Management Effectiveness Assessment on South African Coral Reefs

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BACKGROUND

• iSimangaliso Wetland Park Authority conducts MEA on Maputaland coral reefs, reporting directly to DEA
• Designated conservation provider = KZNW
• Intensity of reef use is a concern
• ORI conducts major monitoring programmes
• Survey & research results are applicable
Results of reef damage surveys

Current at some sites

Targeted maximum

Probability of exceeding given % diver damage

5% diver damage

10% diver damage

20% diver damage

Dives (10^3) per year per site
# Reef zonation for use

(Based on coral sensitivity, reef carrying capacity and depth)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Use per site</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Shallow, snorkellers</td>
<td>Near subtidal reefs $&lt;8 \text{ m}$</td>
</tr>
<tr>
<td>L</td>
<td>Learner divers</td>
<td>Resilient reefs $&lt;18 \text{ m}$; $\leq 25 \text{ dives.day}^{-1}$</td>
</tr>
<tr>
<td>U</td>
<td>General use</td>
<td>Resilient reefs $&lt;18 \text{ m}$; $\leq 19 \text{ dives.day}^{-1}$</td>
</tr>
<tr>
<td>$R_E$</td>
<td>Experienced divers</td>
<td>Resilient reefs $18-39 \text{ m}$; $\leq 19 \text{ dives.day}^{-1}$</td>
</tr>
<tr>
<td>$R_A$</td>
<td>Advanced divers</td>
<td>Resilient reefs $18-39 \text{ m}$; $\leq 19 \text{ dives.day}^{-1}$</td>
</tr>
<tr>
<td>$R_{AE}$</td>
<td>Experienced &amp; advanced</td>
<td>Sensitive reefs $18-39 \text{ m}$; $\leq 4 \text{ dives.day}^{-1}$</td>
</tr>
<tr>
<td>$R_S$</td>
<td>Special biota</td>
<td>Existing or proposed sanctuaries</td>
</tr>
<tr>
<td>$S$</td>
<td>Sanctuaries</td>
<td>Existing or proposed sanctuaries</td>
</tr>
</tbody>
</table>

For convenience, these dive rates may be expressed per week but the implications of loading the full weekly quota on a site in a single day or weekend must then be taken into account.
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