



Ramsar Information Sheet

Published on 31 March 2023

South Africa Middelpunt Nature Reserve



Designation date	15 March 2023
Site number	2501
Coordinates	25°32'44"S 30°07'43"E
Area	510,28 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

Middelpunt Nature Reserve (MNR) is located along the headwaters of the Lakenvleispruit in the Olifants River basin, approximately 14 kilometres from the town of Dullstroom in Mpumalanga. Situated in one of South Africa's highest rainfall areas the wetlands of the MNR primarily consists of a permanent freshwater valley bottom wetland, supported by lateral seeps and artesian springs. This wetland is the only confirmed breeding site of the White-winged Flufftail (*Sarothrura ayresi*) (considered to be one of the rarest and most threatened waterbirds in Africa) in the southern hemisphere. The White-winged Flufftail is listed as globally Critically Endangered with an estimated global population size of fewer than 250 mature individuals (BirdLife International 2021). The bird is a habitat specialist, preferring high-altitude wetlands with intact canopy and basal cover during the breeding season (Marais et al., 2021). Until recently, Ethiopia was thought to be the only country where White-winged Flufftail breed when the first records were made in 1997. The White-winged Flufftail was first seen at Middelpunt Wetland in 1992 and recently the first breeding record was made in at MNR, establishing that a breeding population exists outside of Ethiopia (Colyn et al., 2019; 2020). Recognizing the importance of conserving the White Winged Flufftail, this area, situated on private farmland, was declared as a Nature Reserve in 2022. Middelpunt wetland forms part of a larger wetland system called Lakenvlei, most of which falls within the Greater Lakenvlei Protected Environment (GLPE), which surrounds the MNR. The Middelpunt wetland also plays an important role in maintaining the genetic and ecological diversity of the Steenkampsberg Mountain Grasslands and supports many other threatened and endemic species such as the Blue Crane, Secretary Bird, African Grass Owl, and Denham's Bustard. In 2018, an endemic peat borrowing crab (*Potamonautes flavusjo*) was discovered, making it only one of two known sites where the crab occurs in South Africa. In addition to its importance for biodiversity, Middelpunt Wetland has a peat layer depth of between 1.5 and 2.6 m and an accumulation rate of 0.36 mm/year (Linström et al. 2013) and provides an important ecosystem service to the global community by sequestering carbon from the atmosphere. The wetlands also provide benefits to the surrounding Lakenvlei farming community through water retention, purification, and flood attenuation.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Mpumalanga Tourism & Parks Agency and BirdLife South Africa
Postal address	Mpumalanga Tourism & Parks Agency 31 Jansen street Lydenburg 1120 BirdLife South Africa Private Bag X16, Pinegowrie, 2123

National Ramsar Administrative Authority

Institution/agency	Department of Forestry, Fisheries and the Environment
Postal address	Private Bag X447, PRETORIA, 0001

2.1.2 - Period of collection of data and information used to compile the RIS

From year	<input type="text" value="1998"/>
To year	<input type="text" value="2022"/>

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	<input type="text" value="Middelpunt Nature Reserve"/>
---	--

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Former maps	<input type="text" value="0"/>
-------------	--------------------------------

Boundaries description

The Ramsar site occurs within the Middelpunt Nature Reserve and its boundary follows that of the Reserve. This delineation was undertaken as the Nature Reserve is the only known breeding site in the southern hemisphere for the critically endangered White-Winged Flufftail. The Middelpunt Nature Reserve was declared in terms of section 23 (1) (a) (i) and (b) of the South African National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (as amended) on 14 October 2022, affording this area the highest level of protection in South African law.

Middelpunt Nature Reserve is situated 300 km east of the City of Johannesburg and is approximately 13.5 km from the nearest town, Dullstroom within the Emakhazeni Local Municipality of the Ehlanzeni District Municipality, Mpumalanga Province (25°32.64 S, 30°7.92 E). MNR is surrounded by the Greater Lakenvlei Protected Environment along the Great Escarpment of South Africa and is comprised of two farm portions that encompass most of Middelpunt Wetland and its lateral inputs: Middelpunt 320 JT portion 9 and Elandsfontein 322 JT portion 11. No infrastructure has been built on these portions apart from fencing, powerlines, two small weirs, and a dirt road that runs through Elandsfontein 322 JT portion 11. The main wetland body of portion 9 is leased to Middelpunt Wetland Trust and BirdLife South Africa for research and conservation, whilst the remainder of portion 9 and a section of portion 11 (to the west of the dirt road) are leased for cattle grazing. The other half of portion 11 (east of the dirt road) is used for grazing (cattle and wild game) by the respective landowner. The wetland area is fenced to prevent cattle grazing within the wetland. Surrounding land use consists of tourism (including recreational trout fishing lodges), farming (cattle grazing) and mining activities (coal and diamond mining).

2.2.2 - General location

a) In which large administrative region does the site lie?	<input type="text" value="Mpumalanga"/>
b) What is the nearest town or population centre?	<input type="text" value="Dullstroom"/>

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes No

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes No

2.2.4 - Area of the Site

Official area, in hectares (ha):

Area, in hectares (ha) as calculated from GIS boundaries

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Freshwater Ecoregions of the World (FEOW)	Southern Temperate Highveld

Other biogeographic regionalisation scheme

Preliminary Level II River Ecoregion Classification System for South Africa. The Middelpunt Nature Reserve (MNR) is situated in the Eastern Bankenveld, an Ecoregion 9.02 classification (In: Kleynhans, C.J., Thirion, C and Moolman, J (2005). A Level I River Ecoregion classification System for South Africa, Lesotho and Swaziland. Report No. N/0000/00/REQ0104. Resource Quality Services, Department of Water Affairs and Forestry, Pretoria, South Africa.)

MNR also falls within the Steenkampsberg Plateau Biogeographical Region within the Steenkampsberg Grasslands vegetation type (South African National Biodiversity Institute. 2018. The Vegetation Map of South Africa, Lesotho and Swaziland, Mucina, L., Rutherford, M.C. and Powrie, L.W. (Editors)) and at a smaller scale, falls within the Dullstroom Plateau Grasslands, a Threatened Ecosystem within South Africa which has been identified as being in need of protection (Republic of South Africa, Government Notice No. 1002 in Government Gazette 34809 of 9 December 2011).

MNR also falls within an identified National Freshwater Ecosystem Priority Area (NFEPAs), the Natural Wetlands: Mesic Highveld Grassland Group 4 of the NFEPAs Wetlands Map (In: Nel J.L. et al. 2011. Atlas of Freshwater Ecosystem Priority Areas in South Africa: Maps to support sustainable development of water resources. WRC Report No. TT 500/11, Water Research Commission, Pretoria).

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

Criterion 1: Representative, rare or unique natural or near-natural wetland types

Hydrological services provided

The wetlands of the Middelpunt Nature Reserve (MNR) are located in the headwaters of the upper Olifants River and form part of catchment B41A with a Mean Annual Runoff of 49.50x10⁶ m³ / annum (Midgley et al. 1994). These wetlands are located within one of South Africa's highest rainfall regions (known as the Mpumalanga Drakensberg Strategic Water Source Area (Le Maitre, 2018)). This nearly 10,000-year-old, peat-based wetland provides benefits to the surrounding Lakenvlei farming community through water retention, purification, and flood attenuation.

Other ecosystem services provided

The wetlands of the Middelpunt Nature Reserve provide a number of key ecosystem services including carbon sequestration (due to the presence of peat), biodiversity support and sediment trapping. The area is further utilized for education and research.

Other reasons

The wetlands of Middelpunt Nature Reserve (MNR) consist of a permanently inundated valley bottom wetland located in the headwaters of the Lakenvleispruit, supported by lateral seep wetlands where artesian springs occur. The wetlands make up 198.26 ha (or 37.64%) of the MNR and are excellent examples of the natural wetlands which are characteristic of the Steenkampsberg Plateau biogeographical region, within the Steenkampsberg Montane Grassland Vegetation Type (Mucina & Rutherford, 2006). Although only representing a small percentage of the wetlands, peat also occurs in the MNR. Peat is a very unusual and rare type of wetland in South Africa and in particular, in the Steenkampsberg Plateau. The peat wetlands within MNR are considered ancient wetland systems, dated at 9 255 – 9 415 years BP (Elshehawi et al. 2019). Peat layer depths range between 1.5 and 2.6 m, with an accumulation rate of 0.36 mm/year (Linström et al. 2013).

Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information

Middelpunt Wetland is the only confirmed breeding site of the Critically Endangered White-winged Flufftail in the southern hemisphere. The White-winged Flufftail (*Sarothrura ayresi*) is listed as globally Critically Endangered, with an estimated population size of fewer than 250 mature individuals. Many other threatened and endemic species such as Blue Crane, Secretary Bird, African Grass Owl, and Denham's Bustard occur at the site. The wetland also host the newly discovered peat borrowing crab *Potamonautes flavusjo* (Daniels, et al., 2014)

Criterion 3 : Biological diversity

Justification

The wetlands play a major role in maintaining the genetic and ecological diversity of the Steenkampsberg Mountain Grasslands, especially since they support many Red Data, protected and/or endemic species. Many endemic plant or animal species occur on the Reserve, including several plant species, bird species, and mammal species (Friedman & Daly, 2004). Ecologically, the wetlands and the Reserve support a high botanical diversity and represent the only breeding site of the critically endangered White-winged flufftail and and provide suitable breeding habitat for the Wattled Crane. According to Birdlife South Africa's important birding areas, the Middelpunt Nature Reserve falls within the Steenkampsberg (IBA SA016) and is the eighth most important birding area Nationally and the second most important birding area in Mpumalanga (Barnes, 1998).

Criterion 4 : Support during critical life cycle stage or in adverse conditions

Optional text box to provide further information

Middelpunt Nature Reserve is the only known breeding site of the Critically Endangered White-winged Flufftail in the southern hemisphere (Colyn et al. 2020). The wetland and associated vegetation supports the breeding cycle of the White-winged Flufftail (Colyn, 2019).

Criterion 6 : >1% waterbird population

Optional text box to provide further information

The wetland hosts the only confirmed breeding population of Critically Endangered, White-winged Flufftail *Sarothrura ayresi* in the southern hemisphere. Preliminary monitoring data suggests that the wetland hosts several pairs of birds which is likely to support >1% of the estimated global population size (250 individuals; BirdLife International 2021). Ethiopia, the only other country to have a breeding population of White-winged Flufftail, has enough suitable wetland habitat for just 55 breeding pairs (Colyn et al. 2020b), thus making Middelpunt Wetland a key site for the species

3.2 - Plant species whose presence relates to the international importance of the site

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA / LILIOPSIDA	<i>Cyrtanthus macowanii</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	South African National Biodiversity Institute Red Data List - Least Concern	Endemic to South Africa
TRACHEOPHYTA / LILIOPSIDA	<i>Disperis cooperi</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	South African National Biodiversity Institute Red Data List- Least Concern	Endemic to South Africa
TRACHEOPHYTA / LILIOPSIDA	<i>Eucomis vandermerwei</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	South African South African National Biodiversity Institute Red Data List - Vulnerable	Protected species, endemic to South Africa
TRACHEOPHYTA / LILIOPSIDA	<i>Gladiolus vernus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	South African National Biodiversity Institute Red Data List- Least Concern	Endemic to South Africa
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Streptocarpus latens</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	South African National Biodiversity Institute Red Data List- Least Concern	Rare, endemic to South Africa

A total number of 45 different plant species that represent 38 genera and 18 plant families have been identified in MNR. The most prominent plant families present were the Cyperaceae, the Asteraceae and the Poaceae. This matches the findings of Allan, et al., 2006, in the Berga marsh in Ethiopia, where the white-winged flufftail also occurs.

Vegetation Unit

The study area falls within the Steenkampsberg Montane Grassland vegetation unit (GM30). This vegetation unit was formerly part of the Lydenburg Montane Grassland unit (GM18), which has since been split into two separate units. Mucina & Rutherford (2006) refer to these as the Long Tom Pass and Steenkampsberg Subcentres, with the Long Tom Pass region having several elements linking it to escarpment flora of the north, while the Steenkampsberg region has elements linking it to flora in the south (i.e. Wakkerstroom and the southern Drakensberg). The Lydenburg Montane Grassland is described as follows (Mucina & Rutherford, 2006): "The altitude range for this unit is 1260–2160 m. It comprises high-altitude plateaus, undulating plains, mountain peaks and slopes, hills and deep valleys of the Northern Escarpment region, supporting primarily very short grasslands on the high-lying areas, while the height of the grass sward increases on the lower slopes; the grassland is very rich in forb species. Drainage lines, faults, and narrow diabase dykes are common in this unit and often support small forests and shrub-like thickets."

The abundance of plants observed in the wetlands, classified according to their hydric preferences indicates that peatlands in the study area are dominated by obligate and facultative wetland species. This is an indication of the stable hydric status associated with the peat, and the presence of carnivorous plants in two of these wetlands is indicative of the low nutrient status of this habitat. All the other wetlands supported a much higher proportion of facultative wetland species, which is an indication of a more variable hydric status in these wetlands. A high abundance of carnivorous plants has been recorded in some of the peatlands and includes species such as *Drosera madagascariensis* and *Utricularia prehensilis*. Wetland plant species that occur in open water areas are: *Typha capensis*, *Pycreus nitidus*, *Schoenoplectus brachyceras*, *Issolepis costata*, *Juncus oxycarpus*, *Juncus oxycarpus*, *Eleocharis palustris*, *Eleocharis dregeana*, and *Leersia hexandra* (Linström, et al. 2013).

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
Others																	
CHORDATA / MAMMALIA	<i>Amblysomus robustus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>	Red List of Mammals of South Africa, Swaziland and Lesotho - Vulnerable	Endemic to South Africa. Occurs in montane grasslands and marshes in Moist Sandy Highveld Grassland
CHORDATA / MAMMALIA	<i>Chrysospalax villosus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>	Red List of Mammals of South Africa, Swaziland and Lesotho - Vulnerable	Endemic to South Africa. Found on sandy soils in grasslands, meadows and along edges of marshes in Savanna and Grassland biomes.
CHORDATA / MAMMALIA	<i>Otomys laminatus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>	Red List of Mammals of South Africa, Swaziland and Lesotho - Near Threatened	Endemic to South Africa. Restricted to moist grasslands and shrublands
CHORDATA / MAMMALIA	<i>Ourebia ourebi ourebi</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Red List of Mammals of South Africa, Swaziland and Lesotho - Endangered	Endemic to Southern Africa. The subspecies <i>O. o. ourebi</i> (Zimmermann 1783) occurs throughout the southern part of its African range (i.e., South Africa, and central and southern Mozambique)
Fish, Mollusc and Crustacea																	
ARTHROPODA / MALACOSTRACA	<i>Potamonautes flavusjo</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		Rare, Endemic to South Africa
Birds																	
CHORDATA / AVES	<i>Anthropoides paradiseus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Birds of South Africa, Lesotho and Swaziland - Near Threatened	Near-endemic to South Africa, with more than 99% of the global population occurring in the region.

RIS for Site no. 2501, Middelpunt Nature Reserve, South Africa

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA/AVES	<i>Anthus chloris</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Birds of South Africa, Lesotho and Swaziland-Vulnerable	Endemic to South Africa, Lesotho and Swaziland. It generally favours lush montane grassland with grass about 15-30 cm high on flat or gently sloping ground
CHORDATA/AVES	<i>Ciconia nigra</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Birds of South Africa, Lesotho and Swaziland-Vulnerable	
CHORDATA/AVES	<i>Circus ranivorus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland-Endangered	Sparsely distributed across wetlands throughout central and east Africa, and southwards to southern Africa
CHORDATA/AVES	<i>Falco naumanni</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Listed in CMS Appendix I
CHORDATA/AVES	<i>Geronticus calvus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Birds of South Africa, Lesotho and Swaziland -Vulnerable	Endemic to southern Africa, occurring in South Africa, Lesotho and eSwatini
CHORDATA/AVES	<i>Gyps coprotheres</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Red Data Book of Birds of South Africa, Lesotho and Swaziland -Endangered	The Cape Vulture has one of the most limited distributions of any Old World vulture species, being restricted to southern Africa and predominantly South Africa and Lesotho
CHORDATA/AVES	<i>Heteromirafra ruddi</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Birds of South Africa, Lesotho and Swaziland -Endangered	Endemic to the high-altitude grasslands of eastern South Africa
CHORDATA/AVES	<i>Neotis denhami</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Birds of South Africa, Lesotho and Swaziland-Vulnerable.	
CHORDATA/AVES	<i>Sagittarius serpentarius</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Birds of South Africa, Lesotho and Swaziland-Vulnerable	
CHORDATA/AVES	<i>Sarothrura ayresi</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10	2020	13	CR	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Red Data Book of Birds of South Africa, Lesotho and Swaziland-Critically Endangered	The White Winged Flufftail migrates through the African Eurasian flyway and uses the wetland as a habitat for refuge, breeding and feeding. The population of the species in South Africa is estimated at 75 individuals as per Wetlands International, 2019.
CHORDATA/AVES	<i>Tyto capensis</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Birds of South Africa, Lesotho and Swaziland-Vulnerable.	

1) Percentage of the total biogeographic population at the site

The MNR wetlands provide an important breeding area for waterbirds and for the reproduction of amphibians and upper catchment fish species. It also supports many endemic, rare and endangered bird, invertebrate and mammal species. One of the main reasons Middelpunt Wetland was declared a private nature reserve is because it is the only confirmed breeding site of the White-winged Flufftail (*Sarothrura ayresi*) in the southern hemisphere (Colyn et al. 2020). The species is a habitat specialist preferring high-elevation wetlands with intact canopy and basal cover (Marais et al. 2021). The White-winged Flufftail is listed as globally Critically Endangered with an estimated global population size of fewer than 250 mature individuals (BirdLife International 2021). It is considered to be one of the rarest and most threatened waterbirds in Africa (Taylor et al. 2015). Until recently, Ethiopia was thought to be the only country where White-winged Flufftail breed when the first records were made in 1997. The White-winged Flufftail was first seen at Middelpunt Wetland in 1992 after many years with no presence records in South Africa. Those who saw the bird were concerned about the condition of the wetland and engaged with the owner to rehabilitate and conserve it. A lease was eventually signed in 1994 and Middelpunt Wetland Trust was formed as the vehicle through which to operate. BirdLife South Africa was invited to administer Middelpunt Wetland Trust in 2011 and since then has led national efforts to research and conserve this highly threatened species. It was through monitoring at Middelpunt Wetland that the first breeding record of the White-winged Flufftail was made in South Africa establishing that a breeding population exists outside of Ethiopia. The most recent surveys by Colyn et al. (2020a, b) using cameras and acoustic monitoring yielded upper-limit population densities of 1 pair/5.8 ha in Ethiopia, and 1 pair in 6.7 ha in South Africa. This produced population estimates of 55 pairs in Ethiopia, and c.58 pairs in South Africa, producing a global population estimate of c.226 mature individuals, placed here in the band 50-249 mature individuals (BirdLife International, 2023).

3.4 - Ecological communities whose presence relates to the international importance of the site

<no data available>

[Optional text box to provide further information](#)

The *Carex austro-africana*–*Cyperus denudatus* wetland vegetation community, consisting of three sub-communities occurs within the MNR (see section 4.3 for a detailed description). However, not enough information is currently available within South Africa to determine whether these communities are threatened within the Biogeographic Regions provided section 2.2.5.

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

The headwaters of the Lakenvlei wetland, covering an area of 198.26ha is situated within the Middelpunt Nature Reserve (MNR) and consists of a permanent freshwater valley bottom wetland, supported by a number of lateral seep wetlands where artesian springs occur. These wetlands, which are representative of the natural wetlands in the Steenkampsberg Montane Grasslands, play an essential biodiversity conservation role as they support a number of rare and endangered species, including the White-winged Flufftail, considered to be one of the rarest and most threatened waterbirds in Africa. In addition to its importance for biodiversity, the wetlands of the MNR are located within one of South Africa's highest rainfall regions and provides a number of essential hydrological services to the surrounding communities. In this regard, Marneweck et al. 1999 indicated that a high density of wetlands such as in the Lakenvlei catchment contributes to the hydrological functioning of a catchment and as such, the Lakenvlei wetlands are likely to be a key component in terms of flow augmentation at the headwaters of this system. The wetlands of the MNR also contain peat, a very rare occurrence in South Africa. The peat layer depth has been estimated at being between 1.5 and 2.6, with an accumulation rate of 0.36 mm/year (Linström et al. 2013). Given the presence of peat, the wetlands of the MNR also provides an important ecosystem service to the global community by sequestering carbon from the atmosphere. Given its location in the headwaters of the Lakenvleispruit, land use within the MNR is limited and consists primarily of livestock grazing, research and fire management activities. The surrounding area forms part of the Greater Lakenvlei Protected Environment (GLPE) and land use primarily consists of tourism, trout farming and cattle grazing.

4.2 - What wetland type(s) are in the site?

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Marshes on inorganic soils >> Tp: Permanent freshwater marshes/pools	unchanneled Valley Bottom and Seep Wetlands	1	198.26	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands	peatlands	4		Unique
Fresh water > Marshes on inorganic or peat soils >> Va: Montane wetlands	high altitude wetlands	1	198.26	Representative
Fresh water > Flowing water >> Y: Permanent Freshwater springs; oases	springs	2		Rare

(ECD) Habitat connectivity

The Middelpunt wetlands makes up a large portion of the catchment of the Lakenvlei spruit and together with adjacent wetlands forms the source of the Lakenvlei spruit.

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Drosera madagascariensis</i>	Endemic to Southern Africa (Madagascar, Botswana and South Africa)
TRACHEOPHYTA/LILIOPSIDA	<i>Eucomis autumnalis</i>	Endemic to Southern Africa
TRACHEOPHYTA/LILIOPSIDA	<i>Eucomis montana</i>	Endemic to Southern Africa (South Africa and eSwatini). In SA it is restricted to Mpumalanga
TRACHEOPHYTA/LILIOPSIDA	<i>Gladiolus appendiculatus</i>	Endemic to Southern Africa (South Africa and eSwatini). A widespread, but rare species, occurring as scattered plants
TRACHEOPHYTA/LILIOPSIDA	<i>Gladiolus varius</i>	Endemic to Southern Africa (South Africa and eSwatini).

Invasive alien plant species

Phylum	Scientific name	Impacts
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Acacia mearnsii</i>	Potential
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Eucalyptus grandis</i>	Potential
TRACHEOPHYTA/PINOPSIDA	<i>Pinus pinaster</i>	Potential

Optional text box to provide further information

Small scale vegetation description of the habitat of the White-winged Flufftail on Middelpunt, within the larger vegetation units shows one vegetation community with three sub communities (Marais, et al., 2021)

1. *Carex austro-africana*–*Cyperus denudatus*: The vegetation is dominated by the sedges *Cyperus denudatus* (83% constancy) and *Carex austro-africana* (63% constancy), while the forbs *Persicaria decipiens* and *Senecio inornatus* are prominent throughout the community, with a 70% and 60% constancy

1.1. *Carex austro-africana*–*Cyperus denudatus*–*Fuirena ciliaris* sub-community: The vegetation is dominated by the sedge *Carex austro-africana*, while the sedges *Cyperus denudatus*, *Fuirena ciliaris* and the forb *Senecio inornatus* are locally prominent. This community has the following diagnostic, constant and dominant species: diagnostic species none constant species *Carex austro-africana* dominant species *Carex austro-africana*, *Typha capensis*

1.2 *Carex austro-africana*–*Cyperus denudatus*–*Carex cognata* sub-community: The vegetation is dominated by the sedge *Carex cognata*, *Cyperus denudatus* and the forb *Fuirena ciliaris* This community has the following diagnostic, constant and dominant species: diagnostic species *Ascolepis capensis* constant species *Carex cognata*, *Cyperus denudatus*, *Persicaria decipiens* dominant species *Carex cognata*, *Fuirena ciliaris*

1.3. *Carex austro-africana*–*Cyperus denudatus*–*Leersia hexandra* sub-community: The grasses *Leersia hexandra* and *Arundinella nepalensis* and the sedge *Cyperus denudatus* dominate the vegetation. This community has the following diagnostic, constant and dominant species: diagnostic species *Leersia hexandra*, *Persicaria lapathifolia*, *Phragmites australis*, *Pseudognaphalium luteo-album*. Constant species *Cyperus denudatus*, *Persicaria decipiens*, *Senecio inornatus*. Dominant species *Arundinella nepalensis*, *Cyperus denudatus*, *Leersia hexandra* (Marais, et al., 2021)

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/AVES	<i>Eupodotis caerulescens</i>				Endemic to Southern Africa (SA and Lesotho), Near Threatened (BirdLife International, 2023)
CHORDATA/AVES	<i>Francolinus africanus</i>				Endemic to Southern Africa (Lesotho and South Africa)
CHORDATA/AVES	<i>Monticola explorator</i>				Endemic to Southern Africa (SA, Lesotho and eSwatini). Near Threatened (BirdLife International, 2023)
CHORDATA/AVES	<i>Monticola rupestris</i>				Endemic to Southern Africa (SA, Lesotho and eSwatini)
CHORDATA/AVES	<i>Ploceus capensis</i>				Endemic to Southern Africa (SA, Lesotho and eSwatini)
CHORDATA/MAMMALIA	<i>Poecilogale albinucha</i>				Rare, found in species ranges from southwestern Uganda and Kenya to the Western Cape in South Africa

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
A: Tropical humid climate	Aw: Tropical savanna (Winter dry season)

The Mean Annual Precipitation (MAP) is 858mm (660-1180mm), augmented by frequent mists. There are approximately 21 Frost days per year, varying greatly between 3 and 40 with a higher incidence of frost to the west. Temperatures vary from -8°C to 39 °C, with an average of 15 °C. Annual average minimum and maximum temperatures are 5 °C and 20 °C respectively. The high rainfall and mist plays an important role, while low temperatures, frost, snow and fire are also important determinants of this vegetation type (Mucina and Rutherford, 2006).

Rainfall: The reserve is situated in the summer rainfall zone with a mean annual rainfall of 840 mm Precipitation is mostly in the form of thunderstorms between October and March.

Frost is common between March and September. Snow has been recorded on several occasions (Linström, et al., 2014).

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

Entire river basin

- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin
- Not in river basin
- Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

The Lakenvlei wetland situated in the headwaters of the Lakenvleispruit river system in drainage region B41A extends from the Middelpunt Nature Reserve into the Greater Lakenvlei Protected Environment, from which it flows westwards and then to the north into the Steelpoort River, a tributary of the Olifants River.

4.4.3 - Soil

- Mineral
- Organic
- No available information

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes No

Please provide further information on the soil (optional)

The valley bottom wetland is dominated (70%) by Katspruit that are shallow to moderate in depth (300 – 500 mm) and depict restricted water movement as a result of the presence of the impermeable G-horizon. Champagne soil (peat) occurs in the permanent zones of the main Lakenvlei. The peat can be described as a reed-sedge peat, fibrous on the surface to fine grained in texture towards the bottom. The peat is mostly underlain by a dark organic reach clay with thin layers of sand and grey to orange mottled clay towards the bottom. The rest of the soils for this land type are comprised of moderately deep Kroonstad (400 – 600 mm) soils (20%) as well as shallow to moderately deep (300 – 500 mm) Willowbrook soils (10%). Hillslope seepage wetlands comprises of Avalon soils on the edges, Kroonstad in the seasonal zones and Katspruits in the wetter parts (Linström et al., 2013)

4.4.4 - Water regime

Water permanence

Presence?	
Usually permanent water present	No change

Source of water that maintains character of the site

Presence?	Predominant water source	
Water inputs from groundwater	<input checked="" type="checkbox"/>	No change
Water inputs from surface water	<input type="checkbox"/>	No change

Water destination

Presence?	
To downstream catchment	No change

Stability of water regime

Presence?	
Water levels largely stable	No change

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology:

The Middelpunt wetlands form part of the quaternary catchment B41A with a Mean Annual Runoff of 49.50 million cubic metres / annum (Midgley et al. 1994) and is situated in one of South Africa's highest rainfall areas. The wetland is fed by rainfall but is also driven by groundwater via a number of artisanal springs. The majority of wetlands with visible surface water are permanently wet, although the water level may vary. The seasonal and temporary wet zones in the wetlands vary the most in the permanence of saturation.

(ECD) Connectivity of surface waters and of groundwater	Groundwater forms an essential component of the sites hydrology. The seeps and artesian springs are closely related to sandstone outcrops and/or transecting diabase dykes
(ECD) Stratification and mixing regime	unknown

4.4.5 - Sediment regime

- Significant erosion of sediments occurs on the site
- Significant accretion or deposition of sediments occurs on the site
- Significant transportation of sediments occurs on or through the site
- Sediment regime is highly variable, either seasonally or inter-annually
- Sediment regime unknown

Please provide further information on sediment (optional):

The site has no major erosion issues.

The area is underlain by two types of rocks, namely sedimentary rocks and intrusive igneous rocks. The sediments are principally quartzites (belonging to the Transvaal System: Pretoria Group: Steenkampsberg Formation), shales and alluvial soils. The intrusive rocks are mainly diabase outcrops between the quartzite bands (Schreiber and Eriksson, 1992).

The area is situated on the Steenkampsberg plateau, at < 2000 m a.s.l., one of the highest areas in Mpumalanga. Three quartzite ridges occur in the area, running parallel from north to south. The divisions between valleys and drainage basins are mostly rounded crests that gradually lose height.

4.4.6 - Water pH

- Acid (pH<5.5)
- Circumneutral (pH: 5.5-7.4)
- Alkaline (pH>7.4)
- Unknown

Please provide further information on pH (optional):

pH 7.5 (Linström et al., 2013).

4.4.7 - Water salinity

- Fresh (<0.5 g/l)
- Mixohaline (brackish)/Mixosaline (0.5-30 g/l)
- Euhaline/Eusaline (30-40 g/l)
- Hyperhaline/Hypersaline (>40 g/l)
- Unknown

4.4.8 - Dissolved or suspended nutrients in water

- Eutrophic
- Mesotrophic
- Oligotrophic
- Dystrophic
- Unknown

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar ii) significantly different site itself:

- Surrounding area has greater urbanisation or development
- Surrounding area has higher human population density
- Surrounding area has more intensive agricultural use
- Surrounding area has significantly different land cover or habitat types

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Fresh water	Drinking water for humans and/or livestock	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High
Erosion protection	Soil, sediment and nutrient retention	Medium
Climate regulation	Local climate regulation/buffering of change	Low
Hazard reduction	Flood control, flood storage	Low

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Spiritual and inspirational	Aesthetic and sense of place values	Low
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High

Within the site: 100s

Outside the site: 1000s

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes No Unknown

4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples

Description if applicable

The Middelpunt Nature Reserve comprises two farm portions that encompass most of Middelpunt Wetland and its lateral inputs: Middelpunt 320 JT portion 9 (part of Dullstroom Trout Farm) and Elandsfontein 322 JT portion 11 (part of Eland's Valley Guest Farm). The landowners are actively involved in the management of the area.

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland

4.6 - Ecological processes

(ECD) Vegetational productivity, pollination, regeneration processes, succession, role of fire, etc.	Fire is an important determinant of the vegetation type (Steenkampsberg Montane Grasslands) found at the site
(ECD) Notable aspects concerning migration	The wetland is a breeding site for the White Winged Flufftail, a migratory species between South Africa and Ethiopia
(ECD) Pressures and trends concerning any of the above, and/or concerning ecosystem integrity	The main pressures include fire management and grazing by cattle

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Provide further information on the land tenure / ownership regime (optional):

Middelpunt Nature Reserve is located on privately owned land and is co-managed by the Middelpunt Nature Reserve Landowners Association (Dullstroom Trout Farm and Elands Valley Guest Farm) in partnership with BirdLife South Africa and Middelpunt Wetland Trust. The wetland is leased by BirdLife South Africa and Middelpunt Wetland Trust while the surrounding grasslands and seeps are leased (and managed) by Elandskloof Trout Farm. Some of the neighboring farms are managed by the Greater Lakenvlei Protected Environment Landowners Association.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

Middelpunt Nature Reserve Landowners Association in partnership with BirdLife South Africa and Middelpunt Wetland Trust . The Mpumalanga Parks and Tourism Agency is also involved in the management of the area through participation in the management committees and through the provision of scientific support.

Provide the name and/or title of the person or people with responsibility for the wetland:

Peter Lever (Dullstroom Trout Farm), Gavin Walker (Elands Valley Guest Farm), Dr Hanneline Smit-Robinson (BirdLife South Africa and Middelpunt Wetland Trust)

Postal address:

Middelpunt Nature Reserve Landowners Association
P.O. Box 1076,
Bassonia,
Johannesburg
South Africa
2061

BirdLife South Africa
Private Bag X16,
Pinegowrie,
Johannesburg
South Africa
2123

E-mail address:

peter@therefore.co.za

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Tourism and recreation areas	Medium impact		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Livestock farming and ranching	Low impact	Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Marine and freshwater aquaculture	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Mining and quarrying	Low impact	High impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Roads and railroads	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Logging and wood harvesting	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fishing and harvesting aquatic resources	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hunting and collecting terrestrial animals	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	Low impact	Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Fire and fire suppression	Medium impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Dams and water management/use	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Invasive non-native/ alien species	Low impact	Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Please describe any other threats (optional):

The Middelpunt Nature Reserve comprises two farm portions that encompass most of Middelpunt Wetland and its lateral inputs: Middelpunt 320 JT portion 9 (part of Dullstroom Trout Farm) and Elandsfontein 322 JT portion 11 (part of Eland's Valley Guest Farm). No infrastructure has been built on these portions apart from fencing, Eskom transmission powerlines, two small weirs, and a dirt road that runs through Elandsfontein 322 JT portion 11. Part of a trout dam is located in the southwest corner of Middelpunt 320 JT portion 9. The main wetland body of portion 9 is leased to Middelpunt Wetland Trust and BirdLife South Africa for research and conservation, whilst the remainder of portion 9 and a section of portion 11 (to the west of the dirt road) are leased for cattle grazing. The other half of portion 11 (east of the dirt road) is used for grazing (cattle and wild game) by the respective landowner.

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature Reserve	Middelpunt Nature Reserve	https://www.birdlife.org.za/wp-content/uploads/2022/09/BirdLife-South-Africa-Media-Release-Middelpunt-Nature-Reserve.pdf	whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Steenkampsberg	http://datazone.birdlife.org/site/factsheet/steenkampsberg-iba-south-africa	whole

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Habitat manipulation/enhancement	Partially implemented

Species

Measures	Status
Threatened/rare species management programmes	Implemented
Control of invasive alien plants	Implemented

Human Activities

Measures	Status
Livestock management/exclusion (excluding fisheries)	Implemented

Other:

South Africa is a contracting party to the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA). Under both treaties, the White-winged Flufftail receives the highest level of protection. In 2008, the International Single Species Action Plan (ISSAP) for the White-winged Flufftail was adopted. Declaring Middelpunt Wetland as a private nature reserve was considered a top priority by the White-winged Flufftail International Working Group (WWF IWG) in 2019 and in 2022 the area was declared in terms of South Africa's legislation as a Nature Reserve. The ecosystems that are protected by nature reserve status meet the objectives of the Mpumalanga Protected Area Expansion Strategy (MPAES). This 20-year strategy (2009-2028), led by Mpumalanga Tourism and Parks Agency (MTPA), identifies spatial priorities for protected area expansion at the provincial and national level. MNR falls within the Dullstroom Plateau Grasslands, an Endangered Ecosystem, as listed in terms of section 52 of the National Environmental Management: Biodiversity Act 10 of 2004 (NEMBA) in the National List of Ecosystems that are 'Threatened' and 'In Need of Protection' (gazetted in Government Notice No. 1002 in Government Gazette 34809 of 9 December 2011). This Ecosystem was listed under Criterion F (Priority areas for meeting explicit biodiversity targets as defined in a systematic biodiversity plan) that has a very high irreplaceability value and faces medium threats. In terms of the 2014 Mpumalanga Biodiversity Sector Plan (MBSP), MNR falls within a Terrestrial Critical Biodiversity Area (CBA) with a rating of CBA 'Irreplaceable'. In accordance with the MBSP, areas ranked 'Irreplaceable' are the most important areas of the Province from a biodiversity point of view, outside of the protected area network. Ideally, Conservation Management (Land-Use Type 1) should apply to all irreplaceable areas. MNR also falls within an identified National Freshwater Ecosystem Priority (NFEPA) Wetland Area.

5.2.5 - Management planning

Is there a site-specific management plan for the site? In preparation

Has a management effectiveness assessment been undertaken for the site? Yes No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes No

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

No current facilities are available

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Yes, there is a plan

Further information

Eight wetland clusters will be rehabilitated as an offset area in the Greater Lakenvele Protected Environment which surrounds the Middlepunt Nature Reserve, to meet the rehabilitation requirements as set out in the Water Use license conditions awarded to Glencore.

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Plant species	Implemented
Birds	Implemented

Annual monitoring of rehabilitation structures until expected completion in 2026
 Annual Monitoring of change in the vegetation structure in two sections in Middlepunt since 2020.
 Annual Monitoring of White Winged Flufftail using camera traps since 2018.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

BirdLife International. 2023 Species factsheet: *Sarothrura ayresi*. Downloaded from <http://www.birdlife.org> on 02/02/2023.

Colyn, R.B., Campbell, A., Smit-Robinson, H.A. 2019 Camera-trapping successfully and non-invasively reveals the presence, activity and habitat choice of the Critically Endangered White-winged Flufftail, *Sarothrura ayresi*, in a South African high-altitude wetland. *Bird Conservation International* 29(03): 463–478.

Colyn, R.B., Campbell, A., Smit-Robinson, H.A. 2020 The use of a camera and acoustic survey design to ascertain the vocalisation and breeding status of the highly elusive white-winged flufftail, *Sarothrura ayresi*. *Avian Ecol. Ecol.* 15, 12. 6.

Colyn, R.B., Howes-Whitecross, M.A., Howes, C. & Smit-Robinson, H.A. 2020. Restricted breeding habitat of the Critically Endangered White-winged Flufftail in Ethiopia and its conservation implications. *Ostrich* 91: 204-213.

Daniels, S.R., Phiri, E.E., Bayliss, J. 2014. Renewed sampling of inland aquatic habitats in southern Africa yields two novel freshwater crab species (Decapoda: Potamonautidae: Potamonautes). *Zoological Journal of the Linnean Society*, 2014, 171, 356–369.

Friedman Y. & Daly B, (Editors) 2004. *Red Data Book of the Mammals of South Africa: A Conservation Assessment*: CBSG South Africa, Conservation Breeding Specialist Group (SSC/IUCN), Endangered Wildlife Trust. South Africa. ISBN number 0-620-32017-6

Grundling, P-L & Dada, R. 1998. *Peatlands in South Africa*. Sharenet, Howick.

SANBI. *Red List of South African Plants*, at <http://redlist.sanbi.org>

SANBI. *Red List of South African Animals*, at <http://speciesstatus.sanbi.org>

Le Maitre, D.C., Seyler, H., Holland, M., Smith-Adao, L., Nel, J.L., Maherry, A. and Witthüser, K. 2018. Identification, Delineation and Importance of the Strategic Water Source Areas of South Africa, Lesotho and Swaziland for Surface Water and Groundwater. Report No. TT 743/1/18, Water Research Commission, Pretoria

Linström, A., Grundling, P.L., and Rossouw, P. S. 2014. *Basic Broad-scale Assessment of the Lakenvlei Wetlands and its Carbon Capacity: Final Report*. Developed for the Endangered Wildlife Trust (EWT).

Lotter, M. 2013. *Biodiversity Sensitivity Of Dullstroom Plateau Grasslands*. MTPA, Internal Report.

Midgley, D.C., Pitman WV and Middleton B.J. 1994. *Surface Water Resources of South Africa 1990*. WRC Report Nos. 298/1/94 to 298/6.2/94. Water Research Commission, Pretoria, South Africa

Marais, A.J., Loyd, K., Smit-Robinson, H.A., Brown, L.R., 2021. *A fine-scale vegetation classification and description of White-winged Flufftail (*Sarothrura ayresi*) habitat at selected high-altitude peatlands in South Africa*.

Morrison, K. 1998. *Habitat utilization and population ecology of cranes in the Dullstroom area of the Mpumalanga Province*. Unpublished. M.Sc. thesis, University of Pretoria

Taylor M.R., Peacock F., Wanless R.M. *The 2015 Eskom Red Data Book of Birds* <https://www.birdlife.org.za/wp-content/uploads/2021/02/RDBB-Final-copy.pdf>

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<6 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Photo of the peat borrowing crab *Potamonautes flavusjo* (Riviercrest River Crab) (Hannes Marais, 19-01-2023)



Upper Lakenvlei Wetland, situated within the Middelpunt Nature Reserve (Hannes Marais, 25-11-2022)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation

2023-03-15