

# Limpopo Biodiversity Assessment

Biodiversity Planning Forum – May 2014

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# Status

- We have a Biodiversity Assessment!
- Biodiversity Assessment outsourced to Ecosol
- Product delivered and adopted by LEDET (Limpopo Department of Economic Development, Environment & Tourism)

# Approach

Planning  
Units

- 60 588 planning units derived

Protected Areas  
Simplified Land Cover  
Limpopo local catchments  
Cadastres

Proximity to impacts  
Ecological processes & corridors  
Mining rights/deposits

Cost  
surface

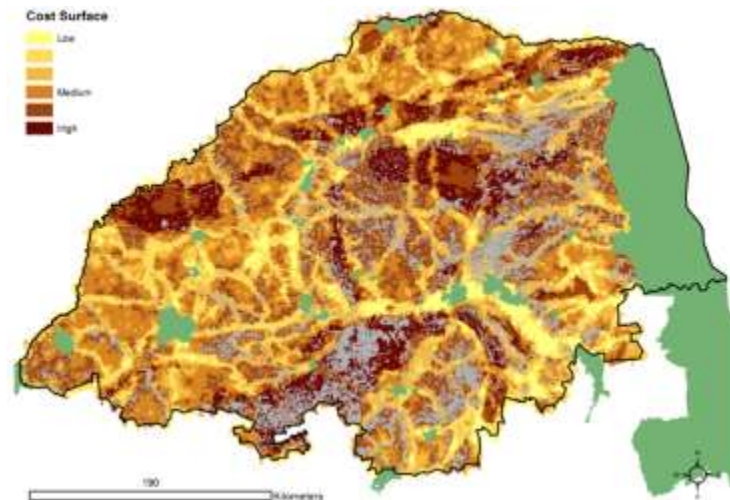
- Cost surface derived

Target-  
setting

- Targets set for biodiversity features and processes

# Data: Cost surface

- Proximity to transformation
- Proximity to roads
- Climate change adaptation & corridors
- Transport routes
- Mining & mining rights
- High sediment yield areas
- Gully erosion areas



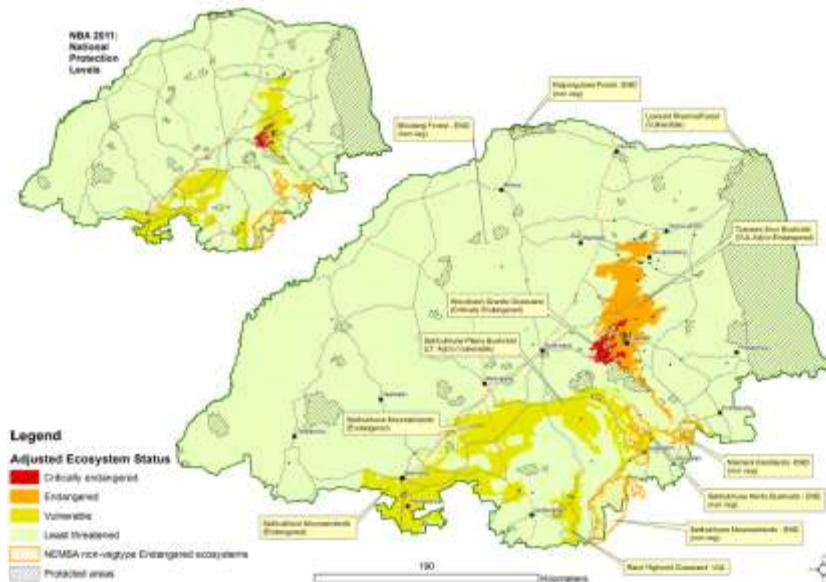
# Data: Terrestrial Habitats

- National vegetation map was used with modifications to:
  - Woodbush Granite Grassland (to correct inaccuracies in mapping)
  - Forests (aligned to DAFF forest data)



# Ecosystem Status

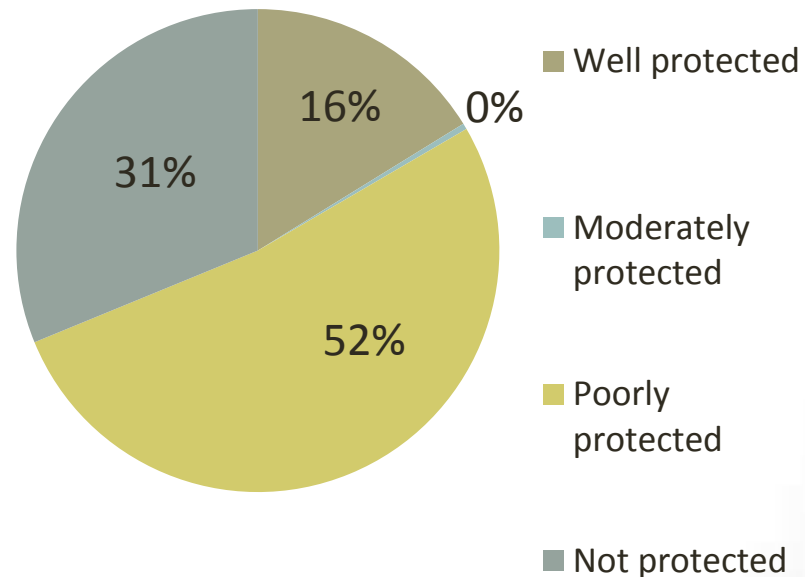
- Data updates
  - Adjusted Ecosystem Threat Status of:
    - Tzaneen Sour Bushveld (Vulnerable -> Endangered)
    - Sekhukhune Plains Bushveld (Least Threatened -> Vulnerable)
  - Non-vegetation type threatened ecosystems included.



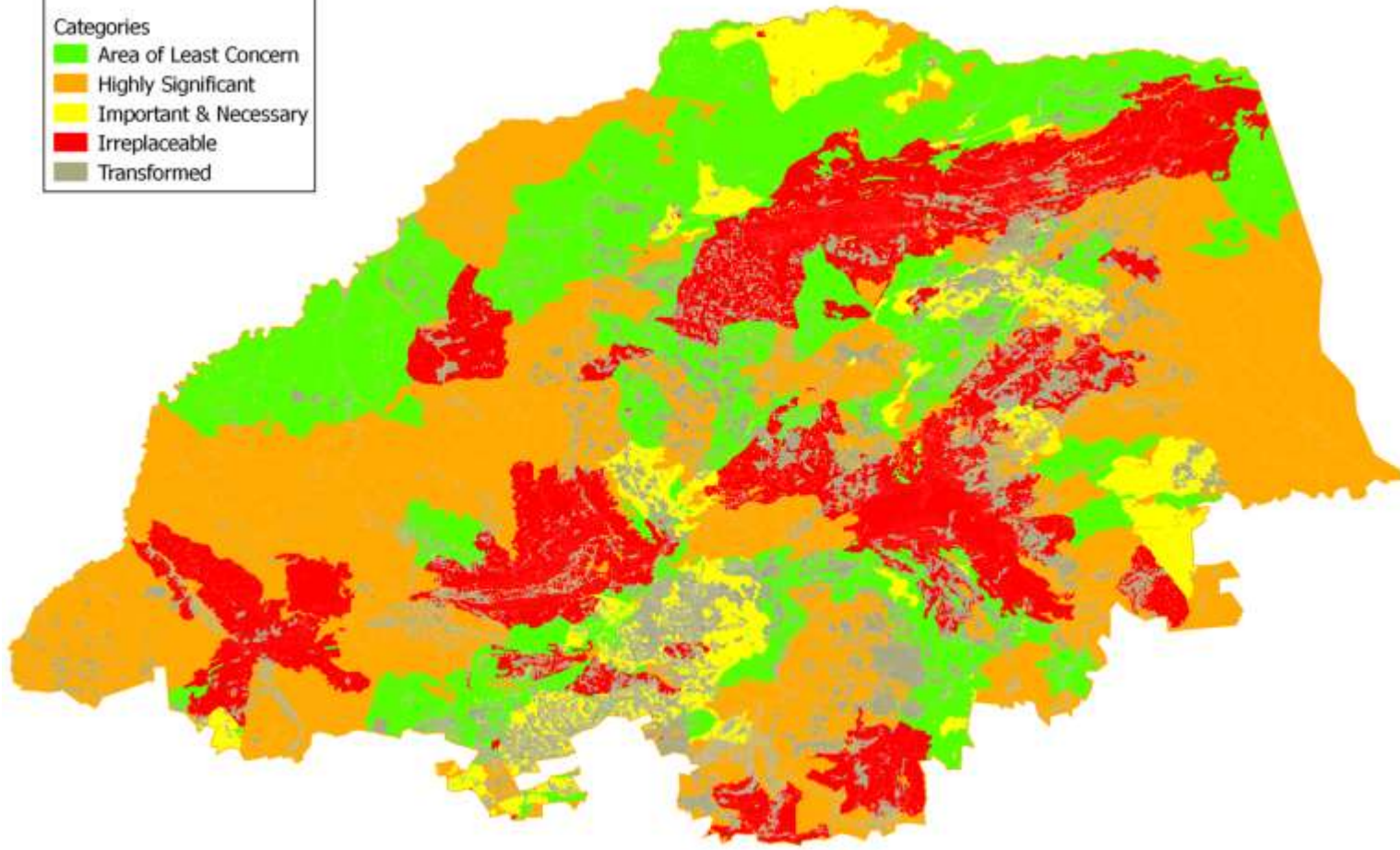
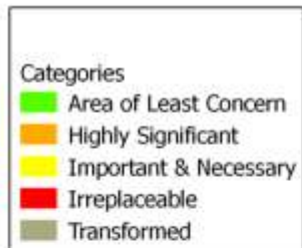
# PA Network GAP Analysis

- **85% more land surface required in PA network!**

## Limpopo Protection Level

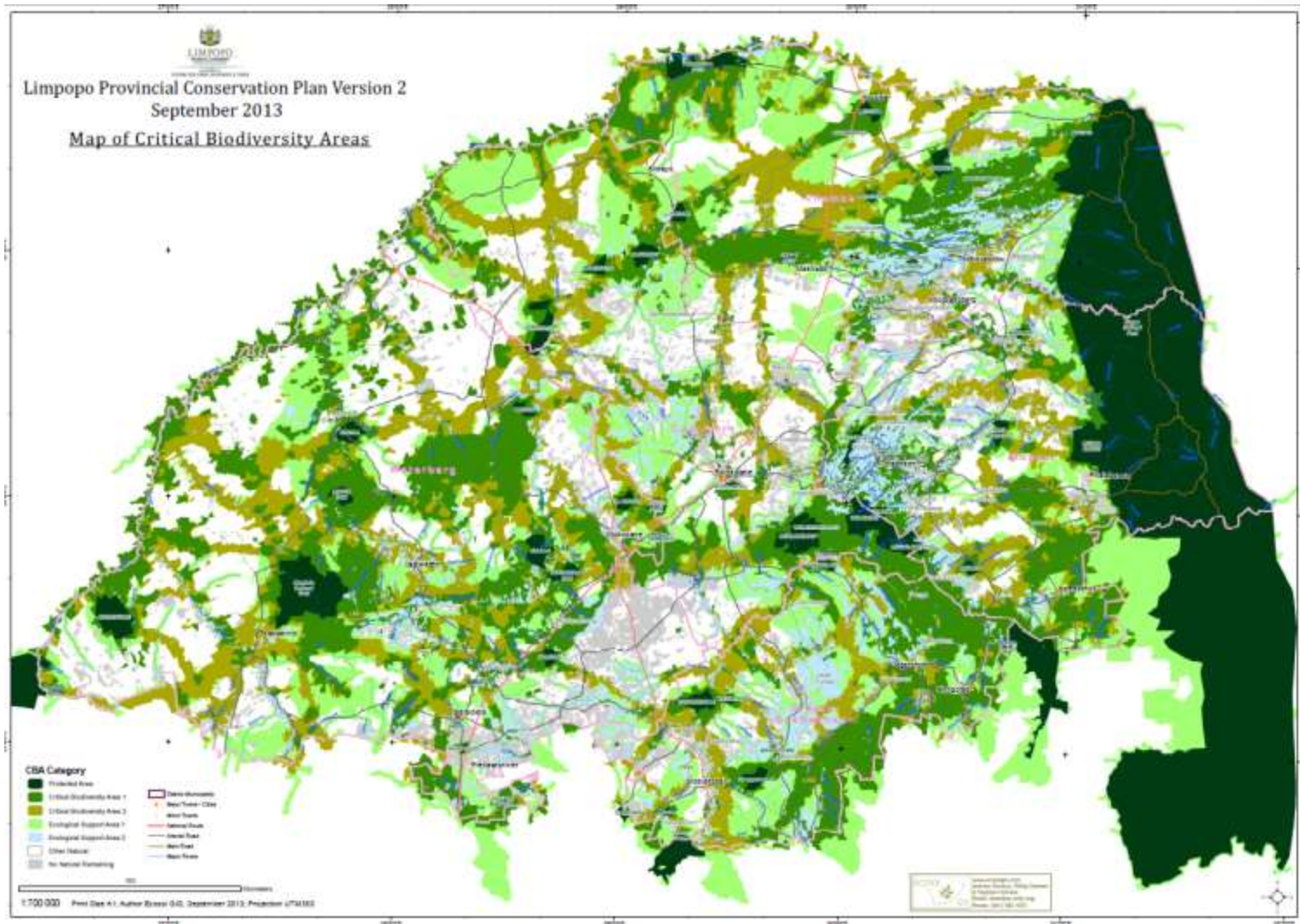


# Status quo (Jan 2013)





# Status quo (current)



# CBA/ESAs

CBA Category	Extent (ha)	Extent (km2)	Percentage
Protected Area	1 360 410	13 604	11%
CBA1	2 780 864	27 808	22%
CBA2	2 238 430	22 384	18%
ESA1	2 009 053	20 090	16%
ESA2	933 802	9 381	7%
<b>Total</b>	<b>9 322 559</b>	<b>93 225</b>	<b>74%</b>

# Land Use Guidelines

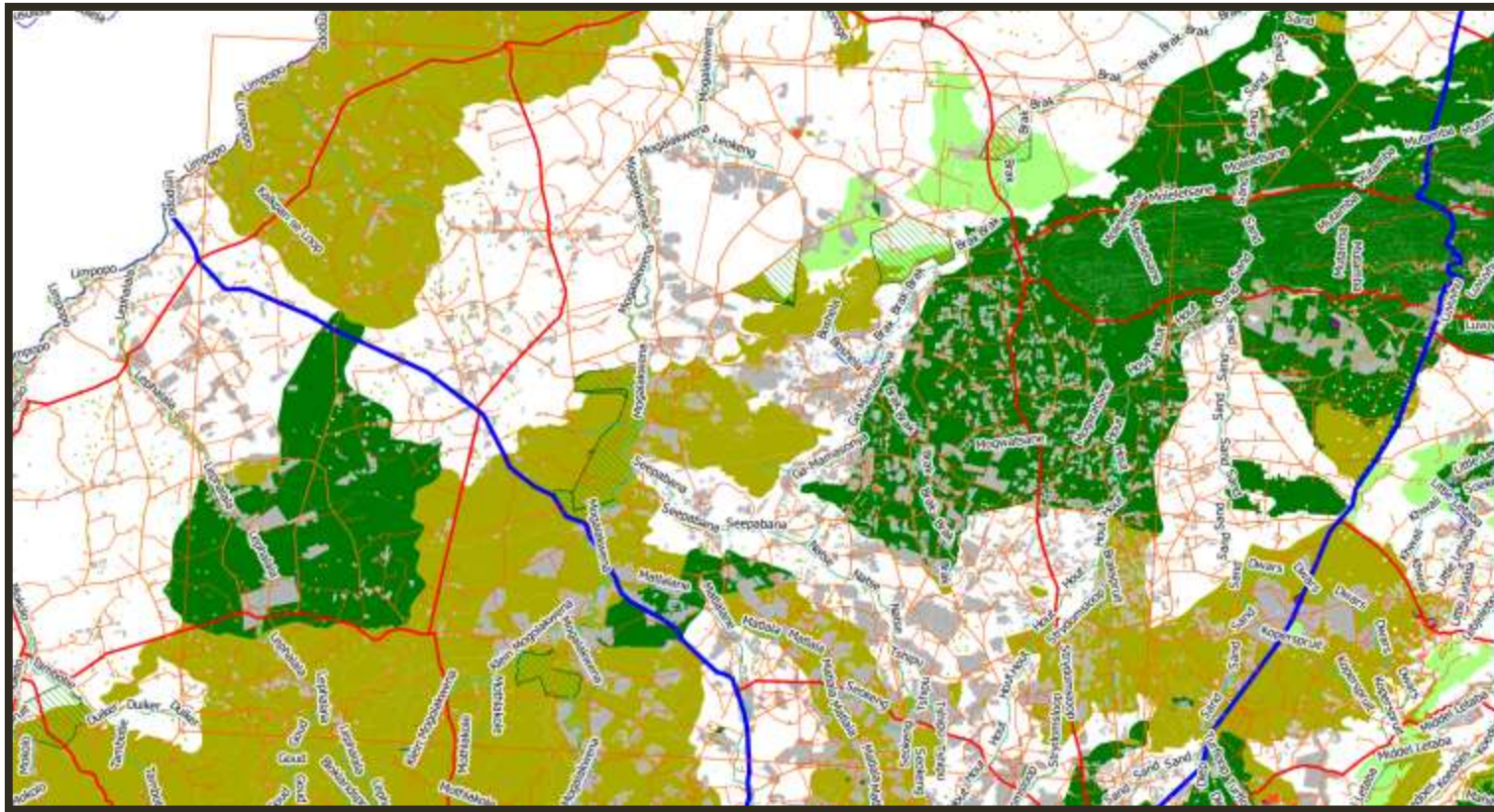
**Table 14. Recommended land management guidelines for Critical Biodiversity Areas and Ecological Support Areas**

<b>CRITICAL BIODIVERSITY AREAS ONE (CBA1)</b>
<b>Keep in a NATURAL STATE</b>
<b>General Recommendations</b>
<ul style="list-style-type: none"> <li>• No further loss of natural habitat should occur i.e. land in this category should be maintained as natural vegetation cover as far as possible;</li> <li>• These areas of land can act as possible biodiversity offset receiving areas;</li> <li>• Prioritise CBAs for land care projects, Working for Water (WfW) and NGOs to direct their conservation projects, programmes and activities;</li> <li>• An Ecological Management Plan should be compiled where required for CBAs. EMP to include alien plant control, fire management etc.;</li> <li>• Control of illegal activities (such a hunting and dumping), which impact biodiversity should be prioritized in CBA areas.</li> </ul>
<b>Protection</b>
<ul style="list-style-type: none"> <li>• CBAs not formally protected should be rezoned where possible to conservation or appropriate open space zoning, and where possible declared in terms of NEM: Protected Areas Act.</li> <li>• The Stewardship program should prioritise privately owned erven in CBAs to be incorporated into the protected area network through Stewardship Agreements and incentives (e.g. rates rebates).</li> </ul>
<b>Rehabilitation</b>
<ul style="list-style-type: none"> <li>• Degraded or disturbed CBAs should be prioritized for rehabilitation through programmes such as Working for Water, Working for Wetlands.</li> </ul>
<b>Development Guidelines</b>
<p><b>Where infrastructure is proposed, the following guidelines should be implemented -</b></p> <ul style="list-style-type: none"> <li>• Rezoning of properties to afford additional land-use rights that will result in increased biodiversity loss should not be granted;</li> <li>• Permission to increase the permitted number of units per erf or per ha should not be granted;</li> <li>• Developments should be limited to existing developed / degraded footprints, if present;</li> <li>• Units carefully dispersed or clumped to achieve least impact, particularly with regard to habitat loss and fragmentation;</li> <li>• The installation of infrastructure in CBAs is not desirable and should only be considered if all alternative alignment and design options have been assessed and found to be non-viable. Under such conditions, at least a Basic Assessment (BA) should be undertaken, and if approved, a comprehensive EMP must</li> </ul>

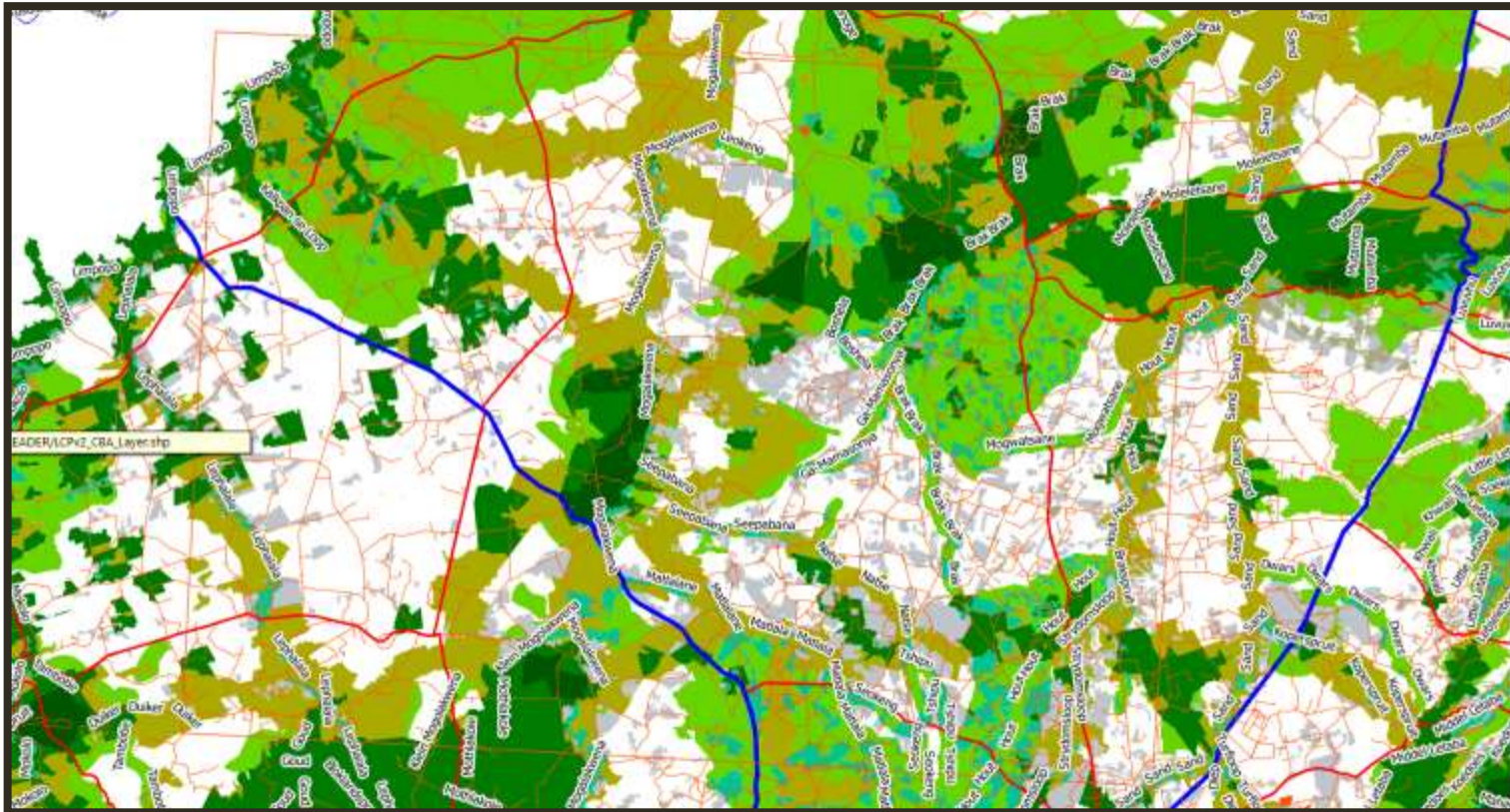
# PA expansion/declaration priorities:

- Priority 1 (Critically Endangered)
  - Woodbush Granite Grassland
- Priority 2 (Endangered)
  - Tzaneen Sour Bushveld
- Priority 3 (Vulnerable)
  - Springbokvlakte Thornveld
  - Sekhukhune Plains Bushveld
  - Rand Highveld Grassland
  - Northern Escarpment Dolomite Grassland
  - Lowveld Riverine Forest
  - Legogote Sour Bushveld

# Comparison of products: old



# Comparison of products: new



# Physical Products

- ✓ Spatial data and a data dictionary
- ✓ Provincial Protected Area Network GAP analysis
- ✓ Map of Critical Biodiversity Areas
- ✓ Land use guidelines associated with CBA categories
- ✓ Stand alone GIS viewer
- ✓ Delivery of CBA map to SANBI for inclusion on BGIS

# Where to from here?

- Limpopo Protected Area Expansion Strategy
  - In progress
- Waterberg Biodiversity Sector Plan
  - ToR approved and process is under way



ENKOSI!