsimonsi Scelotes bourquinii</td>
<td>Presence as determined through recent (&lt;10 y) observation)</td>
<td>300</td>
<td>500</td>
<td>Habitat requirements, utilisation, densities and dispersal abilities of these species are rather poorly understood. In addition, because of their reliance on grassland habitats, they are likely to be negatively impacted by regular fires. Consequently, large minimum buffers surrounding known observation locations of these species with demonstrable connectivity to other undisturbed grassland habitats is required.</td>
</tr>
</tbody>
</table>
What is included in the guideline, continued

6. DEFINING THE PROJECT AREA OF INFLUENCE (PAOI)

7. DESCRIPTION OF IMPACT RECEPTORS

8. EVALUATION OF SITE ECOLOGICAL IMPORTANCE (SEI)

9. GENERAL GUIDELINES THAT APPLY TO ALL SPECIES SPECIALIST STUDIES
   9.1 Qualifications and limitations of specialist
   9.2 Fieldwork
   9.3 Data interpretation, presentation & reporting
   9.4 Impact Analysis
   9.5 Mitigation of Impacts
   9.6 Suitability of the proposed project and its activities
   9.7 Data dissemination
   9.8 A copy of the original specialist report as an appendix

10. TAXON-SPECIFIC GUIDELINES
    10.1 FLORA
    10.2 HERPETOFAUNA
    10.3 AVIFAUNA
    10.4 MAMMALS
    10.5 BUTTERFLIES
Defining the Project Area of Influence (PAOI)

Best practice is for the specialist to define the taxon-specific project area of influence (PAOI) based on the spatial location of the project (footprint) and the potential extent of the impacts of the anticipated activities of the project.

PAOI defined according to the important ecosystem processes and functions that may be plausibly affected by the proposed development and its associated activities.
Figure 10-2: Top) Basic design and layout of a drift fence funnel trap array with central pitfall (dual-ended funnel trap (d) placement along drift fence shown in C only. Bottom) A deployed and active drift fence funnel trap array.
Taxon specific guidelines what must be included in the report

<table>
<thead>
<tr>
<th>Sample Site</th>
<th>Habitat Description</th>
<th>Photo 1</th>
<th>Photo 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trap 1</td>
<td>Heavily sedged area adjacent to stream which has been artificially dammed due to road crossing, creating marshy area.</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
<tr>
<td>AS01</td>
<td>Edge of Eucalyptus plantation at high altitude. Much debris (wood) from adjacent harvested plot. Many alien invasive flora and extensive grassy cover under trees.</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
<tr>
<td>AS02</td>
<td>Ephemeral drainage in dense forest/bushfield mosaic. Undisturbed.</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
<tr>
<td>AS03</td>
<td>Large granite dome at high altitude. Excellent refugia. Lantana and Jacaranda invasive species present degrading habitat.</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
</tbody>
</table>

*Figure 10-5: A series of diagnostic photographs taken for five individuals of Bradfield's Dwarf Gecko (Lygodactylus bradfieldi).*
Question session 1
Poll
Evaluation of Site Ecological Importance (SEI)
Evaluation of Site Ecological Importance (SEI)
### Conservation Importance (CI)

<table>
<thead>
<tr>
<th>Conservation Importance</th>
<th>Fulfilling Criteria</th>
</tr>
</thead>
</table>
| **Very High** | Confirmed or highly likely occurrence of CR, EN, VU or Extremely Rare or Critically Rare species that have a global Extent of Occurrence of < 10 km²  
Any area of natural habitat of a CR ecosystem type or large area (> 0.1 % of the total ecosystem type extent) of natural habitat of EN ecosystem type  
Globally significant populations of congregatory species (>10% of global population) |
| **High** | Confirmed or highly likely occurrence of CR, EN, VU species that have a global Extent of Occurrence of > 10 km². IUCN threatened species (CR, EN, VU) must be listed under any criterion other than A. If listed as threatened only under Criterion A, include if there are less than 10 locations or < 10 000 mature individuals remaining.  
Small area (>0.01% but < 0.1 % of the total ecosystem type extent) of natural habitat of EN ecosystem type or large area (> 0.1 %) of natural habitat of VU ecosystem type.  
Presence of Rare species.  
Globally significant populations of congregatory species (>1% but <10% of global population). |
| **Medium** | Confirmed or highly likely occurrence of populations of NT species, threatened species (CR, EN, VU) listed under A criterion only and which have more than 10 locations or more than 10 000 mature individuals.  
Any area of natural habitat of threatened ecosystem type with status of VU  
Presence of range-restricted species  
> 50 % of receptor contains natural habitat with potential to support SCC |
### Functional Integrity (FI)

*a measure of the ecological condition of the impact receptor as determined by its remaining intact and functional area, its connectivity to other natural areas and the degree of current persistent ecological impacts.*

<table>
<thead>
<tr>
<th>Functional Integrity</th>
<th>Fulfilling Criteria</th>
</tr>
</thead>
</table>
| **Very High**       | Very large (>100 ha) intact area for any conservation status of ecosystem type or >5 ha for CR ecosystem types  
                      High habitat connectivity serving as functional ecological corridors, limited road network between intact habitat patches  
                      No or minimal current negative ecological impacts with no signs of major past disturbance (e.g. ploughing) |
| **High**            | Large (>20 ha but <100 ha) intact area for any conservation status of ecosystem type or >10 ha for EN ecosystem types  
                      Good habitat connectivity with potentially functional ecological corridors and a regularly used road network between intact habitat patches  
                      Only minor current negative ecological impacts (e.g. few livestock utilising area) with no signs of major past disturbance (e.g. ploughing) and good rehabilitation potential |
| **Medium**          | Medium (>5 ha but <20 ha) semi-intact area for any conservation status of ecosystem type or > 20 ha for VU ecosystem types  
                      Only narrow corridors of good habitat connectivity or larger areas of poor habitat connectivity and a busy used road network between intact habitat patches  
                      Mostly minor current negative ecological impacts with some major impacts (e.g. established population of alien and invasive flora) and a few signs of minor past disturbance; moderate rehabilitation potential |
| **Low**             | Small (>1 ha but <5 ha) area  
                      Almost no habitat connectivity but migrations still possible across some transformed or degraded natural habitat and a very busy used road network surrounds the area. Low rehabilitation potential  
                      Several minor and major current negative ecological impacts |
| **Very Low**        | Very small (<1 ha) area  
                      No habitat connectivity except for flying species or flora with wind-dispersed seeds.  
                      Several major current negative ecological impacts |
## Biodiversity Importance

<table>
<thead>
<tr>
<th>Biodiversity Importance</th>
<th>Very High</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
<th>Very Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional Integrity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very High</td>
<td>Very High</td>
<td>Very High</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>High</td>
<td>Very High</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Medium</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td>Low</td>
<td>Very Low</td>
</tr>
<tr>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>Low</td>
<td>Low</td>
<td>Very Low</td>
</tr>
<tr>
<td>Very Low</td>
<td>Medium</td>
<td>Low</td>
<td>Very Low</td>
<td>Very Low</td>
<td>Very Low</td>
</tr>
</tbody>
</table>
Receptor Resilience (RR)  

*the intrinsic capacity of the receptor to resist major damage from disturbance and/or to recover to its original state with limited or no human intervention.*

<table>
<thead>
<tr>
<th>Resilience</th>
<th>Fulfilling Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High</td>
<td>Habitat that can recover rapidly (~ less than 5 years) to restore &gt; 70% of the original species composition and functionality of the receptor functionality, or species that have a very high likelihood of remaining at a site even when a disturbance or impact is occurring, or species that have a very high likelihood of returning to a site once the disturbance or impact has been removed</td>
</tr>
<tr>
<td>High</td>
<td>Habitat that can recover relatively quickly (~ 5-10 years) to restore &gt; 70% of the original species composition and functionality of the receptor functionality, or species that have a high likelihood of remaining at a site even when a disturbance or impact is occurring, or species that have a high likelihood of returning to a site once the disturbance or impact has been removed</td>
</tr>
<tr>
<td>Medium</td>
<td>Will recover slowly (~more than 10 years) to restore &gt; 70% of the original species composition and functionality of the receptor functionality, or species that have a moderate likelihood of remaining at a site even when a disturbance or impact is occurring, or species that have a moderate likelihood of returning to a site once the disturbance or impact has been removed</td>
</tr>
<tr>
<td>Low</td>
<td>Habitat that is unlikely to be able to recover fully after a relatively long period: &gt; 15 years required to restore ~less than 50% of the original species composition and functionality of the receptor functionality, or species that have a low likelihood of remaining at a site even when a disturbance or impact is occurring, or species that have a low likelihood of returning to a site once the disturbance or impact has been removed</td>
</tr>
<tr>
<td>Very Low</td>
<td>Habitat that is unable to recover from major impacts, or species that are unlikely to remain at a site even when a disturbance or impact is occurring, or species that are unlikely to return to a site once the disturbance or impact has been removed</td>
</tr>
<tr>
<td>Site Ecological Importance</td>
<td>Biodiversity Importance</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
<td>Very High</td>
</tr>
<tr>
<td>Very Low</td>
<td>Very High</td>
</tr>
<tr>
<td>Low</td>
<td>Very High</td>
</tr>
<tr>
<td>Medium</td>
<td>Very High</td>
</tr>
<tr>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Very High</td>
<td>Medium</td>
</tr>
</tbody>
</table>
Figure 8-1: Example of how the SEI should be combined for taxa with spatially distinct impact receptors.
Step by step example of how to apply SEI
<table>
<thead>
<tr>
<th>Habitat</th>
<th>Conservation Importance</th>
<th>Functional Integrity</th>
<th>Receptor Resilience</th>
<th>Site Ecological Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sandy Fynbos</strong></td>
<td>Very High</td>
<td>Very High</td>
<td>Low</td>
<td>VERY HIGH</td>
</tr>
<tr>
<td>Any area of a CR ecosystem type.</td>
<td></td>
<td>&gt;5 ha of CR ecosystem type with no or minimal current negative ecological impacts and no signs of major past disturbance.</td>
<td>Sandy Fynbos is prone to rapid invasion by alien and invasive flora that prevents the restoration of this habitat following major disturbance. It requires active management and restoration attempts are not always successful. Flora endemic to this vegetation type are unlikely to adapt to major change, even after a long period.</td>
<td>BI = Very High RR = Low</td>
</tr>
<tr>
<td>Population of a CR species with an EOO &lt; 10 km² (<em>Erica margaritacea</em>).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confirmed occurrence in development footprint of four CR and six EN species) with EOO &gt; 10 km².</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wetland</strong></td>
<td>Very High</td>
<td>High</td>
<td>Very Low</td>
<td>VERY HIGH</td>
</tr>
<tr>
<td>Any area of a CR ecosystem type.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Population of a CR species with an EOO &lt; 10 km² (<em>Erica margaritacea</em>).</td>
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<tr>
<td>High</td>
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<tr>
<td>Confirmed occurrence at wetland edge in development footprint of an EN species with EOO &gt; 10 km² (<em>Hessea cinnamomea</em>).</td>
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<tr>
<td><strong>Degraded Fynbos (Acacia) &amp; Degraded natural areas</strong></td>
<td>Very High</td>
<td>Low</td>
<td>Medium</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>Any area of a CR ecosystem type.</td>
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<tr>
<td>Small (&gt;1 ha but &lt;5 ha) area with several minor and major current negative ecological impacts.</td>
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<tr>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td></td>
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<tr>
<td>Degraded Sandy Fynbos has the potential to be restored over time, particularly the areas that have been invaded by alien trees.</td>
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<td>BI = Medium RR = Medium</td>
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</tbody>
</table>
Step by step example of how to apply SEI
Table 8-4. *Guidance for interpreting Site Ecological Importance (SEI) in the context of the proposed development activities.*

<table>
<thead>
<tr>
<th>Site Ecological Importance</th>
<th>Interpretation in relation to proposed development activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High</td>
<td>Avoidance mitigation - No destructive development activities should be considered. Offset mitigation not acceptable/not possible (i.e. last remaining populations of species, last remaining good condition patches of ecosystems/unique species assemblages. Destructive impacts for species/ ecosystems where persistence target remains. Avoidance mitigation wherever possible. Minimization mitigation – Changes to project infrastructure design to limit the amount of habitat impacted; limited development activities of low impact acceptable. Offset mitigation may be required for high impact activities.</td>
</tr>
<tr>
<td>High</td>
<td>Minimization &amp; restoration mitigation - Development activities of medium impact acceptable followed by appropriate restoration activities</td>
</tr>
<tr>
<td>Medium</td>
<td>Minimization &amp; restoration mitigation - Development activities of medium to high impact acceptable followed by appropriate restoration activities</td>
</tr>
<tr>
<td>Low</td>
<td>Minimization mitigation - Development activities of medium to high impact acceptable and restoration activities may not be required</td>
</tr>
<tr>
<td>Very Low</td>
<td>Minimization mitigation - Development activities of medium to high impact acceptable and restoration activities may not be required</td>
</tr>
</tbody>
</table>
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