



## 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

The area lies within coastal savanna vegetation zone adjacent to two forest reserves (Yenku Block A and Block B Forest reserves), with four main habitat types: open shallow lagoon; floodplain grassland; degraded forest, scrub and farmland; and sand dune. The extent of open water varies according to time of the year, ranging from 100ha in the dry season to 1000ha in the wet season. The lagoon has a maximum depth of 1.5 m. 135 species of Angiosperms, 12 species of shell fishes, 75 species of butterfly fauna have been recorded. The site is particularly important for migratory birds, and supports an estimated population of 23,000 water birds, comprising 27 species of waders, 8 species of terns and 7 species of herons and egrets. There are 114 species of terrestrial birds and several species of mammals. 33 species of herpetofauna which include 3 species of marine turtles that nest on the beaches, i.e. olive ridley (*Lepidochelys olivacea*), green turtle (*Chelonia mydas*) and leatherback (*Dermochelys coriacea*). Noteworthy flora within the site includes two species of mangroves namely *Avicennia africana* and *Rhizophora* sp.

The Site exhibits hydrological importance by playing a major role in the natural control and prevention of flooding in the area; watershed protection, water purification, etc. It also serves as a source of food (Fish, Bushmeat, Fruits, Snails) and herbs for medicines. Also plays important cultural significance by serving as part of the hunting grounds for the Effutu people during the Aboakyir festival every year. Also supports pollinators and provides a suitable environment for recreation, tourism and aesthetics. Serves as support for maintenance of genetic diversity, micro-climate regulation and carbon sequestration.

Threats to the site are mostly urbanized developments in the form of encroachments.

## 2 - Data & location

### 2.1 - Formal data

#### 2.1.1 - Name and address of the compiler of this RIS

##### Responsible compiler

Institution/agency

Postal address

##### National Ramsar Administrative Authority

Institution/agency

Postal address

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

From year

To year

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

Unofficial name (optional)

#### 2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary Yes  No

(Update) B. Changes to Site area No change to area

(Update) For secretariat only: This update is an extension

#### 2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?

## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

#### b) Digital map/image

<2 file(s) uploaded>

Former maps

#### Boundaries description

The Site boundary was delineated, surveyed, pillared and map out as a new nature (wetland) conservation area in fulfillment of Ghana's commitment to the ratification of the Ramsar Convention on Wetlands. The southern boundary follows the shoreline of the sea (Gulf of Guinea). Part of the western boundary follows the boundary of an existing traditional hunting ground and adjacent forest reserve; Yeku Block A and Block B Forest reserves. The rest of the boundary line follows a catchment boundary and limits as defined by planning scheme of the Planning authority of Winneba town.

### 2.2.2 - General location

a) In which large administrative region does the site lie?

b) What is the nearest town or population centre?

### 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
Other scheme (provide name below)	Afro-tropical

### 3 - Why is the Site important?

#### 3.1 - Ramsar Criteria and their justification

<no data available>

<no data available>

Criterion 3 : Biological diversity

Justification

A total of 135 species of Angiosperms have been recorded at the Muni-Pomadze Ramsar site, representing 57 families and 114 genera. The group Dicotyledonae was represented by 48 families, 85 genera and 86 species, while there were 9 families, 29 genera, and 37 species of the Monocotyledonae. An analysis of distribution of the plant species among the various habitats indicated that the Thickets had the highest number of species (39), making up 39.4 % of the total. The habitat with the least number of species (3) was the Mangrove Swamp, making up 2.3 % of the total.

Zooplankton is the most diverse aquatic fauna, with large numbers of the marine zooplankton *Sagatria* sp. Twelve species of shell fishes belonging to nine orders, have also been recorded at the Muni- Pomadze Ramsar site. Muni-Pomadze has a rich, high-diversity butterfly fauna, with a total of 75 species recorded, representing five families: 43 Nymphalidae (57 %), 17 Pieridae (23 %), 6 Lycaenidae (8 %), 5 Papilionidae (7 %) and 4 Hesperidae (5 %).

A total of 33 species of herpetofauna was recorded, comprising 13 species of amphibians and 20 species of reptiles. Three of the reptile species were the first to be recorded in coastal thicket vegetation in Ghana: *Kinixys hoinecuui* (Home's hinged tortoise), *Calabaria reinhardtii* (Calabar ground python) and *Bothrophthalmus lineatus* (Red-lined Snake). The latter was recorded only in secondary forest. The most diverse herpetofaunal community was recorded in grassland-thicket habitat, with 29 out of the 32 recorded species.

Please find a full list of all recorded flora and fauna in the site management plan in the additional material section.

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

Optional text box to provide further information

This site provides habitat support as nesting and breeding grounds for some waders. Three species of waders, Black-winged Stilt, Pratincole and Little Tern have been observed to breed at the site . Also serve as wintering grounds for several migratory waterbirds.

#### 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
<b>Plantae</b>								
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Avicennia africana</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Azadirachta indica</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>		
TRACHEOPHYTA/ LILIOPSIDA	<i>Cocos nucifera</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		

### 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								
<b>Birds</b>																	
CHORDATA/AVES	<i>Actitis hypoleucos</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"/>	132	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Calidris alba</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"/>	149	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Calidris ferruginea</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"/>	404	2020-2023		NT	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Calidris minuta</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"/>	411	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Charadrius hiaticula</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"/>	959	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Chlidonias niger</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"/>	115	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Dendrocygna viduata</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"/>	376	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Glareola pratincola</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	179	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		serves as nesting and breeding ground for species.
CHORDATA/AVES	<i>Himantopus himantopus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	520	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		serves as nesting and breeding ground for species.
CHORDATA/AVES	<i>Microcarbo africanus</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"/>	710	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Numenius phaeopus</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"/>	169	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Pluvialis squatarola</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"/>	263	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Sterna hirundo</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"/>	732	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Sternula albifrons</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	195	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		serves as nesting and breeding ground for species.
CHORDATA/AVES	<i>Thalasseus maximus</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"/>	396	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Thalasseus sandvicensis</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"/>	442	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Tringa nebularia</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"/>	357	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Tringa stagnatilis</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"/>	29	2020-2023		LC	<input type="checkbox"/>	<input type="checkbox"/>		

1) Percentage of the total biogeographic population at the site

The Muni-Pomadze supports a high diversity of waterbirds some of which breed in the area. The example of the Black-winged stilt (*Himantopus himantopus*), Western reef heron (*Egretta gularis*), Greenshank (*Tringa nebularia*) including the following (see table). The wetland also supports more than 1% of the coastal population of the White-fronted sand plover (*Charadrius marginatus*), Sandwich tern (*Thalasseus sandvicensis*) and the Common tern (*Sterna hirundo*)

Migrant birds begin to arrive on the site in late August, and their numbers peak in September-November. The birds start to leave the area at the onset of the dry season, when large sections of the lagoon dry up; by January, the bird population is drastically less than the autumn peak (Piersma & Niamoa-Baidu, 1995). These population estimates of waterbirds are however from IWC bird counts done in January 2020, 2021, 2022 and 2023.

### 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
The Site	<input type="checkbox"/>	The site comprises the Muni Lagoon, the surrounding flood plains and the adjacent sandy beach on the seafront. The Yenku Forest Reserve and the traditional hunting grounds of the Efutu people are important features within the site.	
Plant communities	<input type="checkbox"/>	The hill slopes facing the lagoon are fairly steep. The lagoon shoreline is covered by <i>Sesuvium portulacastrum</i> , <i>Paspalum virginicum</i> and <i>Sporolobus virginicus</i> in successive order up the dune side. The vegetation included mangrove species.	
Water Fowls	<input type="checkbox"/>	The most abundant waterbird species are the <i>Calidris ferruginea</i> , <i>Charidrius hiaticula</i> , <i>Tringa nebularia</i> , <i>Himantopus himantopus</i> , <i>Chlidonias niger</i> , <i>Sterna hirundo</i> , <i>S. maxima</i> and <i>S. sandvicensis</i> .	

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

### 4.1 - Ecological character

Four main habitat types are featured: open shallow lagoon; floodplain grassland; degraded forest, scrub and farmland; and sand dune. The open lagoon with *Avicennia africana* at the eastern fringes. The soils are mainly clay, impervious to water and liable to sheet erosion during periods of seasonal flooding. Two seasonal rivers, Aboaku and Pratu, feed the lagoon with freshwater. The flood plains consist mainly of *Sesuvium portulacastrum* and *Paspalum vaginatum*. Traditional hunting grounds dominated with thickets of *Azadirachta indica* (neem tree). Land use management area occupying the upper portion of the site for cattle grazing and farming activities. Adjacent forest reserve made up of *Cassia*, *Eucalypt*, and *Mahogany*.

A total of 135 species of Angiosperms have been recorded representing 57 families and 114 genera. Zooplankton is the most diverse aquatic fauna, with large numbers of the marine zooplankton *Sagatria* sp. Twelve species of shell fishes belonging to nine orders, have also been recorded. A rich, high-diversity butterfly fauna, with a total of 75 species, representing five families, 33 species of herpetofauna, comprising 13 species of amphibians and 20 species of reptiles are present.

The site is particularly important for migratory birds, and supports an estimated population of 23,000 water birds. Three species of marine turtles also nest on the beaches, i.e. olive ridley (*Lepidochelys olivacea*), green turtle (*Chelonia mydas*) and leatherback (*Dermochelys coriacea*). The Site exhibits hydrological importance by playing a major role in the natural control and prevention of flooding in the area; watershed protection, water purification, important for seasonal water retention for wetland conservation, water production and supply for farm irrigation. It also serves as a source of food (Fish, Bushmeat, Fruits, Snails) and herbs for medicines. Also plays important cultural significance by serving as part of the hunting grounds for the Effutu people during the Aboakyir festival every year. Also supports pollinators and provides a suitable environment for recreation, tourism and aesthetics. Serves as support for maintenance of genetic diversity, micro-climate regulation and carbon sequestration.

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

#### Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
E: Sand, shingle or pebble shores		4		
H: Intertidal marshes		3		
I: Intertidal forested wetlands		2		
J: Coastal brackish / saline lagoons		1		

#### Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type
5: Salt exploitation sites		1	

#### Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Grassland	

### 4.3 - Biological components

#### 4.3.1 - Plant species

##### Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Avicennia germinans</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Azadirachta indica</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Cocos nucifera</i>	

#### 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/REPTILIA	<i>Calabaria reinhardtii</i>				
CHORDATA/REPTILIA	<i>Chelonia mydas agassizi</i>				
CHORDATA/MAMMALIA	<i>Tragelaphus scriptus</i>				

### 4.4 - Physical components

#### 4.4.1 - Climate

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



#### 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

#### 4.4.3 - Soil

No available information

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

#### 4.4.4 - Water regime

##### Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

##### Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Marine water	<input type="checkbox"/>	No change
Water inputs from surface water	<input type="checkbox"/>	No change

##### Water destination

Presence?	Changes at RIS update
Marine	No change

##### Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

#### 4.4.5 - Sediment regime

Significant erosion of sediments occurs on the site

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Significant accretion or deposition of sediments occurs on the site

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Significant transportation of sediments occurs on or through the site

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Sediment regime is highly variable, either seasonally or inter-annually

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Sediment regime unknown

(ECD) Water temperature

#### 4.4.6 - Water pH

Unknown

#### 4.4.7 - Water salinity

Hyperhaline/Hypersaline (>40 g/l)

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Unknown

4.4.8 - Dissolved or suspended nutrients in water

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

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)	
Wetland non-food products	Fuel wood/fibre	
Wetland non-food products	Livestock fodder	
Wetland non-food products	Reeds and fibre	

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Hazard reduction	Flood control, flood storage	
Hazard reduction	Coastal shoreline and river bank stabilization and storm protection	

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	
Recreation and tourism	Picnics, outings, touring	
Spiritual and inspirational	Cultural heritage (historical and archaeological)	
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	
Scientific and educational	Major scientific study site	
Scientific and educational	Educational activities and opportunities	

Within the site:

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

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
Local authority, municipality, (sub)district, etc.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

##### Private ownership

Category	Within the Ramsar Site	In the surrounding area
Cooperative/collective (e.g., farmers cooperative)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Commercial (company)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other types of private/individual owner(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

##### Other

Category	Within the Ramsar Site	In the surrounding area
Commoners/customary rights	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 5.1.2 - Management authority

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

Wildlife Division of the Forestry Commission in partnership with the Effutu Municipal Assembly and the Gomoa District Assembly.

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

Nana Koffi Adu-Nsiah (Chief Executive Director) / Andrews Agyekumhene

Postal address:

P. O. Box 202, Winneba

E-mail address:

adunsiah@yahoo.com

## 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	Changes	In the surrounding area	Changes
Housing and urban areas	Medium impact		<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Commercial and industrial areas	Low impact		<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

#### Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Livestock farming and ranching	Low impact		<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

#### Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Hunting and collecting terrestrial animals	Medium impact		<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Gathering terrestrial plants	Medium impact		<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Fishing and harvesting aquatic resources	High impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

#### Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Recreational and tourism activities	Low impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

#### Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Fire and fire suppression			<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	Changes	In the surrounding area	Changes
Invasive non-native/ alien species	Low impact		<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Household sewage, urban waste water	Low impact		<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Garbage and solid waste	Low impact		<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Storms and flooding	Low impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

### 5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
forest reserve	Muni-Pomadze		partly

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Muni-Pomadze		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

Habitat

Measures	Status
Re-vegetation	Implemented
Habitat manipulation/enhancement	Implemented
Land conversion controls	Implemented

Human Activities

Measures	Status
Regulation/management of wastes	Partially implemented
Harvest controls/poaching enforcement	Implemented
Fisheries management/regulation	Implemented
Regulation/management of recreational activities	Implemented
Research	Implemented

### 5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

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:

Currently not available

### 5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, but restoration is needed

### 5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Animal community	Proposed
Birds	Proposed
Soil quality	Proposed
Water quality	Proposed

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Amatekpor, J.A. 1995. Soil and land use degradation: Muni-Pomadze Ramsar Site. Environmental Baseline Studies Report for the Ghana Coastal Wetlands Management Project. Ghana Wildlife Department, Accra-Ghana.

Attuquatefio, D. K. (1999). Muni-Pomadze Ramsar Site. Management Plan, CWMP, Wildlife Department.

Biney, C.A 1995. Limnology. Muni-Pomadze Ramsar Site. CWMP-GWD, Accra-Ghana.

Dadson, J.A 1995. Socio-economic status of local communities. Muni-Pomadze Ramsar Site. CWMP-GWD, Accra-Ghana.

Gordon, C. 1995. Aquatic ecology: Muni-Pomadze Ramsar Site. CWMP-GWD, Accra-Ghana.

Koranteng, K. A 1995. Fisheries: Muni-Pomadze Ramsar Site. CWMP-GWD, Accra-Ghana.

Oteng-Yeboah. A.A 1994. Plant Ecology; Muni-Pomadze Ramsar Site. CWMP-GWD, Accra-Ghana.

Ntiamao-Baidu, Y. & Gordon, C., (1991). Coastal Wetlands Management Plans: Ghana. Report to World Bank, Department of Zoology, University of Ghana, Legon, Accra., Ghana.

Tumbulto, J.W. and R.R. Bannerman 1995. Hydrology: Muni-Pomadze Ramsar Site. CWMP-GWD, Accra-Ghana.

World Bank (1997), Towards an Integrated Coastal Management Strategy for Ghana. World Bank, Washington & Environmental Protection Agency, Accra. 137pp

Ntiamao-Baidu, Y., Nyame, S.K. & Nuoh, A.A. Trends in the use of a small coastal lagoon by waterbirds: Muni Lagoon (Ghana). Biodiversity and Conservation 9, 527–539 (2000).

#### 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

<2 file(s) uploaded>

vi. other published literature

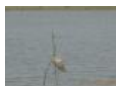
<no file available>

#### 6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Muni Lagoon ( Wildlife Division (Forestry Commission), 27-01-2015 )



Muni Lagoon ( Wildlife Division (Forestry Commission), 27-01-2015 )



Muni Lagoon ( Wildlife Division (Forestry Commission), 27-01-2015 )



Muni Lagoon ( Wildlife Division (Forestry Commission), 27-01-2015 )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation