Wetland Offsets

Stephen Holness on behalf of SANBI and team
Talk outline

• Wetland offsets purpose and place in the mitigation hierarchy
• Where wetland offsets fit into broader offset policy development
• Content of the best-practice guideline for wetland offsets in South Africa
• Current revisions
• Technical & political approval process
The offsets definition we are using

• “Biodiversity offsets are *measurable conservation outcomes* resulting from actions designed to *compensate for significant residual adverse biodiversity impacts* arising from project development after appropriate prevention and mitigation measures have been taken.” (Business and Biodiversity Offsets Programme, 2009)
Overall purpose

• The goal of biodiversity offsets is to achieve *no net loss* and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people’s use and cultural values associated with biodiversity.” (BBOP, 2009)
The place of offsets in the mitigation hierarchy

- Avoid or prevent
- Minimise
- Rehabilitate
- Offset
Wetland offsets are part of broader offsets policy development

- **2007**: WCape draft Guideline
- **2007**: W Cape Treasury opinion
- **2008**: City of Cape Town Draft Policy statement

- **2009**: IAIA discussion on National Framework
- **2009**: KZN draft Guideline
- **2010**: Gauteng concept for strategy & guideline initiation

- **2011**: SANBI initiates wetlands offsets metrics development

- **2012**: NFBO draft 1 submitted to DEA
- **2012**: Wetland offsets metrics submitted to DWA
Wetland offset policy goals in South Africa

1. Formally protecting wetland systems in a good condition so as to contribute to meeting national conservation targets;
2. No net loss in the overall wetland functional area by providing gains equivalent to residual impacts;
3. Providing appropriate and adequate compensation for residual impacts on key ecosystem services;
4. Adequately compensating for residual impacts on threatened or otherwise important species.
Principles

- Adherence to the mitigation hierarchy
- Limits to what can be offset
- Catchment context
- No net loss
- Account for risks and uncertainties
- Additionality of conservation outcomes
- Enduring conservation outcomes
- Stakeholder participation
Wetland offsets document sets out clear practical guidelines for implementing wetland offsets in a consistent way.

- Increase predictability of offset implementation
- Designed to fit in with broader national policy – Not in itself a policy document
Design and implementation of offsets

• Step-by-step process guide
  – Assessment of impact
  – Reporting into EIA process
  – Acceptable offsets
  – Identifying Offset Receiving Areas
  – Securing land
  – Assessing financial implications
**Required offsets**

**Conservation significance**
How important is the wetland in contributing towards conservation goals?

**Ecosystem services**
What are the key services that the wetland provides and to what extent will these be negatively affected?

**Wetland condition**
What is the current state of the wetland, and to what degree will the development cause further degradation?

**Key species**
Are threatened and other important species associated with the wetland and to what degree are they likely to be impacted?
# Determining wetland offset targets

<table>
<thead>
<tr>
<th>Descriptive information</th>
<th>Wetland reference</th>
<th>Impacted Wetland &quot;A&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland Type and associated Threat Status</td>
<td>Mesic Highveld Grassland Group 2</td>
<td>Unchannelled valley-bottom wetland</td>
</tr>
<tr>
<td>Wetland Vegetation Group and associated Threat Status</td>
<td>Mesic Highveld Grassland Group 2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Determination of wetland offset targets</th>
<th>Wetland size (ha)</th>
<th>PES Score (Prior to development)</th>
<th>PES Category (Prior to Development)</th>
<th>PES Score (Anticipated following development)</th>
<th>Wetland Protection multiplier (From &quot;Threat Status&quot; tab)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland size (ha)</td>
<td>10</td>
<td>3.36</td>
<td>C</td>
<td>8.57</td>
<td>30</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Objectives and Targets</th>
<th>Wetland Protection</th>
<th>Wetland Functional Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offset Targets (hectare equivalents)</td>
<td>156.30</td>
<td>5.21</td>
</tr>
</tbody>
</table>

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[Image of eco-pulse logo]

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### Assessing potential gains

<table>
<thead>
<tr>
<th>Descriptive information</th>
<th>Offset site 1</th>
<th>Objectives</th>
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<tbody>
<tr>
<td>Wetland Reference</td>
<td>Mesic Highveld Grassland Group 2</td>
<td>EN</td>
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<tr>
<td>Wetland Type and associated Threat Status</td>
<td>2. Uncannelled valley-bottom wetland</td>
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<tr>
<td>Wetland Vegetation Group and associated Threat Status</td>
<td>Mesic Highveld Grassland Group 2</td>
<td>CR</td>
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</table>

#### Preliminary assessment

<table>
<thead>
<tr>
<th>Types of offset activities proposed</th>
<th>Rehabilitation / Restoration &amp; Protection</th>
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</thead>
<tbody>
<tr>
<td>Wetland size (ha)</td>
<td>50</td>
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<tr>
<td>PES Score (Starting Condition)</td>
<td>4</td>
</tr>
<tr>
<td>PES Category (Starting Condition)</td>
<td>D</td>
</tr>
<tr>
<td>Is the condition of the wetland as good / better that that of the impacted site prior to development (or at least B PES Category in the case of largely un-impacted wetlands)?</td>
<td>No</td>
</tr>
<tr>
<td>Is the Starting Condition more than one class lower than the impacted wetland?</td>
<td>No</td>
</tr>
<tr>
<td>PES Score (Anticipated in the absence of offset activities)</td>
<td>1.5</td>
</tr>
<tr>
<td>PES Score (Anticipated following successful offset implementation)</td>
<td>1.5</td>
</tr>
<tr>
<td>PES Category (Anticipated following successful offset implementation)</td>
<td>8</td>
</tr>
<tr>
<td>Is anticipated PES Category at least the same as that of the impacted wetland?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

#### Refinement based on multipliers

<table>
<thead>
<tr>
<th>Multiplier</th>
<th>Attribute</th>
<th>Adjustment factor</th>
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<tbody>
<tr>
<td>Timing of offsets</td>
<td>Delayed (2-5 years)</td>
<td>1.5</td>
</tr>
<tr>
<td>Risk of offset failure</td>
<td>Rehabilitation / Restoration &amp; Protection</td>
<td>1.5</td>
</tr>
</tbody>
</table>

#### Preliminary contribution to offset targets (hectare equivalents)

<table>
<thead>
<tr>
<th>Wetland Protection</th>
<th>Wetland Functional Area</th>
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</thead>
<tbody>
<tr>
<td>42.50</td>
<td>12.50</td>
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#### Adjusted contribution to offset targets (hectare equivalents)

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<tr>
<th>Wetland Protection</th>
<th>Wetland Functional Area</th>
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</thead>
<tbody>
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<td>18.89</td>
<td>5.56</td>
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Ways of achieving wetland offsets

- Protection
- Averted loss
- Rehabilitation / restoration
- Establishment
- Direct Compensation
Offset receiving areas
Revision & approval process

Revision as required

DWA draft version

DWA intra-governmental process | Stakeholder process | Revision as required

DWA review

Internal DWA technical review

Revised version

Stronger discounting of heavily impacted wetlands | Better incorporation of water resource issues

DWA approved guidelines

Aim for formal DWA endorsement 2013 | Will have same status as Wetland Delineation Guidelines

Wetland offset technical document

1st version SANBI technical document | Testing on mines and other projects | Feedback
Key messages

1. Offsets are the last stage in the application of the mitigation hierarchy to compensate for significant residual impacts.

2. Wetland offsets are part of the national biodiversity offsets policy development process, including alignment of goals and principles.

3. Wetland offsets document sets out clear practical guidelines for implementing offsets in a consistent way.

4. Anticipated to become an official DWA guideline in late 2013.
Thank you

- Wetland offset guideline available on request from sholness@nmmu.ac.za