



Ramsar Information Sheet

Published on 26 September 2016

Eswatini

Hawane Dam and Nature Reserve



Designation date	12 June 2013
Site number	2121
Coordinates	26°12'48"S 31°05'12"E
Area	232,00 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

Hawane Dam was constructed in 1984 to supply the capital city of Swaziland, Mbabane, with fresh water. The surface area covered by water is 69 ha, and the dam inundated montane grassland and swamps. Prior to inundation, this was the only site in the country for Wattled Crane. Currently, this is the only protected site for the endemic and highly endangered plant *Kniphofia umbrina*. The underlying geological formation of the site is granite. The soils fall into two types: mottled hydromorphic soils (typically acidic) and deep yellow loam soils. Hawane Dam is on the upper reaches of the Black Umbuluzi, close to its source (also within Malolotja Nature Reserve). Due to the mountainous nature of the region, the reservoir is steep-sided and hence shallow waters are typically restricted to where streams run into it. Water levels do fluctuate, mostly related to natural rainfall increasing in late summer and decreasing through winter. The climate is typical for the "Highveld" of Swaziland with warm wet summers and cold dry winters. The main source of water for the reservoir is the Black Mbuluzi River, although there are several non-perennial streams that also flow into it. The significance of this catchment is that it is the only catchment of a major river arising entirely within Swaziland (and not flowing in from South Africa to the west). Hawane Dam constitutes mostly of the human-made reservoir which covers around 90% of the area, with the swamp (23.2 ha) accounting for most of the remainder of the wetland area. The shoreline is typically composed on a narrow belt of sand which varies with water level, beyond which lies the montane grassland ecosystem indigenous to this area. The main swamp/marsh (called the Hawane swamp) is situated upstream of the reservoir where the Black Mbuluzi enters the system. This swamp is extensive by Swaziland standards but only covers a few hectares. It is inundated in summer months, but tends to dry out towards the end of winter or early spring before the rains have begun, although small pockets of marshy habitat persist through most years. The reservoir is host to a variety of waterbirds, whereas the swamp supports a small, but critical population of the endemic and Critically Endangered plant *Kniphofia umbrina*.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Ara Monadjem
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Phone	+26825184011

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

From year	2012
To year	2016

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Hawane Dam and Nature Reserve
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2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<2 file(s) uploaded>

Former maps	0
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Boundaries description

The boundary of the site follows exactly that of Hawane Dam and Nature Reserve (which is managed by Malolotja Nature Reserve under the Swaziland National Trust Commission). The nearest town is Mbabane. Hawane Dam is in the Hhohho district, to the east of the Motjane - Piggs Peak road, about 4 km north-east of Motjane.

2.2.2 - General location

a) In which large administrative region does the site lie?	Hhohho district
b) What is the nearest town or population centre?	Mbabane (capital city of Swaziland)

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):	232
Area, in hectares (ha) as calculated from GIS boundaries	230.9

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
WWF Terrestrial Ecoregions	KaNgwane Montane Grassland

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

<no data available>

Criterion 2 : Rare species and threatened ecological communities

Criterion 3 : Biological diversity

Justification

The KaNgwane Montane Grassland, within which Hawane Dam is situated, currently enjoys a low level of protection (2.4% of which is formally protected in South Africa and Swaziland). Considering this, and the fact that Hawane Dam supports populations of an endemic and Critically Endangered species (*Kniphofia umbrina*), it suggests that Hawane Dam plays an important role in maintaining the biodiversity of this vegetation type. Furthermore, Malolotja Nature Reserve (inclusive of Hawane Dam) has been listed as an Important Bird Area (IBA: SW001) (Barnes, 1998; Barnes & Monadjem, 2001) under Criteria: A1, A2, and A3. Under Criterion A1, the following globally threatened species Bald Ibis (*Geronticus calvus*) (VU) occasionally forages around Hawane Dam. Furthermore, the following globally near-threatened species also occur in the area: Ground Woodpecker (*Geocolaptes olivaceus*) and Buff-streaked Chat (*Oenanthe bifasciata*). Under Criterion A2, the following range-restricted species (with global ranges of less than 50,000 km²) have been recorded at Hawane Dam: Chorister Robin (*Cossypha dichroa*) and Forest Canary (*Serinus scotops*). Under Criterion A3, the following biome-restricted species occur at Hawane Dam: Striped Flufftail (*Sarothrura affinis*), Buff-streaked Chat (*Oenanthe bifasciata*), Chorister Robin (*Cossypha dichroa*), Swee Waxbill (*Estrilda melanotis*) and Forest Canary (*Serinus scotops*). Other birds of conservation value that have been recorded at Hawane Dam include the nationally threatened: African Marsh Harrier (*Circus ranivorus*) and Grass Owl (*Tyto capensis*) both of which are suspected to breed here.




































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



Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<i>Disa versicolor</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Eriospermum cooperi</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Eucomis pallidiflora pole-evansii</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Eulophia parvilabris</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Habenaria cornuta</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Habenaria dives</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Kniphofia multiflora</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Kniphofia porphyrantha</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Kniphofia umbrina</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Endemic and highly threatened (listed as Critically Endangered at regional level, Golding, 2002)	
<i>Neobolusia tysonii</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Satyrium cristatum</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Satyrium hallackii ocellatum</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Satyrium macrophyllum</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Satyrium trinerve</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		

Hawane Dam is a critical site for the endemic and highly threatened (listed as Critically Endangered at regional level, Golding, 2002) wetland plant *Kniphofia umbrina* (Swazi red hot poker, licacalatikoloshi). This is the only protected area in which this species occurs, and constitutes the largest population.

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

Phylum	Scientific name	Common 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								
Birds																		
CHORDATA/ AVES	<i>Ardea alba</i>	Great Egret	<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"/>				LC ●●●●● ●●●●●	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ AVES	<i>Ardea purpurea</i>	Purple Heron	<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"/>				LC ●●●●● ●●●●●	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ AVES	<i>Ardeola rallioides</i>	Squacco Heron	<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"/>				LC ●●●●● ●●●●●	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ AVES	<i>Bubulcus ibis</i>	Cattle Egret, Western Cattle Egret	<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"/>				LC ●●●●● ●●●●●	<input type="checkbox"/>	<input type="checkbox"/>		

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	GITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/AVES	 <i>Butorides striata</i>	Striated Heron	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Campicoides bifasciatus</i>	Tarier bifascié	<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"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Chalcomitra amethystina</i>	Souimanga améthyste	<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"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Cinnyris chalybeus</i>	Southern Double-collared Sunbird	<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"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Circus ranivorus</i>	Busard grenouillard	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Coccygia melanotis</i>	Astrild à joues noires	<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"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Cossypha dichroa</i>	Chorister robin-chat	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Geocolaptes olivaceus</i>	Pic laboureur	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Geronticus calvus</i>	Southern Bald Ibis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Nycticorax nycticorax</i>	Black-crowned Night Heron; Black-crowned Night-Heron	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Sarothrura affinis</i>	striped flufftai	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Scopus umbretta</i>	Hamerkop	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Serinus scotops</i>	Serin forestier	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	 <i>Tyto capensis</i>	African Grass Owl	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
Fish, Mollusc and Crustacea																		
CHORDATA/ACTINOPTERYGII	 <i>Barbus paludinosus</i>	straight fin barb	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ACTINOPTERYGII	 <i>Barbus toppini</i>	East Coast barb	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ACTINOPTERYGII	 <i>Chiloglanis swierstrai</i>	Lowveld suckermouth	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ACTINOPTERYGII	 <i>Clarias gariepinus</i>	Poisson-chat africain	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ACTINOPTERYGII	 <i>Oreochromis mossambicus</i>	black tilapia	<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"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>		
Others																		
CHORDATA/REPTILIA	 <i>Amblydipsas polylepis</i>	common purple-glossed snake	<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"/>	<input type="checkbox"/>		

Phylum	Scientific name	Common 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/ REPTILIA	<i>Crocodylus niloticus</i> 	crocodile du nil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

1) Percentage of the total biogeographic population at the site

The site also supports *Geronticus calvus* which is listed as Vulnerable species and of global conservation concern (BirdLife, 2013).

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

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Kniphofia umbrina -Geronticus calvus community	<input checked="" type="checkbox"/>	The endemic and threatened plant <i>Kniphofia umbrina</i> constitutes the largest population in this area and <i>Geronticus calvus</i> which is listed as Vulnerable species also cohabitates the area.	Hawane Dam is a critical site for the endemic and highly threatened (listed as Critically Endangered at regional level, Golding, 2002) as well as Vulnerable species of global conservation concern (BirdLife, 2013).

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

4.1 - Ecological character

The main (dominant in terms of size) feature of this site is the area covered by the reservoir which covers 69 ha when it is full. The shoreline is typically composed of a narrow belt of sand (perhaps 1-2 m in width) which varies with water level, beyond which lies the montane grassland ecosystem indigenous to this area. The main swamp/marsh (called the Hawane swamp) is situated upstream of the reservoir where the Black Mbuluzi enters the system. This swamp is extensive by Swaziland standards but only covers a few hectares. It is inundated in summer months, but tends to dry out towards the end of winter or early spring before the rains have begun, although small pockets of marshy habitat persist through most years. The reservoir is host to a variety of waterbirds, whereas the swamp supports a small, but critical population of the endemic and Critically Endangered plant *Kniphofia umbrina*.

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 > Flowing water >> M: Permanent rivers/ streams/ creeks		3		
Fresh water > Flowing water >> N: Seasonal/ intermittent/ irregular rivers/ streams/ creeks		3		
Fresh water > Marshes on inorganic soils >> Tp: Permanent freshwater marshes/ pools		2		
Fresh water > Flowing water >> Y: Permanent Freshwater springs; oases		4		

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
6: Water storage areas/Reservoirs		1		
Zk(c): Man-made subterranean hydrological systems		1		

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
<i>Albuca fastigiata</i>		
<i>Aloe boylei</i>		
<i>Aristea torulosa</i>		
<i>Brunsvigia natalensis</i>		
<i>Bulbine capitata</i>		
<i>Dierama medium</i>		
<i>Drimia sphaerocephala</i>		
<i>Gladolus papilio</i>		
<i>Hesperantha lactea</i>		
<i>Hypoxis acuminata</i>		
<i>Hypoxis filiformis</i>		
<i>Moraea marionae</i>		

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/AVES	<i>Alopochen aegyptiaca</i>	Egyptian Goose				
CHORDATA/AVES	<i>Ceryle rudis</i>	Pied Kingfisher				
CHORDATA/AVES	<i>Dendrocygna viduata</i>	White-faced Whistling Duck; White-faced Whistling-Duck				
CHORDATA/AVES	<i>Falco biarmicus</i>	Lanner Falcon				
CHORDATA/AVES	<i>Nectarinia farosa</i>	Malachite Sunbird				
CHORDATA/AMPHIBIA	<i>Arrietophrynus gutturalis</i>					
CHORDATA/AMPHIBIA	<i>Breviceps adspersus</i>					
CHORDATA/AMPHIBIA	<i>Cacosternum boettgeri</i>					

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
C: Moist Mid-Latitude climate with mild winters	Cwa: Humid subtropical (Mid with dry winter, hot summer)

The climate is typical for the "Highveld" of Swaziland with warm wet summers and cold dry winters. Mean annual rainfall is 1270-1525 mm, average monthly temperature in summer is 18° and in winter 11°.

4.4.2 - Geomorphic setting

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.

Hawane Dam is on the upper reaches of the Black Umbuluzi, close to its source (also within Malolotja Nature Reserve). Due to the mountainous nature of the region, the reservoir is steep-sided and hence shallow waters are typically restricted to where streams run into it. Due to the mountainous nature of the region, the reservoir is steep-sided and hence shallow waters are typically restricted to where streams run into it.

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 underlying geological formation of the site is granite. The soils fall into two types: mottled hydromorphic soils (typically acidic) and deep yellow loam soils.

4.4.4 - Water regime

Water permanence

Presence?
Usually permanent water present

Source of water that maintains character of the site

Presence?	Predominant water source
Water inputs from surface water	<input checked="" type="checkbox"/>

Water destination

Presence?
To downstream catchment

Stability of water regime

Presence?
Water levels fluctuating (including tidal)

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

Hawane Dam lies in the headwaters of the Black Mbuluzi River catchment, most of which lies in granitic soils. This part of the catchment is situated in the Highveld region (described above). The main source of water for the reservoir is the Black Mbuluzi River, although there are several non-perennial streams that also flow into it. The significance of this catchment is that it is the only catchment of a major river arising entirely within Swaziland (and not flowing in from South Africa to the west).
 The main purpose and function of the Hawane Dam is to provide fresh water to the capital city, Mbabane. Hawane Dam also acts as a flood control as well as a sediment trap.
 Since this dam is the main source of fresh water for the capital city, Mbabane, the water quality is good and the dam as water in it year-round. Water levels do fluctuate, mostly related to natural rainfall increasing in late summer and decreasing through winter.

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

4.4.6 - Water pH

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

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 site itself: i) broadly similar ii) significantly different

- 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

Please describe other ways in which the surrounding area is different:

The threats in the surrounding area are similar to those within the site. Overgrazing by livestock and transformation of grasslands to agricultural fields is increasingly affecting the area.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	High
Fresh water	Drinking water for humans and/or livestock	High
Wetland non-food products	Fuel wood/fibre	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Water sports and activities	Medium
Recreation and tourism	Nature observation and nature-based tourism	Medium
Recreation and tourism	Picnics, outings, touring	Medium
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	Medium

Other ecosystem service(s) not included above:

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

Hawane Dam has been in existence for only 3 decades and therefore has not been around long enough for the development of cultural or religious ties to it. As mentioned earlier, the reservoir was constructed to supply the capital city of Swaziland, Mbabane, with fresh water, and this is its most important socio-economic value. The site is also used rarely for wind surfing, sailing, swimming and other outdoor water sports including mountain biking. The grasslands surrounding the reservoir are used extensively for illegal livestock grazing (mostly at a subsistence level). An unquantified level of non-commercial fishing activity is present, and some subsistence farming takes place along the fringes of the site. Local communities also extract fresh water from the system. There are 2000 individuals from 250 homesteads surrounding Hawane Dam.

- 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

<no data available>

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

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
Other public ownership	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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):

a) within the Ramsar site:

The dam and water within the reservoir are owned by the Swaziland Water Services Corporation (SWSC), but the land falls under both private and crown land.

b) in the surrounding area:

To the north and east is communally owned Swazi Nation Land. The south and west the land is privately owned.

5.1.2 - Management authority

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

Swaziland National Trust Commission (SNTC) manages the site, however the Swaziland Water Services Corporation controls the dam and the water in the reservoir.

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

Mr. Sandile Tfululwemphi Gumedze, Senior Ecologist Swaziland National Trust Commission, Natioanl focal point

Postal address:

Senior Ecologist
Swaziland National Trust Commission
Parliamnet Drive Swaziland, National Museum Building
P.O.Box
8087 Mbabane
Swaziland
m

E-mail address:

ecology@sntc.org.sz

5.2 - Ecological character threats and responses (Management)

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

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Water abstraction	unknown impact	Medium impact	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Livestock farming and ranching	unknown impact	High impact	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Annual and perennial non-timber crops	unknown 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
Hunting and collecting terrestrial animals	Medium impact	High impact	<input checked="" 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		Medium impact	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Vegetation clearance/ land conversion	Low impact	High impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Household sewage, urban waste water	Low impact	High impact	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please describe any other threats (optional):

There is increasing pressure from the local community for access to the site, mostly for subsistence level exploitation and extraction. The local community has increased dramatically in the past 20 years and the level of employment is generally low. Families are therefore coming under increasing pressure as human density (currently 42 inhabitants/km²) increases, but the area of land available to the community remains the same (Geosystems-Swaziland, 2009). The most significant threat to the site comes from livestock grazing, the intensity and time of which is not managed. How this affects the wetland is not known, but over-grazing is a well-known threat to African grassland and wetland ecosystems. Small patches of land have also been transformed to agriculture for crop production (mostly maize). The hunting of waterbirds was also listed as an activity conducted by the neighbouring communities, but its level was not quantified and hence the severity of this threat is unknown. The lack of proper solid waste management systems may be resulting in effluent discharge into the Hawane Dam.

b) in the surrounding area:

The threats in the surrounding area are similar to those within the site. Overgrazing by livestock and transformation of grasslands to agricultural fields is increasingly affecting the area.

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
nature reserve			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

<no data available>

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Other:

Hawane Dam is a protected area that is administered by the Swaziland National Trust Commission as part of Malolotja Nature Reserve (proclaimed under the SNTC Act).

5.2.5 - Management planning

Is there a site-specific management plan for the site? No

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

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Please select a value

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented
Animal species (please specify)	Implemented

-Biannual waterbird surveys were conducted continuously at this site from 1991 to 1999 and again in 2003, 2008 and 2014.
-The populations of the Critically Endangered endemic red hot poker (*Kniphofia umbrina*) has been monitored since the 1980s (SNTC, unpublished records).

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

- Barnes, K.N. 1998. Important Bird Areas of Swaziland. In: The important bird areas of Southern Africa. ----Barnes, K.N. (ed.) pp 273-280. BirdLife South Africa, Johannesburg.
- Barnes, K.N. & Monadjem, A. 2001. Swaziland. In: Important Bird Areas in Africa and associated islands: -priority sites for conservation. Fishpool, D.C. & Evans, M.I. (eds.) pp 891-896. Pisces Publications and BirdLife International, Newbury and Cambridge, UK.
- BirdLife International. 2013. *Geronticus calvus*. The IUCN Red List of Threatened Species 2013: e.T22697496A48055659. <http://dx.doi.org/10.2305/IUCN.UK.2013-2.RLTS.T22697496A48055659.en> . Downloaded on 22 October 2015.
- Golding, J (ed). 2002. Southern African Plant Red Data Lists. Southern African Botanical Diversity Network Report No. 14, Pretoria.
- Hughes, R H & Hughes, J.S. 1992. A Directory of African Wetlands IUCN, Gland, Switzerland and Cambridge, UK /UNEP, Nairobi, Kenya / WCMC, Cambridge, UK, xxiv +820 pp., 48 maps.
- Monadjem, A., Boycott, R.C., Parker, V. & Culverwell, J. 2003. Threatened vertebrates of Swaziland. Swaziland Red Data Book: fishes, amphibians, reptiles, birds and mammals. Ministry of Tourism, Environment and Communications, Mbabane.
- Mucina, L. & Rutherford, M.C. (eds). 2006. The vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19. South African National Biodiversity Institute, Pretoria.

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>

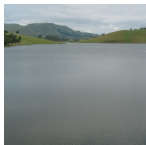
vi. other published literature

<no file available>

<no data available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Hawane (Gumedze S., 18-01-2008)



Hawane (Gumedze S., 18-01-2008)



Hawane (Gumedze S., 18-01-2008)



Hawane (Gumedze S., 18-01-2008)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation