



Gauteng Biodiversity Stewardship: Site Assessment

Part 1: Property and Contact Information

<i>Information Supplied by</i>	<i>Municipal Area</i>	<i>Date</i>

Property: **Size:**

Erf number:

Location:

Landowner:

Telephone: **Land-line:** **Cell:**

E-mail:

Postal Address:

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..... **Postal Code:**

Negotiator: **Contact no.:**

Ext. Officer: **Contact no.:**

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Site Assessment Team:

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Gauteng Biodiversity Stewardship: Site Assessment

Part 2: Site Information

Overall Objectives of the Site Assessment

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

Procedure for the Site Assessment

1. The Site Assessment is coordinated by the GBS Facilitator
2. The GBS Facilitator must assemble an appropriate Assessment Team based on the requirements of each site
3. The sections shaded in green should be completed by the Assessment Team
4. The sections shaded in blue should be completed by the Assessment Team and the Landowner
5. The sections shaded in yellow should be completed by the Landowner
6. The Site Assessment comprises a Desktop Assessment and a Field Assessment component
7. Sections marked with a 'D' must be completed during the Desktop Assessment
8. Sections marked with an 'F' must be completed during the Field Assessment
9. Sections marked with an 'E' require expert input
10. Certain sections require scores to be assigned (1-5) – consult scoring system in Appendix 1.

Data required

The following spatial data layers are required for the Desktop Assessment of the site:

- Orthophoto (if available)
- Satellite image (if orthophoto not available)
- 1 : 50 000 topographical map
- Cadastral layer

- Gauteng Vegetation Types layer
- Ecosystem Status of Vegetation Types
- Irreplaceability layer
- Gauteng C-Plan Areas layer
- SANBI Grasslands Programme: Grassland Priorities layer
- Transformation / landcover layer
- Red and Orange List species layers
- Corridors layer
- Dolomite layer
- Ridges layer
- Wetlands layer
- River layer
- Road layer
- Protected area layer

Maps to be attached to the Desktop Assessment (A4)

1. Map of site's Irreplaceability
2. Map of Gauteng C-Plan categories
3. Landcover map
4. Map of the Vegetation Types occurring on the site with hatched transformation layer overlaid

Maps produced during Desktop Assessment for use in the Field Assessment (A3)

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

1. CLINCHERS								
1.1	Does the area fall within an Irreplaceable area?							
	Desktop assessment		Y	N	Field verification		Y	N
	Examine C-Plan layer: determine status and what is driving the status.			Verify that the feature driving the Irreplaceable status occurs.				
	Record feature driving Irreplaceable status:			Comment:				
1.2	Does a Critically Endangered vegetation type occur on the site?							
	Desktop assessment		Y	N	Field verification		Y	N
	Examine the vegetation types and transformation layers: determine if untransformed Critically Endangered vegetation types occur			Verify the presence of the Critically Endangered vegetation type on the site.				
	Record Critically Endangered vegetation type(s):			Comment:				
1.3	Does the area contain Critically Endangered species ?							
	Desktop assessment		Y	N	Field verification		Y	N
	Examine the Red and Orange list species layers, or other reliable data layers, to determine presence of Critically Endangered species.			Verify that the species recorded occurs, note additional Critically Endangered species – consult expert if necessary.				
	Record Critically Endangered species:			Comment:				
2. HABITATS								
2.1	Does the area contain threatened habitats or vegetation types ?							
	Desktop assessment			Field verification				
	Using vegetation types layer, list vegetation types and their Ecosystem Status			Verify that the vegetation types occur on the site.				
	Comment:			Comment:				Score
2.2	What is the reservation status of the vegetation types present?							
	Desktop assessment							
	Record how much of each vegetation type present is conserved in statutory reserves.							
	Reservation status:							
2.3	How does the site contribute to biodiversity target achievement ?							

		Desktop assessment		
		1. Calculate the proportion of the provincial extent of the vegetation types contained within the property using the following formula: <i>Untransformed extent of vegetation type within property / provincial extent of vegetation type x 100 = % provincial extent of vegetation type within property</i>		
		2. Calculate the properties potential contribution to biodiversity targets for vegetation types using the following formula: <i>Untransformed extent of vegetation type within property / vegetation type target x 100 = potential contribution of property to biodiversity target</i>		
		Proportion of provincial extent of vegetation types:		
		Contribution to biodiversity targets for vegetation types:		
What is the condition of the vegetation types present?				
		Desktop assessment	Field verification	
		Using the transformation layer, indicate the level of habitat transformation for the site and the individual vegetation types	Assess the condition of the vegetation types– consult an expert if necessary.	
2.4	Transformed:	%	Comment:	Score
	Degraded:			
How fragmented are the habitats on the site?				
		Desktop assessment	Field verification	
		Using transformation layer and aerial photos, comment on fragmentation.	Verify the degree of fragmentation of natural areas on the site.	
2.5	Comment:		Comment:	Score
What is the potential to rehabilitate degraded areas on the site?				
		Desktop assessment	Field verification	
		Evaluate the potential to rehabilitate degraded areas of the site.	Evaluate the potential to rehabilitate degraded areas of the site.	
2.6	Comment:		Comment:	Score
3. SPECIES				

3.1	Do any priority species occur on the site?				Score
	Desktop assessment		Field verification		
	Using the Red and Orange List species data layers, or other reputable sources, list priority species. Note the data source and whether species records are based on actual occurrences or modelled or historic data.		Confirm that the priority species listed in the desktop assessment occur on the site. Consult an expert, if necessary. Note any additional priority species observed, or that are confirmed to occur.		
	Priority species:	Data source:	Confirmed priority species:	Source:	
3.2	Do any Red or Orange listed species occur on the site?				Score
	Desktop assessment		Field verification		
	Using the Red and Orange List species data layers, or other reputable sources, list Red or Orange List species. Note the data source and whether species records are based on actual occurrences or modelled or historic data.		Confirm that the Red or Orange List species listed in the desktop assessment occur on the site. Consult an expert, if necessary. Note any additional Red or Orange List species observed, or that are confirmed to occur.		
	Red or Orange listed species:	Data source:	Confirmed Red or Orange listed species:	Source:	
3.3	What is the potential of the site for species recovery ?				Score
	Desktop assessment		Field verification		
	Summed Irreplaceability		Evaluate the potential of the site for recovery of special species populations.		
	Comment:		Comment:		
4. ECOLOGICAL PROCESSES					
4.1	Does the site contain habitat heterogeneity ?				Score
	Desktop assessment		Field verification		
	Examine the vegetation type layer and count the number of habitats on the site.		Confirm the number of habitats on the site. Include any additional habitats not listed in the desktop assessment.		
	Comment:		Comment:		
4.2	What scale of ecological processes can take place on the property?				
	Desktop assessment				

	Compare the size of the proposed biodiversity stewardship area to the specific area requirements for ecological processes within each ecosystem						
	Comments:					Score	
4.3	Will the property be able to contribute to biological adaptations to climate change (does it contain altitudinal gradients)?						
	Desktop assessment						
	Calculate altitudinal gradients using the following formula: <i>Highest point on property - lowest point on property = altitudinal gradient</i>						
	Comments:					Score	
4.4	Is the property within a corridor or a ' stepping stone ' for the movement of species?						
	Desktop assessment		Field verification				
	Comments:		Comments:			Score	
4.5	Is the property of strategic value as a buffer to protected areas or as a protected area consolidation or expansion area?						
	Desktop assessment						
	Consult the Protected Areas layer and the Gauteng Protected Areas Expansion layer.						
	Comment:						
4. ECOSYSTEM GOODS AND SERVICES							
4.1	Do important provisioning services occur (are products obtained from the ecosystems)?						
	Desktop assessment			Field verification			
	Score each of the services below in terms of availability of the service and demand for the service.			Score each of the services below in terms of availability of the service and demand for the service.			
	Provisioning services		Avail.	Demand	Provisioning services		Avail.
	Clean water production (grassland function)				Clean water production (grassland function)		
	Water purification (wetland function)				Water purification (wetland function)		
	Food				Food		
	Medicinal plants or products				Medicinal plants or products		
	Fire wood				Fire wood		
	Harvesting of plant material (thatch, poles etc)				Harvesting of plant material (thatch, poles etc)		

	Grazing			Grazing			
	Pollination			Pollination			
	Animal harvesting			Animal harvesting			Avail.
	Other			Other			
	Comments:			Comments:			Demand
	Do important regulating services occur (do benefits accrue through ecological processes)?						
	Desktop assessment			Field verification			
	Score each of the services below in terms of availability of the service and demand for the service.			Score each of the services below in terms of availability of the service and demand for the service.			
	Regulating services:	Avail.	Demand	Regulating services:	Avail.	Demand	
4.2	Regulation / attenuation of floods			Regulation / attenuation of floods			
	Regulation of water supply			Regulation of water supply			
	Carbon sequestration			Carbon sequestration			Avail.
	Other			Other			
	Comments:			Comments:			
	Do any important cultural services (non-material benefits) occur?						
	Desktop assessment			Field verification			
	Score each of the services below in terms of availability of the service and demand for the service.			Score each of the services below in terms of availability of the service and demand for the service.			
	Cultural services:	Avail.	Demand	Cultural services:	Avail.	Demand	
4.3	Education			Education			
	Recreation			Recreation			
	Aesthetics			Aesthetics			
	Spiritual			Spiritual			
	Cultural			Cultural			
	Other			Other			Avail.
	Comment			Comment			
	Total score						
5. THREATS							
5.1	Field assessment						Score

	Rate the following threats to biodiversity on the proposed biodiversity stewardship area (also add any threat not captured below).		
	a. Alien plants		
	b. Poaching / illegal harvesting		
	c. Fire		
	d. Grazing		
	e. Accelerated soil erosion		
	f. Extra-limital / alien animals		
	g. Land-invasion		
	h. Mining		
	i. Water abstraction / dams		
	j. Pollution		
	k. Uncontrolled Access		
	l. Other		
	Comment:		
	Field assessment	H	M
	Indicate the extent of invasion by alien plants within the proposed biodiversity stewardship area. State which alien plants occur predominantly. Indicate invaded areas on map.		
5.2	Comment:		
6. MANAGEMENT ISSUES			
	Field assessment	Y	N
	Has the landowner invested any resources in alien plant eradication? Indicate hectares cleared and funds invested. Map cleared areas.		
6.1	Comment:		
	Field assessment	Y	N
	Has the Working for Water Programme been active within the property? What forms of assistance have been provided?		
6.2	Comment:		
	Field assessment	Y	N
6.3	Determine if there is a written management plan for the property and, if so, what is its status (e.g. in development, draft plan or completed plan).		

	Comment:		
6.4	Field assessment	Y	N
	Determine if the site is used for any non-consumptive uses (e.g. hiking, mountain biking).		
	Comment:		
6.5	Field assessment	Y	N
	Find out if any consumptive utilisation occurs on the proposed biodiversity stewardship area (e.g. grazing, hunting, mowing of hay, thatch grass harvesting etc.).		
	Comment:		
6.6	Field assessment		
	Instructions: Determine what the current burning regime on the property is?		
	Comment:		
6.7	Field assessment		
	Give details around the grazing system used (stocking rate, time of year etc): domestic livestock and indigenous game.		
	Comment:		
6.8	Field assessment		
	Describe the notable management or restoration actions required (e.g. erosion control, de-stocking, fencing).		
	Comment:		
6.9	Field assessment	Y	N
	Determine whether the landowner has any specific management needs and if the landowner requires, or requested, any specific support from GDARD or other agencies.		

	Comment:					
6.10	Field assessment			Y	N	
	Are there any veterinary restrictions imposed on the proposed biodiversity stewardship area?					
	Comment:					
7. PARTNERSHIP OPPORTUNITIES						
7.1	Field assessment			Y	N	
	Are there other current Partnerships or memberships to note (e.g. Conservancy, Fire Protection Association, Water users Association)?					
	Comment:					
7.2	Desktop assessment	Y	N	Field verification	Y	N
	Determine if the proposed biodiversity stewardship area is an existing Natural Heritage Site, Site of Conservation Significance, Community Conservation Area, Registered Commercial Game Farm or Registered Important Bird Area.			Verify that the proposed biodiversity stewardship area is an existing Natural Heritage Site, Site of Conservation Significance, Community Conservation Area, Registered Commercial Game Farm or Registered Important Bird Area.		
	Comment:			Comment:		
7.3	Field assessment			Y	N	
	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).					
	Comment:					
7.4	Field assessment			Y	N	
	Are there any development intentions for the area proposed for conservation?					
	Comment:					
7.5	Field assessment			Y	N	
	Does the landowner have any intentions of selling the property in the near future					

	Comment:
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8. LAND CLAIMS

8.1	Desktop assessment	Y	N	Field verification	Y	N
		Find out if there are any land claims on the property. If yes, determine at what stage the land claim is.			Verify if and at what stage the land claim on the property is (if applicable).	
	Comment:			Comment:		

SUMMARY			
CONTRIBUTION TO CONSERVATION			
Rate as E (Essential), I (Important), or N (Not Essential or Important)			
Contributes to conservation of important vegetation types	E	I	N
Contributes to conservation of important species	E	I	N
Contributes to conservation of important ecological process	E	I	N
Contributes to conservation of system that provides significant ecosystem services	E	I	N
NEMA PAA CHECKLIST			
Tick the appropriate box			
2 b (i) has significant features or biodiversity			<input type="checkbox"/>
2 b (ii) is of scientific, cultural, historical or archaeological interest			<input type="checkbox"/>
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			<input type="checkbox"/>
2 c provides for a sustainable flow of natural products and services to meet the needs of a local community			<input type="checkbox"/>
2 d enables the continuation of such traditional consumptive uses as are sustainable			<input type="checkbox"/>
2 e provides for nature-based recreation and tourism opportunities			<input type="checkbox"/>
Give a summary of 4 or 5 major reasons for suggested biodiversity stewardship status.			
Describe the most important conservation Management Objectives for the property.			
Comments and Additional Information:			
RECOMMENDED CATEGORY			
Recommend an appropriate category.			
MAP			

Appendices