Ecosystem Services and INRM in the Uthukela DM

Prepared by

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Identification of key ES delivery areas can drive prioritisation of areas for conservation and restoration.

Service delivery is defined as where supply meets demand (spatially).

We outline a method for regional ES mapping for inclusion in the uThukela DM EMF.
Supply:

- This is effectively the mapping of ecological infrastructure

- The supply is mapped using the best spatial data available:
  - Land cover type
  - Catchment hydrology studies
  - Biodiversity distribution maps

- Supply is heavily influenced by condition of infrastructure
  - ‘Condition’ of ecosystem based on vegetation
Water regulating services: Supply
Approach to ES mapping: Demand

🌳 Demand:

- Mapping demand requires understanding of:
  - **Which factors** exert demand;
  - **where** demand is exerted;
  - **what level** of demand is exerted.

- Demand can be exerted from anywhere but is always exerted onto an ecosystem / area supplying the service:
  - Sometimes all ecosystems supplying the service
  - Sometimes selected ones
Water regulating services: Demand
## Approach to ES mapping: Prioritisation

<table>
<thead>
<tr>
<th>Demand</th>
<th>High</th>
<th>Supply</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Retain to meet current demand. Implement management action to limit impact of heavy demand and ensure continued supply</td>
<td>Implement restoration and rehabilitation to help meet current demand</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Retain to meet low current and possible higher future demand</td>
<td>Areas of least concern</td>
<td></td>
</tr>
</tbody>
</table>
Water regulating services: Prioritisation
Optimise resources: Combined services
Thank you
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Discussion point:

- Is it ‘overkill’ to utilise fine scale data for regional scale ecosystem services assessment / mapping?