



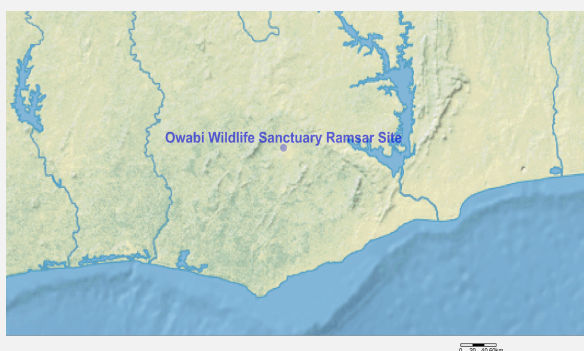
# Ramsar Information Sheet

Published on 8 May 2024

Update version, previously published on : 13 August 2015

## Ghana

### Owabi Wildlife Sanctuary Ramsar Site



|                  |                       |
|------------------|-----------------------|
| Designation date | 22 February 1988      |
| Site number      | 393                   |
| Coordinates      | 06°44'03"N 01°41'10"W |
| Area             | 1 310,00 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

The Owabi Ramsar Site and Wildlife Sanctuary is located near Kumasi. The Site comprises associated reed beds and marshland, surrounded by secondary woodland and plantation areas. It protects the catchment area of one of the dams used for water supply to the Kumasi metropolis. Until the construction of the Barekese Dam in 1971, Owabi was the only source of water to Kumasi - Ghana's second-largest city. The site and its catchment area is 7260 ha and it surrounds a small lake, formed by the damming of the Owabi River in 1928. A plantation of an exotic species, *Cassia siamea*, covers about 10% of the area. The rest consists of secondary vegetation and small areas of riverine forest and aquatic vegetation. Two hundred species of vascular plants have been identified. These include 91 trees, 19 shrubs, 40 herbs, 14 grass, 1 parasite, 6 ferns, and 29 climber species.

The avifauna is relatively rich with indigenous birds and some migrants. 161 birds of 29 families have been recorded, 13 of which are listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Though small, the Site is highly significant as it explicitly demonstrates the fundamental linkages between the conservation and preservation of vital ecological processes such as continuous water production and maintenance. The site is used for educational and recreational purposes.

## 2 - Data & location

### 2.1 - Formal data

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

##### Responsible compiler

|                    |                                                            |
|--------------------|------------------------------------------------------------|
| Institution/agency | Wildlife Division/Forestry Commission                      |
| Postal address     | Ministries Post Office<br>P. O. Box MB 239<br>Accra, Ghana |

##### National Ramsar Administrative Authority

|                    |                                                   |
|--------------------|---------------------------------------------------|
| Institution/agency | WildlifeDivision,ForestryCommission               |
| Postal address     | Ministries Post Office<br>P. O. Box MB.239, Accra |

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

|           |      |
|-----------|------|
| From year | 1988 |
| To year   | 2023 |

#### 2.1.3 - Name of the Ramsar Site

|                                               |                                      |
|-----------------------------------------------|--------------------------------------|
| Official name (in English, French or Spanish) | Owabi Wildlife Sanctuary Ramsar Site |
|-----------------------------------------------|--------------------------------------|

#### 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 <input type="radio"/> No <input checked="" type="radio"/> |
| (Update) B. Changes to Site area                           | No change to area                                             |
| (Update) For secretariat only: This update is an extension | <input type="checkbox"/>                                      |

#### 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? | Not evaluated |
|--------------------------------------------------------------------------------------------------------------------------------|---------------|

## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

b) Digital map/image  
<3 file(s) uploaded>

|             |   |
|-------------|---|
| Former maps | 0 |
|-------------|---|

##### Boundaries description

The Site boundary was delineated, surveyed, pillared and map out of an existing Wildlife protected area in fulfillment of Ghana's commitment to the ratification of the Ramsar Convention on Wetlands. The boundary line follows a catchment boundary and limits defined by natural features and adjoining land owned by other entities. These natural features consist of secondary woodland and plantation areas that protect and serve as a buffer to the Owabi dam. Owabi Wildlife Sanctuary/Ramsar Site covers an area of approximately 13km<sup>2</sup>; however, about only 7km<sup>2</sup> (designated "inner Sanctuary/Ramsar Site" in this report) is under effective control.

### 2.2.2 - General location

|                                                            |                 |
|------------------------------------------------------------|-----------------|
| a) In which large administrative region does the site lie? | Ashanti Region  |
| b) What is the nearest town or population centre?          | Akropong Esaase |

### 2.2.3 - For wetlands on national boundaries only

|                                                                                                          |                                                               |
|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| a) Does the wetland extend onto the territory of one or more other countries?                            | Yes <input type="radio"/> No <input checked="" type="radio"/> |
| b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? | Yes <input type="radio"/> No <input checked="" type="radio"/> |

2.2.4 - Area of the Site

|                                                          |          |
|----------------------------------------------------------|----------|
| Official area, in hectares (ha):                         | 1310     |
| Area, in hectares (ha) as calculated from GIS boundaries | 1310.971 |

2.2.5 - Biogeography

| Biogeographic regions               |                      |
|-------------------------------------|----------------------|
| Regionalisation scheme(s)           | Biogeographic region |
| Udvardy's Biogeographical Provinces | Afrotropical         |

### 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

Owabi Wildlife Sanctuary protects a chunk of unique forested wetlands around the Owabi Reservoir .The Owabi Water Supply System is a three million gallon per day (3mgd) conventional treatment plant with a daily average production of 2.4mgd. The treatment plant is the main source of water supply to the north-western part of the Kumasi metropolis. Areas like Kwadaso, Asuoyeboah, Abuakwa, Nkwawie, Akropong, Koforidua and surrounding communities source water from the Owabi Dam. Habitats include open water, rocky stream, marsh vegetation (grass, Typha reedbeds and Raphia swamps), semi-evergreen rain forest and secondary growth along the edges of the dam. 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, and also important for the recharge of local aquifer. The surrounding forests of the site also serve as safe haven for different birds and animal species.

Other ecosystem services provided

The wetland serves as a source of food (Fish, Bushmeat, Fruits, Snails) and herbs for medicines. Also supports pollinators and provides a suitable environment for recreation, tourism and aesthetics. Serves as habitat to migratory birds and support stages of their life cycle, maintenance of genetic diversity, micro-climate regulation and carbon sequestration.

☒ Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information

The wetland supports and provides habitat to the globally endangered species; Manis tricuspis

☒ Criterion 3 : Biological diversity

Justification

The reservoir and the adjoining sanctuary support a rich biodiversity. In terms of species diversity, The Celtis zenkeri- Triplochiton scleroxylon forest (up to 40m high) consists of a mosaic of remnants of the former moist semi-deciduous forest north-west subtype and secondary regrowth . Dense clumps of bamboo are found on moist sites. The shrub layer is very patchy. The herb layer is dominated by broad-leaved species and often covers up to 40%. The rest of the forest floor is covered by leaf litter. The Pterygota macrocarpa subcommunity, a more disturbed type of forest with fewer tree remnants and a denser bush layer, is confined to a small area south-east of the lake and harbours a variety of small to medium sized mammals, reptiles and birds. The wide variety of faunal species in the site include; Cercopithecus mona lowei, Cephalophus maxwelli, Tragelapagus scriptus, Civettictis civetta, Artilax paludinosus, Python sebae, Nectopus auritus, Butorides striata, Ardea cinerea, Phalacrocorax africanus, Porphirio porphyrio and the endangered Manis tricuspis etc. These are significant and representative of the biodiversity of the region.

#### 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>Celtis zenkeri</i>           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | LC            | <input type="checkbox"/> |              |               |
| TRACHEOPHYTA / MAGNOLIOPSIDA | <i>Pterygota macrocarpa</i>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | VU            | <input type="checkbox"/> |              |               |
| TRACHEOPHYTA / MAGNOLIOPSIDA | <i>Triplochiton scleroxylon</i> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | LC            | <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 <sup>1)</sup> | IUCN Red List | CITES Appendix I                    | CMS Appendix I           | Other Status | Justification |
|---------------------|------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-----------|---------------------|----------------------------|---------------|-------------------------------------|--------------------------|--------------|---------------|
|                     |                              | 2                                   | 4                        | 6                        | 9                        | 3                                   | 5                        | 7                        | 8                        |           |                     |                            |               |                                     |                          |              |               |
| Others              |                              |                                     |                          |                          |                          |                                     |                          |                          |                          |           |                     |                            |               |                                     |                          |              |               |
| CHORDATA / MAMMALIA | <i>Cercopithecus mona</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"/> |              |               |
| CHORDATA / MAMMALIA | <i>Civettictis civetta</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"/> |              |               |
| CHORDATA / MAMMALIA | <i>Manis tricuspis</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 checked="" type="checkbox"/> | <input type="checkbox"/> |              |               |
| CHORDATA / MAMMALIA | <i>Philantomba maxwellii</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"/> |              |               |
| CHORDATA / REPTILIA | <i>Python sebae</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"/> |              |               |
| Birds               |                              |                                     |                          |                          |                          |                                     |                          |                          |                          |           |                     |                            |               |                                     |                          |              |               |
| CHORDATA / AVES     | <i>Ardea cinerea</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"/> |              |               |
| CHORDATA / AVES     | <i>Butorides striata</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"/> |              |               |
| 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"/> |           |                     |                            | LC            | <input type="checkbox"/>            | <input type="checkbox"/> |              |               |

1) Percentage of the total biogeographic population at the site

### 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                                                                                                                                                                                    |
|--------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Water birds and other Bird species                           | <input type="checkbox"/>               | Relatively rich with indigenous birds and some migrants species.                                                                                                                                                                 | 161 birds consisting of 29 families have been recorded, 13 of which are listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)     |
| Aquatic vegetation                                           | <input type="checkbox"/>               | Lemnetum-Pistietum, Nymphaetum loti, Ceratophyllum demersum and Polygonetum senegalense. Another community is dominated by fern(s): Cyclosorus dentatus/ striatus.                                                               | Of the aquatic plant communities, which are widespread and remarkably similar throughout tropical West Africa, these were found on the Owabi Lake, which are typical of the wetland environment. |
| Secondary moist semi- deciduous forest and Cassia plantation | <input type="checkbox"/>               | A plantation of an exotic species, Cassia siamea, covers about 10% of the area. The rest consist of secondary vegetation and small areas of riverine forest and aquatic vegetation. The Ramsar Site encloses an artificial lake. | Two hundred species of vascular plants have been identified. These include 91 tree, 19 shrub, 40 herb, 14 grass, 1 parasite, 6 ferns, and 29 climber species.                                    |



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

### 4.1 - Ecological character

Habitats include: open water, rocky stream, marsh vegetation (grass, Typha reedbeds and Raphia swamps), semi-evergreen rain forest, secondary growth along the edges and the power-line which passes through the reserve. The accessible section of the forest has a low canopy with a clump of exotic bamboo *Bambusa vulgaris* and can be considered as seriously degraded or secondary. The under-storey is fairly open; *Culcasia* creepers are common around trunks and part of the forest floor near the lake is rather moist or even swampy. The forest on one side of the lake looks better developed and taller but presently inaccessible.

The understorey is fairly open; *Culcasia* creepers are common around trunks and part of the forest floor near the lake is rather moist or even swampy. Taller trees include *Albizia zygia*, *Ceiba pentandra*, *Piptadeniastrum africanum*, *Terminalia superba*; some exotic elements are present too, i.e. *Cedrela odorata* and *Senna siamea*. The forest on the other side of the lake is taller, with also *Triplochiton scleroxylon*. Narrow bands of up to 30m high riverine forest are found along the banks and of some of the seasonal streams in the reserve. At the far end of the lake there are clumps of exotic bamboo *Bambusa vulgaris*.

Four main plant communities have been distinguished: Secondary *Celtis-Triplochiton* forest, *Cassia* plantation, Riverine forest and Aquatic vegetation. Nearly 13% of the area is covered by the plantation of exotic *Cassia siamea* species (25-35m high) established in 1928 with scattered remnants of the original forest. Only small areas are covered by the riverine forest and aquatic vegetation.

The aquatic plant communities, which are widespread and remarkably similar throughout tropical West Africa, the following: *Lemnetum-Pistietum*, *Nymphaeetum loti*, *Ceratophyllum demersi* and *Polygonetum senegalense* are present. Another community is dominated by fern(s): *Cyclosorus dentatus/ striatus*. There are about 161 kinds of birds found in Owabi Wildlife Sanctuary ranging from raucous pied, hornbill, purple heron, giant blue plantain eaters among others. Aquatic birds include jacanas, pygmy geese, squacco herons and occasionally, Goliath heron. There are varieties of butterflies, the reclusive bush pigs, bushbuck and antelopes, black and white Colombos and Mona monkeys.

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, and also important for the recharge of local aquifer. The surrounding forests of the site also serve as safe haven for different birds and animal species. It also serves as a source of food (Fish, Bushmeat, Fruits, Snails) and herbs for medicines. Also supports pollinators and provides a suitable environment for recreation, tourism and aesthetics. Serves as habitat to migratory birds and support stages of their life cycle, maintenance of genetic diversity, micro-climate regulation and carbon sequestration.

### 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 > Lakes and pools >> Tp: Permanent freshwater marshes/ pools |            | 1                                          |                           | Unique                       |

#### Human-made wetlands

| Wetland types (code and name)     | Local name | Ranking of extent (1: greatest - 4: least) | Area (ha) of wetland type |
|-----------------------------------|------------|--------------------------------------------|---------------------------|
| 6: Water storage areas/Reservoirs |            | 2                                          |                           |

### 4.3 - Biological components

#### 4.3.1 - Plant species

##### Other noteworthy plant species

| Phylum                     | Scientific name          | Position in range / endemism / other |
|----------------------------|--------------------------|--------------------------------------|
| TRACHEOPHYTA/MAGNOLIOPSIDA | <i>Albizia zygia</i>     |                                      |
| TRACHEOPHYTA/MAGNOLIOPSIDA | <i>Alstonia boonei</i>   |                                      |
| TRACHEOPHYTA/MAGNOLIOPSIDA | <i>Cassia siamea</i>     |                                      |
| TRACHEOPHYTA/LILIOPSIDA    | <i>Elaeis guineensis</i> |                                      |
| TRACHEOPHYTA/LILIOPSIDA    | <i>Pistia stratiotes</i> |                                      |
| TRACHEOPHYTA/MAGNOLIOPSIDA | <i>Senna siamea</i>      |                                      |

##### Invasive alien plant species

| Phylum                  | Scientific name             | Impacts                | Changes at RIS update |
|-------------------------|-----------------------------|------------------------|-----------------------|
| TRACHEOPHYTA/LILIOPSIDA | <i>Eichhornia crassipes</i> | Actual (major impacts) | No change             |

#### 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>Actophilornis africanus</i> |           |                     |              |                                   |
| CHORDATA/AVES | <i>Ardea purpurea</i>          |           |                     |              |                                   |
| CHORDATA/AVES | <i>Dendrocygna viduata</i>     |           |                     |              |                                   |
| CHORDATA/AVES | <i>Nettion auritus</i>         |           |                     |              |                                   |
| CHORDATA/AVES | <i>Bradypterus baboecala</i>   |           |                     |              |                                   |
| CHORDATA/AVES | <i>Porphyrio porphyrio</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

Mineral ☒

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

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 | unknown               |

Source of water that maintains character of the site

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

Water destination

| Presence?         | Changes at RIS update |
|-------------------|-----------------------|
| Feeds groundwater | No change             |

Stability of water regime

| Presence?                   | Changes at RIS update |
|-----------------------------|-----------------------|
| Water levels largely stable | No change             |

### 4.4.5 - Sediment regime

Sediment regime unknown ☒

## 4.4.6 - Water pH

Unknown ☒

## 4.4.7 - Water salinity

Fresh (<0.5 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) | Medium                         |
| Fresh water       | Drinking water for humans and/or livestock           | High                           |

## Regulating Services

| Ecosystem service                   | Examples                                                                                   | Importance/Extent/Significance |
|-------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------|
| Maintenance of hydrological regimes | Storage and delivery of water as part of water supply systems for agriculture and industry | High                           |
| Erosion protection                  | Soil, sediment and nutrient retention                                                      | Medium                         |

## Cultural Services

| Ecosystem service          | Examples                                                                                 | Importance/Extent/Significance |
|----------------------------|------------------------------------------------------------------------------------------|--------------------------------|
| Recreation and tourism     | Picnics, outings, touring                                                                | Low                            |
| Scientific and educational | Important knowledge systems, importance for research (scientific reference area or site) | Medium                         |
| Scientific and educational | Educational activities and opportunities                                                 | Medium                         |

## 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 | Medium                         |
| Soil formation    | Sediment retention                                                                                                                                      | Medium                         |
| Nutrient cycling  | Carbon storage/sequestration                                                                                                                            | Medium                         |
| Pollination       | Support for pollinators                                                                                                                                 | Medium                         |

Other ecosystem service(s) not included above:

Provides a micro climate environment for surrounding communities

Within the site: 350,000

Outside the site: 5,924,498

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"/> |

Other

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

#### 5.1.2 - Management authority

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

1. Wildlife Division/Forestry Commission, Accra
2. Ghana Water Company Limited (Regional Office), Kumasi
3. Atwema-Nwabiagya District Assembly, Akropong

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

Patience Apassnaba - Site Manager

Postal address:

Owabi Wildlife Sanctuary  
P. O. Box 3148  
Kumasi, Ghana

E-mail address:

apassnaba@gmail.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  | Medium impact |                  | <input type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |

Water regulation

| Factors adversely affecting site | Actual threat | Potential threat | Within the site                     | Changes | In the surrounding area  | Changes   |
|----------------------------------|---------------|------------------|-------------------------------------|---------|--------------------------|-----------|
| Water abstraction                | Medium impact |                  | <input checked="" type="checkbox"/> | unknown | <input type="checkbox"/> | No change |

Agriculture and aquaculture

| Factors adversely affecting site      | Actual threat | Potential threat | Within the site          | Changes   | In the surrounding area             | Changes   |
|---------------------------------------|---------------|------------------|--------------------------|-----------|-------------------------------------|-----------|
| Annual and perennial non-timber crops | Low impact    |                  | <input type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |
| Livestock farming and ranching        | Low impact    | Low impact       | <input type="checkbox"/> | No change | <input checked="" type="checkbox"/> | unknown   |

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 type="checkbox"/>            | No change |
| Logging and wood harvesting                | Low impact    | Low impact       | <input checked="" type="checkbox"/> | decrease  | <input checked="" type="checkbox"/> | increase  |
| Fishing and harvesting aquatic resources   | Low impact    | Low impact       | <input checked="" type="checkbox"/> | unknown   | <input type="checkbox"/>            | unknown   |

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    | Low impact       | <input checked="" type="checkbox"/> | unknown | <input type="checkbox"/> | No change |

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    | Low impact       | <input checked="" type="checkbox"/> | No change | <input 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 | High impact   |                  | <input checked="" type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |
| Garbage and solid waste             | High impact   |                  | <input checked="" type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |

Please describe any other threats (optional):

Increasing human settlements and commercial/industrial activities including assemblage of mechanic workshops that release used oil that ultimately drains and pollutes wetlands.

## 5.2.2 - Legal conservation status

## National legal designations

| Designation type   | Name of area             | Online information url | Overlap with Ramsar Site |
|--------------------|--------------------------|------------------------|--------------------------|
| wildlife sanctuary | Owabi wildlife sanctuary |                        | 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      |
|------------------------------|-------------|
| Improvement of water quality | Implemented |

## Human Activities

| Measures                                                             | Status                |
|----------------------------------------------------------------------|-----------------------|
| Communication, education, and participation and awareness activities | Partially implemented |
| Management of water abstraction/takes                                | Implemented           |
| Fisheries management/regulation                                      | Implemented           |
| Harvest controls/poaching enforcement                                | 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:

No

## 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      |
|-------------------------|-------------|
| Water regime monitoring | Implemented |
| Water quality           | Implemented |
| Plant community         | Implemented |
| Plant species           | Implemented |
| Animal community        | Implemented |

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Dei-Amoah, C. (1988). Resource Identification and zoning of Owabi Wildlife Sanctuary. B.Sc. thesis, Univ. Science & Technology, Kumasi, (IRNR, Dept. of Range Wildlife Management). 61pp.  
 Dowsett-Lemaire, F. & Dowsett, R. J. (2005). Ornithological Surveys in Owabi Wildlife Sanctuary. Wildlife Division Support Project Report no. 50-p. IUCN.  
 Ghana Wildlife Department, (1994). Management Plan of Owabi Wildlife Sanctuary.  
 Grimes L.G. 1987. The birds of Ghana. London: B.O.U. Check-list no. 9.  
 Wilson V.J. & Kpelle D. (1992). Zoological survey of the Owabi Wildlife Sanctuary, Kumasi, Ghana.  
 Wildlife Department/IUCN Project 9786: Accra, Ghana. 24 pp.  
 Amoakowaah Osei, J. et al (2019). The impact of climate and land-use changes on the hydrological processes of Owabi catchment from SWAT analysis, Journal of Hydrology: Regional Studies, Volume 25, 2019,  
 Wildlife Division, Forestry Commission (2014). Owabi Wildlife Sancturay/ Ramsar Site Management Plan  
[www.gmes.cersgis.org](http://www.gmes.cersgis.org)

#### 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:



Owabi Wildlife Sanctuary and Ramsar Site ( Wildlife Division, 30-11-2019 )



Owabi Wildlife Sanctuary and Ramsar Site ( Wildlife Division, 30-11-2019 )



Owabi Wildlife Sanctuary and Ramsar Site ( Wildlife Division, 12-04-2010 )



Owabi Wildlife Sanctuary and Ramsar Site ( Wildlife Division, 30-11-2019 )



Owabi Wildlife Sanctuary and Ramsar Site ( Wildlife Division, 30-11-2019 )



Owabi Wildlife Sanctuary and Ramsar Site ( Wildlife Division, 30-11-2019 )

#### 6.1.4 - Designation letter and related data

Designation letter

<4 file(s) uploaded>

Date of Designation 1988-02-22