



KZN Biodiversity Stewardship Programme: Site Assessment

Part 1: Property and Contact Information

Site Number	Information Supplied by	Region & Conservation District	Date
<i>For Official Use Only</i>			

Overall Objectives of the Site Assessment

1. Determine the biodiversity value of the proposed stewardship area
2. Determine land-use pressures and threats to the proposed stewardship area
3. Determine whether the proposed stewardship area warrants incorporation into the KZN Biodiversity Stewardship Programme
4. Establish the preferred stewardship category
5. Begin the process of developing a management plan for the proposed stewardship area
6. Establish a baseline for evaluation of management effectiveness

Property		Size
.....		
Erf number	.....
Location	.....
Contact	.....
Telephone	Land-line	Cell
.....		
E-mail	.....
Postal Address	.....
.....		
DCO / CCO	.....
iNkosi	.....
Telephone	Cell	
.....		
Postal Address	.....
.....		
iNduna	.....
Telephone	Cell	
.....		
Postal Address	.....
.....		



KZN Biodiversity Stewardship Programme: Site Assessment

Part 2: Desktop Assessment

<i>Site Number</i>	<i>Assessor(s)</i>	<i>Region & Conservation District</i>	<i>Date</i>
<i>For Official Use Only</i>			

Objectives of the Desktop Assessment

1. Determine the biodiversity value of the proposed stewardship area and its potential contribution to conservation target achievement using systematic conservation planning products (i.e. Bioregional Conservation Plan) and other spatial information.
2. Determine how the proposed stewardship area complements the existing protected area network and other sites of conservation importance (e.g. through the formation of corridors or buffering existing protected areas)
3. Determine the proportion of intact and transformed habitat on the proposed stewardship area and the degree to which the natural habitat is fragmented.

Data required

Obtain the following digital data layers for the property:

- Orthophoto (if available)
- Satellite image (if orthophoto not available)
- 1 : 50 000 topographical map
- Cadastres / farm boundaries
- KZN Vegetation Types
- Irreplaceability
- KZN Minset
- Ecosystem Status
- Landcover
- Transformation
- Protected areas
- Rivers
- Roads
- Bioresource Units (from DAEA)

A3 Maps to be produced during Desktop Assessment for use in Field Assessment

The following A3 laminated maps should be produced for use in the Field Assessment (in all cases the boundary of the proposed stewardship area should be overlaid on the base map)

1. Orthophoto (or satellite image), with rivers and roads.
2. 1 : 50 000 topographical map

A4 Maps to be attached to Desktop Assessment

The following A4 maps should be produced and attached to the Desktop Assessment

1. Irreplaceability
2. Landcover
3. KZN Vegetation Types with hatched Transformation layer overlaid

Desktop Assessment of Biodiversity Value:

Biodiversity Pattern:				
1.1	Using the map of Ecosystem Status, determine if the property contains ecosystems that are:	Y	N	
	Critically Endangered			
	Endangered			
	Vulnerable			
	Least Threatened			
1.2	Using the Irreplaceability map, determine the following:			Comments:
	a) The highest irreplaceability value within the property			
	b) The number of grid cells with high irreplaceability values (0.67 – 1)			
	c) The number of grid cells with moderate irreplaceability values (0.33 – 0.67)			
	d) The number of grid cells with low irreplaceability values (0 – 33)			
1.3	Interrogate the Irreplaceability map and record which features are “driving” high irreplaceability values			Comments:
1.4	Using the KZN Minset Map, record if the property contains the following categories:	Y	N	Comments:
	Mandatory Reserve			
	Negotiated Reserve			
1.5	Using the map of KZN Vegetation Types, answer the following:	Y	N	Comments:
	a) Does the property fall within a vegetation type or ecosystem that is not adequately protected in existing proclaimed reserves? State how much of the vegetation type(s) is conserved and the target for the vegetation type(s).			
	b) What percentage of the total provincial extent of these vegetation types does the property contain? (exclude transformed areas)			Comments:

	c) What percentage of the target for these vegetation types could the property contribute?			Comments:
1.6	Is the property within the modelled or likely distribution range of a RDB species (according to the KZN Strategic Environmental Assessment or any other reputable source of such information)?	Y	N	List:
1.7	Using the EKZNW Biodiversity Database (or any other reputable source of such information): does the property contain Endemic, Rare or Threatened species or species of special concern? List these.	Y	N	
1.8	Using the KZN Environmental Atlas: do any important features occur within the property. List these.	Y	N	List:
Ecosystem Processes and Services:				
1.9	Does the property contribute to broad landscape scale ecological processes or ecosystem services?	Y	N	Comments:

	a) Does the property fall within one of the macro-corridors identified within the KZN systematic conservation plan? Identify the corridor.			
	b) Is the property within an important water production areas identified within the KZN systematic conservation plan?			
1.10	Does the property contribute to local scale ecological processes or ecosystem services?	Y	N	Comments:
	a) Does the property contain major altitudinal gradients?			
	b) Does the property contain functional wetland systems that provide ecosystem services (e.g. nutrient removal, flood attenuation)			

Desktop Assessment of Habitat Transformation

Habitat Transformation:					
2.1	Using the Transformation layer and orthophotos, estimate the proportion of the property that is transformed (e.g. ploughed lands, hard surface development).			Comments:	
2.2	Using the Orthophoto (or any available spatial data on alien plant distribution), estimate how severely the property is invaded by alien plants.	H	M	L	Comments:
2.3	Using the Landcover layer, indicate the types of landuse on surrounding properties.				Comments:
2.4	Does transformation adjacent to the property create barriers to natural processes?	Y	N	?	Comments:
2.5	Using the Transformation layer and orthophotos, indicate the extent of fragmentation of the natural habitat of the property	H	M	L	Comments:

Location and Context of the Site

<i>In Relation to Protected Areas and Areas of High Conservation Value:</i>					
3.1	Using the Protected Area layer, indicate if the site is bordering or near to existing protected area(s) or areas of conservation significance. Name the protected area(s).	Y	N	Comments:	
3.2	Using the Protected Area layer, indicate if the property can contribute to a buffer or corridor to other reserves or areas of high conservation importance?	Y	N	Comments:	
3.3	Is the property identified in the EKZNW Protected Area Expansion Plan?	Y	N	Comments:	
Land-use Pressures					
<i>Land-use Pressures</i>					
4.1	What is the property zoned as in terms of municipal planning schemes?	Comments:			
4.2	Using information (supplied by Dept. of Agric.) on the Bioresource Units within the property, indicate its agricultural potential.	H	M	L	Comments:

Additional Information

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KZN Biodiversity Stewardship Programme: Site Assessment

Part 3: Field Assessment

Site Number	Assessor(s)	Region & Conservation District	Date
For Official Use Only			

Objectives of the Field Assessment

1. Verify and ground-truth the results of the Desktop Assessment.
2. Uncover any errors, inaccuracies or omissions in the Desktop Assessment (e.g. due to scale issues or aging data).
3. Determine the condition of the natural habitat on the proposed stewardship area.
4. Obtain information from the landowner on the property and its management.
5. Determine what the landowner's needs and expectations are from the KZN BSP.
6. Determine what provisions should be included in a management plan for the proposed stewardship area

Explanation of zoning – the zonation is going to be specific to the property, based on management considerations
[homogenous units](#)
[Group according to respondent?](#)

Site Characteristics & Biodiversity Value

Biodiversity Pattern:					
1.1	Are there any ecosystems / vegetation types / habitats of conservation significance within the proposed stewardship area? (Map these if possible)	Y	N	?	
1.2	Does the proposed stewardship area house additional Endemic, Rare or Threatened species or species of special concern? List these with some measure of their status (e.g. occasional visitor, resident, breeding resident). (Map any relevant information relating to this, e.g. nest sites)	Y	N	?	Observed:

Ecological Processes & Ecosystem Services:

Use the table below to determine the major determining processes on the proposed stewardship area.				
	Broad Vegetation Type	Major determining Processes	Y	N
	Alpine Grassland	Fire, specialised pollination		
	Moist Grassland	Fire, grazing, specialised pollination		
	Semi-arid Savanna	Rain patterns, fire, grazing, browsing		
	Mesic Savanna	Fire, grazing		
	Semi-arid Bushland and Thicket	Browsing, fire (margins), avian seed dispersal		
	Dry Forest (Sand Forest)	Browsing, avian seed dispersal, fire (margins)		
	Moist Forest	Avian seed dispersal, wind blows, fire (margins)		
1.3	Do any important ecological processes occur on the proposed stewardship area (map any spatial components of these processes, if possible):	Y	N	?
	Energy and nutrient dynamics			
	a) Wetlands - trap sediment, nutrient and detritus			
	b) Rivers - movement of sediment, nutrients, organisms, flooding			
	c) Other:			
	Processes which maintain and generate animal and plant populations			
	Macro-scale			
	d) Dispersal - across altitudinal gradients in response to climate change			
	e) Dispersal - habitat for seasonal migrants			
	Micro-scale			
	f) Dispersal - allows for seasonal local movements of fauna			
	g) Reproduction - hill-topping areas for butterflies			
	h) Wetlands - foraging, breeding and roosting habitat			
	i) Forest - foraging, breeding and roosting habitat			
	j) Source [of biota] for external properties			
	k) "Island hopping" / Stepping stones for biota			
	l) Other:			
	Comments:			

Species interactions					
m) Herbivory - by large and megaherbivores (savanna, forest, moist grassland, bushveld and thicket)					
n) Predation - by top large predators (>10 000 ha)					
o) Predation – predator-prey interactions					
p) Other:					
1.4					
Does the proposed stewardship area provide any significant ecosystem services? (Map relevant areas if possible)	Y	N	?	Comments:	
Provisioning services (products obtained from ecosystems)					
a) Clean water production (grassland function)					
b) Water purification (wetland function)					
c) Food					
d) Medicinal plants or products					
d) Fire wood					
e) Harvesting of plant material (e.g. thatch, sedge, poles)					
f) Grazing					
g) Pollination					
h) Animal harvesting					
i) Other					
Regulating services (benefits obtained from the regulation of ecological processes)					
e) Regulation / attenuation of floods					
x) Regulation of water supply					
f) Carbon sequestration					
g) Other					
Cultural services (non-material benefits)					
h) Education					
i) Recreation					
j) Aesthetics					
k) Spiritual					
l) Cultural					
m) Other					

Condition of Biodiversity at Site

Habitat Transformation:					
2.1	Indicate the extent of transformation within the various zones of the proposed stewardship area. (Map any transformed areas that are not captured by Desktop Assessment)	H	M	L	Comments - Entire property:
					Zone A:
					Zone B:
				Zone C:	
2.2	Indicate the extent of habitat degradation within the various zones of the proposed stewardship area. Note if any veld condition surveys have been conducted.	H	M	L	Comments - Entire Property
					Zone A:
					Zone B:
				Zone C:	
2.3	How degraded are the plant communities in the various zones on the proposed stewardship area in terms of species loss? Indicate the causative agents for this degradation (e.g. overgrazing, inappropriate fire management)	H	M	L	Comments - Entire Property:
					Zone A:
					Zone B:
				Zone C:	

3.5	Is the site used for any non-consumptive uses (e.g. hiking, mountain biking)?	Y	N	Comments:
3.6	Does any consumptive utilisation occur on the proposed stewardship area (e.g. grazing, hunting, mowing of hay, thatch grass harvesting etc.)?	Y	N	Comments:
3.7	What is the current burning regime on the property?	Comments:		
3.8	Give details around the grazing system used (stocking rate, time of year etc).	Comments:		
3.9	What notable management or restoration actions are required (e.g. erosion control, de-stocking, fencing)?	Comments:		
3.10	Are there any specific management needs that the landowner has? Does the landowner require, or has he requested, any specific support from EKZNW or other agencies?	Comments:		
3.11	Is fencing required on the proposed stewardship area to meet conservation objectives? Indicate where fencing would be required.	Y	N	Comments:
3.12	Are there any veterinary restrictions imposed on the proposed stewardship area?	Y	N	Comments:

SECTION C:

Development and Partnership Opportunities

<i>Development and Partnership Opportunities</i>				
4.1	Are there other current Partnerships or memberships to note? (e.g. Conservancy, Fire Protection Association, Water users Association)	Y	N	Comments:
4.2	Is the proposed stewardship area an existing Natural Heritage Site, Site of Conservation Significance, Community Conservation Area or Registered Commercial Game Farm, Registered Important Bird Area?	Y	N	Comments:
4.3	Specify any conditions or agreements applying to property (e.g. Trusts, MoA's, MoU's, permissions, permits, EIA applications, development conditions, liabilities, directives in terms of any legislation, land claims or servitudes).	Comments:		
4.4	Are there any development intentions for the area proposed for conservation?	Y	N	Comments:
4.5	Does the landowner have any intentions of selling the property in the near future?	Y	N	Comments:

Site Assessment Summary

(Please rate on a scale High / Med / Low)

	Entire Property	Zone A	Zone B	Zone C	Zone D
Conservation Importance					
Management Cost: Site					
Management Cost: EKZNW					
Threats: Site Scale					

Recommended Stewardship Status

Contribution to conservation

(Please rate as E (Essential), I (Important), N (Not Essential or Important))

Contributes to conservation of important vegetation types	
Contributes to conservation of important species	
Contributes to conservation of important ecological process	
Contributes to conservation of system that provides significant ecosystem services	

NEMA PAA Checklist

(Please tick the appropriate box)

2 b (i) has significant features or biodiversity	
2 b (ii) is of scientific, cultural, historical or archaeological interest	
2 b (iii) is in need of long-term protection for the maintenance of its biodiversity or for the provision of environmental goods and services	
2 c provides for a sustainable flow of natural products and services to meet the needs of a local community	
2 d enables the continuation of such traditional consumptive uses as are sustainable	
2 e provides for nature-based recreation and tourism opportunities	

(Please tick the appropriate box)

	Entire Property	Zone A	Zone B	Zone C	Zone D
Nature Reserve					
Protected Environment					
Biodiversity Agreement					
Conservation Area					

Summary of 4 or 5 major reasons for suggested stewardship status:

Describe the most important conservation Management Objectives for the property:

Comments and Additional Information: